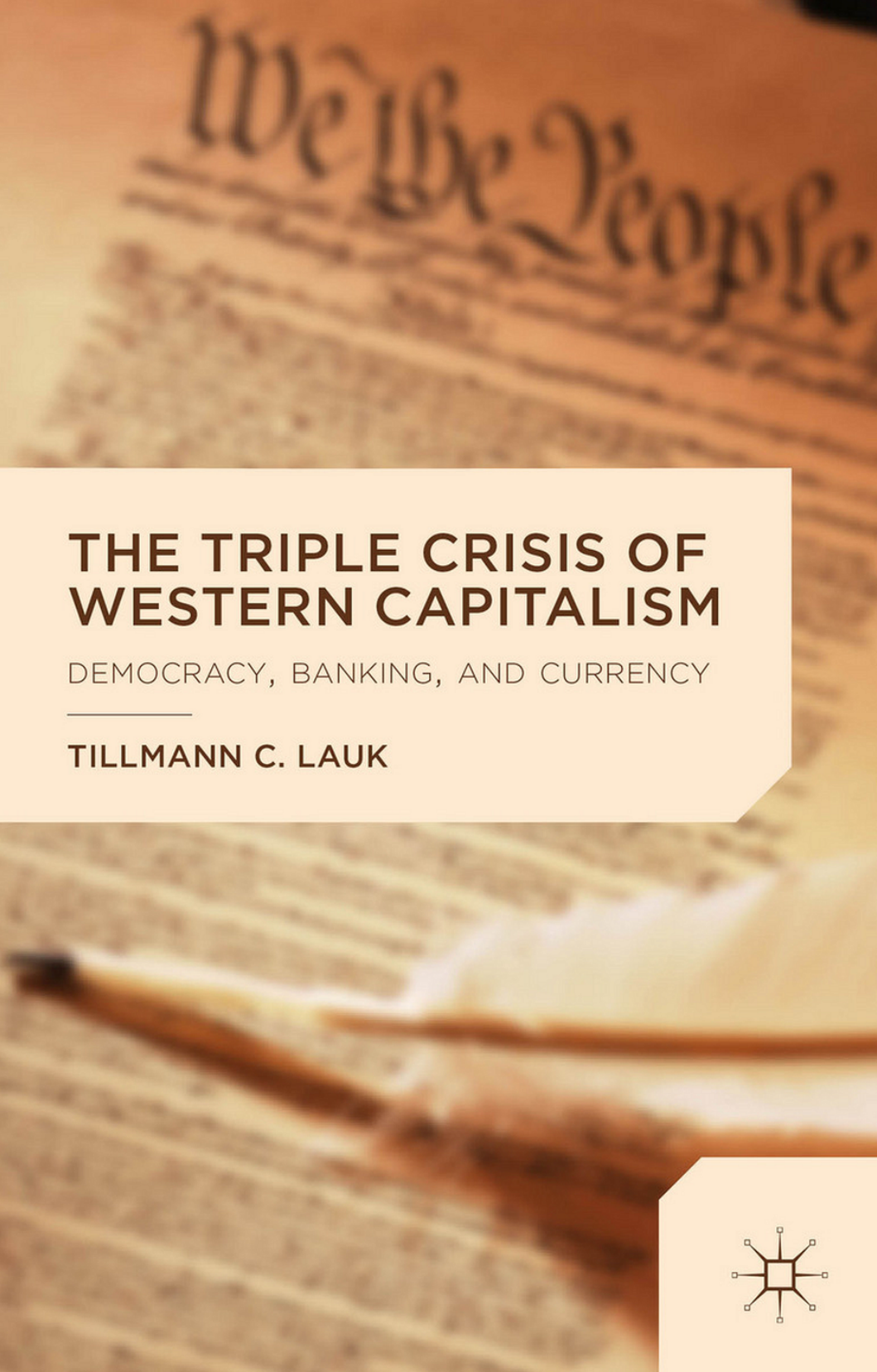

THE TRIPLE CRISIS OF WESTERN CAPITALISM

DEMOCRACY, BANKING, AND CURRENCY

TILLMANN C. LAUK

The Triple Crisis of Western Capitalism

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Democracy, Banking and Currency

Tillmann C. Lauk

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Dedicated to democrats with
an independent mind

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Contents

Foreword

I

This book ought to be read as the story of the search for an answer to the question raised by the crisis of 2007 and its immediate aftermath: why did it happen? It must be approached in this vein: an economist or a political scientist may disagree with the details, or even take issue with the author's starting point. No matter: the steps of his search will resonate in the mind of the concerned reader. As the saying goes, it is the string that makes the necklace, not the pearls.

It is natural to take the financial system as a starting point for the search, since all serious crises in the modern world have it at their centre. With a distinguished record in the banking sector, the author is at home with the developments that led to the crisis: new products, their uses and misuses, the birth of the shadow banking system, the search for profit leading to excessive risk-taking, the hollowing-out of rules and regulations resulting in an ever more fragile financial system. In Chapter 2, the longest of the book, the reader will find an accurate but readable description of how a modern financial system operates and the way it has acquired a dominant position in advanced economies. The description has regulation as its main focus: since the financial sector must by necessity be regulated, the occurrence of a crisis must be due, at least in part, to regulatory failure. The question then arises, Where and why did regulation fail? The answer provided by the author is that it did so because banking regulation is a textbook example of what is known as regulatory capture: the rules are being drawn by groups of experts where the representatives of the financial sector play a central role and are rubber-stamped by lawmakers often dependent on sector lobbyists for their survival. Things would be different if the citizens had a voice in the making of regulations: if these were the outcome of public debate. The regulatory failure of the banking system, at the origin of the crisis, is at its root a failure of democracy. This conclusion is the heart of the book, and it is developed in the other two chapters.

As is well known, although the 2007 crisis originated in the US, its most severe consequences have been in the Eurozone. The single currency, an instrument meant to promote prosperity, has instead presided over the worst crisis in the modern history of some of its member states.

The next step in the author's search is to understand why this could happen, given that the risks of different national economies adopting a single currency in the absence of complete convergence were well known.

His answer is straightforward: what has brought the Eurozone to the current pass is the sequestration of democratic institutions by a combination of bureaucratic elites, in Brussels and in national administrations, and of politicians exploiting either national pride or the fear of irrelevance. Objections to the slogan 'More Europe', even when from reputable sources, have been brushed aside; objectors have often been branded as anti-European. Legislation leading to the creation of the single currency and the European Central Bank was drawn by experts and enforced with little or no debate in the European Parliament. In short, the failings of the euro have their root not in a lack of technical proficiency but in the low democratic quality of the entire process.

The same can be said, in varying degrees, of the set of institutions that comprise the European Union: the Council, the Commission and the European Parliament. The author holds that the institutional design of the EU runs against the basic principles of classical democracy: first, the separation of powers, since legislative initiative, the power to start new legislation rolling, belongs to the Commission, a body made of unelected officials. Second, the principle of subsidiarity, which holds that competences should be delegated at the lowest possible level; in practice, many competences that could be exercised at the state or regional level are instead usurped by the Commission, under the so-called principle of shared competence. The author, a German national, is especially sensitive to the dangers that the neglect of basic democratic principles presents for the preservation of a true democracy: examples of both neglect and its likely consequences abound in the first chapter of the book, a useful reminder that the term which covers these institutional failings, 'democratic deficit', is excessively bland.

II

No wonder that the author's diagnosis leads him to foresee a less than happy future for the financial system, for the Eurozone and for the entire European Union: he believes it unlikely that the regulatory authorities have the political will to enforce rules that would make for a safer financial system, so that the recurrence of crises looks almost unavoidable; the very existence of the Eurozone will probably remain at the edge of the abyss as the economy lurches from one crisis to the next; European citizens may become disenchanted with a political system in which they have very limited representation, where debate takes place at the national level if at all, and where they have no voice in the framing of decisions, in what the author calls the formation of the political will. Of course, these prospects should not be taken as forecasts but as warnings: this is what may happen if appropriate action is not taken. What then are the proposed remedies?

Starting at the lower level, that of the reform of the banking system, four major changes are advocated. First, through the drafting of breakup-legislation

for the 'too big to fail' (TBTF) banks. Second, through the spin-off of savers' deposits into separate funds, owned by the savers. Third, through allowing investment banking activities to be conducted only by private partnerships, as was the case until the 1970s. The author believes that this would resolve automatically the issues of excessive remuneration and of excessive risk-taking much better than excessive legislation. Fourth, through the imposition of the 100 per cent reserve requirement on the banking sector. This plan was developed by then leading American economists in the 1930s as a response to the October crash of 1929 ('The Chicago Plan for Banking Reform'). Those economists opined that out-of-control credit creation enabled by the fractional reserve banking principle caused the crash of 1929, which ushered in the Great Depression. This plan was endorsed and promoted by Henry Simons and Irving Fisher among others. The author subscribes to this plan, however fundamentally modifying it by adopting elements of a similar plan drafted by an economist of the Austrian school.

With respect to the woes of the international currency system the author advocates the reintroduction of the gold standard. He regards the current fiat-money regime as being coercive ('financial repression') and as undermining the right of self-determination regarding the preservation of wealth.

Lastly, in order to improve the quality of democracy at the European level, the author envisages a series of reforms in two phases: the first would centre on the adoption of a Swiss-style constitution, would put a stop to 'deepening' actions (such as a fiscal union) which increase the democratic deficit, and would devolve to member states some competences currently in the Commission's hands; a European programme would be voted in referenda at the state level. In the second phase a truly European parliament would be elected on the 'one man, one vote' principle. Legislation would follow a two-step process thenceforward: from national parliaments to the European Parliament, thence to the EU Commission.

III

The current crisis and the prospect of more to come should make us realize that the main points raised by the book have never been satisfactorily resolved by conventional policies. For this reason we should keep an open mind to unusual ideas, even if they turn out to be old ones. One may of course object to the reforms suggested as being wholly impractical. It is true that their implementation would face formidable obstacles: the author offers a glimpse of the current battle for better regulation of the financial system, where banks present fierce resistance to the slightest change, even though the arguments used have been repeatedly shown to be without merit. And this resistance is documented by other authors, themselves participants in the fray. In the Eurozone, the years of the crisis have shown that the ruling bodies of the Union are not willing to change their plea for

'more Europe' and stop a moment to reflect on the wisdom of their policies. As for the constitutional reforms suggested by the author, there is little indication that the ruling institutions are considering them, or are prepared to give them much attention. Current policies have not brought countries closer to growth, but, on the contrary, they raise the prospect of increasing instability, in that the conditions for a more stable economy are not fulfilled. It may be necessary to resort to more radical measures – even though these may not be the ones the author advocates – since the problems themselves have deeper roots than we think. If nothing else, then, this book is welcome insofar as it shakes us out of our complacency, one of the chief dangers for a democratic society.

Following the Enlightenment's mainstream, Lauk puts the right to self-determination at the centre of all considerations of political philosophy, and the protection of individual liberty as the highest goal of a good society; most of the flaws he finds in the current state of affairs derive from the neglect of that principle; so do many of the measures proposed to cure them. His approach provides a powerful antidote to the hazy thinking and fuzzy maths that often inspire proposals for expanding the role of bureaucracies in modern democracies.

IV

This approach leaves open, however, all issues related to fairness or social justice. To give absolute priority to individual property rights and to rely on the untrammelled workings of the market may lead to a good use of resources, to an efficient allocation in economic jargon, but this alone will not ensure that the resulting distribution of income will enable all citizens to enjoy what one would consider to be a decent living standard. And the lack of fairness in our particular version of the market mechanism is another of the problems that we are facing today.

Modern societies address issues of fairness through income distribution: taxes are the main source or public revenue, transfers the main spending item; as the sphere of entitlements grows, so must fiscal pressure rise. Income redistribution measures seem, however, to have been especially effective in the interval between the late 19th and the mid-20th centuries; since then the trend has reversed itself in many countries, where income inequality is on the rise. Solidarity, in whose name most income transfers are proposed, seems to have reached an upper limit.

A closer look at the meaning of solidarity itself may suggest the beginning of an explanation. First, it is worth observing that 'solidarity', the virtue, moral quality or sentiment that is meant to inspire our relationships with those human beings that lie outside the immediate circle of family, friends and associates, has replaced such notions as love, charity or even justice, which had a deeper meaning and whose practical exercise tended to be

much more demanding.[1] For what exactly is solidarity? A lay source gives us the following:

> Solidarity: Persons having a community of interests or responsibilities that depend on one another in such a way that what touches any one of them affects the rest.
>
> Duty of solidarity: moral duty based on the mutual dependence between the members of a social group and that imposes on them the obligation of mutual help and assistance.[2]

Two traits stand out from the above definitions: first, solidarity appears to be a rather abstract relationship, cemented by mutual interests or responsibilities, with no mention of love, empathy or compassion. Second, it is understood less as a moral virtue than as a duty; it is thus open to the charge of moralism, an attitude which tends to stress that fulfilling one's duty while deriving pleasure from it is somehow less commendable than performing unpleasant duties:

> If I am a kind, cheerful person by nature, who enjoys helping others, my altruistic acts, which may in fact be what duty demands of me, may be done not just because duty demands them from me, but just because I have an inclination to behave in this way – I enjoy it. If so, my will fails to be decisively good, just as if I had acted from self-interest.[3]

The result: in Zamagni's words, a society based on solidarity only is a society from which all want to escape.[4]

What then should complement solidarity to keep modern societies together? Zamagni and others suggest fraternity, the third and forgotten term of the motto adopted by the French Revolution:

> 'a human society in which the sense of fraternity is extinguished, in which the only aim is to improve transactions consisting in the exchange of equivalents or to increase public welfare transfers is an unsustainable society'.[5]

But what is fraternity? It turns out to be no easier to define than solidarity; most of us have the direct experience of fraternity, however. Siblings have the same basic rights, since they share the same parents; but each is treated differently, according to his or her capacities, inclinations and dispositions; siblings share an obligation of mutual assistance, but such an obligation is neither unconditional nor unlimited; one will end up rich, the other poor; one will study, the other will not, and so on. We all know that on certain occasions actions are decided on the grounds that they are good for the family, and that is important for our purposes, since the good of the family, a concrete experience, is an analogy to that elusive but central concept, the

common good. The notion of the common good as something that affects the individual but transcends it in favour of a concrete community, not an abstract one such as the state, the fatherland or the working class, is one of the essential teachings of family life, and one of the reasons why the family is often considered as the basic cell of society. It should be obvious, on the other hand, that fraternity alone is, just like solidarity, insufficient to build a sustainable society: applied in isolation to a vast multitude, it would result in a network of warring tribes. But the virtue of fraternity is needed to inspire modes of conduct that go beyond the individual and take into consideration the common good.

Consideration of the common good offers a way to preserve the good properties of a market economy while avoiding the ills of capitalism: one can think of an economic system obeying the rules of the market economy – division of labour, accumulation, freedom of enterprise, private property, fair competition – but oriented toward the common good rather than to the maximization of the sum total of individual profits. Such a system was conceived and preached, under the title of civil economy (*economia civile*), by the Franciscan fathers of the Italian Church, the first to codify the rules of the market economy, between the 13th and the 15th centuries.[6] To show that it is not a utopian construct we may contrast its concept of the division of labour with that of mainstream economics. The classical conception justifies the division of labour by the desire to increase labour productivity: in Adam Smith's well-known sentence,

> The greatest improvement in the productive powers of labour, and the greater part of the skill, dexterity and judgment with which it is directed, or applied, seem to have been the effects of the division of labour.[7]

The civil economy, on the other hand, takes as its starting point the fact that work is necessary for man's development, not only for his sustenance; consequently, since men are born with different talents, aptitudes and inclinations, work must be structured and apportioned so that every member of society is able to do a job for which he is suited. Only in such an economy is it possible to make use of the principle according to which he who will not work shall not eat (2 Thessalonians 10). A moment's reflection shows us how by a judicious use of these two principles a civil economy could address many of the issues relating to income distribution, from fiscal transfers to regional policies, freeing the large bureaucracies created to deal with them for productive employment.

In this writer's view, in thinking about what a good society should be, such considerations complement, rather than contradict, the book's main theses. One may agree with the author's views and yet believe that there is such a thing as the common good; that the primary purpose of good politics is not so much to preserve individual freedoms as to help citizens to lead a

good life. That a good government has the function not only of preserving freedom, but also of protecting the weak. That mistrust of the government must be tempered by mistrust of the private sector, and that a man can cross the border between the private and the public sector and remain a good citizen. That we are always prey to two contrary passions: the need to be guided and the desire to remain free is as true today as it was in the time of Tocqueville. In the end, no system will exempt us from the need to be vigilant and from the obligation to choose; all human organizations will degenerate if we do not take care of them.

This message runs through this book; it is presented from the author's own perspective, but it is universal. What makes the book worth reading is that by arguing with it each one of us may find where he stands.

Alfredo Pastor
Professor of Economics
IESE Business School
January 2014

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I owe particular gratitude to Professor Alfredo Pastor of the Economics Department of IESE and Jordi Canals, Dean of IESE Business School, Barcelona. Both gave me crucial support in publishing this book. Since the crucial point of conceptual reference is the substance of the democratic and political theories developed during the Enlightenment in Europe between the 16th and 19th centuries, the book largely dwells on *Liberté*. Alfredo Pastor saved me from ignoring the other sibling of the Enlightenment movement, *Fraternité*. The invisible core of this book is ethics.

I am deeply indebted to my wife Bettina and our children, Caroline, Alexander and Victoria, for their patience, support and solace.

Barcelona, May 2014

Abbreviations

AQR	asset quality review
BVerfGE	judgments of the German Constitutional Court
CDO	collateralized debt obligation
CDS	credit default swap
DSGE	dynamic stochastic general equilibrium model
ECB	European Central Bank
EFSF	European Financial Stability Facility
ESM	European Stability Mechanism
EMU	European Monetary Union (which comprises the single currency)
EU	European Union
Fed	Federal Reserve Board of the US
GAO	Government Accountability Office of the US
GDP	gross domestic product
GFC	global financial crisis
IEO	Independent Evaluation Office of the IMF
IMF	International Monetary Fund
LTRO	long-term refinancing operation
OMT	outright monetary transactions
OTC	over-the-counter derivatives
PIIGS	Portugal, Ireland, Italy, Greece and Spain
TARP	Troubled Asset Relief Program
TBTF	too big to fail
ft.com	Financial Times.com
wsj.com	Wall Street Journal.com
nytimes.com	New York Times.com
faz.net.de	Frankfurter Allgemeine Zeitung.de

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1
Democracy

1.0 The conceptual starting point

This book is about democracy. It follows that it is also about human rights, in particular the right to self-determination as developed during the Enlightenment in Europe between the 16th and 19th centuries. It is usually associated with names such as Charles Montesquieu, John Locke, Jean-Jacques Rousseau, Immanuel Kant and Alexis de Tocqueville – to name only a few.[1]

Democracy and human rights are mutually dependent. If democracy is endangered then human rights become automatically endangered. The obvious examples of this are dictatorial regimes and war. But the human right of self-determination can also be infringed through excesses of financial capitalism. Prior to the outbreak of the global financial crisis (GFC) in 2008, for example, the number of people dependent on food stamps in the US was 26 million, and by 2012 the number had roughly doubled to 46 million, or 20 per cent of US households. Those people are deprived of the power to determine their economic prospects. The GFC was triggered through the reckless lending and securitization procedures of the banking sector in the US, procedures that had their foundations in laws and regulations.

In peacetime, policymaking in fact amounts to lawmaking. Whether this is social policy, criminal policy or policies relating to traffic, tax, banking or currency, each policy is based on a law. Hence, it is essential that the lawmaking process is in strict accordance with democratic principles.

The central thesis of this book is that if financial capitalism is not firmly embedded in democratic lawmaking, a very detrimental form of capitalism begins to emerge. If the lawmaking process is not democratic, then it is either anarchic, oligarchic or even totalitarian. Yet if financial capitalism is firmly embedded in democratic lawmaking it will probably be the most beneficial economic system for societies. The alternatives to capitalism are not socialism and communism, because both are evidently anti-democratic and totalitarian, relying on central planning, which is anti-democratic in that it deprives citizens of their right of economic self-determination.

Therefore, this book is in search of a democratic form of capitalism, or, properly speaking, a democratic form of free markets.

To achieve that goal the book has recourse to the political theory developed by the European Enlightenment movement throughout the 16th to the 19th centuries. That theory awarded the individual inalienable human rights. One of these is the right of self-determination.

The centrepiece of the political theory of the Enlightenment movement was the quest for legitimation of political action. What conditions must be met in order that rulership or lawmaking are legitimately measured against democratic principles? What are those principles?

Democratic theory of the Enlightenment movement puts the individual and his or her right of self-determination at the centre of its considerations. The right of individual self-determination meets its limits in the form of the right of self-determination of other individuals. Therefore rules, or laws, must be defined to make a society a smoothly working organism for the benefit of all. Democratic theory says that those rules must reflect the will of the people. According to this axiom the source of legitimation is the will of the people. Lawmaking must reflect the will of the people affected by those laws.

To achieve transformation of the political will from the individual level to the collective level, democratic theory developed the **principle of representation**. It holds that a group of people, today an electoral district, can elect a representative. They will represent the will of their constituency in the assembly of the other representatives – today in parliaments. It is assumed that this elected representative is in continuous dialogue with the members of their constituency in order to gather their political will, which the elected individual is assumed to represent in parliament. As an emanation of the collective right of self-determination, the right to organize the circumstances of societies may only be vested in parliament. In particular, any parliament in the world must have the right to initiate legislation. If a parliament is deprived of its privilege of **legislative initiative**, the will of the people cannot act. At best, it can only *react*. Finally, to be legitimated the composition of a parliament must be the result of free and equal ('one man/woman, one vote') elections.

In order to form a political will, and thus in order to determine which aspects of self-determination an individual might give up in favour of the common good, a **common public arena** must exist. Such an arena is an indispensable prerequisite for the formation of the political will of the people, as it is here that the pros and cons of any lawmaking initiative must be discussed. In order to function it must be equally accessible to all and must not be susceptible to being seized by a powerful minority. If it becomes captured by a minority then there is a danger that the flow of information regarding a topic in question becomes manipulated. Some information might be withheld or suppressed, some might be disproportionally overstated. Hence, it is of utmost importance

that **pluralism of opinion** is warranted. Today this public arena is made up of various players such as television and print media. It follows directly that any undue concentration of media is a threat to democratic decision-making and pluralism.

What is of equal importance is that the **representatives in parliament** are **independent**. This means that whenever they vote on an issue, usually a law, their only guidance is the will of the people they represent, their own autonomous will, the common good and the values of a democratic constitution. At this point it becomes clear that **lobbyism** constitutes a threat to the democratic formation of the political will of the people. Hence, it has to be ring-fenced by strict rules of transparency.

The process of democratic formation of the political will is also seriously threatened, if not overturned, if a representative depends on **campaign contributions** from the industry – in particular from the financial industry, as is the case in the US. The democratic formation of the political will becomes equally sabotaged through the instrument of the **party whip**, which is prevalent in Europe.

However, democratic theory during the Enlightenment movement was not only concerned with the topic of legitimation. It went further. It also thought about the question as to how a democratic state should be structured so that it will enhance and nurture the involvement of the people in political decision-making processes, and how it can reliably protect the freedom of its citizens.

It came up with two principles. First, a democratic state has to be organized along the principle of separation of powers. Second, its structure has to reflect the principle of subsidiarity.

Separation of power means that the three state powers in a democracy need to be independent of each other and that they have to check on each other. The central pillar of these three powers is the legislative (parliament), that is, the representation of the people. This means that any action of the state – the executive branch (government) – is without legitimation unless the executive branch has beforehand been empowered through the passage of pertinent legislation. Once the executive branch has been thus empowered, its administrative bodies can implement the law without interference from the legislative branch. Should, however, the executive branch implement the law in an illegal fashion then citizens can invoke the third state power – the judiciary (courts) – which can then nullify those illegal acts by the executive.

With respect to the requirement that each executive act has to find its legitimation in antecedent legislation – that is, in the votes of the representatives of the people – modern Western constitutional theory developed a further principle in order to make sure that executive power will always be rooted in the will of the people. This is the **principle of sufficiently specified conferral of power**, which means that any conferral of power to the executive must be sufficiently specified and limited.

The importance of this principle can best be illustrated by a historical accident that happened in the 1930s in Germany: in 1933 the German parliament passed the so-called Enabling Act ('Ermächtigungs-Gesetz') for the Hitler government. The provisions of this law were so broadly defined that it became unforeseeable for the parliament, as well as for the citizens, as to what the executive branch was to do with such broad empowerment. However, for Hitler, it was clear: he introduced the Gestapo as a federal secret service with unlimited powers. He also introduced the 'Gleichschaltung' programme (forcible coordination), through which all associations of the civil society became 'coordinated' by force. All bodies of the civil society, such as universities, formerly independent federal states, employer associations, unions, the educational system and the media were brought under one centralized command and control structure. From a legalistic point of view Hitler acted 'properly'; the problem lay in the fact that the parliament basically waived its right of control and oversight of the executive branch by framing the law too broadly.

As a result, some European post-dictatorial societies maintain the legal principle that any conferral of power to the executive branch must be 'sufficiently specified and limited' in order to be in compliance with the respective constitution. This is the rationale of the principle of conferral.

The **principle of subsidiarity** requires that state power be decentralized as much as possible. It is driven by the notion that direct participation in government enhances and trains the political virtues of citizens. Therefore, local affairs should be dealt with on a local level, regional affairs on a regional level, and federal affairs on the federal level. Municipal and regional bodies should be granted, as much as is possible, autonomy to deal with their affairs. Every move in the direction of centralization must be carefully considered and justified. This is because each step towards centralization reduces democratic participation. As will be shown later in this chapter, the principle of subsidiarity has been hollowed out in the EU member states, whereas in Switzerland it is firmly alive.

From all this the criteria for a democratic, in other words legitimate, lawmaking procedure can be derived.

The **criteria of a democratic lawmaking process** are:

1. The authority to create binding laws may only rest in a freely and equally elected parliament. The parliament must have the right to initiate legislation regarding any aspect of society.
2. Any enactment of law needs to be preceded by a pluralistic debate in a common public arena of a society. This public arena needs to be both accessible and transparent. Since politicians are key players in any public debate it is imperative that they must disclose their funding and income sources. If this is not done, citizens cannot recognize whether the expressed view is one belonging to a special interest group. Accordingly, the formation of a political opinion might be manipulated or biased. Finally, a common language is essential.[2]

3. Any voting decisions of the representatives in parliament must be taken autonomously and independently. Therefore, use of the party whip must be banned.
4. The lawmaking process must be embedded in a state organization that strictly adheres to the principle of separation of powers, the principle of subsidiarity and the principle of sufficiently specified conferral of power from the legislative branch towards the executive branch.

1.0.1. The structure of this book

At the end of each chapter the relevant laws are evaluated to ascertain whether they were created in accordance with the four criteria stated above. Then alternative systems are sketched out: (a) a design to democracy, and (b) a reverse engineering of the biggest flaws of the current systems. Each chapter closes with a summary.

Chapter 1 examines the process of lawmaking on the European level. Particular attention is given to the laws regulating the banking sector.

Chapter 2 describes the most important legislation that is currently influencing and regulating the global banking system. In particular, the financial and economic effects of certain laws are illustrated. This chapter also contains a brief analysis of economic theory, which heavily influenced certain laws passed by the Congress of the US at the end of the 20th century.

Chapter 3 examines the legislative process that led to the introduction of the single European currency – the euro. It also discusses the sustainability of the single currency and the global fiat money ('paper-based') system, in principle. Particular attention is given to the relation between a fiat money currency regime and the right of self-determination.

1.1 Lawmaking on the European level

This chapter measures the lawmaking process on the European Union (EU) level against the key principles derived from the political theory of the European Enlightenment movement, as stated in the preceding section 1.0.

As this chapter shows, none of those principles can be found in the institutional edifice of the EU. The lack of these fundamental principles on the EU level deprives any lawmaking process of its democratic legitimation and puts it in contradiction to the political theory of the Enlightenment movement.

1.2 Right to initiate legislation exclusively assigned to the executive branch – the EU Commission

Law creation on this level can be labelled as the epitome of illegitimacy. First, there exists no 'European Parliament' – because via a perversion of Western constitutional theory it has no right to initiate, and hence, no right to create any law. Therefore, it is deprived of the core function of a

democratic parliament. Consequently, the will of the people is not in the driver's seat for shaping their societies. The fundamental right of legislative initiative is exclusively granted to the European executive branch – the unelected EU Commission (Art. 17, No. 2 Lisbon Treaty).[3] This not only constitutes a 'democratic deficit' – the belittling, official term used by commenting scholars – it rather introduces a totalitarian feature into the institutions of the EU. The fatal consequence is that the initiative to regulate any aspect of life in society is taken away from the people and transferred to unelected bureaucrats of the EU Commission. Those bureaucrats might want to regulate things that the people might not want to regulate – or to regulate things in a totally different manner to that desired by the majority of the people. The 'European Parliament' does not have the right to instruct the EU Commission to refrain from certain regulations.

But the privilege to initiate a law or a regulation must reside in the people – if this is not so, then self-determination turns into heteronomy. In the EU an unelected executive branch, rather than an assembly of the people, determines which aspect of European societies shall be regulated and to what extent. By necessity, such a law-creation process cannot reflect the will of the people. Hence it is per se illegitimate.

1.3 Exclusive assignment to initiate legislation to the executive branch makes it vulnerable to the creation of 'special interest laws' or to 'structural corruption'

The assignment of the sole authority to initiate laws to the unelected executive branch of the EU becomes seriously problematic due to two factors:

(a) According to officially available statistics the EU Commission employs about 26,000 civil servants. The 'European Parliament' consists of 754 delegates. According to the website of the 'European Parliament' there are roughly 17,000 lobbyists. This leads to a numerical lobbyist-coverage ratio of around 1:5. This means that one lobbyist has to cover only 1:5 'personal targets' – assuming that all of those roughly 26,000 officials are charged with the creation of law proposals, which certainly is not the case. Therefore, a lobbyist-coverage ratio of 1:1 or even 1:2 seems to be more realistic.[4] Whereas those lobbyists certainly have an autonomous political will as to the lawmaking initiative in question, EU citizens, in contrast, are left in the dark.

    Official records show that when the unelected employees of the unelected EU Commission appoint the members of their unelected expert groups tasked to draft a law, those experts are drawn from amongst either lobbyists or industry insiders.[5]

(b) Moreover there is a 'revolving door' between EU officials and the industries they are supposed to regulate: frequently former EU officials hold

> lucrative positions in those very industries they have been tasked to regulate.[6]

This heavily biased law-creation process finally prompted the 'European Parliament' to enact a resolution that resolved that the 'European Parliament' will block 20 per cent of the funds earmarked for expert groups. This partial freeze will only be lifted if the EU Commission produces evidence that lobbyists and industry insiders do not participate in expert groups that regulate their own industry – and if agendas and minutes of those meetings as well as lists of their members are made available online.[7]

It is worth highlighting that the financial industry – which today requires bailouts with billions of euros – was regulated in this way. This represents a textbook case of 'regulatory capture'.

A research report published by the 'Alliance for Lobbying Transparency and Ethics Regulation in the European Union (ALTER-EU)' summarizes the following facts:[8]

> In 1999 the EU created the Financial Services Action Plan (FSAP) in order to create a single market for the financial service industry. Financial corporations had an overwhelming influence in framing the FSAP. A key player was the Commission's High Level Strategy Review Group with its 16 members – all coming from the financial service industry. Under the FSAP six Expert Groups were created, of which only one has made its membership public. Under EU transparency legislation the Commission released membership details of three more groups. All four groups display a clear industry bias. The report raises serious concerns over the democratic decision-making within the EU Commission. Because for a functioning democracy it is a prerequisite that all concerned views are taken into account. According to its own rules the EU Commission, when framing new legislation, is supposed to consult as widely as possible in order to minimize the risk of vested interests distorting the advice.
>
> However, the EU Commission did not obey to its own rules. An analysis of all Expert Groups shows that out of a total of 167 experts, 160 were from the financial service industry. And the 'De Larosière Group', tasked with proposing an EU reaction to the financial crisis, has been dominated by financial sector insiders implicated in the current crisis.

The report concludes:

> The near total capture of the legislative process by the finance industry has been pointed out by many critics over the years.

Pointing at banks in particular, the report states that the policy of self-regulation and deregulation adopted by most central banks over the last

two decades clearly contributed to the severity of the financial crisis of 2007–8.[9] The report lays much of the blame on the so-called Basel II rules, which turned out to be completely insufficient. The provisions of the Basel Accords were the result of negotiations between the central banks and the private sector banks of the 27 member countries. The name derives from the fact that the 'Bank for International Settlement' (BIS, or frequently called the 'central bank of the central banks') has its seat in Basel, Switzerland. The rules of the Basel Accords were not made by the parliaments, the proper place of the representation of the people and the actual place for lawmaking.[10] Instead they were made by unelected experts. For example, they provided that banks could assess their financial risks themselves based on a methodology developed by themselves. This so-called risk-weighted asset (RWA) approach and value at risk (VaR) method led banks to grossly understate the real risks on their balance sheets, and led to an insufficient allocation of capital to absorb losses, such as for certain loans or derivatives.[11]

The EU Commission chose to incorporate the Basel II accord into EU law, via the so-called Capital Requirements Directive, with very little controversy. Prior to its implementation the EU Commission consulted with the financial industry and some 'Expert Groups', specifically addressing the Basel II rules. The report continues:

> The **Banking Expert Group** consisted of 23 people, who were all except two (one an academic, the other from a consumer organisation) from the private financial sector (BNP-Paribas, Deutsche Bank, Société Générale, Banco Bilbao etc.). The group said they saw no reason to query the Basel II accord in their final report . . .
>
> After the Directive was adopted in October 2005, the rules on banking supervision still needed to be defined. Although this could have led to greater oversight of the banks, the task of developing the guidelines on supervision was assigned to the Committee on European Banking Supervision (CEBS). It asked its own Consultative Panel for advice – a panel dominated by representatives from the big banks . . . Their advice did not call for greater external oversight.
>
> Following the outbreak of the recent financial crisis, the spotlight once again fell on Basel II and its inherent self-regulatory regime. Although regulators were under both political and public pressure to act, no fundamental debate about self-assessment took place.
>
> The question remains as to why the EU has not pushed for fundamental reform on Basel II. Part of the answer lies in the recommendations of the corporate-dominated 'De Larosière' Group, the Expert Group the Commission set up to advise on proposals for international banking reform.

In addition, another 'structural corruption risk' arises when the authority to initiate lawmaking is assigned to a single executive body: small and medium-sized enterprises usually cannot afford to have a sufficient number of lobbyists on their payroll – normally only large and multinational companies can afford such expenses. Thus, this opens the door for 'structural corruption' because it becomes tempting for large companies to influence legislation in a way that potentially can drive smaller competitors out of business, for example via overly complex regulations with disproportionately high costs of compliance.

Another popular example of 'special interest group legislation' is the ban on incandescent light bulbs. The bill was flagged as a measure to reduce CO_2 emissions via the reduction of energy consumption in households. But consider, first, that the energy consumption for lighting in households is 5 per cent of total consumption – certainly not a means to fight CO_2 emissions effectively. Second, they are harmful to health and the environment because they contain mercury – if they break then mercury escapes, and once they are finished the mercury goes into the rubbish. Third, they are less durable so more will be sold.[12] Fourth, the composition of the expert groups that drafted the legislation was not made transparent, nor was the data regarding the lobbying efforts of multinationals such as General Electric, Phillips and Osram Sylvania.

All cited examples show that the assignment to initiate legislation to the executive EU Commission leads in most cases to the creation of a 'special interest' – or oligarchic – law as opposed to democratic law.

Hence the lawmaking procedure on the EU level is illegitimate per se, as viewed from the political theory of the European Enlightenment movement.

1.4 'European Parliament' – unequally elected and excluded from legislation in key policy areas

This fundamental lack of legitimation cannot be made good, due to the fact that the 'European Parliament' must consent to the law proposals of the executive branch in order to become effective. First, its composition is not the result of equal elections. Smaller member states have a higher voting share per citizen than larger member states.[13]

For example, a delegate from Luxembourg would represent 83,000 citizens but a delegate from France would represent 857,000 citizens. Therefore, the rules for counting voting majorities are linked to the feature of nationality instead of to the feature of citizenship.[14] Therefore, the 'European Parliament' is labelled by the German Constitutional Court as an assembly of the member states only, which cannot create sufficient legitimation in the lawmaking process on the EU level.

The democratic legitimation of the 'European Parliament' gets even further eroded by the fact that it is excluded from legislating in areas that are of significant importance for the life of the citizens. This holds true for

essential policy areas such as domestic security,[15] antitrust[16] and economic policy.[17] Here, it is reduced to the rights of: to either get informed only, or to the right to be heard or consulted only. There are no co-decision rights at all.

Hence, it is fair to say that the so-called European Parliament is castrated of the core functions of a democratic parliament. The use of the term 'parliament' amounts to a blatant deception of European citizens.

1.5 Lawmaking process in 'European Parliament' is dominated by executive branch – the 'Conciliation Committee'

The lawmaking process on the EU level is to an unacceptable extent dominated by the executive branch. Only the executive branch has the sole authority to initiate legislation. The 'European Parliament' is made up of two chambers: one is composed of the unequally elected parliamentarians, the other of members of the unelected executive branches of the member countries – the 'Council'.[18] The latter is of a truly executive nature[19] and in addition has some lawmaking powers. The members of the 'Council' do not have a sufficient representative capacity of their respective parliaments.[20] Hence, an overwhelming proportion of the lawmaking process on the EU level is in the hands of the two executive bodies of the EU – the unelected EU Commission and the unelected 'Council'.

If the unequally elected members of the 'European Parliament' do not consent to a law proposal then they have to negotiate a compromise with the 'executive chamber' (the 'Council'). Those negotiations are carried out by the 'Conciliation Committee',[21] consisting of 28 members of the 'executive' Council and 28 members of parliament, and members of the EU Commission.

This leads to the result that these two executive bodies, the EU Commission[22] and the 'Council', are relieved of the burden to seek a majority of all 754 delegates of the 'European Parliament'. In theory they need only to win the majority of the 28 delegates in the 'Conciliation Committee'. In practice, however, representation shrinks even further. In order to facilitate smooth working, the 'Conciliation Committee' forms a subcommittee – called 'Trilog' – with significantly fewer members from both sides. If in this committee an agreement is reached, then the 'Conciliation Committee' with its full membership approves it, usually followed by the approval of the 'European Parliament'. This means that in practice only a tiny fraction of the members of the 'parliament' – around 1 per cent – are involved in the lawmaking process and need to be convinced. This process amounts to a substantial 'thinning' of the democratic legitimation of the lawmaking process.[23]

After the 'European Parliament' finally consents to a law, this law then arrives on the national level, where the consent of the national parliaments is required. However, by then the lawmaking chapter is closed on a de facto basis. In most parliaments of the member states those – from the view of democratic legitimation as questionable – legislations are usually waved through.

However, from a purely conceptual point of view, the Lisbon Treaty involves the national parliaments in the lawmaking process on the EU level to some extent. Article 12 of the Treaty on the European Union[24] prescribes that the EU has the obligation to supply the national parliaments with the draft legislation eight weeks prior to its being put on the agenda of the Council. According to the German implementation law those drafts first go to the German government, which in turn has the obligation to forward them to parliament within two weeks of the beginning of the eight-week period.

This conceptual connection to the national parliaments as the supposedly only true source of democratic legitimation sounds nice in theory – it was even designed as an early warning system for the protection of the principles of subsidiarity and proportionality. But it fails utterly in practice.

First, potential dissenting opinions on an EU law proposal do not compel the EU automatically to review its drafts, since a quorum needs to be organized within the respective national parliament.

Second, Article 12 only confers the right to complain about the draft law – nothing else. For a national parliament there is no option to block an initiative undertaken by the EU Commission. Even the 'European Parliament' is deprived of the right to order the Commission not to regulate any given area. It alone can refuse to give its required consent later in the process.

Third, and more importantly, Article 12 totally fails in practice. That point was made by the plaintiffs who wanted the Constitutional Court to declare the Lisbon Treaty null and void. The plaintiffs claimed that national parliaments simply don't have the organizational capacity to draft a substantiated complaint of breach of the subsidiarity principle within six weeks. Moreover, a quorum of between 25 per cent and 33 per cent within the national parliaments simply cannot be organized by the delegates of the German parliament within the six-week period – for practical reasons. Thus, Article 12 is only rarely called into action.

Fourth, there is no clear criterion as to how subsidiarity is to be defined in a litigable manner. So far, there exists neither sufficient nor binding case law by the European Court of Justice. Hence, Article 12 grasps at nothing – it is of a verbal nature only. The German Constitutional Court expressed similar reservations in its ruling on the Lisbon Treaty, commenting that the practical effectiveness of this mechanism will depend on the organizational capacity of the national parliaments to take advantage of this right in such a short period.[25]

1.6 The missing ingredient in the elections for the 'European Parliament' bringing a European democracy to life

The Lisbon Treaty determines that the 'government' of Europe is represented by the EU Commission. It is charged with the role of being 'the guardian and executor' of the European Treaties. However, it is not elected. Instead it

is appointed by the 'European Council', which is an assembly of the heads of the EU states. In countries with a presidential constitution, those heads of state are directly elected by the people – as in France, for example. In countries with a representative constitution they are elected among the political parties in parliament – as in Germany.

On the European level, the 'European Parliament' is only given a marginal role in the process of 'electing' the 'government' as it can only accept or reject the European Council's proposed candidate for president of the EU Commission;[26] it cannot choose one itself. In addition, the other members of the European Commission are appointed by agreement between the Council and the president of the EU Commission.[27]

The effect of this institutional design is that, on the transnational level among the 28 EU member states, there is no race and no battle in order to achieve a majority in the elections for the 'European Parliament'. Hence those elections become almost meaningless to the European citizens.

This also explains why the election turnout for the 'European Parliament' across all 28 member states is consistently below 50 per cent. And it also reflects the fact that for practical reasons it is not possible to form a transnational platform for EU citizens in order to form and articulate an autonomous and political will regarding what form of Europe they want.

Due to the absence of this transnational platform there is no 'common public' to articulate this will.

The German Constitutional Court in its decision on the Lisbon Treaty was making exactly that point.[28]

It said that democracy requires a functioning common public platform in which the differing programmatic issues of the competing political parties are openly discussed. Only this formation of a public opinion makes the programmatic profiles and alternatives for voters transparent. And only then can they make a decision as to which party to vote into government.

This fundamental lack of executive impact of the elections of the 'European Parliament' eliminates the need for a substantiated public debate. Hence, EU citizens have no incentive to become actively involved in that process. A further consequence is that the programmatic boundaries among the national parties who nominate the candidates for the 'European Parliament' become entirely blurred. They only share the vague formula 'Europe is good – we need more Europe'. This trivializes and voids any meaningful debate. It leads to the fact that 'Europe' mutates into a quasi-religious tenet of the political classes and the questioning of it is labelled 'anti-European', in other words, politically incorrect. In comparison to national elections for parliament, the election of the 'European Parliament' becomes meaningless.

This conclusion holds true regardless of the fact that the majority of the commentary literature of 'educated legal scholars' on European law praises the enhancement of the rights of the 'European Parliament' via the Lisbon Treaty.

Yet the subcritical ballot turnout further undermines the democratic legitimacy of any vote of the 'European Parliament' – which, as already shown, has only a co-decision right together with the executive branches in some policy areas. In other important policy areas it has no co-decision right at all (section 1.4).

1.7 Permanent initiation of legislation by the EU Commission leads to undue centralization of power

What further weakens the prospects of democracy in Europe is the fact that the unelected EU Commission is a highly cranked-up lawmaking machine. This is mainly driven by the design of the Lisbon Treaty itself, which came into effect in December 2009.

In content the Lisbon Treaty is almost identical with its predecessor, the Nizza Treaty,[29] which was subject to a plebiscite in France and the Netherlands in summer 2005. In both cases it was rejected. Plebiscites, in other words the will of the people, are the one and only nightmare of the euro-political class. Hence, when pushing through the Lisbon Treaty this democratic 'mishap' was deliberately skipped.

The Lisbon Treaty consists in fact of two treaties: (1) the Treaty on European Union, and (2) the Treaty on the Functioning of the European Union. Both are of equal rank. As the Treaty on the Functioning of the European Union shows, most of the traditional areas of domestic lawmaking are transferred to the European level.

For these areas of lawmaking three different types of EU competences are defined:

(a) An **exclusive competence** for the areas of the customs union, competition law for the internal market, conservation of marine biological resources under the common fishery policy, and common commercial policy.
(b) A **shared competence** in the areas of regulating the internal market; social policy, for the aspects defined in the treaty; economic, social and territorial cohesion; agriculture and fisheries; environment; consumer protection; transport; trans-European networks; energy; freedom, security and justice (the area of the formerly domestic interior policy); and common safety concerns in public health matters, for the aspects defined in the treaty.
(c) An **additional competence** in the areas of the protection and improvement of human health, industry, culture, tourism, education, vocational training, youth and sport.

As to the definition of **shared competence** the treaty states:

> When the Treaties confer on the Union a competence shared with the Member States in a specific area, the Union and the Member States may

> legislate and adopt legally binding acts in that area. The Member States shall exercise their competence to the extent that the Union has not exercised its competence.[30]

This means that the EU can decide to exercise its shared competence in one of those fields and can create any law it recommends, at least in the overwhelming majority of cases.

Moreover, the Lisbon Treaty assigns to the EU the authority to issue guidelines to ensure the coordination of the economic, employment and social policy of the member states. On the EU level the executive 'Council' is charged with the task of coordinating the legal framework in those policy areas. When reading the whole treaty one notices that the term 'coordination' is frequently replaced by the terms 'harmonization' or 'approximation' of laws. However, those terms amount to a full 'equalization' of laws and of all aspects of European societies. The adequate German term for this would be *Gleichschaltung* – the forced coordination of societies by an unelected central power.

1.8 On EU level the principle of subsidiarity is only paid lip-service

Article 5, No. 1 of the Treaty on European Union reads: 'The use of Union competences is governed by the principles of subsidiarity and proportionality.'

The same Article states under No. 3:

> Under the principle of subsidiarity, in areas which do not fall within its exclusive competence, the Union shall act only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States, either at central level or at regional level and local level, but can rather, by reason of the scale or effects of the proposed action, be better achieved at Union level.

This means that whenever the EU Commission believes that regulations on the national, regional or local level cannot sufficiently achieve the overall goals of the treaty, it has the competence to make law at its discretion. In addition, if a national government attempted to sue the EU Commission before the European Court of Justice for unlawful interference in its sovereign competences, the argument could easily be barred, since the EU Commission would only be obliged to produce evidence that the national or regional regulations would have undue implications on the EU level across the 28 member states. Hence, only regulation on the EU level can guarantee that the goals of the treaties can be achieved. This basically eliminates the principle of subsidiarity, despite the same treaty having conferred to it the sections noted above.[31]

1.9 Self-contradictory concessions to democratic principles in the Lisbon Treaty

This same characteristic holds true for the numerous professions of commitment to democracy, freedom and state constitutionality in the treaty's text. The language used is simply misleading.

For example, Article 10 of the Treaty on European Union states:

1. The functioning of the Union shall be founded on representative democracy.
2. Citizens are directly represented at Union level in the Parliament. Member States are represented in the European Council by their heads of State or Government and in the Council by their governments, themselves democratically accountable to their national parliaments, or to their citizens.
3. Every citizen shall have the right to participate in the democratic life of the Union. Decisions shall be taken as openly and as closely as possible to the citizen.
4. Political parties at European level contribute to forming European political awareness and to expressing the will of the citizens of the Union.

As demonstrated by the de facto process of law creation, none of these statements is true.

Were the EU indeed based on the principles of representative democracies it would reflect the fundamental democratic principle of separation of powers. It would have conferred the lawmaking authority to a fairly elected parliament ('one man/woman – one vote').

Even more important, the formation of a political will amongst EU citizens regarding the initiation of legislation is nowhere represented. The proper venue for individuals to participate in the democratic life of the EU would be a common, transnational public arena where they could openly debate the pros and cons of any lawmaking initiative promoted by their proportionally elected delegates, because democratic life can really only take place in such an arena.

But this arena does not exist on the EU level. Instead the most important phase of the law-creation process, the initiating phase, takes place behind closed doors in Brussels. The importance of the initial phase rests in the question: shall we regulate, and why? The citizens of the EU states are excluded from the consideration of that very question, and if they seek to exercise their right to participate in the lawmaking process, they can only do so by taking domicile in Brussels or Strasbourg. And even then, they must work hard to discover what lawmaking ideas the unelected officials might have, and whether expert groups have been appointed or not.

The German Constitutional Court not only denies, but actually lambastes, the view that any democratic legitimation could be rooted in the 'European Parliament'.[32] The Court takes a totally different view as to the legitimation of the lawmaking process on the EU level: it argues that the true legitimation of EU laws can only be derived from the will of the national sovereigns. Their assemblies of the people, strictly proportionally elected, decide in exercising their right of self-determination which competences shall be passed over to the European level. And the pivotal tool for this act of transfer of sovereign competences is the principle of 'sufficiently specified and limited conferral of power'.

In its numerous decisions on the Lisbon Treaty the German Constitutional Court has never blocked the substance of the treaty. But whenever it has felt that any conferral of power was either insufficiently specified or not sufficiently limited, it has required that the German Bundestag pass formal legislation specifying the conferral in question. For example, in its decision about the validity of the Lisbon Treaty measured against the German Constitution, in particular with respect to two provisions of the treaty, the Court ruled that Germany may only deposit the ratification document if the parliament passes a formal statute prior to the depositing prescribing that, should those provisions ever be called into action in the future, an extra statute of consent would need to be passed by the German parliament on a case-by-case basis.[33]

Among other provisions, the Court attacked Article 352 of the Treaty on the Functioning of the European Union. It reads:

1. If action by the Union should prove necessary, within the framework of the policies defined in the Treaties, to attain one of the objectives set out in the Treaties, and the Treaties have not provided the necessary powers, the Council, acting unanimously on a proposal from the Commission and after obtaining the consent of the European Parliament, shall adopt the appropriate measures. Where the measures in question are adopted by the Council in accordance with a special legislative procedure, it shall also act unanimously on a proposal from the Commission and after obtaining the consent of the European Parliament.
2. Using the procedure for monitoring the subsidiarity principle referred to in Article 5(3) of the Treaty on European Union, the Commission shall draw national Parliaments' attention to proposals based on this Article.
3. Measures based on this Article shall not entail harmonisation of Member States' laws or regulations in cases where the Treaties exclude such harmonisation.
4. This Article cannot serve as a basis for attaining objectives pertaining to the common foreign and security policy and any acts adopted pursuant to this Article shall respect the limits set out in Article 40, second paragraph, of the Treaty on European Union.

The German Constitutional Court recognized particularly in No. 1 of this provision the fundamental risk that the EU could create and confer competences upon itself, although they were not conferred on it by the member states when the treaty was ratified. The Constitutional Court classified No. 2 as a completely insufficient protection because it only requires the EU Commission to notify the national parliaments.[34]

In the eyes of the Constitutional Court this kind of provision allows for self-empowerment of the EU beyond democratic controls. Hence, it ruled that the German representative in the 'Council' is not allowed to give consent unless the German parliament approves it *beforehand* via a special and formal legislative procedure.

This example illustrates the conceptual approach of the Constitutional Court towards the legitimation of lawmaking on the EU level. In the Court's view the true source of legitimation rests solely in the self-determination of the national sovereign to participate in the EU. It sees this concept supported by Article 50 of the Treaty on European Union, which allows for withdrawal from the EU. For that reason it is fairly tolerant of the fact that the institutional design of the EU violates democratic principles, including the separation of powers. The Court clearly states that Article 10 of the Treaty on European Union does not represent a foundation for the democratic legitimation of political rulership on the EU level.[35] It also criticizes the wording of this Article because it suggests the opposite view.[36]

Again, the German Constitutional Court states in plain language that the institutional design of the EU does not sufficiently reflect the democratic principles of the legitimation of sovereign power.

Instead the Court puts the whole issue of democratic legitimation on the EU level into the hands of the political parties represented in the German Bundestag and in the tool of the 'sufficiently specified and limited conferral of powers'.

In this context it is therefore not surprising that leading representatives of the German political party establishment criticized the Constitutional Court for its concise and democratic reasoning.[37]

What is even more telling is that the vast majority of the political parties represented in the German Bundestag were prepared to pass the Lisbon Treaty without any 'caveat'. That it did not pass without democratic checks is due to the actions of a tiny minority of delegates who challenged the treaty in the Constitutional Court.

This pattern was repeated when the same minority of delegates challenged the various euro rescue bills. Again the majority of representatives were prepared to pass the bills without reservations, and again the Constitutional Court was called into the process. And again the Court expressed its serious concerns by attaching (only) procedural strings for the parliament derived from the principle of 'sufficiently specified and limited conferral of power' from the national to the EU level.

For the German Constitutional Court as for the political thinkers of the European Enlightenment movement, the principle of separation of powers is of the utmost importance, because when this principle is circumvented not only is democracy endangered, but the risk of tyranny also looms.

As explained in section 1.0, the significance of this democratic principle has its historical roots in Germany in the Enabling Act of 1933, by which the then-German Reichstag conferred unspecified and unlimited powers on the executive branch.

1.10 Ongoing perforation of the principle of sufficiently specified conferral of power from national parliaments to the EU

As shown above, the principle of sufficiently specified conferral of powers from parliament to the executive branch represents an essential emanation of the principle of separation of powers – hence its inclusion in the Lisbon Treaty (Art. 5, No. 1 in the Treaty on European Union) and the German Constitutional Court's focus on it in each of its rulings relating to the EU lawmaking process. However, in the daily routine of European lawmaking this important principle is frequently bypassed as important laws are created by the executive branch or by anonymous expert groups without securing sufficient involvement from the 'European Parliament'.

1.10.1 The 'Lamfalussy Process'

The Lamfalussy Process illustrates the EU's lack of recognition of this fundamental principle.[38] The process is named after Baron Alexandre Lamfalussy, formerly director general of the BIS and then chairman of the Committee of Wise Men on the Regulation of European Securities Markets. The committee was set up by the European Council in July 2000 in an attempt to expedite the complicated and lengthy lawmaking procedure on the European level in order to create a single EU capital market by 2005.

To this end a **four-step process** was introduced:

In the first step, both chambers of the 'European Parliament' adopt legislation in which a framework is outlined in very broad and vague terms.

In the second step, sector-specific committees, advisors and regulators specify the content and bring it to a vote before unelected member state representatives.

In the third step, national regulators and other supervisory or industry bodies 'coordinate and harmonize' the legislation's provisions.

The fourth step is enforcement. Via this fast-track process roughly 20 different laws/regulations of fundamental importance for the European financial industry, as well as for the people of the EU, have been enacted.

Instead of the **fourth step** requiring a vote by the 'European Parliament', allowing members to see what the various 'experts' have made of the broad

and vague empowerment given to them in step 1, the 'legislation' slips into direct enforcement.

The research report published by ALTER-EU and already quoted states:

> Instead of new rules being subject to scrutiny by the European Parliament and Council, the process relies on sector-specific committees, regulators and member-state representatives to shape them. In the Lamfalussy process technocracy has replaced democracy . . . The Level Three bodies are the Committee of European Banking Supervisors (CEBS); the Committee of European Insurance and Occupational Pension Supervisors (CEIOPS); and the Committee of European Securities Regulators (CESR). The Expert Groups advising them have a high degree of influence regarding the details of implementation measures and are dominated by financial representatives:
>
> – Nine of CESR's 13 Expert Groups consist solely of representatives from the private financial sector; one analytical group is academics only; and one group does not disclose its membership.
> – All the members of the six CEBS Expert Groups come from the private financial sector.
> – Although CEIOPS's main committee is made up of representatives from financial authorities from Member States, all but three of the 17 members on its 'consultative panel' are linked to the private financial sector.[39]

The fundamental deficiency, however, is that the final legislations/regulations came into effect without any oversight and control by the 'European Parliament', although it could have mobilized its own various expert committees.

Again, such a lawmaking process is technocratic and oligarchic, not democratic. And it could not avoid the near-death-experience of the European banking system in the wake of the collapse of the Lehman bank in September 2008.[40]

1.10.2 Project INDECT

Another area in which parliament exercises insufficient participation and control is 'research and technological development and space'.[41] In a procedure similar to the Lamfalussy Process, the 'European Parliament' is only involved in the beginning phase, by passing a law – again proposed by the EU Commission. In this legislation extreme and only broadly phrased empowerments are conferred upon the executive branch, contrary to the principle of sufficiently specified conferral of power. Once this empowerment is enacted via the so-called ordinary legislative procedure, only the 'European Parliament' has the right to be heard or consulted. The result

of such a broad empowerment of the executive branch of the EU can be demonstrated by the example of the so-called INDECT project.

The nature of the project is made clear in an article from the British newspaper *The Telegraph*:

> The European Union is spending millions of pounds developing 'Orwellian' technologies designed to scour the internet and CCTV images for 'abnormal behaviour'. A five-year research programme, called Project Indect, aims to develop computer programmes which act as 'agents' to monitor and process information from websites, discussion forums, file servers, peer-to-peer networks and even individual computers. . .
>
> Its main objectives include the 'automatic detection of threats and abnormal behaviour or violence'. Shami Chakrabarti, the director of human rights group Liberty, described the introduction of such **mass surveillance techniques** as a 'sinister step' for any country . . . . According to the Open Europe think tank, the increased emphasis on co-operation and sharing intelligence means that European police forces are likely to gain access to sensitive information held by UK police, including the British DNA database. Stephen Booth, an Open Europe analyst, said these developments and projects such as Indect sounded 'Orwellian' and raised serious questions about **individual liberty**.
>
> 'This is all pretty scary stuff in my book. These projects would involve a huge invasion of privacy and citizens need to ask themselves whether the EU should be spending their taxes on them,' he said.
>
> The EU lacks sufficient checks and balances and there is no evidence that anyone has ever asked 'is this actually in the best interests of our citizens?'
>
> Miss Chakrabarti said: '**Profiling whole populations** instead of monitoring individual suspects is a sinister step in any society . . .' According to the official website for Project Indect, which began this year [2009], its main objectives include 'to develop a platform for the registration and exchange of operational data, acquisition of multimedia content, intelligent processing of all information and automatic detection of threats and recognition of abnormal behaviour or violence' . . . It talks of the construction of agents assigned to continuous and automatic monitoring of public resources such as websites discussion forums, user-net groups, file servers, . . . as well as individual computer systems, building an internet-based intelligence gathering system, both active and passive.'
>
> Open Europe believes intelligence gathered by Indect and other such systems could be used by a little-known body, the EU Joint Situation Centre (SitCen), which it claims is 'effectively the beginning of an EU secret

> service'. Critics have said it could develop into 'Europe's CIA' . . . An increased role for SitCen should be of concern since the body is shrouded in so much secrecy . . . The expansion of what is effectively the beginning of an EU 'secret service' **raises fundamental questions of political oversight in the member states.**
>
> Within this Project Indect there is an ethical board which will be looked at: is it permissible within the legislation of the country who may use it, who oversees it and is it human rights compliant.'[42]

Note: Again, it was an unelected expert group (the 'ethical board'), appointed by the unelected EU Commission, that oversaw the course of this project and gave it 'ethical' clearance.

The question remains, why was an investigative committee of the 'European Parliament' not charged with the task?

Therefore, it should be a matter of record that in reality, lawmaking on the EU level frequently violates and bypasses the fundamental principle of 'sufficiently specified and limited conferral of power'. Hence, the centrepiece of the dogmatic line of defence of the German Constitutional Court is destined to break down, because on a de facto basis national sovereigns as well as the 'European Parliament' are bypassed and excluded from democratically legitimized lawmaking procedures. In the daily reality of European lawmaking, insufficiently specified conferrals of power take place – opening a gateway to totalitarian rulership.

1.11 The quasi-plebiscite in Article 11, No. 4 of the Lisbon Treaty is cynically designed[43]

Article 11, No. 4 reads:

> Not less than one million citizens who are nationals of a significant number of Member States may take the initiative of inviting the European Commission, within the framework of its powers, to submit any appropriate proposal on matters where citizens consider that a legal act of the Union is required for the purpose of implementing the Treaties.

The EU has 28 member states. If the criterion 'of a significant number of Member States' could only be met by a simple majority, in order to be truly significant, this would require a quorum of 15 states. If 'significance' could be achieved by one-third or even one-fourth of the number of members, this would require more than nine or seven member states respectively. It would also require one million EU citizens to unite over seven, or nine, or even 15 countries with different languages. The probability that this could ever be achieved is close to zero.

But the cynicism lies in the fact that even if the 'significance' hurdle could be overcome nothing would be accomplished by those organizational efforts

of the EU citizens, because they would only 'invite' the EU Commission to consider the decree of a legal act. However, the EU Commission is under no obligation to accept the 'invitation' – that's it.

Hence, there is no plebiscitary right in the Lisbon Treaty for the citizens of the EU. And this is so by intent. The late political scientist Peter Mair commented:

> We are not afforded the right to organize opposition within the European polity. There is no government-opposition nexus at this level. We know that a failure to allow for opposition within the polity is likely to lead either (a) to the elimination of meaningful opposition, and to more or less total submission, or (b) to the mobilisation of an opposition of principle against the polity – to anti-European opposition and to Euroscepticism . . . Political opposition gives voice. By losing opposition, we lose voice, and by losing voice we lose control of our own political system.[44]

The nightmare of the euro-political establishment is plebiscites – the will of the people. Every effort is made to bypass it. A typical example of this approach by the euro-political establishment was the rejection of the Nizza Treaty in early summer 2005. At that time, the people of France and the Netherlands were given the opportunity to vote on the treaty, which foresaw the introduction of a European constitution – the vanguard for the erection of the 'Federal States of Europe'. Both the French and the Dutch citizens rejected it. The euro-political establishment reinterpreted the rejection, claiming voters had been deceived by populist arguments. Hence, four years later the Lisbon Treaty was implemented, essentially incorporating the content of the Nizza Treaty but eliminating the constitutional elements for the creation of 'The Federal States of Europe'. However, it introduced 'European citizenship' in parallel to national citizenship and transformed the EU into a legal entity of its own. Despite its being nearly identical in content,[45] no referendums were held on the latter version.[46]

The Lisbon Treaty transfers most domestic lawmaking powers to the EU Commission.[47] By 2014, nearly 80 per cent of legislative activity was being carried out on the European level.

As explained in sections 1.2–1.6 and 1.10, this lawmaking procedure lacks sufficient democratic legitimation when measured against the principles developed by the political theory of the European Enlightenment movement.

1.12 'The United States of Europe' – a democratic impossibility

A frequent demand made by the euro-political class is the introduction of a political union following on the fiscal union. It is believed that once the euro member states create a kind of European financial ministry the single

currency can be safely preserved. In order to be effective this supra-national budget agency would need to have the authority to rein in national budgets. According to current discussions the unelected EU Commission would be charged with that task.

From the viewpoint of democratic and constitutional theory, this would require the transfer of national budget sovereignty to an unelected bureaucratic body. However, as of today national budget sovereignty resides in elected national parliaments. The assignment of the right to determine and allocate public expenditures to parliaments represents one of the key achievements in Western constitutional history.[48] It is the incarnation of collective self-determination of sovereigns, that is, the people. The transfer of this right to an unelected, supra-national body would eliminate the human right of collective self-determination in one of the most important areas of national policymaking.

A full political union would mean that all areas of domestic lawmaking would be transferred to the supra-national level. As shown in the preceding sections, and as confirmed by the German Constitutional Court (section 1.8), the current institutional design of the EU lacks every key feature of democracy as developed by Western democratic and constitutional theory. The right to initiate legislation is assigned to the unelected executive branch of the EU – the EU Commission. The principles of separation of powers and subsidiarity have been hollowed out to an extent that they are no longer recognizable. The citizens of the EU have no chance to form a political will with respect to any legislation.

To do so would require a common public arena where the pros and cons of the legislation in question could be discussed in a pluralistic fashion.[49] However, none of the key features required for such an arena are present. On the European level there are no political parties, no common public media, and no unions; politicians are elected on the national level only, and there is no common language for the 28 or 17 Eurozone nations. There is no European demos, nor is there a genuine European-wide public arena. 'No demos, no democracy – quite simple'.[50]

In its judgment on the Lisbon Treaty the German Constitutional Court ruled that the merger of Germany into a new supra-national entity would constitute a 'change of identity' and therefore would require a plebiscite by the German people.[51] Moreover, Article 79, III of the German constitution prohibits any change of the constitution that would impact on the lawmaking power of the German federal states, the federal structure of the German state or the human rights guaranteed in Articles 1–20 of the German constitution. Hence, viewed in terms of the German constitution and the established rulings of the German Constitutional Court, the creation of 'The Federal States of Europe' as a new federal statehood is not a short-term option. This is also true for the creation of a fiscal union that would deprive the German parliament of one of its core rights.

Peter Mair said that the EU

> allows decision-making to evade the control and constraint of popular democracy and accountability. The key supranational institutions in Europe are non-majoritarian by definition, and although the Council of Ministers is at least potentially vulnerable to national democratic sanctions, it also proves evasive in opting to work mainly behind closed doors and in a non-transparent and effectively non-accountable fashion. The same holds true for the extensive system of committees – the so-called comitology – that bridges the Council and the Commission . . . what has been qualified as executive [in EU terms] is on the whole depoliticized in the sense that it occurs outside of any public space of communication, deliberation and debate . . . In fact by shifting decision-making one level higher, the architects of the European construction have been able to leave democratic procedures behind.[52]

Despite the fundamental obstacles presented by democratic theory, and confronted by firm constitutional barriers in the case of Germany, the European Commission is pressing ahead with the project of 'The United States of Europe' in elections to the 'European Parliament' in May 2014. The British newspaper *The Telegraph* reported:

> A campaign for the European Union to become a 'United States of Europe' will be the 'best weapon against the Eurosceptics', one of Brussels' most senior officials has said. Viviane Reding, vice president of the European Commission and the longest serving Brussels commissioner, has called for 'a true political union' to be put on the agenda for EU elections this spring. 'We need to build a United States of Europe with the Commission as government and two chambers – the European Parliament and a "Senate" of Member States,' she said. Mrs Reding's vision, which is shared by many in the European institutions, would transform the EU into superstate relegating national governments and parliaments to a minor political role equivalent to that played by local councils in Britain.[53]

1.13 Competitive position of Europe not strengthened by deeper integration

Another argument frequently brought forward by the euro-political classes in favour of 'deeper integration' is that it would offer some protection against the negative impacts of globalization. The twisted argument goes that a further transfer of sovereign powers, which is the further transfer of democratic and collective self-determination rights, would strengthen the right of collective self-determination,[54] because only a more deeply 'integrated' Europe would give the Europeans an adequate share of voice in the global

arena. Nothing could be further from the truth. And the claim is refuted by the facts.

The key features of globalization are increased competition and increased transparency. The introduction of the single currency was sold to the people with the argument that it would increase the competitiveness of the Eurozone and lead to economic prosperity and stability. So far the Eurozone has failed to deliver on this promise. The promised 'stability union' collapsed into a 'union of mutual debt liabilities' and economic prosperity turned into 'economic austerity and poverty'.[55] The evidence shows that the introduction of the euro has significantly weakened the economic competitiveness of the Eurozone. The majority of its member states are already hopelessly over-indebted,[56] in many member states the private sector is also over-indebted, gross domestic product (GDP) forecasts are gloomy, and the recipients of bailout money are subject to tough austerity policies leading to a massive curtailing of their economic growth.

Hence, the 'integration' into one currency has so far weakened the competitive position of the Eurozone in the globalization game. The answer to competition is to promote competition through a common market and to ensure that countries have their own currencies, in turn enabling them to devalue them instead of being forced into 'internal devaluation', which means the brutal reduction of their domestic wage and price levels.

Moreover, the assumption that the divergent interests of 28 states can be effectively bundled and represented on the international stage is an illusion. Germany and others favour austerity in order to bring national indebtedness back to viable levels. The countries of the periphery, and in particular France, want the opposite, that is, European Central Bank (ECB)-financed 'stimuli'. The majority of the Eurozone wants the ECB to buy government bonds, which is to monetize sovereign debt, but Austria, Germany, Finland and the Netherlands are opposed to this idea. Hence, the notion that a further deepening of integration would lead to enhanced economic robustness and unity for the Eurozone is incorrect, even more so should a fiscal union be erected. Such a union would simply be an unelected bureaucratic superstructure imposed on elected governments with a mandate to centrally plan national budgets. The French socialists are not prepared to share the fate of the Greek socialist government, which was voted out of power after it accepted the austerity conditions attached to the 'rescue package' in 2010.

The different foreign policy interests of EU members are similarly irreconcilable. For example, the EU was unable to agree on a common foreign policy in the case of Lybia. Germany vocally opposed intervention in Lybia, while France and Britain took the opposite stand.

Therefore, the battle cry of the euro-political class for 'deeper integration' is simply an attempt to rescue a failed currency experiment at 'any price', and one of the prices to be paid is the sacrifice of fundamental democratic rights. 'Deeper integration' will lead not only to further deterioration of the

competitive position of the Eurozone in the global concert, but simultaneously to a gradual erosion of the core political and democratic principles developed by the European Enlightenment movement.

1.14 A cartel of political parties dominates modern mass democracies

In today's European societies the formation of a political will, that is, law-making, is almost exclusively left to political parties. Over time those parties have developed into a class of their own with homogeneous interests. This homogeneity is to a considerable extent driven by the fact that most politicians of today are (to paraphrase Max Weber) professional politicians without a civil profession who depend on appointment or election to public office to make a living. Both appointments and nominations are made by the ruling establishment within the political parties. As a result of ordinary group dynamics the dominating establishment in any association has the prevailing view on certain matters. Hence, it becomes risky for a 'professional politician without a civil profession' to promote an alternative opinion deviating from the established one for fear of risking his or her livelihood, which only can be a public office or a seat in parliament. For this reason the institution of the party whip rarely needs to be openly enforced – it is self-enforcing through pre-emptive obedience.[57] It can even be denied. In modern societies political parties represent a class of their own with their own class interests. Voters and taxpayers can be considered another class in society, whose interests might in various instances differ from those of professional politicians.

The debate in Germany over the various euro rescue programmes illustrates such a divergence between the interests of the two classes. Opinion polls show that a considerable and ever increasing share of the German citizenry is highly sceptical of the programmes.[58] This scepticism is a result of increasing doubt about whether it is even possible to rescue the euro, combined with considerable distrust of the political euro class, meaning that the credibility of the euro-political class has broken down.[59]

This lack of confidence has its roots in the fact that the original Maastricht Treaty, which laid the foundation for the single currency union, was sold to the German people as the blueprint for a 'stability union'. Its original provisions explicitly prohibited the bailout of over-indebted member states.[60] The German Constitutional Court also ruled in its decision on the Maastricht Treaty in 1992 that if the 'stability union' should fail, Germany would have the right to exit the currency union,[61] an option never mentioned by the euro-political class.

However, in spring 2010 when the euro establishment was confronted with the imminent bankruptcy of Greece and its possible repercussions for the survival of the single currency, the political euro class introduced exactly those – legally forbidden – bailouts in a blatant breach of European law.[62]

The political euro establishment also declared that Greece was a unique case and the bailout only a temporary measure. Unfortunately, the 'unique' case of Greece was followed almost immediately by the two other 'unique' cases of Ireland and Portugal. In each of these the political classes of the respective countries denied the necessity of a rescue scheme – up until the last minute. Moreover, amidst the hectic rescue activities of 2010 and 2011, the political euro class explicitly reserved for itself the right to lie to people in order to support the single currency.[63] This string of incidents led to a complete breakdown of the credibility of the political euro class amongst German citizens, and their subsequent reserved attitude towards the rescue of the euro.

Another reason for the increased scepticism towards the euro is the unprecedented size of the 'rescue parachutes'. As of 2013, the European Financial Stability Facility (EFSF) and the European Stability Mechanism (ESM) combined amounted to ca. €1,500 billion, roughly five times the 2011 federal budget of Germany. In the event that the rescue operation fails, German society – the taxpayers – will face a liability risk of up to that amount.[64] In such a scenario, any room for manoeuvre to frame the living conditions of German society – education, research, social security and so on – would be lost, as would the human right of (collective) self-determination.

Indeed, the debtor nations have already lost this fundamental right of collective self-determination, since the rescue money they receive comes with strings. Budgetary sovereignty has been taken from their elected parliaments and transferred to the unelected 'troika' of the International Monetary Fund (IMF), the ECB and the EU Commission. Meanwhile, severe austerity has been imposed on those societies. This demonstrates that the rescue of the single currency severely impacts on the right of self-determination of both the donors and the recipients of the rescue funds. The latter are deprived of the right to devalue their own currency as an act of national self-determination in currency affairs.

Prior to the introduction of the euro, currency devaluation was carried out by the foreign exchange trading desks of international banks. If a nation chose to pursue a public spending path that put their ability to pay back debt into doubt, international investors such as pension funds would ask for higher risk premiums to compensate for risk and value depreciation. Upon maturity of such a treasury bond, they would exchange the proceeds (interest and principal amount lent) for domestic currency, but receive less in domestic currency because the issuing currency had lost in value. This 'quiet mechanism' of currency devaluation was left to the markets. But since the introduction of the single currency this 'quiet mechanism' has been eliminated, and devaluation has been dragged into the political arena of the member states.

The democratic problem in Germany is that all major political parties in parliament share the opinion of the president of the EU Commission that the euro should be defended 'at any price' and 'regardless of costs'.

With respect to the approval required on the national level it can be said, at least for Germany, that the political parties show no restraint in exercising the party whip when necessary to get a law through the German parliament. Such measures were taken in the case of the German parliamentarian Wolfgang Bosbach, who intended to vote against one of the 'euro rescue parachutes' in 2011. Mr Bosbach was of the opinion that the financial commitments undertaken by Germany were irresponsible (at that time their size amounted to roughly twice the annual federal budget for 2011 – roughly €600 billion) and were not in sync with the citizens' will. As a member of Angela Merkel's ruling Christian Democratic Party, he was humiliated and berated by the coalition parties because it was a matter of political prestige that the government coalition should be able to count on every vote in its camp in order to push the legislation through. The coalition even went so far as to complain to the president of parliament about his giving dissenters the right to speak in parliament.

Immediately following the parliamentary vote, a German television station conducted interviews with a sample of parliamentarians voting in favour of the 'European rescue bill'. Most could not answer the question of how much money had been committed – they had no clue.[65]

This incident illustrates the use of the party whip in Germany. It also gives a lively description of the lack of democratic consciousness among the political parties in Germany.

This leads to the odd situation that German democrats have neither a democratic nor a conceptual alternative. Generally, when a democratic society leaves the formation of the political will of the people exclusively in the hands of political parties, a cartel is likely to emerge, eliminating democratic opposition in parliaments. In other words, democracy can eliminate itself. Considerable sections of a democratic society find no democratic representation in parliament. From the point of view of democratic theory such a situation constitutes a serious violation of democracy.

Peter Mair has explored the idea that the takeover of a society's resources and its state by a cartel of political parties might lead to the failure of democracy. He describes the increasing alienation between political parties and their electorates in Western European mass democracies,[66] based on statistical evidence that ballot turnout in Western European countries fell from 84.3 per cent in the 1950s to 81.7 per cent in the 1980s. However, this very marginal shift accelerated in the 1990s, dropping to 77.6 per cent. This downward trend continued into the 21st century, reaching a low of 75.6 per cent in various countries between 2000 and 2003.

This trend is mirrored by the ratio of party membership among Western European electorates. In 1980, an average of 9.8 per cent of eligible voters were party members; by the end of the 1990s, the number had fallen to just 5.7 per cent. The number of party members declined in every one of the

long-established democracies, sometimes by as much as 50 per cent from 1980 levels. Mair states:

> The conclusion is unambiguous: all over Western Europe, and in all likelihood all over the advanced democracies, citizens are heading for the exits of the national political arena . . . As citizens exit the national political arena, they inevitably weaken the major actors who survive there – the parties . . . Given how difficult it has become to engage citizens in the conventional political arena, it might be expected that political leaders would devote considerable effort to keeping politics alive and meaningful . . . [however,] in practice there exists a clear tendency for political elites to match citizen disengagement with a withdrawal of their own. Just as voters retreat to their own particularized spheres of interest, so too have political and party leaders withdrawn into the closed world of the governing institutions.[67]

Mair further observes that this withdrawal of party leadership from the realm of civil society into that of government and the state leads to an amalgamation between parties and government. Because the main source of party funding became the public purse, the ensuing legislation and regulation helped transform parties into public service agencies.[68] This process turned formerly private and voluntary associations into quasi-official organizations regulated by public law. Parties cemented their linkage to the state by morphing from representative agencies, into governing agencies, focusing increasingly on seeking public office. Put differently, instead of providing government by the people they opted for government for the people. The overall goal of the party establishment is to stay in power, thus contributing to the erosion of political identity among established parties. What has emerged is a new governing class.

Mair summarizes:

> This development goes hand in hand with their move from society to the state, and is part of the process by which parties and their leaders separate themselves from the arena of popular democracy. Parties have become agencies that govern . . . rather than represent; they bring order rather than give voice. It is in this sense that we can also speak of the disengagement or withdrawal of the elites, although while exiting citizens are often headed towards more privatized worlds, the exiting political leadership is retreating into an institutional one – a world of public offices.[69]

The consequences of this development are manifold:

1. Democracy is being steadily stripped of its popular and legitimizing component – it is morphing into a democracy without a demos.

2. The transformation of party leaders into holders of public office promotes the de-democratization of political decision-making, that is, it increasingly delegitimizes lawmaking. Political decision-making is increasingly transferred to unelected 'experts' and technocrats, deliberately bypassing the voting and majority-dependent electorate. This allows the political class to hide behind 'institutional walls', denying direct responsibility and accountability for policy outcomes.
3. As a result, popular indifference and distrust of established parties and political institutions in general is growing.
4. Hence, opposition increasingly comes from outside conventional party politics in the form of social movements, street movements or popular protests.
5. Due to the ever-decreasing loyalty of citizens to a given political party, systemic instability increases. Formerly consistent patterns of partisan preference among the electorate begin to dwindle. Voters' choices become more susceptible to short-term factors. Election outcomes become less predictable.

Mair concludes: 'The age of party democracy has passed. Although the parties themselves remain, they have become so disconnected from the wider society, and pursue a form of competition that is so lacking in meaning, that they no longer seem capable of sustaining democracy in its present form.'[70]

1.15 The introduction of plebiscitary rights as a remedy

In order to avoid the further hollowing out of democratic principles and procedures, and in order to keep democracy alive, the plebiscitary rights of the people must be strengthened. For this, the constitution of Switzerland provides a suitable model. It provides protection against the possibility of an oligopoly of political parties in the national parliament passing legislation not sufficiently reflecting the will of the people. The Swiss constitution also offers protection against a political class hijacking the resources of a nation and eroding the democratic rights of the people, that is, a continuous constriction of the human right of self-determination.

The Swiss-German philosopher Karl Jaspers was among the first to red-flag the danger of political parties becoming the only voice of the people in a democracy:

> One route to dictatorship is a government formed either by all political parties or by a grand coalition of two major parties in parliament. Those would confer absolute power to the oligarchy of political parties. Opposition would be eliminated and, moreover, the danger of an overthrow of such a party rulership.[71]

Currently, on the national level in some EU member states, including Germany, it is possible for a political class to hijack the resources of a nation and annihilate pluralism of opinion – the indispensable prerequisite for the formation of an autonomous political will.

In this context the requirement for consenting legislation on the national level to render EU legislation effective becomes hollow and meaningless since the formation of the political will of the people is exclusively left to a cartel of more or less homogeneous political parties. Hence, a constitutional tool is required to allow the people to take corrective action for the sake of keeping alive the human right of self-determination and democracy.

As shown in section 1.10, even the German Constitutional Court cannot sufficiently protect those core Western values, blind as it is to the political reality of an oligopolistic 'party-cartel state'. It bypasses on a de facto basis the conceptual constraints put on the legislative procedure by the Court because the ruling political party oligopoly is 100 per cent committed to wave through any European legislation. Thus the hurdle the Constitutional Court, was intended to represent the pluralistic discussion of the pros and cons of a given piece of legislation in the arena of the representation of the people, becomes hollowed out and mutates into merely a formal hurdle that is easy for the parties' oligopoly to overcome.

This fact also shows that the lack of a sufficiently democratic institutional design for the EU is a reflection of the democratic state of mind of the euro-political class, composed of political parties on the national level. This lack of a democratic consciousness finds its perfect expression in a statement made by former Italian Prime Minister Mario Monti: 'If governments allow themselves to be entirely bound to the decisions of their parliaments, without protecting their own freedom to act, a break-up of Europe would be a more probable outcome than deeper integration.'[72]

In other words, in the eyes of the ruling euro-political party class the preservation of the poorly designed single currency supersedes the values of democracy and the human right of self-determination.

From a malign point of view it appears that the introduction of the single currency was specifically designed to achieve this. It is astonishing that this clearly anti-democratic mindset did not lead to impeachment attempts in the Italian parliament.

Despite German politicians' official criticisms of Monti's remark, they are in agreement with the anti-democratic design of the EU institutions and even want to strengthen them, using such slogans as 'deeper integration', 'we need more Europe' and the request for a 'Fiscal Union'. This reflects a breakdown of sufficiently democratic awareness among political parties in Germany and the Eurozone.

Because the legitimation problem of the EU starts on the national level, constitutional reforms at that level are urgently required. The case of Switzerland represents an ideal blueprint. According to the Swiss constitution the people

have the explicit right to challenge legislation passed by the political parties in parliament and even have the right to initiate and enact counter-proposals with a majority vote.[73]

Only such a mechanism provides citizens in a given society with a tool to take corrective action if the will of the establishment of political parties becomes increasingly alienated from the will of the majority of the people.

Moreover, the availability of such a corrective mechanism could mitigate the current trend toward the radicalization of political parties on the right of the political spectrum, for instance in Greece and France. While currently the only option for European democrats who disagree with the anti-democratic approach of the euro-political class is to vote for radicals, the introduction of corrective referendums similar to those in Switzerland would give democrats the chance to articulate an alternative view and invigorate a pluralistic debate among the various electorates.

1.16 The problem of the self-extinguishing forces inherent in mass democracies

The French political philosopher Alexis de Tocqueville (1805–59) was among the first in modern Europe to identify the risk that mass democracies carry an inherent tendency to self-extinction.

In his book *Democracy in America* de Tocqueville introduces the thesis that modern, post-French Revolution societies are founded on an increasing urge to establish equality in every aspect of society, and increased centralization of political power is key to accomplishing that goal. Formerly individual, local and regional decision-making competences will be gradually absorbed by this centre of gravity. This process of ever-growing control and regulation will go unnoticed by the citizens, who are primarily concerned with their daily pursuit of happiness and their desire for financial prosperity. Furthermore, they will be content that they are equal with everyone else, safe from the potentially disturbing perception of inferiority. However, the effect of this tranquility will be the euthanization of a sense of self-reliance and willingness to engage in societal matters. The end of this process will be the arrival of a 'soft despotism' and the loss of individual freedom.

This self-extinguishing mechanism is best described by de Tocqueville:

> I seek to trace the novel features under which despotism may appear in the world. The first thing that strikes the observation is an innumerable multitude of men, all equal and alike, incessantly endeavoring to procure the petty and paltry pleasures with which they glut their lives. Each of them, living apart, is a stranger to the fate of all the rest, – his children and his private friends constitute to him the whole of mankind; as for the rest of his fellow-citizens, he is close to them, but he sees them not; he

exists but in himself and for himself alone; and if his kindred still remain to him, he may be said at any rate to have lost his country.

Above this race of men stands an immense and tutelary power, which takes it upon itself alone to secure their gratifications, and to watch over their fate.

That power is absolute, minute, regular, provident, and mild. It would be like the authority of a parent, if, like that authority, its object was to prepare men for manhood; but it seeks, on the contrary, to keep them in perpetual childhood: it is well content that the people should rejoice, provided they think of nothing but rejoicing. For their happiness such a government willingly labors, but it chooses to be the sole agent and the only arbiter of that happiness; it provides for their security, foresees and supplies their necessities, facilitates their pleasures, manages their principal concerns, directs their industry, regulates the descent of property, and subdivides their inheritances: what remains, but to spare them all the care of thinking and all the trouble of living?

Thus, it every day renders the exercise of the free agency of man less useful and less frequent; it circumscribes the will within a narrower range, and gradually robs a man of all the uses of himself. The principle of equality has prepared men for these things; it has predisposed men to endure them, and oftentimes to look on them as benefits.

After having thus successively taken each member of the community in its powerful grasp, and fashioned him at will, the supreme power then extends its arm over the whole community. It covers the surface of society with a network of small complicated rules, minute and uniform, through which the most original minds and the most energetic characters cannot penetrate, to rise above the crowd.

The will of man is not shattered, but softened, bent, and guided; men are seldom forced by it to act, but they are constantly restrained from acting: such a power does not destroy, but it prevents existence; it does not tyrannize, but it compresses, enervates, extinguishes, and stupifies a people, till each nation is reduced to be nothing better than a flock of timid and industrious animals, of which the government is the shepherd.

I have always thought that servitude of the regular, quiet, and gentle kind which I have just described might be combined more easily than is commonly believed with some of the outward forms of freedom, and that it might even establish itself under the wing of the sovereignty of the people.

Our contemporaries are constantly excited by two conflicting passions: they want to be led, and they wish to remain free: as they cannot destroy either the one or the other of these contrary propensities, they strive to satisfy them both at once. They devise a sole, tutelary, and all-powerful form of government, but elected by the people. They combine the principle of centralization and that of popular sovereignty; this gives them

> a respite: they console themselves for being in tutelage by the reflection that they have chosen their own guardians. Every man allows himself to be put in leading-strings, because he sees that it is not a person or a class of persons, but the people at large, who hold the end of his chain.[74]

Alexis de Tocqueville not only provided this visionary and vivid description of today's societies within the EU, he also recommended some antidotes in order to prevent it happening. As a committed democrat he drew them from the toolbox of democratic theory.

Maintaining that the democratic and political virtues of citizens must be permanently trained, he insisted that a democratic system must be designed in a way which incentivizes, almost forces, citizens to exert their participatory rights. A key element is the stringent implementation of the **principle of subsidiarity**, or in his words, the strict decentralization of state power.[75] He recommends that a state's structure – that is, the assignment of decision-making powers – should resemble a pyramid. The broad bottom layer represents the local level, the middle layer the regional level, and the apex the federal level. As many matters as possible should be left on the local and regional level to be managed and decided by the citizens. Any referral of competences to the next higher level should be carefully considered and enacted only if the achievement of uniformity is deemed necessary. Tocqueville further recommends that citizens should, on a nearly permanent basis, form associations or initiatives on issues of common interest.[76]

1.17 A possible way out of the dilemma of deficient democratic legitimation

With those conclusions in hand, the question is what should and could be done?

The following sections suggest a two-phase process by which the transition to a truly democratic Europe could be accomplished.

1.17.1 Phase 1: Democratization must precede further integration

As shown above, the deficient democratic legitimation inherent in the shaping of EU policy has its true roots on the national level, where the political will of the people is only articulated via the oligopoly of political parties. Hence, constitutional reform on the national level must be pursued first.

The first step would be an adjusted adoption of the Swiss constitution by referendum on the national level.

Such a step would have significant consequences:

(1) An immediate end to what is called 'the further deepening of European integration', without which additional powers of sovereign self-determination will be transferred from the semi-democratic national level to the

undemocratic European level. Currently 70 to 80 per cent of all statutes come from Brussels.

This step is especially targeted at the establishment of a fiscal union for the Eurozone, as frequently demanded by the euro-political class. Such a union would involve the full or partial transfer of budgetary sovereignty from national parliaments to the unelected EU Commission (see section 3.5.2).

Moreover, the fiscal union would lead to the de facto break-up of the EU since it would only include the 17 euro states, excluding the other 11 EU members. The phrase often used by the euro-political class, 'a Europe of two speeds', is a cynical and dishonest attempt to camouflage this de facto break-up of the EU.

This first step also targets the banking union. This union is an attempt to address the failed financial regulation by the EU Commission that amounted to the mere orchestration of self-regulation of the financial sector (see section 1.3). The lawmaking process operated in contradiction of the democratic principles stated in section 1.0.

It would be unjust to hold the citizens of one country liable for banks in others. Banks in the peripheral countries in particular are pumped up with faulty government bonds, the deterioration of which continues to be caused by reckless spending behaviour on the part of the political classes of those countries. Moreover, as shown in section 3.5.1, the true purpose of the banking union is to tap into the deposits of the savers of the EU. The risk of bank failures, in particular among Eurozone banks, is simply too high, and the potential damage simply too great, for them to be bailed out by over-indebted sovereigns.

The above recommendation is further targeted at the proposed political union, itself nothing more than a code for the final de-democratization of the euro countries (see section 1.12). The preservation of the botched single currency concept cannot supersede the human right of individual and collective self-determination. The only source of legitimation would be plebiscites in the respective countries.

Thus, the slogan of the euro-political class for a 'further deepening of European integration – we need more Europe' should be answered with the slogan 'further deepening of European democratization – we need more democracy'.

During this period of re-democratization two things would need to be accomplished:

(a) Temporary repatriation of powers from Brussels, feasible within the framework of the Lisbon Treaty.[77] Without repatriation, the process of oligarchic lawmaking would continue and the citizens of the EU would be faced with a 'fait accompli'.
(b) Constitutional reform on the national level, adopting an adjusted blueprint of the Swiss constitution. This would require a referendum in each nation.

1.17.2 Phase 2: Democratization of the institutional EU design

Once constitutional reforms on the national level were complete, the following steps for a deeper democratization on the European level could be undertaken.

(1) The first step would be the election of a European Parliament under strict obedience to the principle of equal voting – 'one man/woman – one vote'.

This parliament would be tasked with drafting a proposal for the type of Europe it regarded as desirable, strictly adhering to the requirement that regardless of the institutions envisioned, the principle of separation of powers and subsidiarity must be strictly observed. For example, if an executive body were created, it would only be empowered with competences agreed beforehand via a 'sufficiently specified and limited conferral of powers' by parliament.

(2) In a second step, true democratic legitimation would be ensured with respect to any future lawmaking on the European level. It follows by 'democratic logic' that a two-phase process of conferral of power from the national to the European level would be necessary. The first phase would involve transfer of power from national parliaments to the European Parliament, that is, not directly to the European executive branch, as is the case today; in the second phase the European Parliament would transfer that power to the European executive branch. Thus the legislative initiative to regulate would be anchored in the new European Parliament as opposed to the current system whereby the executive branch of the EU has the exclusive right of 'legislative initiative', which in practice lacks sufficient democratic control (see sections 1.10.1 and 1.10.2).

The new institutional design should ensure that laws passed by the European Parliament could only become effective with the approval of national parliaments. In principle this is true of the current system, but the new design would grant national citizens plebiscitary rights of corrective action in order to ensure their will was represented. Again, the Swiss constitution could provide a blueprint.

The argument is that in the new European Parliament there will also be decisions made by the majority. This could effectively lead to small countries being permanently overruled by the larger ones, and hence they would be deprived of their fundamental right of sovereign self-determination.

Significantly strengthened plebiscitary rights similar to those guaranteed in the Swiss constitution would prevent the hijacking of an entire society and its financial resources by an oligopoly of political parties.

(3) The new European Parliament could not realistically be expected to produce a proposal for a new and democratic Europe in a unanimous fashion – flexibility is essential.

Thus any draft for a new and democratic Europe would be subject to a referendum on the national level since it would need to be rooted in the will of the people. This might deprive minority countries of their right to

collective self-determination, so nations that did not wish to subscribe to such a proposal for a new and democratic Europe might negotiate a trade agreement or some form of association agreement, as is the case today with the European Free Trade Association (EFTA).[78] EFTA is entangled in part with the EU, specifically with respect to a common market, so in some cases it binds itself to EU law, while in others it does not.

1.18 Chapter summary

(Numbers in brackets refer to the section in the book)

This chapter began with the assertion that in peacetime policymaking amounts to lawmaking, because currently all policy decisions – traffic-related, environmental, social, labour market, banking and currency – are based on legislation. As such, lawmaking procedures must be in compliance with the criteria of democratic legitimation.

Those criteria are derived from the substance of the political and democratic theory of the European Enlightenment movement of the 16th to 19th centuries (1.0). Its core concern was the preservation of the human right of self-determination in the policymaking process of societies. Hence, it foresaw that the only legitimate source of policy- and lawmaking is the will of the people, which should be articulated in the representation of the people, that is, in the parliaments, and via pluralistic debate in a common public arena. This universally accessible and open common arena for debate, along with dialogue between citizens and their representatives, is the core tenet of democracy. It is in this arena that the people are able to form an autonomous political will with respect to any proposed legislation and where citizens can decide which aspect of self-determination might be sacrificed in favour of a given policy goal.

The following criteria for the democratic legitimation of any lawmaking procedure were thus derived: (1) There must be a parliament constituted by free and equal elections ('one man/woman – one vote') and vested with the right to legislate any aspect of society, otherwise policy decisions will not reflect the will of the people. (2) Any enactment of laws must be preceded by a pluralistic debate in a common public arena and in dialogue with the representatives. (3) Voting decisions by representatives must be taken autonomously and independently. This necessitates a ban on party whips. (4) All lawmaking processes must be embedded in a polity structured in accordance with the principles of (a) the separation of powers (b) subsidiarity, and (c) sufficiently specified conferral of power from the legislative branch to the executive branch.

The example of Germany's Enabling Act illustrates the utmost importance of this last criterion of sufficiently specified conferral of power, as its neglect opens the avenue for totalitarian rule. For this reason the German Constitutional Court in each of its rulings on European treaties and 'rescue

parachutes' has required the German parliament to pass special legislation whenever a conferral of power clause is invoked by European institutions. This clause is also written into the Lisbon Treaty but in practice is completely bypassed in European lawmaking (1.10).

If the democratic legitimation of lawmaking on the European level is measured against these four criteria, the result is disastrous. First, contrary to Western constitutional theory, the 'European Parliament' has no right to initiate legislation. Instead the right to initiate legislation is exclusively assigned to the unelected executive branch of the EU – the European Commission. This leads to biased lawmaking in favour of special interest groups in the EU. Whenever the EU Commission initiates new legislation, it calls upon so-called expert groups drawn from industry insiders and professional lobbyists deployed in Brussels. The regulation of the European financial sector was conducted in this way (1.3), resulting in botched regulation amounting to a textbook case of 'regulatory capture' or the de facto self-regulation orchestrated by the EU Commission.

EU legislation does not receive democratic legitimation by the fact that in some areas the 'European Parliament' must consent to legislative proposals drawn up by the executive branch. First, the 'parliament' is constituted through unequal elections. Smaller nations receive a higher number of seats pro rata than larger nations (1.4). Second, the legislative process is dominated by the executive. The first chamber of the 'European Parliament' consists of the unequally elected members of 'Parliament', while the second chamber (the 'Council') is made up of unelected officials of the executive branches of the member states (1.5). Third, whenever the 'European Parliament' refuses to consent, the legislative proposal is transferred to the 'Conciliation Committee'. In theory the 'Conciliation Committee' is made up of 28 members of 'parliament' and 28 representatives of the unelected 'Council'. Non-voting representatives of the EU Commission moderate the process. However, in practice the number is much smaller, because negotiations are delegated to a subcommittee of the 'Conciliation Committee'. Once this subcommittee reaches agreement, approval is usually waved through by the full 'Conciliation Committee' and later by the 'Parliament'. This constitutes a dramatic thinning of representative involvement and hence a further erosion of democratic legitimation, since the executive branches of the EU now need only convince a tiny number of the unequally elected 'parliamentarians' (1.5). Moreover, in other important areas of policymaking and lawmaking the 'European Parliament' has no co-decision rights at all but only the right to be heard or to be informed. This holds true for certain aspects of domestic security, antitrust and economic policy (1.4). Hence, the 'European Parliament' is a massively castrated parliament and the use of the term 'parliament' amounts to a deception of the European citizenry (1.4).

Democratic legitimation of EU legislation is hardly restored by the fact that in order for it to become legally effective, national parliaments must

pass consenting legislation. First, on a de facto basis the legislative process is basically closed when legislation reaches the national level. Second, on the national level the established political parties usually wave through the legislation, and employ the instrument of the party whip to ensure that this happens (1.4 and 1.14).

The lack of democratic legitimation of EU lawmaking is aggravated by a fairly recent phenomenon among European mass democracies: the emergence of the 'cartel party state'.

In recent decades political parties have evolved into a new ruling class due to several factors. (1) Today's politicians in their vast majority are 'professional politicians without a (civil) profession' – they depend on access to public office in order to make a living. (2) Parties in Western Europe are financed by the public purse. In the interests of transparency they have become increasingly subject to regulation regarding sources of funds, equal access to media broadcasting during election campaigns and so forth. This has transformed them into 'public service agencies'. (3) In recent years popular support for established parties across Europe has steadily declined, as have levels of party membership and ballot turnout. Popular distrust of established parties is increasing, as can be seen in Greece, France and the Netherlands. As a result the established parties have developed a type of siege mentality, increasingly retreating into an institutional world and focusing on seeking public office. At the same time, the political profiles of the various parties have become less defined (1.6 and 1.12).

All of these trends have led to the amalgamation of political parties and the state. A new ruling class with its own agenda separate from that of the electorate has emerged.

The election campaigns for the 'European Parliament' are a case in point – they are in agreement on all substantive issues, on the idea that Europe is a holy grail of its own and that we need more of it. The same is true with respect to the preservation of the single currency 'at any price'. Here again, the established parties across the political spectrum are united. In Germany in the legislative period 2009–13, for instance, the only issue dividing the opposition and the government was the question of the speed and volume of funds to be committed to the rescue. But there was no dissent in principle. This left pro-European democrats with a different view on the reasonableness and sustainability of the euro without representation in parliament. Simultaneously the tone of the political climate became more aggressive and polemical. Eurosceptics were labelled warmongers with the suggestion that exiting the EU would create a situtation analogous to that prior to World War I.

Despite increasing scepticism regarding the EU and the euro across Western Europe, the European 'cartel party class' wants to push through the idea of 'The United States of Europe'.

But the erection of a supra-national European state is a democratic impossibility. For that to happen the European people would need to form a

political will in a common public arena, but there are no EU-wide political parties acting on a common supra-national platform. The same holds true for unions and media. Hence a pluralistic public debate in a common supra-national platform cannot take place. Since the articulation of an autonomous political will of the people needs to precede the passage of legislation, the elimination of this step would deprive any such legislation of its democratic legitimation. Moreover, the German Constitutional Court has ruled that such a supra-national state would change the 'identity' of the German nation state, and would require a plebiscite. But even if such a plebiscite went through, it could not overcome the provision in the German constitution forbidding any change of its federal structure interwoven with its legislative competences (1.12).

Moreover, the institutional design of the EU edifice is contrary to every key feature of the theory of democratic legitimation. The German Constitutional Court has lambasted the notion that any legislation passed through this institutional structure could provide the faintest democratic legitimation (1.9). The basic tenets of the political theory of the European Enlightenment movement are all trampled in the setup of the institutions of the EU – separation of powers, the principle of subsidiarity (1.8), and compliance with the principle of sufficiently specified conferral of power from the legislative branch to the executive (1.10).

But despite these blatant violations of democratic state theory the European party establishment is attempting to mislead the European citizenry once more by making them believe that 'the United States of Europe' would have anything in common with a democracy.

The Western European 'cartel party states' seem to have turned into predatory elites exempt from any democratic accountability and control.

In order to put a stop to such precarious developments and in order to restore democracy, this chapter pleads for the strengthening of plebiscitary rights as a safeguard and as a measure of corrective action for the electorates. For this the Swiss constitution could serve as a blueprint (1.15). This chapter also advocates beginning the process of re-democratization on the national level. Because the national leaders of the established European 'cartel party states' were responsible for creating the undemocratic design of the European institutions, they would need to be brought under democratic control on the national level first. Once the process of re-democratization was complete on the national level, it could begin on the European level. To accomplish this, a newly and equally elected European Parliament would draft an institutional design for the EU in strict compliance with the key features of democratic theory as developed by the European Enlightenment movement – separation of powers, the principle of subsidiarity, and the principle of specified conferral of powers. Any such proposal would then be subject to plebiscites in the respective countries. Nations not choosing

to participate in such an association of shared interests could opt out and negotiate agreements allowing for participation in a common market.

During that phase of re-democratization most powers would be repatriated to the national level to prevent the continuation of special interest lawmaking on the European level. Brussels would be left only with the power to deal with the four freedoms of the common market: free movement of goods, capital, services and people.

Such a process of targeted de-integration and re-democratization would not weaken the competitive position of the EU. In fact, it was the integration of 17 different currencies into a single currency that weakend it. This integration was sold to the people as the ushering-in of a new age of stability and prosperity, but instead it created a new era of ever-growing mutual debt liabilities and austerity.

Neither would it put peace in jeopardy – the corset of the single currency in fact feeds nationalistic tensions on an increasing scale.

In Chapter 3 the sustainability of the single currency concept, the European Monetary Union (EMU), will be examined in greater detail.

2
Banking

2.0 When banking hurts society

The current state of global banking is partly the result of lawmaking.

The main feature of the current state of banking is the presence of 'too big to fail' (TBTF) banks in many of the Western economies. In countries including Germany, Ireland, Spain, Great Britain and the US, these banks had to be bailed out with taxpayers' money at the height of the GFC.

By 2012 the EU bailouts had cost Europeans roughly €300 billion in direct capital injections into banks and €3,000 billion in the form of government guarantees.[1]

In the US the funds and guarantees created by the Federal Reserve Bank (Fed) for the rescue of the banking system amounted to a startling USD 26,000 billion – almost twice the US GDP. Of those funds approximately USD 10,000 billion was used in the rescue of selected foreign banks.[2] The Fed justifies its course of action by invoking provisions created by lawmakers – in this case the Federal Reserve Act. As a result of the rescue programme, the US ended up with fewer but larger TBTF banks than before the outbreak of the GFC.[3]

In general, if the laws and regulations governing the banking system are poorly designed or created in an illegitimate way, for instance through lobbying efforts, it can negatively impact the people and deprive them of their natural right to self-determination.

The same holds true if the ruling political class – the elected political parties – embarks on a reckless, credit-financed overspending spree in order to stay in power, essentially corrupting the electorate. They will only have the power to do so, however, if two fundamental criteria are in place: (1) a financial system, designed by lawmakers, that allows for credit-financed overspending, and (2) a semi-democratic party state in which the citizens have no means to initiate corrective action, of the type seen in Switzerland.

The case of **Greece** serves to illustrate the abuse of these two enabling factors. In early 2010 the government of Greece revealed to the Eurozone members that its real debt burden was much higher than had been reported

by the previous government. It also admitted to having falsified the official numbers in order to be eligible to join the Eurozone in 2002. The ratios for eligibility, so-called Maastricht criteria (after the Maastricht Treaty, the legal foundation of the single currency union), require member states of the single currency zone not to run a fiscal deficit larger than 3 per cent of GDP and not to accrue sovereign debt of more than 60 per cent of GDP. The government of Greece declared that it would be unable to meet the Maastricht criteria for years to come. When it became clear that Greece could no longer access international credit markets at reasonable terms in order to mobilize funds, the Eurozone decided on a bailout in order to avoid the bankruptcy of a euro member state. Greece subsequently received two 'rescue packages' worth a total of €275 billion. Because the credits were accompanied by drastic austerity conditions, however, GDP dropped by €30 billion from 2010 to 2012. The level of public debt compared to GDP increased from 144.5 per cent in 2010 to 170 per cent in 2012. Unemployment reached over 26 per cent.[4] The suicide rate increased by roughly 40 per cent.

It also became clear that this societal havoc was caused by absurd welfare programmes and widespread corruption and tax evasion, to which the administration turned a blind eye. For example, the vacation scheme in Greece provided state funds to cover travel expenses, including hotel and food, for at least four days to anyone who applied. The retirement age for public servants was another example – it was set at 50, after which a state-financed pension for living expenses was provided.

The situation in Greece is an extreme case, but it serves to illustrate how a democracy can be hijacked by a clique of political parties with the freedom to go into credit-financed overspending for decades.

In the **US**, bad lawmaking created the TBTF banks and allowed them to take civil society hostage. When the GFC began, in the second half of 2007, the position of the big US banks became precarious due to the housing bubble burst, as many of the securities they held as assets were overvalued and had largely been generated in a questionable manner.[5] At the height of the crisis in September 2008, when the investment bank Lehman Brothers collapsed, there was considerable risk that the equity of the other banks would be wiped out and their liquidity put in jeopardy. In addition to the generous liquidity support of the Fed, Congress passed the so-called TARP (Troubled Asset Relief Program), assigning approximately USD 700 billion in taxpayers' money for the bailout of large financial institutions.

The large banks reached this critical state as a result of lawmaking and regulation. The situation was not precipitated by an act of God or by nature – it was induced by the banks lobbying lawmakers for years in order to pass laws on deregulation to generate additional sources of profit.[6] The most prominent example was the passage of the Financial Services Modernization Act in November 1999. This law repealed the Glass-Steagall Act of 1933 stipulating that commercial banks could not engage in investment banking

activities using customer deposits. An additional example was the deliberate non-regulation of the derivatives (OTC) market, which contributed significantly to the near-death experience of the US banking system in 2008, largely thanks to the dominance of a single economic school of thought (see section 2.6.5).

The consequences for society have been dire. Following the outbreak of the crisis in 2007 the unemployment rate rose to over 10 per cent. In the period December 2007–October 2009 alone, the economy lost 11,000 jobs per day.

According to the Food and Nutrition Service's report on the Supplemental Nutrition Assistance Program (SNAP, formerly known as the Food Stamp Program),[7] there were 46.5 million Americans in the programme, comprising 22.2 million households in 2012. That amounts to 15 per cent of the entire population, or 20 per cent of all households. This represents nearly double the number of citizens depending on food stamps in 2007 just prior to the outbreak of the GFC, which stood at around 26 million – all the result of lawmaking.

Ireland provides another example of the dangers inherent in unfettered credit creation by a national banking sector. By 2008 the assets, in particular loans, of the Irish banking system amounted to an unbelievable 800 per cent of Irish GDP.[8] When the housing bubble burst Irish banks were also faced with a near-death experience due to having financed long-term loans with short-term funding (see section 2.7.3). This funding source dried up after the Lehman failure as international banks and money-market funds (MMFs) immediately stopped lending to one another for fear of the borrower defaulting. Ireland was faced with the collapse of its domestic banking system.

To avert the crisis the Irish parliament decided to transfer the liabilities of their failed banks onto the national balance sheet.[9] By doing so, Ireland reached an unsustainable debt-to-GDP ratio and global credit markets were no longer willing to buy Irish government bonds in the face of such unsustainable ratios. To avoid national bankruptcy, Ireland was forced to take shelter under the so-called 'euro rescue umbrella'. This umbrella provided Ireland with a bridging loan of around €85 billion. However, the accompanying austerity constraints demanded massive cuts in public spending in order to put Ireland back on a path of sustainable public finance. This meant, for instance, that the public sector laid off some 25,000 people (teachers, fire fighters, police, healthcare workers), while those who remained were forced to accept a 20 per cent reduction in salary. The pensions of former public sector employees were reduced by 10 per cent. The unemployment rate soared from 4.7 per cent in 2007 to 13.6 per cent in 2010.[10]

Clearly, then, when credit creation by the commercial banking sector gets out of control it can pose a huge threat to society and negatively impact on the human right of self-determination. According to the political theory of the European Enlightenment this is only acceptable if that situation is the result

of legitimate lawmaking. Hence, one must analyse the underlying lawmaking procedures and the financial mechanics that brought those laws into life.

2.1 Two sources of banking regulation: statutes and the Basel rules

A host of statutes and regulations have been passed since 1933 in efforts to both regulate and deregulate the banking industry. However, statutes passed by parliaments are only one source of banking regulation; the other source is the Basel Accords. The provisions of the Basel Accords are the result of negotiations between the central banks and private sector banks of the 27 member countries. The name derives from the fact that the BIS, often referred to as the 'central bank of the central banks', is located in Basel, Switzerland. The rules of the Basel Accords were not made by the parliaments, the proper source of laws.[11] Instead they were made by unelected experts.

Lawmaking with respect to banking is to a considerable extent the work of an expert rulership instead of a democratic rulership. So far there have been three Basel Accords: Basel I in 1988 and its amendment in 1996,[12] Basel II in 2004 and Basel III in 2010, the last of which is expected to become effective by 2019. (In section 2.7.4 it will be shown that the Basel Accords substantially contributed to the outbreak of the GFC.)

The other level of banking regulation consists of statutes passed by national parliaments. The Federal Reserve Act, passed by the US Congress one day before Christmas Eve 1913, may be regarded as the most influential banking law in the Western world. While substantial changes have been made to the Act over the years, the fundamental principle of the so-called fractional reserve banking system has survived unscathed.

2.2 The fractional reserve banking principle – a hidden subsidy

Fractional reserve banking means that banks need only hold a fraction of their capital against customer deposits and assets like loans or derivatives. So if, for instance, Customer A puts USD 10,000 in his account with Bank A on day one, it only need be covered by 10 per cent of Bank A's capital. The remaining USD 9,000 could be lent by the bank to Customer B. Nevertheless, Customer A could still withdraw his deposit on day two and receive his USD 10,000 in full. This is because during the course of history banks realized that during normal times no more than 10 per cent of bank customers withdraw their funds at the same time. Based on this empirical evidence they gradually adopted the fractional reserve principle.

One point, however, needs to be highlighted: via the fractional reserve banking principle banks can increase the amount of money in circulation in an economy. As can be seen from the example, when Customer A withdrew

his deposit of USD 10,000 right after Bank A made the loan of USD 9,000 to Customer B, the money supply increased by USD 9,000 because Customer A can spend his USD 10,000 while Customer B can spend his USD 9,000.

If, however, Customer B puts the USD 9,000 into his account with Bank B, it again need only assign 10 per cent of its capital, or USD 900.

If the two banks represent the banking system, the total required reserves amount to only USD 1,900: USD 1,000 in Bank A and USD 900 in Bank B. The remaining funds – USD 9,000 held by Bank A and USD 8,100 by Bank B, or USD 17,100 in total – are called 'excess reserves' and are available for loans and investments by those two banks, meaning that the additional USD 17,100 can be brought into circulation via more credit.

If this algorithm were to run to the point where the 'excess reserves' created by the fractional principle shrank to zero, then the money supply in the system would amount to a total of USD 100,000 – ten times the original amount deposited by Customer A.[13] Logically, if the reserve requirements were reduced to 5 per cent, the total money supply created through credit would be 20 times the starting or real amount. This example shows that commercial banks, thanks to the fractional reserve principle, can significantly expand the money supply in the economy.

In fact, in normal times the private banking system creates around 80 per cent of the total money supply in the system. Only the remainder is created by the central banks.[14] The important point about this money supply is that it is credit-created – 'debt-money'. So, if Customer X receives a loan of USD 10,000, the bank's balance sheet on the asset side will increase by that amount because the bank has a valid claim against Customer X of USD 10,000 plus interest. The corresponding entry on the liability side is the promise of Customer X to pay that amount back according to the terms of the loan agreement. Hence, the adage that banks can 'create money out of thin air'.

This represents a highly profitable legal privilege for the banking system. Commercial banks are able to reap substantial profits via interest income thanks to the fractional reserve principle by lending the money created at the full rate of interest while paying no interest themselves. This type of income is referred to as 'seignorage' – the profit made by creating money – and the profits to be made are enormous. Huber and Robertson, proponents of a radical monetary reform, estimate the annual seigniorage profit created by commercial banks in the Eurozone at €58 billion and in the US at USD 37 billion,[15] constituting a kind of hidden subsidy awarded to the commercial banking system by lawmakers, because the interest earned by the banks represents revenue to them. In every other industry the generation of revenues or sales is offset by the cost of production. Hence, for the industrial sectors of the real economy the balance sheet would read 'interest revenue minus cost of production'. But not so for banks. Their balance sheets read 'interest revenue minus zero cost' due to the wonderful mechanics of fractional reserve banking.

The opposite system would be a 100 per cent or full reserve system. The effect in our example would be that Bank A could not lend out USD 9,000 to Customer B without asking Customer A. Should Customer A consent – let's assume Customer B pays 15 per cent interest to the bank, and the bank pays 10 per cent interest to Customer A – then Customer A could not spend this USD 10,000 at the same time as Customer B. If every loan were backed by 100 per cent of the bank's capital, the only source of credit would be deposits, in other words savings. In such an economy all credit would be backed by prior savings, the amount of credit could never exceed the amount of savings and a society could not become overly indebted and forced to accept crude austerity policies – the plague of today's advanced economies in Europe and the US.

The concept of a full reserve banking system was developed and promoted by leading American economists like Henry Simon, Frank Knight, Irving Fisher and others as a response to the Great Depression in the 1930s. It entered monetary history as the Chicago Plan for banking reform.[16] It will be further examined in section 2.11.

2.3 Consistent failure of fractional reserve banking in history

Throughout most of recorded history fractional reserve banking has been considered illegal. In ancient times people put their coins in a bank or temple for safety and convenience, receiveing in return a deposit certificate. Over time those deposit slips became recognized as a means of payment. Depositors also instructed their banks to pay third parties to whom money was owed. It was the obligation of the depositary, however, to ensure that the money would be available to the depositor immediately upon presentation of his or her certificate. An established legal principle even in ancient Greece,[17] it was codified under the emperor Justinian around AD 528 and 533.

The rule clearly states that one who receives a good on deposit and uses it for a purpose other than that for which it was received is guilty of theft and fraud.[18] The fraudulent nature of any profits obtained by using customer deposits without their knowledge, and hence with no cost to the banker, is obvious.[19] Although it was clear to bankers that abusing deposits for their own investments was illegal, they could not resist the temptation to, in today's language, leave that much capital unemployed. This temptation to use customer deposits for one's own investment purposes was already problematic in ancient Greece. As far back as the third century BC Isocrates reports the case of the Athenian banker Passio who was sued for misappropriation of customer deposits.[20] He also notes that bankers who misappropriated deposits and invested them successfully achieved an almost exponential increase in income in comparison with that of the rest of society.[21]

Of course it is also reported throughout history that when those investments failed, creditors lost their money and long periods of impoverishment ensued.

History also shows that whenever banks have started to expand the money supply via expansionary credit, financed by the – at that time – fraudulent abuse of customer deposits, it has caused an artificial economic boom followed by a profound, inevitable recession.

This cyclical pattern caused by fractional reserve banking is illustrated by the example of the rise and fall of the Italian banking industry during the Renaissance. Evidence shows that from the beginning of the 14th century bankers gradually began making fraudulent use of a portion of the money on demand deposit, creating out of nowhere a significant amount of expansionary credit.[22] This caused an economic boom in Florence. More paintings and other works of art were ordered, the income of craftsmen rose, more clothes and food could be bought and so on. Moreover, the republic of Florence had begun to finance public debt through the issuance of government bonds financed by speculative new loans created out of nowhere by Florentine banks. As a result of massive withdrawals and England's inability to repay its loans a general crisis of confidence occurred, causing all Florentine banks to fail between 1341 and 1346. According to the contemporary historian Villani, the recession was accompanied by a tremendous tightening of credit, further worsening economic conditions and bringing about a deluge of industry, workshop and business failures.

The rise and fall of the Medici bank from 1397 to 1494 also reflects the trajectory of an inescapable recession and credit squeeze following a process of great artificial credit expansion. At its final stage the Medici bank was operating with a very low reserve ratio, below 10 per cent of total assets. Hence, the bank could not meet its obligations during the recession period.

And governments were not reluctant to take advantage of the then illegal practice of fractional reserve banking. For instance, in 1401 the city of Barcelona established its municipal bank of deposit ('Taula de Canvi'). The bank was formed with the purpose of taking in deposits and using them to finance city expenditures and the issuance of government bond certificates.[23] In February 1468 the bank suspended payments because a large portion of its loans had been to the city of Barcelona and the bank was unable to satisfy depositors' demands for cash withdrawals. The bank was then reorganized and given additional privileges, including a monopoly on all deposits deriving from judicial seizures and on resources from all administrative deposits.

2.4 Symbiosis between governments and banks

The symbiotic relationship between banks and governments cannot be overstated. Once governments recognized that banks could create immense amounts of money, they began to use those funds as a source of power,

legalizing previously prohibited financing practices to their own advantage. In so doing they created an alternative source of state funding.

> This corruption of the state's traditional duty to define and defend property rights was encouraged by governments' enormous, recurrent need for resources, due to their historical irresponsibility and lack of financial control. Thus, a more and more perfect symbiosis or community of interests was formed between governments and bankers, a relationship which to a great extent still exists today.[24]

Professors of finance Anat Admati and Martin Hellwig make the same point:

> Another reason banks succeed in lobbying is that politicians and others see them as a source of funds rather than a source of risks . . . the politicians want the bankers' cooperation to make the investments the politicians favour – or campaign contributions.[25] When bankers warn that capital requirements will hurt bank lending and reduce economic growth, they are rarely challenged by politicians, not only because politicians do not see through the banks' claims but also because they do not want to upset their symbiosis with bankers.[26]

Therefore, one can conclude that whenever a ruling class, be it kings or political parties, emerges in combination with a fractional reserve banking system it will cause havoc for societies in the long run. Most Western mass democracies are scarred by sovereign over-indebtedness. This over-indebtedness is caused by the ruling class – the political parties. Due to the people's insufficient participatory rights – beyond the voting right in the four-year general election cycle – the political parties recklessly embark on credit-financed spending and 'benefit' programmes that lull societies into passivity, as in the case of Greece's state-financed vacation scheme.

A further example is the military-industrial complex in the US, a substantial contributor to the ever-increasing over-indebtedness of the US. The real cost of policing the world according to the ideas of the political establishment of the US amounts to a total of USD 960 billion, or 26 per cent of the federal budget.[27] They are financed by deficit spending. Moreover, due to ongoing trade deficits and the continuous loss of the purchasing power of the US dollar, the dollar holdings of other countries lose value as well.

This, in effect, amounts to a 'Pentagon tax' imposed on the trading partners of the US. That the US can run almost infinite deficits is due to the privilege held by the US dollar as a world reserve currency – for now.[28] However, this might change (see section 3.15).

And as always in history, when ruling classes pile up mountains of debt beyond the sovereign's debt-serving capacity, creditors and citizens lose a tremendous amount of wealth and suffering ensues. Governments and

fractional reserve banking operate together: governments make the decision to go into debt, the banks finance it and derive the profits – until the system collapses and mutual destruction sets in.

Hence, at its core, the over-indebtedness of Western societies is not a banking problem – it is a purely political problem. Therefore, the solution must originate in the political arena and not in the financial arena, as proposed in Chapter 1.

Monetary history is littered with examples of banks failing after beginning to operate on the fractional reserve principle. History also reveals this ever-repeating cycle of inducing a period of economic growth and an increase of the general price level through the expansion of the credit money supply.[29] But when the bank reach the point at which it is unable to meet its payment obligations, the bubble bursts and a long period of collective impoverishment sets in.

The systematic failure of fractional reserve banking by the private bank sector, not supported by a central bank, is thus a fact of history.

2.5 Can central banks sufficiently control the creation of credit money through the commercial banking system?

Therefore, the question arises whether central banks can prevent such boom and bust cycles, caused by the excessive creation of credit money through a commercial banking sector operating on the fractional reserve principle. And, second, can they prevent bank failures? The answer to both questions is 'no'. Take for example the case of the US central bank, the Fed, during the Great Depression in the 1930s.[30]

2.5.1 The Great Depression

When the US entered World War I in 1917 the banking system was used to provide the necessary credit in order to finance the war. Some reserve restrictions were lowered for that purpose, and so-called Liberty Bonds were sold to the public. Output capacity and money supply expanded significantly and an inflationary period set in. For instance, the index of wholesale prices had more than doubled, from 100 to 247, in the period from 1913 to 1920.[31] At the end of the war, with the European economies in ruins, economic activity in the US began to contract. The index of wholesale prices dropped from a high of 247 in May of 1920 to 141 in July of 1921. A deflationary period set in. Led by politicians and some respected economists the decision was made to stimulate the economy through credit expansion.[32] This brought about the typical phase of initial prosperity that accompanies the expansion of credit money, as it had in Renaissance Florence.

However, a fundamental problem exists with the artificial expansion of credit money supply triggered through a central bank. To stimulate the take-up of loans the bank will set lower interest rates to make those loans

attractively cheap. But this arbitrary lowering of interest rates by the central planning money agencies distorts the efficient and rational allocation of capital in an economy. If interest rates are kept artificially low by the monetary authority, it has the effect of increasing expected returns on risky assets relative to risk-free assets. Risky assets in general will become fundamentally overvalued. And risky investment projects will appear profitable, which is less risky, because the calculated returns on investment exceed the returns on the arbitrarily lowered risk-free rate. This would not be the case if the interest rate were determined by market participants. A higher risk-free rate would not allow certain investment projects or investment in shares to appear profitable, because the expected returns could not exceed the risk-free rate. Hence, leaving the setting of interest rates in the hands of central money planning agencies, instead of free markets, bears the risk of a gross misallocation of capital and investments within an economy.

> By making it more difficult to value risky assets properly and by generally inflating the value of such assets beyond what fundamentals can justify . . . [i]nvestment flows will become increasingly dominated by those who are really just speculating and chasing trends rather than making reasoned judgements about which companies offer the best potential long-term value . . . If speculators . . . are the primary force behind stock price trends, then economic resources generally are being allocated in an inefficient, haphazard way that leads to malinvestments. Such malinvestments, over time, have the effect of reducing the overall economy's potential growth rate, as they divert resources from more productive activities . . .[33]

That is what happened during the 1920s in the US.

The Fed noted in its Board report for 1927 that the credit money created by the commercial banks was going in the wrong direction and was not in sync with the development of the real economy.

> In consequence of a somewhat smaller volume of production and employment in 1927 the demand for bank credit to finance trade and industry was no larger than the year before. There was nevertheless a rapid growth of member bank credit . . . [of] 8.4 per cent. This compares with 2.1 per cent in 1926 and 5.2 per cent in 1925. That the growth of Reserve bank credit has not been due to demand for loans for industry and trade is indicated by fact that all other loans, which comprise loans for agricultural and industrial purposes as well as commercial loans, actually decreased.[34]

And indeed, at the beginning of the second half of the 1920s financial markets began to decouple from developments in the real economy. For instance, investments in the steel industry for blast furnace capacity began to fall off after 1925. Investment in residential construction and consumer

purchases of new automobiles and other durable goods had also begun to fall off, reflecting an exhaustion of individual purchasing power.[35] The index of wholesale prices peaked in 1925, then began to decline.[36] In 1926 the rampant real estate speculation in Florida that had begun around 1920 collapsed.[37]

However, these developments were ignored by the New York Stock Exchange (NYSE). Instead, securities just took the opposite, upward direction. The Index of 500 stocks in 1926 stood at 12.59 and it more than doubled to 26.02 in 1929. So did the volume of shares traded. In 1926 the volume of stock sales in the NYSE was 451 million but by 1929 it amounted to more than 1.125 million.[38]

The problem, however, was that this speculative frenzy in the stock market was credit-financed. In the beginning of a bubble cycle this can be very profitable. If the value of the shares bought increases and exceeds the cost of credit one can realize a tremendous bargain.

A drastic example can serve to illustrate these boom mechanics:

Transaction 1: A asks his or her broker on 27 July 1929 to buy 100,000 shares of Du Pont Corp. trading at USD 5. For A's total investment of USD 500,000 his or her broker requires only 10 per cent, or USD 50,000 of cash collateral and a fee of 2.5 per cent on USD 500,000, or USD 12,500. One month later the shares trade at USD 15. A calls the broker to sell the shares. So the net wealth of A has increased by almost USD 1 million (100,000 times USD 15, minus USD 450,000 credit, minus USD 50,000 cash collateral, minus fee).

Transaction 2: On 28 August 1929, A calls the broker again and asks them to buy 200,000 shares of Investment Trust X trading at USD 15 per share. Although the general price level has already increased substantially, A expects the rally to continue. His or her confidence is based on the comments of respected economists, some of them sitting on the advisory board of the Investment Trust. The broker is also confident, so they ask again for a cash collateral of 10 per cent of the total investment of USD 3 million. One month later the shares have indeed doubled to USD 30 per share. A asks the broker to sell the shares.

Hence, in two months the net wealth of A has increased from USD 50,000 (the amount of the first collateral) to USD 1 million and from there to USD 2,925 million (USD 6 million sale proceeds, minus USD 2.7 million credit, minus USD 300,000 cash collateral, minus USD 75,000 broker's fees).

Transaction 3: Blinded by these new riches A now becomes really confident. On 29 September 1929 he or she once again calls the broker and asks them to buy 300,000 shares of TOX Investment Trust – trading at USD 30 a share. And again the broker, matching the confidence level of A, asks

for a 10 per cent cash collateral of the total investment of USD 9 million, or USD 900,000. Again the broker expects to collect a fee of 2.5 per cent on the total investment of USD 9 million, or USD 225,000.

This time, however, there is a slight setback in the stock market rally – shares plunge by 6 per cent. Which means there is a loss of USD 540,000 on the total position of USD 9 million. The broker calls A and asks them to increase the cash collateral by another USD 900,000 (a so-called margin call), thus lowering A's net wealth, which stood at USD 2,925 million at the beginning of this third transaction, to USD 2,025 million.

As the situation worsens, the stock market plunges by another 12 per cent, meaning a total loss of 18 per cent on the total investment of USD 9 million, or USD 1.62 million. The broker becomes very nervous because their risk exposure in this transaction now stands at USD 7.2 million (USD 9 million purchase price minus USD 1.8 million collateral) since they also leveraged the purchase of the shares of TOX Investment Trust via bank credit. Therefore they want to drive up their safety margin from their current 20 per cent to 55 per cent – just to be on the 'safe' side. Hence, they give A another margin call, now requesting additional cash collateral of USD 3.15 million (55 per cent of USD 9 million, or USD 4.95 million, minus the USD 1.8 million already received as collateral). Since A's net wealth is only 2,025 million, A files for bankruptcy.

Finally things become really ugly. The market crashes, most of the broker's customers are unable to meet the urgently sent out margin calls, the broker defaults on their credits with the banks and the banks finally cannot meet their customers' cash withdrawals. The system collapses – all banks fail.

The important point here is that via the expansion of credit A was able to increase their initial wealth of USD 50,000 in the first two transactions by a factor of roughly 60. This can be seen as the temporary success of speculation. Second, those leveraged transactions were made possible via the mechanics of fractional reserve banking. Third, because the credit money that had flown into the securities bubble that later burst did not go into productive investments, future growth in the economy was massively constrained. For example, between 1929 and 1930 private investment fell by more than one-third and corporate profits fell consistently, from USD 10.1 billion in 1929 to USD 6.6 billion in 1930 and finally to USD 1.7 billion in 1933.[39]

That the credit expansion had grown out of control, in sharp contrast with the decline in the real economy, can be seen from a 7 February 1929 letter from the Federal Reserve Board to its member banks:

> During the last year or more the functioning of the Federal Reserve System has encountered interference by reason of the excessive amount of the country's credit absorbed in speculative security loans. The volume

> is still growing . . . The matter is one that concerns every section of the country and every business interest . . .
>
> The Federal Reserve Board neither assumes the right nor has it any disposition to set itself up as an arbiter of security speculation or values. It is, however, its business to see to it that the Federal Reserve banks function effectively as conditions will permit . . . The extraordinary absorption of funds in speculative security loans . . . deserves particular attention . . . A member bank is not within its reasonable claims for the rediscount facilities when it borrows for purpose of making or maintaining speculative loans.[40]

With this directive, or 'direct action', the Fed believed it could convince member banks that it would curb access to reserve funds if they were used to support speculation in the stock market. Four days later, it made the directive public. The Dow fell 20 points over the next three days, but quickly recovered and by the end of the week was back to record levels.[41] The plan failed for practical reasons – as the regional Fed of New York explained to the Federal Board, it was impossible to control the application of credit once it left the doors of the Fed. Therefore the regional Fed of New York and others advocated an increase in interest rates in order to curb speculation. The Board of Governors at the federal level was fiercely split over which of those two instruments would be better able to curb speculation.[42] However, at this stage of the bubble it was too late for the Fed to take corrective action without risking being blamed for having sent the economy into the abyss.[43] The mechanics of fractional reserve banking had once again worked their way through the resources of the economy and gone out of control.

The rest, again, is history. Over the period 1930–3 one-third of all US banks, or roughly 4,000, failed.[44] Industrial production in the US declined by 47 per cent and real GDP fell by 30 per cent. The wholesale price index declined by 33 per cent and the unemployment rate exceeded 20 per cent.[45] The consequences for society were disastrous.

So, in its first test, the Fed could neither control the credit money creation by the commercial banks nor prevent a tremendous number of bank failures.[46]

2.5.2 Causes of the Great Depression – academia comes into play

The following three sections briefly restate the theoretical foundations of three economic schools of thought and their explanations of the causes of the Great Depression. These arguments are still used today and have served to shape discussions of how best to overcome the GFC of 2008.

2.5.3 Monetarists and Keynesians

Academic mainstream economics lays most of the blame for the Great Depression on the failure of the Fed to prevent a contraction of the money

supply when a large number of banks began to fail in 1930. What is called here 'mainstream economics' is the dominant school of thought in economics. It dominates universities and financial institutions like the IMF, the World Bank, central banks and commercial banks. It is variously referred to as 'Keynesian', 'monetarist' and 'neoclassical' but its correct designation is 'neoclassical synthesis'.[47]

The neoclassical synthesis school has two major strands: 'monetarism', the most prominent proponent of which was Milton Friedman; the other is 'Keynesianism', named after the British economist John Maynard Keynes. Both are embedded in the dogmatic and methodological apparatus of the neoclassical synthesis, as the name suggests.[48]

Monetarism, in short, rests on the quantity theory of money. It says that changes in the quantity of money in an economic system will affect the price level and the level of economic activity. Keynesians believe the effects of monetary expansion policies to be less than those of fiscal policy. Therefore, they advocate public spending ('stimulus programmes') as the means to directly increase effective or 'aggregate' demand via government intervention.

Empirically Keynesianism has failed. Keynesianism subscribes to the multiplier theory. It assumes that one dollar of government deficit spending can produce more than a dollar of total economic output. In 2009 Christina Romer and Jared Bernstein, economic advisors to the recently elected President Obama, conducted a study with respect to the stimulus programme then being recommended. They estimated that the Keynesian multiplier would be around 1.54. The Obama programme amounted to a total of USD 787 billion. Using the multiplier of 1.54 this should have led to an additional output for the economy of USD 425 billion. Financing for the programme was in the form of additional debt. Soon thereafter two Stanford economists, John B. Taylor and John F. Cogan, carried out a far more rigorous study. They calculated the multiplier of the Obama stimulus programme at 0.96 in the early stages but showed it falling rapidly to 0.67 by the end of 2009 and to 0.48 by the end of 2010. Their study showed that by 2011, for each stimulus dollar spent, private sector output would fall by almost 60 cents.

> Two years after the Romer and Bernstein study, the economic results were in, and they were devastating to their thesis. Romer and Bernstein had estimated total employment at over 137 million by the end of 2010. The actual number was only about 130 million. They had estimated GDP would increase 3.7 per cent by late 2010; however, it had barely increased at all. They also had estimated that recession unemployment would peak at eight per cent; unfortunately, it peaked at 10.1 per cent in October 2009. By every measure the economy performed markedly worse than Romer and Bernstein had anticipated using their version of the Keynesian multiplier.[49]

It should also be noted that Keynesian theory, if not checked via increased participatory rights for society as described in Chapter 1, has an inherent tendency towards becoming somehow totalitarian – creating an 'omnipresent nanny state'. Keynes himself acknowledged that his theories were 'more easily adapted to the conditions of a totalitarian state'.[50] The ingredients of Keynesianism in combination with a semi-democratic state governed by a ruling class exclusively drawn from the ranks of political parties, in combination with a fractional reserve banking system, does indeed facilitate the expansion of government in all areas of society.

Monetarism, the other strand of the neoclassical synthesis school, in fact became the preferred platform on which modern monetary policy was built. Alan Greenspan and Ben Bernanke, former chairmen of the Fed, were among the many believers in its money supply narrative. Bernanke declared:

> Today I'd like to honor Milton Friedman by talking about one of his greatest contributions to economics, made in close collaboration with his distinguished coauthor, Anna J. Schwartz. This achievement is nothing less than to provide what has become the leading and most persuasive explanation of the worst economic disaster in American history, the onset of the Great Depression--or, as Friedman and Schwartz dubbed it, the Great Contraction of 1929–33 . . . As everyone here knows, in their *Monetary History* Friedman and Schwartz made the case that the economic collapse of 1929–33 was the product of the nation's monetary mechanism gone wrong.[51]

The opposite view, what might be called the 'credit expansion narrative', is advocated by two other economic schools of thought, designated as the 'Austrian School of Economics' and the 'Post-Keynesians'.

Their view is best expressed in the vividly written language of the financial author Richard Duncan.

> That theory – the 'Just keep the Balloon Inflated' – was wrong, and it has contributed significantly to creating the new crisis [i.e. the burst of the housing bubble in 2007]. The Great Depression was not caused because the Fed did not pump a lot of new credit into the economy when the credit created earlier by the private sector could not be repaid. It was caused because too much credit had already been created in the first place during WW I and the Roaring Twenties. Excessive credit created a boom, and the boom created the bust. The first law of macroeconomic cycles is: If you don't prevent a boom, you can't prevent the bust. The second law is: The bigger the boom, the bigger the bust.[52]

However, among most academics and central bankers monetarism became the leading mantra in the 1960s and 1970s. It rests on the assumption that

changes in the money supply are the most important cause of changes in GDP, that is, economic activity.

It states that the money supply (M) times velocity (V) equals nominal GDP, which can be broken down into its components of price level (P) and real growth (Y).

This relationship can be expressed in an equation: $M \times V = P \times Y$.[53]

Money supply is partly controlled by the Fed.[54] The Fed increases money supply by purchasing government bonds or other assets from the banks via freshly printed money. This amounts to an injection of money into the banking system. Velocity (V) means that if someone spends a dollar and the recipient spends it, then that dollar has a velocity of two because it was spent twice. If instead the dollar is put in a bank account, that dollar has a velocity (V) of zero because it was not spent at all.

The right side of the above equation, nominal GDP growth, has its real growth component (Y) and its inflation component (P). The challenge here is to have the economy achieving real growth before it changes into inflationary growth.

> Real growth in the economy is limited by the amount of labour and the productivity of that labour. Population grows in the United States at about 1.5 per cent per year. Productivity increases vary, but 2 per cent to 2.5 per cent per year is a reasonable estimate. The combination of people and productivity means that the US economy can grow about 3.5 per cent to 4.0 per cent per year in real terms. That is the upper limit on the long-term growth of real output, or Y in the equation.
>
> A monetarist attempting to fine-tune Fed monetary policy would say that if Y can grow only at 4 per cent, then the ideal policy would be one in which money supply grows at 4 per cent, velocity is constant and the price level is constant. This would be a world of near maximum real growth and near zero inflation.'[55]

However, if velocity is not constant, monetarist theory falters. And, unfortunately, velocity is not a constant. After peaking at a value of 2.12 in 1997, velocity has been declining ever since. The drop in velocity accelerated as a result of the panic of 2008, falling from 1.8 in 2008 to 1.67 in 2009 – a 7 per cent drop in one year. When consumers pay off debt ('deleveraging') and increase savings instead of spending, velocity drops, as does GDP.[56]

The problem with velocity is its psychological, or behavioural, nature. It depends on the individual expectations of households and corporations regarding the future. Negative resentments of the households and/or corporations cannot be money-printed away by a central bank. Hence in order to revive the economy the Fed needs to change mass behaviour, which inevitably involves the arts of deception, manipulation and propaganda.[57]

The fact that the psychological variable of velocity in the monetarist equation can hardly be predicted nor sufficiently controlled by a central bank is not the only weakness of monetarist theory.

Up until the early 1980s monetary policies based on monetarism were successfully employed by the Fed and the Bank of England. However, as the 1980s progressed monetarism lost credibility as it became clear that monetary targeting did not always deliver the expected results. In particular, the velocity of money (V) proved to be erratic and oscillated frequently. Richard Duncan explains:

> Monetarists blamed the divergence between theory and practice on the changing nature of money. By definition, the money supply comprised two components, money in circulation and demand deposits at banks. The monetarists understood that the nature of money had begun to change. In the 1980s, they began to look for a broader definition of money that would encompass other money-like instruments in addition to cash and demand deposits. New monetary aggregates were devised[58] . . . It had been hoped that some broader definition of money would produce the stable relationship between the quantity of money and the price level that the quantity theory of money asserted should exist. None of the new monetary aggregates succeeded in generating results anticipated, however.[59]

The Fed's responses to the GFC rely heavily on the steering of the money supply, evident in the various ongoing 'quantitative easing' programmes adopted by the Fed and other central banks. Central banks believe that with a drastic increase of the money supply they can stimulate the economy, that is 'aggregate spending'.

2.5.4 Austrian School of Economics

The Austrian School of Economics,[60] like the Post-Keynesians, maintain that all efforts put into the increase of the money supply will ultimately fail – for a variety of reasons.

The Austrian School claims that the primary problem of the neoclassical synthesiss is that its economic models work with overly abstract macro-aggregates, lumping together various sources of demand into one variable like 'aggregate demand'. By doing so it ignores the multilayered production structure of the real economy and the dimension of time – economic activity begins at stages furthest from consumption and is shaped by subjective assumptions of entrepreneurs about an uncertain future. For instance, a mining company will not start a new exploration project based on an increase in the money supply – its investment horizon is several years. Moreover, there are many interim stages in the production structure of an economy that clearly exceed a one-year horizon, from extracting and refining raw materials

to transforming them into multiple forms of semi-finished product and finally the end product. A drop in consumer demand will be felt immediately by the seller to the end consumer, but only after some delay by those sectors of the industry furthest from the end product; consumption and production cannot occur simultaneously.

Monetarists and Keynesians alike, however, assume a fixed and simultaneous relationship between consumption and investment.[61] This assumption, contrary to common sense, is the product of the methodological axiom underlying the neoclassical synthesis, binding together in simultaneous equations non-simultaneous economic processes of great magnitude – as if those processes occurred at the same time. Hence they operate with static models, rather than dynamic models reflecting the time dimension.[62]

To the Austrian School, nothing could be further from the truth and contrary to economic reality. Monetarists fail to take into account the interaction between agents of the multiple layers of the productive economy over time. Entrepreneurs are not robots who react in a prescribed manner. And given that they continuously form expectations regarding an uncertain future due to the extended time horizon of their projects, their subjective expectations might differ from those of the central planning agencies.

Moreover, the Austrian School maintains that investments should only be financed through prior savings in an economy. If they are instead financed by credit expansion, they will produce malinvestments that must be written off at a later point in time. At the beginning of a boom cycle banks keep interest rates low in order to attract business and to grow their balance sheets, so investment projects are designed with profitability significantly dependent on low interest rates. This creates overcapacity in any given industrial sector, leading banks to increase interest rates to offset their increasing risk, which in turn renders the profitability of many projects zero or even loss-making. Finally, economic implosion occurs. This cycle was also observed and analysed by Hyman Minsky.[63]

The arbitrary setting of interest rates through central banks in an attempt to control the fractional reserve banking sector inhibits the discovery of a free or natural rate of interest through free market mechanisms. Hence, to the Austrian School, 'artificial' credit expansion is the true source of the boom and bust cycle.[64] In their view the key enabler of credit money expansion is the fractional reserve banking principle, in combination with interest rates arbitrarily set by central banks. They advocate the abolition of the fractional reserve banking system in favour of a full reserve system on the theory that only credit created through prior savings in an economy can prevent the ever-increasing boom and bust trend.

The problem inherent in overly abstract macro-aggregates was addressed by Sarah Bloom Raskin, a member of the Board of Governors of the Fed and of the 'mainstream camp', in a 2013 speech. Ms Raskin referred to a possible correlation between the increasing inequality of income and wealth and the

key variable of 'aggregate demand' in the neoclassical economic models. She observed the following:

> About two-thirds of all job losses in the recession were in middle-wage occupations – such as manufacturing, skilled construction, and office administration jobs – but these occupations have accounted for less than one-fourth of subsequent job growth. In contrast, the decline in lower-wage occupations – such as retail sales, food service, and other lower-paying service jobs – accounted for only one-fifth of job losses and more than one-half of total job gains in the recovery . . . The typical macroeconomic analysis focuses on the general equilibrium behavior of 'representative households' and firms, thereby abstracting from the consequences of inequality and other heterogeneity across households and instead focusing on the aggregate measures of spending determinants, including current income, wealth interest rates, credit supply, and confidence or pessimism. In certain circumstances, this abstraction might be a reasonable simplification . . . However, the narrative I have emphasized places economic inequality and the differential experiences of American families, particularly the highly adverse experiences of those least well positioned to absorb their 'realized shocks', closer to the front and center of the macroeconomic adjustment process. The effects of increasing income and wealth disparities – specifically the stagnating wages and sharp increase in household debt in the years leading up to the crisis, combined with the rapid decline in house prices and contraction in credit that followed – may have resulted in dynamics that differ from historical experience and which are therefore not well captured by aggregate models.[65]

2.5.5 Post-Keynesians

That is exactly the point on which the 'Post-Keynesians' focus.[66] They claim that the quantitative modelling techniques used by the neoclassical synthesis are based on untenable and pseudo-scientific assumptions.

Neoclassical synthesis bases its economic models on three fundamental assumptions.

First is the equilibrium dogma, ideologically rooted in the work of the English economist Adam Smith (1723–90) and the English philosopher and advocate of utilitarism, Jeremy Bentham (1748–1832). They maintain that the best social outcomes result from each individual looking after his or her own self-interest: the market will ensure that the welfare of all is maximized. The equilibrium dogma implies that the dynamic relationship between supply and demand necessarily leads to (1) a stable equilibrium state and (2) the best possible arrangement of prices with the most productive allocation of resources. Adam Smith coined the term 'invisible hand' for this result, leading in an invisible manner to the state of equilibrium – the balance of demand and supply in any sector.

Proofs of concept are usually given in the form of examples of consumer goods: assuming the demand for sugar goes up, so too will its price, so supply will be expanded and prices will finally come down, leading to a perfect balance of supply and demand. Any disturbances leading to a state of disequilibrium are 'explained' as external shocks, like natural disasters or government intervention.

Second is the rational agent dogma, claiming that consumers – or agents – form their buying preferences in a strictly rational and therefore predictable manner. In identifying their optimal utility profile, agents permanently compute the trade-off between their income and the prices of the goods or services they wish to obtain. It is assumed that they know all those prices. The driving force behind rational decision-making is the permanent optimization of self-interest (Bentham). It further states that individuals make their preference decisions independently of one another – in other words that, contrary to empirical evidence (fashion and brand building, for example), the decisions of one group of individuals do not influence the decision-making processes of others.

Third is the efficient market hypothesis (EMH), holding that in an ideal market all relevant information will already be priced into a security. Investors are solely interested in maximizing wealth and so will respond in a rational way to price signals and new information. The hypothesis also assumes that new information is factored into prices immediately. Since markets price in all available information, they can only be beaten by chance.

These three axioms are central to the design of the quantitative economic models used by followers of the neoclassical synthesis. The model most frequently used by academics, central bankers and other financial institutions is the 'Dynamic Stochastic General Equilibrium' model (DSGE).[67]

Post-Keynesians, on the other hand, use a different set of assumptions. Their quantitative economic models rely on accounting techniques, as opposed to dogmatic assumptions, to map the documented flow of funds in an economy. The financial sector is explicitly modelled as separate from the real economy. Post-Keynesians do not assume a rational and permanent optimization of the economic agents, as does the DSGE model; rather, they assume non-optimizing behaviour by economic agents in an environment of uncertainty.[68]

The most illustrative post-Keynesian model is that of Michael Hudson, in which the financial sector is shown separately and labelled the 'FIRE' sector (FIRE = Finance, Insurance, Real Estate).

The FIRE sector includes all sorts of wealth-managing non-bank firms (pension funds, insurers, money managers, merchant banks, real estate agents and so on), as well as deposit-taking banks, which generate credit flows. It is conceptually separate from the real sector comprising governments, firms and households.

Liquidity from the FIRE sector flows to firms, households and the government as they borrow. It facilitates fixed capital investment, production and consumption, the value of which – by accounting necessity – is jointly equal to real sector income in the form of profit, wages and taxes plus financial investment and obligations (principally, interest payments). Funds originating in the banking part of the FIRE sector either circulate in the real economy or return to the FIRE sector as financial investments (equities, bonds) or in payment of debt service and financial fees. Total credit flows normally increase year on year, reflecting positive profit and interest rates.

Thus there is a trade-off between the financing of production (out of retained earnings and fresh lending) on the one hand, and credit flows returning to the financial sector on the other.

By accounting identity, any credit flows to firms and households exceeding the growth of investment, production and consumption in the real economy will be held as wealth, and so invested in FIRE sector assets. This extra liquidity inflates the money value of financial assets (housing, stocks, bonds, currency, derivatives and so forth). Through their rising net worth, firms and households can – if lending regulations allow – borrow more against their collateral; and if they believe it to be sustainable, they will.

This means that banks create additional credit that is then invested in the FIRE sector, further pushing up asset prices. Each flow of credit has its balance sheet counterpart in increased debt levels for firms and households. The new situation is characterized by (a) higher returns on financial assets relative to real economy investment, and (b) a larger part of the credit flow going towards debt-servicing and financial fees, and a smaller part to investment in the real sector. In the course of this financial boom, the fraction of the economy's total returns absorbed up front by the financial industry rises and the *function of the financial system* in the economy *changes* from *supportive to extractive*. Consumption – and the production that depends on it – may become financed more by fresh credit and debt flows from the FIRE sector based on its capital gains than by real sector wages and profits. Thus net saving by firms and households may fall and even turn negative.

An accounting (or balance sheet) view of the economy makes it clear that this dynamic – a bubble – is unsustainable in the sense that it is constrained by the real economy's ability to service debt. *Hence debt growth is the central factor in undermining the financial sustainability of economic growth.*

The structure of the flow-of-funds models allowed their users to distinguish between financially sustainable and unsustainable growth, and by this to anticipate the bursting of the housing bubble.

According to those models growth is financially sustainable when the economy expands, with constant fractions of credit flows going to the financial and real sectors. Debt burdens remain serviceable, and the FIRE sector cannot have a bad loan problem. If, however, debt grows significantly faster

than the real economy then its debt service capability becomes endangered. Extending credit to purchase assets already in place bids up their price. Prospective homebuyers need to take on larger mortgages to obtain a home. These payments divert revenue of consumers and businesses from being spent on consumption or new capital investment. The effect is deflationary for the economy's product markets, and hence consumer prices and employment, and therefore wages. This is why there was a long period of low inflation but skyrocketing asset price inflation.[69]

The combination of ever-rising asset prices with a stagnating wage level finally leads to an asset price crash, causing negative equity. Yet homeowners and businesses must still pay off their debts.

In contrast to this line of reasoning, the prevailing belief among the neoclassical synthesis establishment regarding the 'sudden' housing bubble burst in 2007 is that 'no one could see this coming'.

It would be more accurate to say, 'no one from the neoclassical synthesis establishment could see this coming', because Austrian School followers, Post-Keynesians and others clearly did so and made their concerns known.[70] But their warnings fell on deaf ears – they represent a minority movement in the economic guild and have no representatives in the central banks, government advisory committees or the IMF.

In sharp contrast to the forecasts of the heterodox economists, those generated by the DSGE models for the year 2007, the year of the outbreak of the GFC, represent a string of consistent and utter failures.

Two representative examples:

(1) In its *Economic Outlook* of 7 June 2007, the Organisation for Economic Co-operation and Development (OECD) took the view that the US slowdown was not heralding a period of worldwide economic weakness, unlike, for instance, that of 2001. Rather, a 'smooth' rebalancing was to be expected, with Europe taking over the baton from the United States in driving OECD growth.

> Recent developments have broadly confirmed this prognosis. Indeed, the current economic situation is in many ways better than what we have experienced in years. Against that background, we have stuck to the rebalancing scenario. Our central forecast remains indeed quite benign: a soft landing in the United States, a strong and sustained recovery in Europe, a solid trajectory in Japan and buoyant activity in China and India. In line with recent trends, sustained growth in OECD economies would be underpinned by strong job creation and falling unemployment.[71]

In its December 2007 forecast the OECD predicted GDP growth of 2 per cent in the US for 2008, while in fact it declined by 3.5 per cent.[72]

(2) The US President's Council of Economic Advisors, in its 2007 *Economic Report of the President*, stated:

> The Administration's forecast calls for the economic expansion to continue in 2007 and beyond, although the pace of expansion is projected to slow somewhat from the stronger growth of recent years. The unemployment rate is projected to edge up slightly in 2007, while remaining below 5 percent. Real GDP growth is projected to continue at around 3 percent in 2008 and thereafter, while the unemployment rate is projected to remain stable and below 5 percent.[73]

The prediction that unemployment would remain below 5 per cent was obviously wildly wrong – by the end of 2008, the unemployment rate was in fact 7.2 per cent.

The record of failure continued in subsequent years. The 2008 report made the following forecasts (note in particular the 'forecast' that unemployment would be below 5 per cent between 2008 and 2013). The 2009 report, submitted to Congress and the incoming president in January of that year, mocked the 2008 report but still drastically underestimated the severity of the downturn: it forecast that unemployment would peak at 7.7 per cent in 2009 and growth would remain positive for five years.[74]

Since the forecast record of the IMF wasn't any better, its Independent Evaluation Office (IEO), in the aftermath of the outbreak of the crisis in 2007, carried out a study of why the IMF had also utterly failed to recognize the looming crisis.[75] Among the many embarrassing findings was:

> IMF economists tended to hold in highest regard macro models that proved inadequate for analyzing macro-financial linkages. The dynamic stochastic general equilibrium (DSGE) model that was the work horse for policy discussions introduced money and asset market in only the most rudimentary manner.[76]

2.5.6 Conclusion as to the causes of the Great Depression

Neither camp of the neoclassical synthesis offers a consistent theory of the business cycle. Their only explanation for the cycle is based on mysterious, unpredictable, real shocks, and they are ultimately incapable of explaining why such shocks regularly recur and consistently exhibit the same typical features.[77]

As Minsky remarks:

> In neoclassical theory, markets absorb disturbances from outside and transform them into displacements from equilibrium and into determinants of a new equilibrium. To the neoclassical synthesis, deviations from a full employment-stable price level equilibrium have to be explained by

> shocks; strong deviations, such as the Great Depression of the 1930s, the chronic and accelerated inflation of the mid 1960s through the 1970s, and the serious recession of 1974–75 and 1981–82, have to be explained by strong shocks. Thus, in the neoclassic view 'outside' disturbances are responsible whenever the performance of the economy is unsatisfactory. The usual villains are the monetary system and the government. No differential effects of monetary changes depending upon the behavior and evolution of money institutions, e.g. financial innovation and deregulation, and markets is allowed – in particular the causation always runs from money to economic disturbances rather than from changing economic circumstances to monetary changes.[78]

In the view of these 'heterodox' economists, the contractionary money supply policy applied by the Fed in the aftermath of the stock market crash in October 1929 was not the cause of the Great Depression. Instead it was generated by an out-of-control expansion of credit money. Friedman nevertheless continued to deny a relationship between credit expansion and the subsequent contraction, while the Austrian School maintains a correlation between credit expansion, microeconomic malinvestment and the following recession, rather than between economic expansion and recession.[79]

Both the Austrian School and the Post-Keynesians maintain that the out-of-control credit expansion in the years preceding the 1929 crash was the real cause of the Great Depression.[80]

As shown, the economic models (DSGE) employed by the neoclassical mainstream utterly failed to predict the burst of the housing bubble towards the end of 2007. The only explanation they offer is: 'nobody could see this coming', whereas both Austrians and Post-Keynesians did see it coming, and could explain why it was coming.

A deeper examination of the validity of the principal assumptions of mainstream economics is warranted because current economic policy responses by central banks and politicians are still based on those assumptions.

2.6 When economic 'science' hurts society – intellectually flawed foundations of the neoclassical synthesis

The preceding section looked at the three core dogmas of the neoclassical synthesis: equilibrium, the rational agent and the efficient market. A host of scientific research and empirical evidence convincingly shows that they are nothing more than dogmas, with no connection to reality, similar to the mediaeval scholastic that taught that the earth is flat and at the centre of the galaxy; anyone disagreeing would be excommunicated from the ~~neoclassical~~ church. And what was liturgy to the mediaeval church is methodology to the neoclassical synthesis.[81]

One root of the failure of the neoclassical synthesis school dates more than a hundred years back to the British economist William Stanley Jevons (1835–82). He demanded:

> It is clear that Economics, if it is to be a science at all, must be a mathematical science. . . Many persons seem to think that the physical sciences form the proper sphere of mathematical method, and that the moral sciences demand some other method – I know not what. My theory of Economics, however, is purely mathematical in character. . . To me it seems that our science must be mathematical, simply it deals with quantities.[82]

Hence, neoclassical economics began to model itself on 17th-century Newtonian mechanics instead of one of the developing sciences of its day, like electromagnetic physics.[83] Neoclassical economy has been trying ever since to mimic mathematical physics in order to appear scientific.

In order to boost its scientific credibility, the economic guild invented in 1968 the 'Nobel Prize' for economic science – which simply does not exist. However, with this marketing coup the economic guild was able to accumulate enormous symbolic capital that greatly inflated the symbolic power of the discipline of economics in the public mind.[84]

Neoclassical economics lacks laboratories in which to conduct empirical experiments and verify or falsify certain assumptions. In sharp contrast to the natural sciences, for which the 'real' Nobel Prize was created in 1904, none of the many mainstream economists who have received the Bank of Sweden Prize have been recognized for confirmed empirical predictions. The opposite happens in physics. For example, string theory is today the dominant paradigm in many physics departments. However, it has not been awarded a single Nobel Prize primarily because it has not yet generated confirmed predictions that are not also consequences of rival theories.[85]

Newtonian celestial mechanics is characterized by regular event features. It is highly questionable whether complex social systems are similarly characterized by regular event features and not rather by irregular event features. This lack of empirical back-testing, however, was replaced by the methodological criterion of consistency. Consistency requires that any (mathematical) reasoning is in accordance with the underlying (qualitative) assumptions. Moreover, in order to be able to mathematically describe some of the fundamental assumptions of neoclassical economics, additional assumptions had to be built in, which in some cases contradict reality and common sense.[86]

When rigid methodology dictates the way in which reality is investigated, and not the other way round, the result is a scholastic edifice. No one would promote the idea that medical research would only qualify as scientific if it replaced experiments with mathematics. The same holds true for chemistry, molecular biology and the other areas of social science besides economics.

Mathematics may be a useful tool, but it cannot be the only tool as it is in neoclassical economic reasoning. Neoclassical economics has become irrelevant in the quest to explain reality. Unfortunately, that irrelevance does not hold true in the field of policymaking and in particular in shaping the minds of Western central bankers.

The British economist John Kay describes the current research endeavour of the neoclassical school as follows:

> **Rigour** and **consistency** are the two most powerful words in economics today.
>
> They have undeniable virtues, but for economists they have particular interpretations. Consistency means that any statement about the world must be made in the light of a comprehensive descriptive theory of the world. Rigour means that the only valid claims are logical deductions from specified assumptions. Consistency is therefore an invitation to ideology, rigour an invitation to mathematics . . . Consistency and rigour are features of a deductive approach, which draws conclusions from a group of axioms – and whose empirical relevance depends entirely on the universal validity of the axioms. The only descriptions that fully meet the requirements of consistency and rigour are complete artificial worlds . . .[87]

2.6.1 Equilibrium dogma

Paul Samuelson, rewarded with the so-called Nobel Prize in Economic Sciences, wrote:

> The bare outlines of a competitive profit-and-loss system are simple to describe. Everything has a price – each commodity and each service. Even the different kinds of human labor have prices, usually called 'wage rates'. Everybody receives money for what he sells and uses this money to buy what he wishes. If more is wanted of any one good, say shoes, a flood of new orders will be given for it. This will cause its price to rise and more to be produced. Similarly, if more is available of a good like tea than people want, its price will be marked down as a result of competition. At the lower price people will drink more tea, and producers will no longer produce so much. Thus equilibrium of supply and demand will be restored. What is true of the markets of consumers' goods, is also true of markets for factors of production such as labor, land and capital inputs.[88]

This final sentence provides a convincing explanation of how equilibrium is established in the marketplace for goods, but when it comes to the markets for labour, land and capital inputs, there is no explanation of the mechanisms through which equilibrium is established – except for simple assertion.[89]

However, in real life, counter-examples to Samuelson's ideal world can easily be found.

One is the market for fine arts, in which demand is frequently stimulated precisely because supply cannot be increased in the manner required for market efficiency – because Rembrandt is dead. The same holds true for a more important market like the oil market, where constrained supply is prompting higher speculative demand. While consumers of oil are in fact reducing their oil purchases in response to supply constraints and higher prices, speculators in oil are moving in the opposite direction and increasing their purchases. Those simple examples show that the real world is not behaving the way neoclassical synthesists would like it to behave.

Hyman Minsky also argued against the transfer of the simple equilibrium mechanics of trivial consumer goods to the more complicated financial sector:

> In today's standard economic theory, an abstract nonfinancial economy is analyzed. Theorems about this abstract economy are assumed to be essentially valid for economies with complex financial and monetary institutions and usages. As pointed out earlier, this logical jump is an act of faith, and policy based upon the neoclassical synthesis rests upon this act of faith. Modern orthodox economics is not and cannot be a basis for a serious approach to economic policy.[90]

And the professed Post-Keynesian economist Steven Keen writes:

> For equilibrium to be restored, this disequilibrium must set off dynamic processes in supply and demand which cause them both to converge on the equilibrium price. This dynamic process of adjustment will obviously take time. However, in general, economists simply assume that, after a disturbance, the market will settle down to equilibrium. They ignore the short-term disequilibrium jostling, in the belief that it is just a short-term sideshow to the long-run main game of achieving equilibrium.[91]

Keen further refers to the work of the American mathematician and meteorologist Edward Lorenz, a pioneer of chaos theory. His experiments showed that natural systems display complex cyclical behaviour with unstable equilibria. Hence, if they are unstable, neither the initial nor the final position of the model will be in an equilibrium position:

> Extrapolating from [these] models to the real world, actual economic variables are likely to always be in disequilibrium – even in the absence of external shocks (or 'exogenous' shocks, as economists prefer to call them), which is the usual economic explanation for cycles – and the conditions which economists have 'proven' apply at equilibrium will therefore be irrelevant in actual economies.[92]

The problem with the equilibrium dogma is that it represents an a priori article of faith rather than the outcome of a process of scientific research. Scientific research shows the opposite – most systems are highly dynamic and unstable.

The British economist and chronologist of the history of economic thought Mark Blaug concluded:

> In short, after a century or more of endless refinements of the central core of general equilibrium theory, an exercise which has absorbed some of the best brains in twentieth-century economics, the theory is unable to shed any light on how market equilibrium is actually attained, not just in real-world decentralized market economies but even in the blackboard economies beloved of modern general equilibrium theorists. . . We must perforce conclude that general equilibrium theory as such is cul-de-sac: it has no empirical content and never will have empirical content.[93]

The main difference between the orthodox neoclassical synthesis and the heterodox camps like the Austrian School, the Post-Keynesians and Hyman Minsky is that the latter have produced a considerable body of evidence that disequilibriums in markets are not caused by external forces but by internal forces. According to this body of research, the equilibrium dogma has nothing in common with reality.

This view receives support from another movement within economics, one that did not persevere with the Newtonian world of the 17th century but instead looked at the state of affairs in physics in the 20th century, hence its name: econophysics.

In the 1980s the physicists Per Bak and Kan Chen developed a theory of 'self-organized criticality' based on their observations of sand piles. When grains of sand are poured onto a flat surface, a critical point of equilibrium is reached where the amount of sand added is balanced by the amount of sand it dislodges, so that the pile stops growing. At this point, the addition of more sand can create an avalanche. In a market that exhibits self-organized criticality, prices can behave very similarly to those in an information cascade.[94] Bak and Chen note their model's implications for the economy:

> Conventional models assume the existence of a strongly stable equilibrium position for the economy, whereby large aggregate fluctuations can result only from external shocks that simultaneously affect many different sectors in the same way . . . If, on the other hand, the economy is a self-organized critical system, more or less periodic large-scale fluctuations are to be expected even in the absence of any common jolts across sectors.[95]

Hence the dynamics of a system characterized by self-organized criticality are intrinsic and do not require extrinsic inputs. In essence, the sand pile

alternates between a self-defined state of equilibrium and the disequilibrium of an avalanche.

The empirical failures of the general equilibrium paradigm are well known:

- in the stock market crash of 19 October 1987 the market fell by 22.6 per cent in one day;
- during the so-called Tequila Crisis of December 1994 the Mexican peso fell 85 per cent in one week;
- in September 1998 Russia defaulted on its sovereign bonds and as a consequence the well-known hedge fund Long Term Capital Management (LTCM) nearly collapsed, threatening to take down the financial system – a crisis averted only by the Fed's orchestration of a bailout by a consortium of international banks;
- from March 2000, when the dot.com bubble began to fade away, the NASDAQ fell 80 per cent over 30 months.

According to the general equilibrium paradigm, events of such extreme magnitude either should not happen at all or at most once every 100 years.

The occurrence of so many extreme events in just over 20 years is completely at odds with the predictions of stochastic methodology in a normally distributed paradigm. The majority of neoclassic economists treated these events not as fatal flaws in the general equilibrium paradigm but rather as anomalies to be explained away.[96]

As will be shown in section 2.6.3, the normal distribution pattern cannot adequately describe event probabilities. Instead, one of the most common degree distributions in nature, which accurately describes many phenomena, is the power law, which shows that the severity of an event is inversely proportional to its frequency, with the proportionality expressed as an exponent. Power laws are able to explain many of the behaviours of complex systems in the natural and social sciences like earthquakes, forest fires, sun spots, polarity, drought, epidemiology, population dynamics, size of cities, wealth distribution and so on.

> This is all part of a more general movement in many natural and social sciences from the 19th and early 20th century equilibrium models to non-equilibrium models; this trend has now caught up with financial economics.[97]

2.6.2 Rational agent dogma

The equilibrium dogma on its own does not, however, sufficiently explain the inner workings of a complex economy. It is rather a metaphysical statement about a system, but not about the individuals acting within. Here the 'rational agent theory' comes into play – claiming to define how individuals will act and behave.

This theory has its roots in the work of Jeremy Bentham and his philosophy of utilitarianism.[98] Bentham viewed the pursuit of pleasure and the avoidance of pain as the underlying causes of everything done by humans, and phenomena such as a sense of right or wrong as merely the surface manifestations of these deeper drives. He applied this principle of utility to the society as well as to the individual – he reduced society to a sum of individuals:

> The community is a fictitious body, composed of individual persons who are considered as constituting as it were its members. The interest of the community then is, what? – The sum of the interests of the several members who compose it. It is in vain to talk of the interest of the community, without understanding what is in the interest of the individual.[99]

In order to turn this statement into a theory of neoclassical scholarship two tasks had to be achieved: 'to express Bentham's analysis mathematically, and to establish mathematically that it was possible to derive social utility by aggregating individual utility'.[100]

However, the mathematical expression of this thesis turned out to be impossible, so that extremely strict assumptions had to be made in order to facilitate a mathematical expression.

In general, the rational agent dogma declares that, contrary to empirical research,[101] economic agents behave in a strictly rational manner. They are assumed to be driven solely by the desire to extract the maximum utility out of the economic system for themselves. And this continuous self-optimization is supposed to take place in a strictly rational manner. Strict rationality means that it is based on two further assumptions: (1) economic agents calculate their self-optimization only according to the twin determinants of price level and income; (2) they do this in a context-independent manner, which means that they are not influenced by the behaviour of others. Moreover, to allow for a mathematical formulation of the aggregate demand in an economy it was necessary to introduce further restricting assumptions[102] – otherwise the maths available could not have coped with the 'proof' of that dogma. It is assumed (a) that private households and firms have identical utlility preferences and (b) that those do not change over time.

The Australian economist Steve Keen comments:

> The absurdity of these conditions is obvious . . . One of the many ways in which we are human is that we change, and the consumptions of youth give way to different expenditures as we grow older . . . The economic theory of consumer behavior collapses then to this: if the market economy has only one consumer, and that consumer only ever consumes the one commodity, then individual utility can be summed to yield social utility. Any sane person would at this point abandon the initial theory that society can be treated as a simple sum of the individuals in it. Instead, economists

> actually accept the restrictions cited above: that either all individuals are identical, or society consists of just one individual.[103]

Moreover, to make that theory effective a totally unrealistic computational capability is required of the rational agent. Keen gives the following example:

> Let's consider a supermarket shopping trip and the simplest possible combination of commodities: the decision whether to buy or not to buy each commodity. How many different combinations does the consumer have to have a preference ranking for?
>
> With the standard two dimensional (two commodity) diagram, there are just four combinations; with three commodities, there are eight combinations; with four commodities there are 16 combinations, with five 32, and so on. With a small number of commodities, this isn't a problem. But what happens when the consumer attempts to fulfill the axioms of rational behavior in the local supermarket? You wouldn't go too far wrong in estimating that the average supermarket contains about 1,000 different commodities. Each "buy/not buy" bundle thus contains 1,000 entries, so there are 2^{1000} combinations – roughly 10^{300}, or 10 followed by 300 zeros.[104]

Keen further maintains that the weight of a human brain capable of instantly performing those computations would amount to ca. 10^{274} tons, or roughly 10^{224} times the estimated mass of the universe.

2.6.3 Efficient market dogma

The efficient market hypothesis (EMH) 'is the intellectual bedrock on which orthodox financial theory today sits'.[105]

It asserts that financial markets are 'informationally efficient', or that prices on traded assets (stocks, bonds or property) already reflect all known information and instantly change to reflect new information. Therefore, according to the theory, it is impossible to consistently outperform the market by using any information that the market already knows, except by chance. Information or *news* in the EMH is defined as anything that may affect prices that is unknowable in the present and thus appears randomly in the future.

The EMH does not allow for asset price bubbles or busts; under this theory the wild asset price swings commonly referred to as bubbles are nothing more than markets responding to changing fundamentals.

So what is required by the EMH is that investors' reactions be **random** and follow a **normal distribution** pattern so that the net effect on market prices cannot be reliably exploited to make an abnormal profit. Randomly means, for instance, that share prices exhibit **no serial dependencies**, meaning that there are no past patterns for asset prices. This implies that future price movements are determined entirely by information not contained in

the price series. Past behaviour does not influence future behaviour and all market participants adhere to **rational** decision-making and share **homogeneous** expectations, which means identical expectations.

In his book *The (Mis)Behaviour of Markets* the late French-American mathematician Benoit Mandelbrot subjects each of these key criteria of the EMH – randomness, normal distribution of events, no serial dependencies, rational behaviour and homogeneous market expectations – to the test of empirical evidence in analyses carried out either by him or, in most cases, by other leading (heterodox) economists.[106]

The results are annihilating to mainstream economic theory:

1. Neither shares nor currencies fit into the pattern of a **normal distribution**; big leaps in the standard deviation occurred 2,000 times more often than expected in the standard model. According to the rules of Gauss, leaps with more than five times the standard deviation should have occurred only once every 7,000 years.

   In the realm of currency trading the US dollar swung by 5.1 standard deviations within one day. If exchange rates followed the Gauss distribution, this should have occurred only once in a century; the biggest drop of the US dollar vs. the Japanese yen amounted to 10.7 deviations.

   That means under the regime of normal distribution, 'even if the Citigroup had been trading since the "big bang" roughly 15 billion years ago, such an event never should have occurred'.
2. Share price movements are dependent and not random. A study by Campbell Harvey covering the 16 most influential stock exchanges in the world found that the more intensive the movement of a share in one month, the higher the likelihood the trend would continue in the next month.

James Rickards also objects to two assumptions in particular: the assumption of rational behaviour and the assumption of the normal distribution of probability events.

The rational behaviour assumption is called into question by the work of psychologists and economists Kahneman and Tversky, who laid the ground for experimental economics. In a series of extensive laboratory experiments and surveys they showed that rather than exercising rational decision-making, individuals instead rely on 'rules of thumb'. In particular, they proved that their subjects were incapable of analysing complex situations and making decisions when the consequences were uncertain.[107] Hence, there is no experimental proof that market participants share rational and homogeneous expectations. Rather, those experiments suggest that market participants are driven by irrational and heterogeneous expectations. Kahneman received the Nobel Prize in Economics in 2002 for his work.[108]

Despite these empirical findings the 'father' of EMH, American economist Eugene Fama, stated in 2007 in an interview:

> The word 'bubble' drives me nuts . . . housing markets are less liquid, but people are very careful when they buy houses. It's typically the biggest investment they're going to make, so they look around very carefully and they compare prices. The bidding process is very detailed.[109]

Rickards' second objection is to the assumption of the normal distribution of event probabilities in financial markets. In most complex systems the severity of an event is determined by an exponential distribution rather than by a normal distribution. Hence, any description of a complex system with a normal distribution assumption will necessarily fail to reflect reality.

The Dutch-American chief economist at Citigroup, Willem Buiter, concludes:

> In both the New Classical and New Keynesian approaches to monetary theory (and to aggregative macroeconomics in general), the strongest version of the efficient markets hypothesis (EMH) was maintained. This is the hypothesis that asset prices aggregate and fully reflect all relevant fundamental information, and thus provide the proper signals for resource allocation. Even during the seventies, eighties, nineties and noughties before 2007, the manifest failure of the EMH in many key asset markets was obvious to virtually all those whose cognitive abilities had not been warped by a modern Anglo-American Ph.D. education.[110]

2.6.4 Complexity theory

Instead, Rickards maintains, a superior understanding of the behaviour of financial markets can be obtained by adapting the insights of complexity theory.[111]

First, a complex system is not to be confused with a complicated system. A Swiss watch is complicated but not complex. Its parts touch each other but they do not communicate with each other.

According to Rickards, a complex system has the following properties:

1. Complex systems have components called **autonomous agents**. They make the decisions and produce the results in the system. These agents can be marine species in the oceanic food chain or individual investors in currency markets; the dynamics are the same. To be complex, a system first requires **diversity in the types of agents**. If the agents are alike, nothing very interesting will happen. If they are diverse, they will respond differently to various inputs, producing more varied results.
2. **Connectedness** means that the agents are connected to one another through some channel. This can consist of electrical lines in the case of a

power grid or Twitter feeds in the case of a social network, but somehow the **agents must have a way to contact one another.**

3. **Interdependence** means the agents **influence one another**. If someone is not sure how cold it is outside and they look out of the window to see everyone wearing downy feather coats, they might choose to wear one too. The decision is not automatic – they might choose to wear only a sweater – but in this case a decision to wear a warm coat is partly dependent on others' decisions.
4. **Adaptation** means more than change; rather it refers specifically to learning. Investors who repeatedly lose money on Wall Street themes such as 'buy and hold' may learn over time that they need to consider alternative strategies. This **learning can be collective** in the sense that lessons are shared quickly with others without each agent necessarily experiencing them directly. **Agents** that **are** diverse, connected, interdependent and adaptive are the **foundation of a complex system**.
5. **Emergent properties** mean that the whole (the system) is more than the sum of its parts. A complex system can develop new properties that are not traceable in an obvious manner to the system's elements. Human consciousness is an example of an emergent property. The human body is composed of oxygen, carbon and hydrogen, with traces of copper and zinc. If one put those ingredients in a pot – nothing would happen. The same ingredients combined through DNA coding, however, produce a human being. There is nothing in a carbon molecule that suggests thought and nothing in an oxygen molecule that suggests speech or writing. Yet the power of complexity produces exactly those capabilities using exactly those ingredients. Thought emerges from the human mind in the same complex, dynamic way that hurricanes emerge from the climate.
6. **Phase transitions** take place when a system changes its state. If water is heated it turns into steam. The new property is pressure, which can be used for a variety of purposes. However, not every complex system is poised for a phase transition – the system itself must be in a **'critical state'**. This means that the agents in the system are assembled in such a way that the actions of one trigger the actions of another until the whole system changes radically. **One example of a phase transition in a critical state system is an avalanche**. A normal snowfield on a flat surface is fairly stable, yet the same amount of snow on a steep incline may be in a critical state. New snow may fall for a while, but eventually one snowflake will disturb a few others. Those others will disturb more adjacent flakes until a small slide begins that takes more snow with it, getting larger along the way until the entire mountainside comes loose. One could blame the snowflake, but it is more correct to blame the unstable state of the mountainside of snow. The snowfield was in a critical state – it was likely to collapse sooner or later, and if one snowflake did not start the avalanche, the next one could have. This same process

> occurs in a stock market crash. Buy and sell orders hit the market all the time just like snowflakes on the mountain. Soon the cascade gets out of control, in particular once the stop-loss rules of computerized trading get triggered. Once the cascade stops, the complex system can return to a stable, non-critical state – until the next time.

Phase transitions of complex systems can produce catastrophic effects from small causes – a single snowflake can destroy a whole village through the avalanche it caused. Similarly, a forest fire can be started by a single strike of lightning. Whether the fire destroys a single tree or a million acres, it is caused by a single bolt of lightning. Extreme events can be caused by everyday events. The question is how to estimate the frequency of extreme events. In a normal distribution pattern, there would be more mild events than extremes. In an exponential pattern, extreme events would happen with a higher degree of frequency.

To understand the mechanics of complex systems the **concept of scale** is important. The size of the greatest catastrophe in a system is limited by the scale of the system itself. An example would be an active volcano on a remote island. The volcano and the island make up a complex system in a critical state. Eruptions may take place over centuries, causing various degrees of damage. Finally the volcano completely explodes and the island sinks, leaving nothing behind. The event would be extreme, but limited by the scale of the system – one island.

Hence, the catastrophe cannot be bigger than the system in which it occurs.

The problem is that man-made systems increase in scale all the time. Power grids get larger and more connected, road systems are expanded, the internet adds nodes and switches. The worse news is that the relationship between catastrophic risk and scale is exponential. This means that if the size of a system is doubled, the risk does not merely double – it increases by a factor of ten. If the system size is doubled again, risk increases by a factor of one hundred.

The question now is, what is the scale of currency and capital markets, and how does this affect risk? If catastrophic collapses are an exponential function of scale, then every increase in scale causes a much greater increase in risk. Capital markets continually increase in scale, which is why the 'black swans' are coming in greater numbers and intensity. Thinking about scale in capital markets today is like trying to measure the size of a field before the invention of meters. There is no commonly agreed scaling metric for computing market risk using complexity and critical state dynamics. More research and empirical work is required.

Rickards concludes:

> But there is no need to wait for that work before drawing sound conclusions from the theory. Putting buildings on a known fault line was a bad

> idea even before the Richter scale was invented. Ignoring complexity and power laws in capital markets is a bad idea even in the absence of empirical perfection. The edifice of capitalism may collapse in the meantime.

Despite there being no complete metric with which to measure the scale of capital markets, their continuous increase in scale can be easily shown. For instance, a series of exchange mergers has created global mega-exchanges. The neoclassical deregulation campaign of the 1990s allowed commercial banks and investment banks to combine activities. Off-balance sheet activities and separate conduit vehicles have created a second shadow banking system as large as the visible system. For example, the amount in over-the-counter foreign exchange derivatives rose from USD 15,700 billion in 2000 to USD 57,600 billion in 2007 – an increase of 367 per cent.[112]

One solution to the problem of risk that emerges from allowing a system to grow to mega-scale is descaling – making the system smaller.

> This is why a mountain ski patrol throws dynamite on unstable slopes before skiing starts. It is reducing avalanche danger by descaling, or simplifying, the snow mass. The financial ski patrol of central bankers is shoveling more snow onto the mountain. The financial system is now larger and more concentrated than immediately prior to the beginning of the market collapse in 2007.[113]

Therefore the policy recommendation to be drawn from the insights of the current state of complexity theory is to descale the system and the size of its economic agents – to break up the TBTF banks – a recommendation not yet heard from central bankers.

Despite numerous failures and an inability to explain the actual behaviour of financial markets, and even in the face of various new approaches developed by heterodox economists, the leading figures of the neoclassical synthesis school continue to stick to their model.

In November 2008 at an opening ceremony at the London School of Economics, the Queen of England asked why no one had seen the credit crunch coming.[114] Robert Lucas, one of the neoclassical protagonists, responded to the Queen's question in a guest article in *The Economist*:[115]

> One thing we are not going to have, now or ever, is a set of models that forecasts sudden falls in the value of financial assets, like the declines that followed the failure of Lehman Brothers in September. This is nothing new. It has been known for more than 40 years and is one of the main implications of Eugene Fama's "efficient-market hypothesis" (EMH), which states that the price of a financial asset reflects all relevant, generally available information. If an economist had a formula that could reliably forecast crises a week in advance, say, then that formula would

> become part of generally available information and prices would fall a week earlier. (The term 'efficient' as used here means that individuals use information in their own private interest. It has nothing to do with socially desirable pricing; people often confuse the two.)

He continued to defend the efficient market dogma, rebutting all evidence to the contrary.

But his answer totally misses the point. No economist with a reasonable mind would claim to predict looming crises along a precise timescale. The problem with the neoclassical synthesis is that it does not even recognize that something fundamental went wrong in the economy and that overly optimistic predictions were expressed by the leading policymakers and their neoclassical advisors. Neither the Austrian School nor the Post-Keynesians nor the other economists who warned of the collapse of the housing bubble gave precise indications as to the 'when'. But they gave convincing indications as to 'whether'.

In the light of the evident intellectual bankruptcy of the axioms of the neoclassical synthesis, one wonders why it is still alive among 'top' economists, central bankers and policymakers.

2.6.5 Disastrous influence of neoclassical thinking on financial establishments – obsession with deregulation

Lucas's answer could be regarded as the petty sideshow of a group of obstinate economists had this group not a continuing and considerable influence on the thinking and acting of central banks in the Western world, in particular the Fed, the ECB and the IMF.

For instance, in 2005 the former president of the ECB, Jean-Claude Trichet, argued in a speech about the dot.com bubble:

> Do we know which of the observed asset price booms are bubbles? Do we need to know? . . . I do not mention this example because I believe the NASDAQ valuation of the late 1990s was not excessive. However, if one takes the narrow definition of a bubble very often used by these economic researchers, there is a fundamental difficulty in calling an observed asset price boom a bubble: it must be proved that given the information available at the time of the boom, investors processed this information irrationally. As the above example shows, this is a formidable task.[116]

So, what Trichet is in fact doing is defending the efficient market dogma not by shifting the burden of proof – for which sufficient research to the contrary existed at the time – but by demanding further proof that investors in the NASDAQ during the dot.com bubble acted irrationally. So the hurdle for critics of the EMH gets raised – they must not only show that empirically the EMH failed, but prove that the rational agents behaved irrationally as well. This is scholastic academia at its best.

Alan Greenspan was an especially staunch supporter of the prevailing rationality and efficient market theories, resisting regulation of the OTC derivatives market in the face of hard empirical evidence that refuted his neoclassical dogma.

In September 1998 the well-known hedge fund LTCM, which specialized in heavily credit-financed arbitrage strategies in combination with a huge portfolio of derivatives, was facing bankruptcy. Ironically in 1997 two LTCM partners, Robert Merton and Myron Scholes, had received the so-called Nobel Prize in economic science for their work on options and derivative pricing.

At the end of August 1998 LTCM held derivative positions, including equity and interest rate swaps, with a notional value of USD 1,250 billion against an equity of a mere USD 5 billion. According to Merton Miller, another Nobel laureate,[117] notional values 'are just bookkeeping conventions, not serious money'. Yet its huge derivative exposures did cost LTCM serious money when markets moved against them.[118] Its huge exposure to derivatives were not known to market participants, nor was the fact that LTCM had posted very little collateral against those positions because it had entered into them in the unregulated OTC derivative market. As the Fed noted then, if all of the fund's counterparties had tried to liquidate their positions simultaneously, asset prices across the market might have plummeted, which would have created 'exaggerated' losses.[119] Thus, the Fed orchestrated a bailout by assembling an international banking consortium.

Then-Fed Chairman Alan Greenspan testified on 1 October 1998 before Congress:

> Had the failure of LTCM triggered the seizing up of markets, substantial damage could have been inflicted on many market participants, including some not directly involved with the firm, and could have potentially impaired the economies of many nations, including our own . . . The consequences of a fire sale . . . risked a severe drying up of market liquidity.[120]

However, only six months later, at a conference of the Futures Industry Association in March 1999, Greenspan declared:

> The reason that growth has continued despite adversity, or perhaps because of it, is that these new financial instruments are an increasingly important vehicle for unbundling risks. These instruments enhance the ability to differentiate risk and allocate it to those investors most able and willing to take it . . . Nonbanks, as well as banks, users of these new financial instruments have increasingly embraced them as an integral part of their capital risk allocation and profit maximization. It should come as no surprise that the profitability of derivative products has been a major factor in the dramatic rise in large banks' noninterest earnings

> and doubtless is a factor in the significant gain in the overall finance industry's share of American corporate output during the past decade. In short, the value added of derivatives themselves derives from their ability to enhance the process of wealth creation . . . Almost all the time investors adopt strategies that seek profit only in a relatively long-term context, fostering the propensity for convergence toward equilibrium that ordinarily characterizes financial markets.[121]

And five years later, having succeeded in fighting back a regulation attempt for derivatives by the then-Chairwoman of the Commodity Futures Trading Commission (CFTC), Brooksley Born,[122] Greenspan stated:

> Those that question the net benefits of derivatives see daunting risk-management problems and thus foresee catastrophic outcomes. In particular, they fear that common deficiencies in risk management will result in widespread failures or that the failure of a very large derivatives participant will impose heavy credit losses on its counterparties and yield a chain of failures. Others, like myself, who see the **benefits of derivatives exceeding the costs**, do not deny that their use poses significant risk-management challenges. But we see ample evidence that the **risks are manageable** in principle and generally have been managed quite effectively in practice, at least to date . . . Market discipline in the largely unregulated derivatives markets has provided strong incentives for effective risk management and has the potential to be even more effective in the future . . . derivatives market participants seem keenly aware of the counterparty credit risks associated with derivatives and take various measures to mitigate those risks . . . Some may see government regulation of OTC derivatives dealers as essential to ensuring efficacious risk management. This view presumes that government regulation can address the challenges these types of markets engender and that it can do so without lessening the **effectiveness of market discipline** supplied by counterparties . . . Market participants usually have strong incentives to monitor and control the risks they assume in choosing to deal with particular counterparties.[123]

This world of rational behaviour sounds like a perfectly self-regulating system in which regulation would not minimize the risk associated with derivative trading but instead increase it. Unfortunately, the GFC proved that the opposite is true. The derivative holdings of financial service firms, in particular Citibank and AIG, in fact required the largest bailouts.

The fervent belief in the dogmatic troika of the neoclassical school essentially infected the policymakers and deregulation became the slogan of the day, encouraged by heavy lobbing and campaign contributions from banks.[124]

In the US, the first victim was the **Glass-Steagall Act of 1933**, which was abolished and replaced by the **Financial Services Modernization Act (FSMA)**, frequently referred to as the **Gramm-Leach-Bliley Act**, passed by Congress in November 1999.

The drafting and passage of the original Glass-Steagall Act of 1933 was based in part on the findings of the Pecora Commission.[125] One consequence was the separation of commercial banks and investment banks in order to prevent the backing of investment banking activities, like public offerings and securities trading, with depositors' money. However, the FSMA removed barriers between banking, securities and insurance companies, previously prohibited from combining their activities under one roof. It also removed conflict of interest prohibitions. It was widely hailed as strengthening the American banking sector in global markets.

The Glass-Steagall Act's prohibition against the use of customer deposits, insured by the FDIC and finally backed by the taxpayer, to finance investment banking activities was ultimately eliminated through the passage of the FSMA. Consequently, 11 years later, the following occurred: Bank of America, with USD 1,040 billion in deposits by mid 2011, ranking it second among US banks, and having received a USD 45 billion bail out during the crisis, did move substantial parts of its derivative portfolio to its FDIC insured deposit taking unit. This move was triggered through a downgrade by Moody. A two-level downgrade by all rating companies would have cost Bank of America USD 3.3 billion in additional collateral and termination payments. By moving substantial parts of its USD 75,000 notional derivatives under the umbrella of its retail operations Bank of America saved those costs.[126]

The second victim was the **Commodity Exchange Act of 1936**, which required that all futures and commodity options be regulated on organized exchanges in order to ensure transparency and prevent the manipulation of commodity prices.

However, as mentioned above, the four members of the president's Working Group on Financial Markets successfully rebuffed a regulatory attempt brought forward by their co-member Brooksley Born. In November 1999, this quadriga issued and signed the report *Over-the-Counter Derivatives Markets and the Commodity Exchange Act* strongly advising that OTC derivatives should not be regulated.

> The following year, Congress passed the **Commodity Futures Modernization Act of 2000 (CFMA)**, which revised the Commodity Exchange Act to allow many types of financial derivatives to legally trade over the counter. It also removed such over-the-counter derivatives transactions from the jurisdiction of the Commodity Futures Trading Commission, leaving them largley unregulated. CFMA was the last piece of legislation required to set the stage for the Great

> Meltdown of 2008. The bill was signed into law by President Clinton on 21 December 2000.[127]

In the second half of 2008, when the crisis really hit and billions of dollars in bailout money were required to rescue financial institutions – most prominently the insurance group AIG, counterparty to many banks in derivative contracts – Greenspan confessed that his 'whole intellectual edifice collapsed.'[128]

In the ensuing dialogue between him and the hairman of the House Committee on Oversight and Government Reform, Henry Waxman, Greenspan gave the following answers:

> **Greenspan:** I made a mistake in presuming that the self-interests of organizations, specifically banks and others, were such as that they were best capable of protecting their own shareholders and their equity in the firms. . .
>
> **Waxman:** In other words, you found that your view of the world, your ideology, was not right, it was not working.
>
> **Greenspan:** Absolutely, precisely. You know, that's precisely the reason I was shocked, because I have been going for 40 years or more with very considerable evidence that it was working exceptionally well.[129]

At another point, Greenspan said his faith in Wall Street's ability to regulate itself was based on his assumption that rational firms would not expose themselves to self-destructive risks. He also assumed that markets would 'properly price' risky bundles of subprime mortgages, so that investors worldwide would understand that they presented unusual risks.

2.6.6 Why is neoclassical synthesis still dominant – despite its disastrous failures?

Lacking any empirical or even scientific evidence to support its claims, the explanation for the neoclassical synthesis's lasting dominance must lie with other, 'soft factors'. While they do not provide a full, appropriate and fair explanation, the following observations are nevertheless relevant.

On 23 October 2009, the *Huffington Post* published an article titled 'Priceless: How The Federal Reserve Bought The Economics Profession'. It begins:

> The Federal Reserve, through its extensive network of consultants, visiting scholars, alumni and staff economists, so thoroughly dominates the field of economics that real criticism of the central bank has become a career liability for members of the profession, an investigation by the *Huffington Post* has found.

> This dominance helps explain how, even after the Fed failed to foresee the greatest economic collapse since the Great Depression, the central bank has largely escaped criticism from academic economists. In the Fed's thrall, the economists missed it, too.
>
> 'The Fed has a lock on the economics world,' says Joshua Rosner, a Wall Street analyst who correctly called the meltdown. 'There is no room for other views, which I guess is why economists got it so wrong.'
>
> One critical way the Fed exerts control on academic economists is through its relationships with the field's gatekeepers. For instance, at the *Journal of Monetary Economics*, a must-publish venue for rising economists, more than half of the editorial board members are currently on the Fed payroll – and the rest have been in the past.

The Fed budgeted USD 433 million for contracts for economists for consulting assignments, papers, presentations, workshops and the prestigious, temporary 'visiting scholarships' in 2009. According to the data given by the American Economic Association (AEA) roughly 611 of its 2,400 members list monetary policy and related issues as their area of focus. The staff of the *Huffington Post* analysed the mastheads of the leading American journals for economics and found that 84 of a total of 190 editors were affiliated with the Fed at one point in their careers, and 21 were on the Fed payroll even as they served as gatekeepers at prominent journals.

The article quotes some economists who had bad experiences when trying to publish articles critical of the Fed or its policies in one of those leading magazines. Certainly good relations with the Fed and the network of economists it feeds can have a profound and positive influence of an academic's career prospects – and vice versa.

The article does not suggest that the majority of those economists have been bought out by the Fed, and in fact provides several quotes from economists to the contrary. But it is also true that networking of this type does little to promote pluralism and independence in economic research.

The late Milton Friedman wrote in a 1993 letter to Robert Auerbach, author of the book *Deception and Abuse at the Fed*:

> I cannot disagree with you that having something like 500 economists is extremely unhealthy. As you say, it is not conducive to independent, objective research. You and I know there has been censorship of the material published. Equally important, the location of the economists in the Federal Reserve has had a significant influence on the kind of research they do, biasing that research toward noncontroversial technical papers on method as opposed to substantive papers on policy and results.[130]

Hence, there is a risk that this kind of 'embedded research' might nurture 'groupthink' and 'cognitive bias'.

The IEO of the IMF found exactly that in its January 2011 report,[131] triggered by the disastrously wrong economic forecasts in the run-up to the crisis of 2007. It states:

> The IMF's ability to correctly identify the mounting risks was hindered by a high degree of groupthink, intellectual capture, a general mindset that a major financial crisis in large advanced economies was unlikely, and inadequate analytical approaches.

The report defines groupthink as a tendency among homogeneous, cohesive groups to consider issues only within a certain paradigm and not to challenge its basic premises. The report continues:

> The prevailing view among IMF staff . . . was that market discipline and self-regulation would be sufficient to stave off serious problems in financial institutions . . . They also concurred with the paradigm that the system could not only allocate resources efficiently, but also redistribute risks among those better prepared to bear them . . . The IMF was overly influenced by (and sometimes in awe of) the authorities' reputation and expertise; this is perhaps a case of intellectual capture . . . The choice of analytical approaches and important knowledge gaps, some of which were shared by the whole profession, also played a role in the failure to identify risks and vulnerabilities . . . IMF economists tended to hold in highest regard macro models that proved inadequate for analyzing macro-financial linkages. The dynamic stochastic general equilibrium (DSGE) model that was the work horse for policy discussions introduced money and asset markets in only the most rudimentary manner. Work is ongoing to develop models that can incorporate financial frictions. Perhaps more worrisome was the overreliance by many economists on models as the only valid tool to analyze economic circumstances that are too complex for modeling.[132]

Another revealing piece of investigative journalism into the financial establishment of the US was the documentary film 'Inside Job' produced by Charles Ferguson, winner of the 2010 Academy Award for Best Documentary Feature.[133] The film exposes a tight-knit network and revolving-door policy among Wall Street firms, academic economists, the staff of the Treasury and the staff of the US President's Council of Economic Advisors. This 'establishment' unanimously shared, oversaw and helped implement the deregulation ideology flowing out of the three dogmas of the neoclassical synthesis. Many prominent economists held board positions or were lucratively retained as advisors by financial companies, often receiving payments from financial companies greater than their academic salaries. All of these economists influenced both public opinion and the opinions of lawmakers, for example through expert hearings in Congressional committees.

One such economist is Larry Summers, former president of Harvard University and a passionate proponent of deregulation. In 1993 he joined the US Department of Treasury and in 1995 became Deputy Secretary of the Treasury in the Clinton administration under Robert Rubin, a former Goldman Sachs CEO.[134] When Rubin left the Clinton administration in 1999 to become director and senior counselor of Citigroup, Summers succeeded him as US Secretary of the Treasury and served until 2001, when he left to take up the post of President of Harvard University. In 2006 he resigned from the university following a faculty vote of no confidence in response to various financial conflicts of interest and discriminatory remarks. From January 2009 to December 2010 he served as Director of the National Economic Council (NEC) in the Obama administration.

The NEC is extremely influential in setting the policy of the US president. It has four principal functions: to coordinate policymaking for domestic and international economic issues, to coordinate economic policy advice for the president, to ensure that policy decisions and programmes are consistent with the president's economic goals, and to monitor implementation of the president's economic policy agenda.[135]

Since its inception in 1993 the directors of the NEC have been drawn exclusively from the neoclassical deregulation movement.

The film 'Inside Job' revealed that between 2001 and 2009, when Summers entered the Obama administration, he earned over USD 20 million through consulting activities and speaking engagements for the financial industry.[136] The like holds true for most of his academic predecessors in that position – nearly all of them earned substantial sums, far higher than their academic salaries, in consulting fees for financial service firms.[137]

Universities do not require faculty members to disclose conflicts of interest or report outside income. However, in response to 'Inside Job', in January 2012 the AEA introduced new rules requiring economists to disclose financial ties and other potential conflicts of interest in papers published in academic journals.[138]

Charles Ferguson concludes:

> Summers's career is the result of an extraordinary and underappreciated scandal in American society: the convergence of academic economics, Wall Street, and political power . . . Over the past 30 years, the economics profession – in economics departments, and in business, public policy, and law schools – has become so compromised by conflicts of interest that it now functions almost as a support group for financial services and other industries whose profits depend heavily on government policy. The route to the 2008 financial crisis, and the economic problems that still plague us, runs straight through the economics discipline. And it's due not just to ideology; it's also about straightforward, old-fashioned money.[139]

Other cases in point are Robert Rubin, supporter of the FSMA, and former Senator Phil Gramm, co-sponsor of the Gramm-Leach-Bliley Act of 1999.

Immediately after leaving the Senate in 2002, Gramm was employed by the Swiss bank UBS AG. Since 2009 he has been listed by UBS as Vice Chairman of its investment banking division. *Time* included Gramm in its list of the top 25 people to blame for the economic crisis.[140] He was also held responsible for the Enron scandal because of a loophole ('Enron loophole') in the CFMA that allowed Enron to build up the devastating derivatives portfolio that finally caused its bankruptcy.[141]

Robert Rubin became a director and senior counselor of Citigroup in 1999 after leaving the Clinton administration. The previous year Rubin had played a crucial role in helping to push through the merger between Citicorp and Travelers – one of the world's largest insurance companies. This proposed merger faced substantial legal challenges, particularly because Travelers had already acquired the investment bank Salomon Smith Barney. The merger constituted a clear violation of the Glass-Steagall Act. Nevertheless, the Fed green-lighted the deal. And after an intense lobbying campaign,[142] Congress enacted the deregulation law in 1999. Ten years later, in 2008–9, Citigroup was in urgent need of a taxpayer bailout. It received a direct bail-out of USD 45 billion and assistance from various rescue programmes by the Fed totalling USD 476.2 billion.[143] Rubin resigned as Chairman in January 2009. During his time at Citigroup he received more than USD 126 million in cash and stock.[144]

The deregulation orgy of the late 1990s earned the Wall Street firms enormous profits up until the crisis. For instance, Lloyd Blankfein, acting CEO of Goldman Sachs as of 2013, said in June 2007 in a feature in the *New York Times* that the Glass-Steagall Act caused 'an aberration' in the profit opportunities for the banking sector. And indeed, after deregulation took effect, Goldman's trading revenue surged 168 per cent between 2001 and 2006. And from 1999 to June 2007, its balance sheet grew 265 per cent, to USD 1,000 billion.[145]

The influence of the neoclassical synthesis school on government policymaking continues. In January 2013 President Obama appointed Jack Lew as Secretary of the US Treasury. For three years he was chief operating officer of Citigroup's alternative investment unit, a section that had contributed substantially to the bank's losses in derivatives trading. Nevertheless, he received more than USD 2 million in salary and bonuses in 2008. Prior to his employment with Citigroup he was one of the top economic officials in the Clinton administration, helping to push through the CFMA in 2000.[146]

The bipartisan list of former politicians and former members of the administration entangled with the financial sector is nearly endless.[147] Whether this kind of interconnectedness between official policymakers and the financial sector amounts to outright corruption is difficult to say. But it can be said that official policymaking became financialized and that the

neoclassical synthesis ideology substantially supported a process that was financially rewarding for the rational economic agents involved.

2.7 Increasing fragility of the global banking system

Section 2.2 explained the mechanics of the credit creation process under the fractional reserve banking system with the assumption that banks must back the credits created with 10 per cent of their capital as a loss protection. Reality is different. Banks only need to back their assets with a fraction of this amount, or even with no capital at all, depending on the nature of the assets. A loan to a multinational corporation like General Electric, for example, requires less capital than a loan to a small corporation, the rationale being that a loan to a large corporation has a lower probability of default than a loan to a small or medium-sized business.

Sovereign bonds provide another example. Here the assumption is that governments do not default and hence no capital backing is required. A similar reasoning is applied to some derivatives once their risk is supposedly hedged away. All this leads to a situation in which the shock absorption capability of banks is suboptimal or even dangerously low.

This fear was borne out by the outbreak of the GFC in 2007. Due to the burst in the housing bubble causing a free fall in housing values, banks were forced to mark down the value of their housing-related assets like mortgages, mortgage-backed securities and mortgage-related derivatives. There was a risk that this large and sudden devaluation might wipe out the equity of the major TBTF banks.

To avoid a meltdown governments engineered bailouts financed by taxpayers. Central banks began to buy the toxic assets from the banks by simply printing money.

Recent decades have witnessed trends that increased the vulnerability of the global banking sector. The important ones are listed below.

2.7.1 Securitization

The beginnings of securitization can be traced back to the severe crisis of the savings and loan banks in the US in the 1980s.[148] The crisis was caused in part by banks giving out mortgage-backed loans with a maturity of 30 years and a fixed interest rate over that period of, say, 6 per cent. However, trouble arose when the interest income earned on that mortgage fell below the banks' cost of funding, because the banks were refinancing themselves on an annual basis. That exposed the banks to negative movements of interest rates during the term of the loan. If interest rates in the market increased by 10 per cent the bank suffered a loss. In addition, they also faced losses when forced to increase the interest paid on deposits in order to attract customers because deposits are also a source of funding (see section 2.2).

In order not to fall prey to the fluctuations of interest rates banks began to sell their loans. They did so by putting loans into a pool and selling the pool to an investment bank. The investment bank then sliced up those mortgages along various criteria including geography, income class of mortgagee and maturity. If done properly a new mix can reduce risk. For example, mortgages from poorer quality from the Midwest could be mixed with mortgages from high-income areas in the East or the West. Or the investment bank could group those mortgages in different classes, for instance in senior tranches and junior tranches. The former would be of higher quality and therefore yield a lower interest rate. The latter would carry a higher risk in that investors in junior tranches would only be paid after the holders of senior tranches had been paid in full. In compensation for that risk the investors in junior tranches would earn a higher interest yield.

What the investment bank sells to investors is a defined claim on interest income from a newly structured pool. This claim gets transformed into a tradable security. The investors receive payment of principal and interest over a defined period of time. In order to be globally marketable a positive rating from an agency was required. This kind of securitization, if done properly, is a win-win for all participants.

The advantage for the selling bank is that it can write new mortgages and in so doing gain regional market share, because regulatory norms require banks to back those loans with a given capital ratio. But once the loan is sold and leaves the bank's balance sheet, the same capital can be used anew. In addition, the bank receives cash while diversifying away its individual risk. But it should be noted that only the individual risk can be diversified away, because in essence it stays within the financial sector and increases the risk exposure of the whole sector.

The advantage for the investment bank is that it receives an attractive fee for its work from the prospective buyers. The advantage for the rating agency is that it can earn revenues for its services. The advantage for the buyers is that they can fetch a higher return in comparison to a treasury bond with the same AAA rating. The demand for such products is particularly high when government bonds deliver low yields. If a central bank creates a low interest rate environment then this becomes a pressing problem for pension funds. They have to meet a certain rate of return on their investments each year in order to be able to pay the current retirees without depleting their funds for the future retirees. The same holds true for insurance companies.

However, this win-win feature breaks down once one link in that value chain acts improperly. If the quality of the security becomes impaired, for instance through a false loan application stating a higher income than the actual one, the buyer of that security will face a loss once the borrower defaults on his or her loan. That is what happened in the US housing bubble. The whole securitization value chain became fraudulently infected – each link of it. This finally led to the disastrous collapse of the US housing

bubble with equally disastrous repercussions for the global banking system (see section 2.9).

2.7.2 The global derivative complex

Derivatives are financial contracts that are linked to the price movement of something. This something can be anything – a commodity, an agricultural product, a price index, the stock market, interest rates on government bonds, a corporate loan and so on.

A key feature of a derivative contract is that it requires at least two parties having opposite expectations regarding the price development of the underlying security in the future.

The price of a derivative contract primarily depends on the duration of the contract, the volatility of the 'something' to which reference is made and the counterparty risk, usually classified by rating agencies. The price of the contract is nearly always determined by an option pricing model developed by two American economists, Fischer Black and Myron Scholes.

The value of the contract can fluctuate over time depending on the movement of the security referenced. Thus, the value can be negative at one point in time and positive at another point in time. To protect the parties from mutual default risk, a collateral or an initial margin must be deposited with the official exchange. The amount of collateral can also vary over time depending on the volatility of the 'something'. If volatility goes up, the market value of the contract increases and more collateral is required.

The two principal categories of derivatives are (a) regulated derivatives, to be settled via official exchanges like the Chicago Board of Option Exchange (CBOE) and (b) unregulated derivatives, traded 'over the counter' (OTC) and settled bilaterally among the parties. Exchange-traded derivatives count for only 10 per cent of the total volume of globally traded derivatives, meaning that the vast majority of derivatives are not subject to regulation. This is owed to the Fed's obsession with the malign dogmas of the neoclassical synthesis and its conviction that rational behaviour will lead to superior self-regulation (2.6.5).

2.7.2.A Regulated derivative trading

Derivatives are a 'dual-use good'. Derivatives were used by North American farmers in the early 20th century to attain stability in their financial planning by selling their wheat harvest – months before the actual harvesting took place – at an agreed-upon price per bushel. Neither the farmer nor the buyer knew the future price per bushel at the time they entered into the contract, as prices were dependent on the output of the harvest and the unforeseeable weather conditions that could affect it.

In the case of a crop surplus, the spot price might fall below the farmer's cost. If his derivative contract reflected a higher price then the farmer would come out ahead. Less lucky, of course, would be the buyer because he or

she would be obligated to buy the farmer's harvest at a price above the spot price. In the case of a summer drought, on the other hand, the price of wheat would go up. In this case the farmer would miss out on the higher prices but the farmer's counterparty would make a profit, because the farmer would be obligated to deliver the harvest at a price below spot. This procedure is called hedging. It should be noted that this kind of transaction is a pure bet.

The transaction is referred to as a derivative because at the time the parties enter into the contract they receive only a right derived from the underlying product of reference. The real advantage of an exchange-regulated derivative is that the exchange protects the parties against counterparty risk. Should the counterparty of the farmer default on their contract, the exchange will compensate the farmer and take recourse to the funds of the counterparty. This is the standard procedure with derivative trading via a regulated exchange like the CBOE. The CBOE is regulated by the CFTC, whose mission is to protect market users and the public from fraud, manipulation and other abusive practices and to foster open, competitive and financially sound markets in derivatives trading under its regulatory mandate.

2.7.2.B Unregulated derivative trading – OTC complex

However, derivatives trading is not limited to commodities – it can be applied to financial products as well. The only problem with those derivatives is that there is no regulated exchange and no regulator – that is, no CFTC with its above-stated mission. However, privately regulated exchanges do exist, most of them owned by the global banks. It does not necessarily follow, of course, that OTC derivative trades are per se fraudulent or economically senseless.

For example, parties might want to protect themselves against currency risks. An importer of heavy machinery might wish to protect himself against a devaluation of his domestic currency because this would increase his purchase costs. In this case he goes to a TBTF bank and buys the right to purchase, six months from now, a certain amount of the exporter's currency at today's exchange rate. The TBTF bank will of course demand a fee for this transaction.[149] If his domestic currency indeed loses value at the maturity date of the derivative contract, the importer will have protected himself against a loss.

2.7.2.C Interest rate swaps

Another type of OTC derivative contract is a so-called interest rate swap.

As an example, Harvard University wanted to finance a massive expansion of its campus, at a cost of more than USD 2 billion, with a bank loan. The university received the loan with a variable interest rate, meaning that if interest rates increased, the university would face the risk of increased debt servicing costs. Because the project was expected to take six years, the university did not want to be exposed to that risk. At the time the loan was secured the interest rate was 2.25 per cent. To avoid higher interest rates the

university swapped its variable interest rate against a fixed one in 2004 by entering into a derivative contract with JP Morgan – betting on rising interest rates. If interest rates had indeed gone up, the university would have been perfectly hedged.

Unfortunately the deal backfired in 2008 when the Fed substantially reduced interest rates in response to the housing crisis. In this case, the contract went against the university. Harvard decided to terminate the swaps, costing the school USD 1 billion and putting it into a liquidity crisis at the end of 2008.[150] As a matter of irony Larry Summers, then President of Harvard and one of the most passionate promoters of the neoclassical deregulation movement, was a member of the committee that approved this financing strategy.

Interest rate swaps were also widely used by municipalities across Europe and the US between 2000 and 2005. But as in the case of Harvard, those interest rate swaps carried some barely detectable risks. For instance, in 2010 the French city of St Etienne held 10 derivative contracts that went against it. To unwind them would have cost the city USD 135 million – almost five times the amount initially borrowed. The German city of Pforzheim also wanted to optimize its costs on interest payments on a €60 million loan. It was told that long-term rates were consistently higher than short-term rates, so in 2004–5 it entered into various interest rate derivative contracts, swapping the long-term rate against the short-term rate. In 2006 the difference between long- and short-term rates collapsed. As a result the city owed JP Morgan €55 million – 11 per cent of its annual budget. Pforzheim was forced to abandon the planned improvement projects.

The municipalities and other local authorities within the 27 EU member states had a combined debt of €1,210 billion as of 2008. In France more than 1,000 municipalities had €11 billion in 'risky' contracts at the end of 2009. According to the Bank of Italy around 467 public borrowers faced losses of €2.5 billion on derivatives at the end of 2009. Many of them have begun renegotiating those contracts or even challenging them in court, and in some cases the courts have cancelled the contracts for lack of adequate disclosure of the risks.[151] In the US some municipalities have gone bankrupt because of interest rate swaps, leaving the banks with the counterparty risk.

2.7.2.D Credit default swaps

A key OTC derivative during the GFC was the credit default swap (CDS) – essentially insurance against the default of a borrower or mortgage bond. The purchaser of a CDS would transfer to the seller the default risk of an underlying debt, making periodic payments to the seller of the protection over the lifetime of the contract. If a credit event such as a default occurred, the CDS seller typically would pay the buyer the face value of the debt.

However, there were significant deviations from the insurance analogy. First, the CDS was not regulated by insurance regulators – it was regarded as a species of its own. And contrary to insurance practice the seller had no

obligation to put aside reserves against possible losses. Therefore, in the run-up to the crisis, a London-based (unregulated) affiliate of AIG, the largest US insurance company, could accumulate over USD 500 billion in credit risk without being required to post even one dollar on reserves.

Second, in the insurance industry only a person with an insurable interest can obtain an insurance policy. A car owner can only insure the car he owns – not his neighbour's. Not so in the OTC insurance world. Here, a buyer of a CDS contract can use it to speculate on the default of a loan he never made. Such a CDS is called 'naked CDS': it generates wealth for speculators through destruction of others. It even invites the dissemination of negative rumours in the marketplace in order to make the bet safe.

The value of outstanding underlying assets for CDS worldwide grew from USD 6,400 billion at the end of 2004 to a peak of USD 58,200 billion at the end of 2007, a significant portion of which was apparently speculative or 'naked CDS.'[152]

When the housing bubble burst the value of mortgages repackaged as tradable securities imploded. Because AIG had not built up any reserves, it collapsed. To avoid a collapse of the global banks the US government decided to bail out AIG with taxpayers' money to the tune of roughly USD 80 billion and the Fed bailed out the global banks with a freshly created USD 10,000 billion.[153] Despite this generous support – with taxpayers' money and the Fed's money creation – the Fed did not ask the profiting banks for even a moderate haircut on this money.

2.7.2.E Collateral debt obligations

Another OTC derivative that played a crucial role in the GFC was the collateral debt obligation (CDO). Usually a CDO is a special purpose vehicle (SPV) affiliated with a bank but off the balance sheet. The CDO-SPV buys a pool of debt securities – from car loans, credit loans and mortgage loans. During the housing boom many of these CDO-SPVs focused on mortgage loans. Those loans were structured into different risk classes – the riskier the class, the higher the return – meaning that in the event of a credit event the riskier classes will be hit by a loss before the less risky classes. The riskiest class was the 'equity tranche', however, delivering up to 20 per cent as long as the housing market was booming. At the next level were the mezzanine and junior tranches, while the least risky was the senior tranche. The CDO-SPV then issued bonds for those classes, and the proceeds were used to buy the defined asset pool for the defined risk classes. The attractiveness for investors was that they received regular cash flows from the repayment of interest and principal by the borrowers. The yield of their investment was a couple of percentage points above US Treasuries.

Since those bonds were rated AAA it was a fairly attractive investment opportunity for pension funds, insurance companies and the originating banks themselves. Frequently they kept substantial parts of the senior

tranches on their own books. As is known in hindsight the rating agencies gave too much credit to the effects of diversification. The financial journalist James Grant wrote in his 6 October 2006 newsletter about the 'mysterious alchemical process' in which 'Wall Street transforms BBB-minus-rated mortgages into AAA-rated tranches of mortgage securities' by creating CDOs. He estimated that even the AAA tranches of CDOs would experience some losses if national home prices were to fall by just 4 per cent or even less within two years; and if prices were to fall by 10 per cent, investors of tranches rated AA- or below would be completely wiped out.[154]

The average CDO-SPV was worth USD 1 billion. Investment banks that structured and underwrote those CDOs received a nice commission income plus a management fee for operating the CDO-SVP.

But with the collapse of the housing bubble those CDOs imploded and investors worldwide lost billions, as did the banks themselves since they had kept significant CDO tranches on their books and traded those tranches among themselves.

Following the collapse a wave of litigation was brought by investors claiming damages for misrepresentation and inadequate disclosure of the risks. It became clear in the aftermath of the collapse that the majority of mortgage loans had originated in a legally questionable manner. Incomes in loan applications and property values had been grossly overstated. Because CDOs were financially attractive for the banks, they sought to generate as many loans as possible. In many cases those questionable loans were generated by unregulated subsidiaries held by the large banks (see section 2.9).

2.7.2.F Perverse wealth creation – correlation strategy

Around 2005 a new type of derivative was created: a synthetic CDO-SPV in combination with a sophisticated CDS – called a 'pay-as-you-go' CDS instrument. Synthetic CDO-SPVs neither owned nor bought the pool of structured assets. Instead, they only put a copy of those into the CDO, hence the name synthetic. Instead, the 'pay-as-you-go' CDS instruments were pooled in the CDO. Those CDSs were fairly complicated instruments that mimicked the timing of the cash flows of real mortgage-backed securities.

The combination of synthetic CDOs and CDSs led to the fact that they attracted two classes of investors with opposite interests. One class had an interest in the underlying assets performing. The other bought CDSs against those assets, thereby betting against the value of those very assets: if the underlying loans defaulted, they would gain money from the protection seller. This procedure became common among Wall Street banks and hedge funds and was called a 'correlation strategy'.[155]

2.7.2.G The Magnetar hedge fund

At the end of 2005, when the appetite for creating CDOs was waning due to the first signs of overheating, a new player entered the scene: the Chicago-based

Magnetar hedge fund, named after the super-magnetic field created by the last moments of a dying star.[156] From spring 2006 to summer 2007 Magnetar invested in 30 CDOs with an average size of USD 1.5 billion, most of it leveraged thanks to fractional reserve banking. Apparently, Magnetar did nothing illegal. It was simply playing by the rules in place at the time.

But the Magnetar strategy illustrates the perverse incentives and reckless behaviour that characterized the last days of the boom. Most of the TBTF banks helped Magnetar hatch its deals. Magnetar was focusing on the riskiest slice of a CDO, the equity at the bottom, and it created the CDOs in the riskier segment of the subprime bonds. Magnetar's deals amounted to somewhere between a third and half the total volume in the particularly risky corner of the subprime market on which the fund focused.

Magnetar's purchases of the equity slice of a CDO solved a critical problem for the banks. Since the equity was so risky and thus difficult to sell, banks did not like to create new CDOs unless they had a committed buyer. Indeed, such buyers were so crucial that Wall Street referred to them as the CDO's 'sponsors'. Moreover, a top CDO banker could make USD 4 million of annual income by structuring a CDO-SPV.

Outsiders thought Magnetar was piling in at exactly the wrong time. How could they hope to make money on such risky stuff? But the fund had a second bet that was known only to insiders.

At the same time as it was investing in the equity-generating high-yield income for a limited period of time, Magnetar also placed bets against the same bond baskets its CDOs had helped to create and that would finally blow up. It did so by buying CDS insurance. So, if the CDO blew up, Magnetar would make a multiple of the equity it lost in those CDOs. Nobody but Magnetar knew the full extent of its bets. Hedge funds are private and do not disclose the details of their trades. Moreover, CDSs are mostly unregulated and not publicly disclosed. According to marketing material and prospectuses, the banks did not disclose to CDO investors the real role Magnetar played.

In order to protect itself against potential legal liabilities Magnetar always used middlemen, known as CDO managers. Those presumably were independent small firms that were supposed to construct and buy the loans independently as described in the risk profile given out by the investment banks. Many CDOs were operated day to day by such independent firms, who were often brought in by investment banks. Those managers would then go out and find the exact bundles of bonds to fill the CDO. The managers had a fiduciary duty to represent the CDO fairly to all investors, ensuring that investors received accurate and equal information. By relying on a manager rather than managing the deal itself, Magnetar had no legal obligations to the CDO or to others who bought it.

Moreover, the financial strategy Magnetar employed was very clever. Since it owned a small slice of the high-yield equity tranche of the CDO, Magnetar also received regular payments as its investments threw off income. With

this, Magnetar solved a conundrum of those who bet against the market. An investor might be confident that things are heading south, but does not know when. While the investor waits, it costs money to keep the bet going – that is, the costs of the insurance premiums to be paid for the CDS. Many short sellers had run out of cash at the gates of a big payday – a CDS is not cheap. But Magnetar could keep money flowing via its small equity investments in CDOs and could use that money to pay for its bets against the CDOs it had helped to create. Magnetar used the equity to fund the shorts – it had created a largely self-funding bet against the market.

Magnetar was not the only fund to operate in this way. Other hedge funds and banks were also betting against the housing market. Whether they used the same financing strategy is not known, but most of the leading banks that helped Magnetar sell its CDOs were investigated and fined by the SEC. The key point in this game is that the selection process for the assets be performed by the presumably independent CDO manager, and many claim that the banks and hedge funds unduly influenced CDO managers in order to make sure the most toxic assets were selected.[157] Such was the claim made by the SEC in its investigation of Goldman Sachs. In early 2006 Goldman constructed a number of CDOs under the name Abacus. The SEC claimed that the hedge fund Goldman was partnering, Paulson & Co, selected the assets themselves to ensure they would blow up. The sales documents produced by Goldman did not mention the role Paulson & Co played. In 2010 Goldman agreed to a settlement with the federal agencies amounting to USD 550 million. USD 250 million of that went to two banks that had been on the long side of the bet, whereas Goldman and Paulson & Co were on the short side.[158] Goldman's profit for 2009 was USD 13.39 billion.

One person described the nature of this correlation strategy as: 'When you buy protection against an event that you have a hand in causing, you are buying fire insurance on someone else's house and then committing arson.'[159]

When the crash came nearly all of these securities became worthless, resulting in many billions of dollars in losses to investors, the investment banks that had helped bring them into the world, and eventually American taxpayers. As it turned out, the banks that had assembled and marketed CDOs had trouble selling them. And with the crash they were among the biggest losers.

However, the investment bankers creating those CDOs during the boom years earned more than USD 10 million on average per year. It is estimated that the 25 largest hedge funds made over USD 22 billion for themselves in 2010, while 44 million Americans were on food stamps – the number at the end of 2007 had been 26 million.

Substantial blame must also be attributed to the rating agencies. In 2003 CDOs took in about 13 per cent of the A tranches, 23 per cent of the Aa tranches, and 43 per cent of the Baa tranches issued by other CDOs, as rated by Moody's.[160] In 2007, those numbers were 87 per cent, 81 per cent and

89 per cent respectively. Merrill and other investment banks simply created demand for CDOs by manufacturing new ones to buy the harder-to-sell portions of the old ones.[161]

Issuance of synthetic CDOs jumped from USD 15 billion in 2005 to USD 61 billion just one year later, and a total of USD 225 billion worth of all types of CDOs was issued in 2006 alone.[162] Most Wall Street banks held the so-called senior tranches on their own books – often unhedged – in particular Merrill Lynch, Citigroup and UBS. All three had to be bailed out by taxpayers. And the whole mortgage industry was huge: between 2003 and 2007 USD 4,000 billion in mortgage-backed securities and USD 700 billion in mortgage-related CDOs were issued.[163]

This kind of financial activity was of a purely speculative nature and none of the roughly USD 5,000 billion flew into productive investments in the real economy, where they were subsequently dearly missed. The tremendous profits made by the hedge funds were not derived from productive income in the real economy; instead they originated from the losses of thousands of individuals. This constitutes a perversion of legitimate and reasonable wealth creation. It is unethical and extractive to society. All of this was enabled by the magic of fractional reserve banking and the Fed's deregulatory obsession nurtured by a pseudo-scientific ideology, and was the result of lawmaking.

2.7.2.H OTC derivative complex – accident waiting to happen

At the end of 2000, when the CFMA was passed, the notional amount of OTC derivatives outstanding globally was USD 95,200 billion and the gross market value was USD 3,200 billion. In the seven and a half years from then until June 2008, when the market peaked, outstanding OTC derivatives increased more than sevenfold to a notional amount of USD 672,000 billion;[164] their gross market value was USD 20,300 billion.[165] The numbers as of the end of 2012 were USD 640,000 billion and USD 25,000 billion respectively, according to BIS statistics.[166] For the sake of perspective, global GDP is roughly USD 70,000 billion.

Gross notional value measures the total dollar value of the underlying securities referenced. Notional value is the best measure of the size of derivative activity. To measure economic risk the **gross market value** of those derivatives gives a better measure. Gross market value measures the cost of replacing existing contracts – it roughly amounts to between 2.5 and 4 per cent of the notional value.[167] According to BIS statistics the market value of the global OTC derivative complex was USD 25,000 billion at the end of 2012. This is more than the combined equity of the 20 largest global banks.

Since there is no regulation and no obligation to report data, the market could also be double the size of the numbers stated above.

For instance, the BIS has identified '**data gaps**' in the information on bilateral portfolios of OTC derivatives transactions, which extend to details

of exposures and amounts posted as collateral as well as the market values of open transactions and reference data on affected parties in the event of a counterparty default.[168]

Hence the first risk emanates from the lack of sufficient and reliable data.

Another risk factor is collateral. Derivative contracts – in principle – must be backed by collateral in order to protect against counterparty default. The amount of collateral is usually a percentage of the market value of the contract.

As noted earlier in this section, the market value, and hence the amount of collateral required, may vary over the time of the contract. In times of volatility in the security referenced, a request for additional and substantial collateral ('variation margin') might be triggered.

For instance, from the middle of 2007 to the end of 2008, the market values of Foreign Exchange (FX) derivatives and interest rate swaps almost tripled, from USD 11,000 billion to USD 32,000 billion, even though their notional values increased by less than 9 per cent.[169] The market value of CDSs went up by a factor of seven, on an almost unchanged notional value.

Official statistics try to capture the counterparty risk according to the parameter of gross credit exposure, which measures the reporting dealers' exposure after taking into account the legally enforceable netting agreements of the banks. Given the previously mentioned volatilities, it would be more precise to label this parameter gross credit exposure at current market values.

Moreover, this parameter assumes that netting will function properly in times of distress. If, for example, Goldman has a position in derivatives receivables against Citigroup and Citigroup has an equal position of derivatives payable against Goldman, those two positions are netted out. But it should be noted that Citigroup only survived the 2008 turmoil due to a government bailout. Hence, the netting assumption is somewhat flawed.

The BIS reported a gross credit exposure of USD 3,700 billion for the end of 2012. But that number could easily double in periods of distress, in particular if sovereign bonds are downgraded and some sovereigns are perceived as candidates for default. In such times counterparties are required to post more collateral.[170] For instance, between mid-2007 and late 2008, the gross credit exposure rose by USD 2,000 billion.[171]

The same is required if a counterparty is downgraded by the rating agencies – be it a bank or a sovereign. Morgan Stanley dramatically increased its estimate of the amount of additional collateral it would need to post to its derivatives trading partners if rating agencies were to lower its rating. The bank estimated it would have to put up an extra USD 7.2 billion in securities and other collateral in the event that its ratings were changed by Standard & Poor's and Moody's to BBB and Baa2 respectively, two notches above junk status.[172]

Another risk factor is the requirement for collateralization and the availability of government bonds with AAA status. In global financial markets

sovereign bonds are THE collateral. However, this global pool has shrunk by more than 60 per cent since the GFC triggered a wave of downgrades across the advanced economies. And a further shrinkage in the pool of AAA ratings could fuel fears about a looming 'collateral crunch' – a shortage of those assets that can be used as security by banks and others when borrowing in capital markets or from central banks.[173]

So, the big accident waiting to happen is a further downgrading of sovereign bonds leading to increased volatility, since the prime channel between governments and banks is sovereign bonds. A chain reaction could occur wherein a sovereign downgrade would force banks to provide more eligible collateral for their derivative contracts. At the same time the core capital and liquidity ratio of banks would be hit,[174] because the bonds would have to be 'marked-to-market' – which is the actual market value. This would force the banks to buy more bonds or comparable securities. In such a 'collateral crunch' prices for the bonds could skyrocket since global banks would desperately need them at the same time for two reasons: (a) to comply with the increased margin calls from their derivative contracts and (b) in order to comply with the capital and liquidity ratios required by the regulators. Global banks could be overwhelmed by those demands. Whether in such an event they could be bailed out by their already over-indebted governments is more than questionable.

This effect would be dramatically amplified by the fact that the global OTC derivative complex is already massively under-collateralized. The five largest European banks alone carry a derivative-related tail risk of USD 700 billion. The global banks are dancing their derivative polka on extremely thin ice. The following section illustrates this in more detail.

2.7.2.I Questionable regulatory attempts – Central Counter Party (CCP) concept

At the 2009 G-20 summit an agreement was reached to charge regulators with establishing more transparency for the global OTC market as part of a package of financial market reforms. Global leaders agreed that all standardized OTC derivatives should be traded on exchanges or other electronic trading platforms – called Central Counter Parties (CCPs); that they should be processed through those clearing houses; and that trades should be reported to data warehouses known as trade repositories. Such a move would provide regulators with a full electronic audit trail for all trades. So says the theory. The purpose of the CCP concept is to reduce moral hazard so that taxpayers are not faced with bailing out the next financial crisis.

However, a March 2011 IMF Working Paper argues that those CCPs are another TBTF entity in the making,[175] and that the current CCP approach does not remove the systemic risk from OTC derivatives but rather shifts it from banks to CCPs – which might require another taxpayer bailout.

The paper shows that the global OTC derivative complex is already massively under-collateralized at an estimated magnitude of USD 2,000 billion.

However, this number is only a guess; it may well be higher, especially since the source of the estimate is the self-regulated body of the International Swap and Derivatives Association (ISDA), whose accuracy is unverifiable. The EU Commission commented:

> The dominant source of the nature and extent of bilateral collateral is ISDA's margin surveys. This section is based on the numbers provided by ISDA. However, the Commissions services cannot judge the solidity of these numbers, as no information is available about the methodology for calculating the numbers. They should accordingly be considered as indicative only.[176]

The under-collateralization stems from the fact that, according to ISDA practice:[177]

- sovereigns, AAA insurers/corporates/large banks/multilateral institutions, like the EBRD[178] and the 'Berkshire Hathaway' type of firms do not post adequate collateral since they are viewed as privileged and presumably safe clients; and
- the dealers have agreed, based on the bilateral nature of the contracts, not to mandate collateral for dealer to dealer positions. In fact, dealers typically post no initial margin/default funds to each other for these contracts.

To protect themselves CCPs will require collateral to be posted from all members – including sovereign and public entities. In essence, both parties should post collateral to the CCPs – no exceptions or exemptions. Thus moving transactions from the systemically important financial institutions (SIFIs) to CCPs would make the under-collateralization obvious and require large increases in collateral.

According to the IMF paper, each of the largest ten global banks carries a derivative-related tail risk of about USD 100 billion. The five largest European banks had about USD 700 billion in under-collateralized risk in the form of derivatives payables as of December 2008. The US banks had around USD 650 billion in derivatives payables as of the end of 2008.[179] These sizeable collateral needs suggest that CCPs may not inherit all the derivative positions from the large banks.

Moreover, to ensure sufficient functioning of netting contracts and posting collateral or initial margin the various CCPs must be intra-operational, which means across countries. However, legal and regulatory sources indicate that cross-border margin access is subordinate to national bankruptcy laws. Thus it is unlikely that a CCP in one country would be allowed access to collateral posted by a CCP registered in another country. Further on, a CCP may itself become a TBTF institution – by assuming an external shock where everyone is trying to liquidate collateral simultaneously. This will

lead to a problem: if the CCP has repo'd out the collateral, it then cannot pay cash to its members. In such a case the CCP must go to the central bank. The CCP may also need central bank support if it has suffered a series of defaults and is subject to a run because of credit concerns. In such a case a central bank might feel forced to provide liquidity support. However, such an arrangement would again create moral hazard.

Hence, there would be no material change to the status quo without CCPs – they would effectively become TBTF entities as well and therefore pose the same bailout risk as the banks.

The IMF paper maintains that if the CCP concept is further pursued by regulators there is a high likelihood that considerable amounts of derivatives might not be moved from the TBTFs to the CCPs. It concludes that the currently envisaged regulatory steps seem unlikely to adequately reduce the systemic risks of OTC derivatives, and the likelihood of further taxpayer bailouts remains significant.[180]

And this risk is indeed significant. As already shown, the interest swap and CDS derivatives markets, comprising 80 per cent of all global OTC derivatives, can be quite volatile. Another 2012 IMF Working Paper shows that OTC derivatives trades are highly concentrated.[181] Roughly 80 per cent of the global OTC derivatives volume is concentrated among the 12 largest global banks.[182] The paper maintains that the existing statistical models for predicting systemic risk may fail to identify the threats to stability arising from the interconnectedness and the concentration of financial links between so few key players – called 'super-spreaders'. As these super-spreaders account for the bulk of capital in the system, no bank among the top tier can be allowed to fail, highlighting that the implicit socialized guarantees allowing the TBTFs to operate in those markets are untenable.

The paper further maintains that simulations of expected cumulative derivatives losses when cascaded in a series of insolvencies of top brokers exceed the capabilities of the Fed to provide backstops.[183] The paper concludes that the global OTC derivatives market in the post-Lehman period is unstable and has the potential to bring about catastrophic losses. And the highly interconnected network structure among those few key players implies that they will stand and fall together.[184]

The question then is whether the global OTC derivatives complex can be brought back under regulation at all in order to ring-fence its tremendous risks to society; it may well be too late.

What is important in the context of this book is to underline that the deregulation of the global OTC market was brought about by lawmaking in the form of the FSMA of 1999 and the CFMA of 2000.

And this lawmaking process was triggered by lobbying and campaign contributions from the financial sector.[185] This amounts to oligarchic lawmaking as opposed to democratic lawmaking. Had there been a pluralistic debate about the pros and cons of this law the result would have been different.

There was no shortage of warnings, but they were sidelined by the obsessed 'neoclassical gang' and the mainstream media, which parroted their mantras. As a consequence Brooksley Born resigned from her position as Chair of the Commodity Futures Trading Commission (CFTC) at the end of 1999.

2.7.3 Increasing dependency on short-term financing and on shadow banking

Historically, banking observed an unwritten rule demanding the matching of maturities: that is, if a bank makes a long-term loan it must be financed by long-term liabilities/funding, either time deposits of bank customers or another source.

If a bank, for instance, loans out USD 30,000 for 15 years it should be refinanced by a liability with a fixed interest rate, to be due in 15 years as well. The profit of the bank comes from the difference in the cost of funding and interest earned from the customer. A customer may have received 3 per cent on his time deposit but the borrower paid 7 per cent. In this way, the bank would earn a stable interest income. This wise rule was aimed at preventing banks from making long-term loans refinanced by short-term funding because this would lead to a so-called maturity mismatch. This maturity match rule mutated over decades into a maturity mismatch practice in the global banking sector (see section 2.7.1 for a description of the maturity mismatch of the S&L crisis in the 1980s, in which more than 1,000 banks collapsed).

2.7.3.A ECB stimulated short-term funding

In Europe the trend toward greater use of short-term funding was actually triggered by the ECB. Since its founding the ECB has used repurchase operations as a major tool of money creation and of its monetary policy. This means in practice that the banks of the Eurozone were able to buy sovereign debt of any euro member nation and present it to the national central bank, which acts on behalf of the ECB, as collateral for new finance, that is, liquidity. Therefore, buying up sovereign debt and depositing it with the ECB provided European banks with abundant liquidity to be invested in overheating housing markets.

The ECB set collateral rules that made short-term paper more attractive than long-term paper. As a result of this system, it became very profitable for banks to buy short-term government paper and deposit it with the ECB in return for loans. The margin between the returns on the government paper, say 5 per cent, and the ECB lending rates, say 1 per cent, became profit for the commercial banks. Through this procedure the ECB contributed massively to the build-up of risk.

Although the ECB did not promote it explicitly, investors grew confident that the ECB and the European Union would never let a sovereign fail. Hence all major European banks built up substantial portfolios of short-term

sovereign debt and sovereigns in turn issued more of this debt. It became clear that sovereign defaults could be catastrophic for the banking system, and so would be very unlikely to occur. Finally, the system became even more dangerous as many banks went on a credit expansion spree. European banks issued short-term bonds in order to finance additional long-term loans. This was possible because the balance sheets of banks were filled with assets that could easily be used as collateral at the ECB. Because banks are regulated, and their deposits are typically guaranteed by governments, investors naturally expect governments to bail out banks if short-term liquidity is needed.[186]

With this kind of monetary policy the ECB achieved two things: euro governments had an incentive to issue more and more short-term debt which banks were incentivized to buy because of the profit opportunity offered by the ECB. Hence, both parties now depend on short-term refinancing. Because both do not and cannot repay their debt, it must be frequently rolled over. Thus, both became increasingly subject to volatile market sentiments, which can easily lead to higher interest rates as a premium for the higher risk perceived. Those higher premiums on sovereign debt rollovers can even become prohibitive, as happened in the case of Greece, Ireland and Portugal.

Second, with this policy the ECB caused banks to help finance the real estate booms in Ireland and Spain. This generated a vicious cycle because the non-PIIGS banks had so much credit exposure that those countries had to be bailed out in order to avoid a collapse of the euro banking system.

2.7.3.B Short-term financing in the US – shadow banking sector

At the end of 2007 the investment bank Bear Stearns had USD 11.8 billion in equity and USD 383.6 billion in liabilities and was borrowing as much as USD 70 billion in the overnight market. It was the equivalent of a small business with USD 50,000 in equity borrowing USD 1.6 million, with USD 296,750 of that due each and every day.[187] With the progressively broadening subprime crisis banks and other financial institutions began to stop lending to each other because the subprime exposure was not transparent and thus the fear that the borrower might default was high. Hence Bear Sterns could not refinance its operations. In an emergency operation orchestrated by the Fed in spring 2008, it was folded into JP Morgan.

Beyond customer deposits and inter-bank lending, banks can also borrow from other financial institutions. Those institutions are non-banks and therefore are not regulated by banking supervisors. Thus they are called 'shadow banks'.[188] Those institutions can be insurance groups, pension funds, money-market funds (MMFs) or large custodians, like State Street Bank, which administers and facilitates, among other securities, shares from global stock market trading.

A bank can obtain funding from a custodian through security lending, in which the bank deposits bonds or shares for a certain period and

receives the value in cash. However, this instrument is also employed by speculators to short stocks. Here, they borrow a number of securities at current market price with the obligation to hand them back at a certain point in time. They then sell those securities in the market. If the bet works out, and the security in question loses significant value within the defined period of time, they can buy those securities back at the lower price in the market and hand them back to the security lender. The difference between the selling price fetched earlier and the purchase price paid later is their profit.

Another significant source of finance for corporations and banks is MMFs, via so-called commercial papers (CPs) – essentially short-term loans. Originally, a CP could only be issued by large AAA enterprises that were backed by the cash flow of the corporation. MMF managers are particularly conservative since their fund statutes require that one dollar invested will never fall below one dollar ('never break the buck'). As long as CPs are issued by corporations like General Electric or Siemens they are fine because of those companies' 'bullet proof' ratings. Since CPs are of a short-term nature, MMFs can earn an almost risk-free interest income in a short period of time.

However, through financial innovation new forms of CPs were developed. Instead of being backed by the impeccable reputation of a large corporation, they were backed by assets. And debt is regarded as an asset. As a result all forms of loans were bundled, restructured and repackaged in an SPV. This SPV then issued CPs backed by its pool of loans – asset-backed commercial papers (ABCPs). Those pools consisted of student, car, credit card and other loans. A top rating was crucial for MMFs due to their statutes. However, with the ever-inflating housing bubble in the US more and more subprime loans found their way into the issuers of the ABCPs. Very often, those ABCP vehicles were owned by banks in the form of subsidiaries held off balance sheet and thus not subject to banking supervision.

Thus, the link between the banking system and the shadow banking system runs via a bank and its off-balance sheet affiliate issuing (short-term) CPs to MMFs. Banks began to escape into the unsupervised shadow banking space. Through the use of structured finance vehicles and financial holding companies, banks were able to increase their leverage, which increased their expected returns but also their exposure to aggregate risk. Moreover, this tendency was aggravated by the poor, or even absent, monitoring standards in the origination phase of the subprime loans. Loan originators were paid for volume, not for quality.

The rise and fall of the US bank Countrywide illustrates this interconnectedness. Countrywide adopted a business model called 'originate-to-distribute'. It originated loans and sold them to investment banks but also securitized them itself and packed them into an off-balance sheet vehicle issuing CPs against cash to be received from MMFs. When rumours first began to spread

that many mortgage loans were suffering from increasing delinquency rates, MMFs stopped buying CPs from Countrywide's affiliate. In August 2007, as news of Countrywide's funding squeeze leaked out, it experienced a bank run. Customers cleared their deposits. By January 2008, Countrywide was fully acquired by Bank of America – presumably upon strong 'recommendation' by the Fed.

Due to the fact that so many ABCPs contained subprime loans, and in the wake of the collapse of the investment bank Lehman Brothers in September 2008, a run broke out on MMFs. MMFs are not covered by an insurance scheme as banks are by the Federal Deposit Insurance Corporation (FDIC). Customers of MMFs can withdraw their deposits at any time. However, MMFs, although invested in short-term debt, faced a maturity mismatch between short-term customer redemptions and the duration of their short-term notes. In such a situation they were faced with making fire sales, which would have caused the whole CP market to implode. The US Treasury stepped in to prevent the crisis, providing a guarantee scheme for MMFs.

US MMFs also play an important role in the short-term financing of European banks. In autumn 2011, when nervousness surrounding the euro flared, US MMFs slashed their exposure to European banks by almost 50 per cent.[189] Banks from the PIIGS countries in particular lost access to US dollar funding.[190]

2.7.3.C Repurchase agreements and rehypothecation

Another method of obtaining liquidity from non-banks is via repurchase agreements, called 'repos'. A repo is a contract in which an investor agrees to sell a security then buy it back at a future date at a fixed price. This kind of short-term lending frequently happens between banks, MMFs and pension funds. The size of this market is estimated at between USD 2,100 billion and USD 2,600 billion in the US alone.[191] A repo transaction as such is not a problem per se. But it can become dangerous when it is combined with what is called rehypothecation. Rehypothecation means that a security given as collateral for a loan might be reused by the lender to refinance himself.[192] And it can be again reused by the other lender. Rehypothecation means that a single security can be used many times over to obtain credit lines. This amounts to the build-up of a credit pyramid similar to a house of cards. Such a rehypothecation chain exposes the first lender to the risk that he might not be able to hand back the collateral to the first borrower at the end of the term. Hence, rehypothecation increases the systematic contagion risk. Rehypothecation is not limited to repo transactions. It also takes place with brokers. When a customer of a broker deposits USD 1,000 with him and then takes a loan of USD 300, the broker then can reuse the customer assets given as collateral for his loan to finance other operations. Since in the US rehypothecation chains are capped by regulation, firms prefer to operate in London, where rehypothecation is unregulated.[193]

It should be noted, again, that global regulators failed to recognize the risks associated with those activities prior to the outbreak of the GFC.

2.7.3.D Size of the shadow banking sector

When the outbreak of the GFC brought the interconnectedness between the regulated banking system and the shadow banking system to light, calls were raised for some form of shadow banking regulation. The decision was made at the 2009 G-20 summit in London to set up a Financial Stability Board (FSB) in Basel, Switzerland, to analyse the channels of interconnectedness between these two systems. As the name 'shadow' suggests, the first hurdle is the collection of reliable data. In November 2012 the FSB issued its second 'Global Shadow Banking Monitoring Report'. This report was the first to cover the whole EU and 25 other jurisdictions, amounting to 86 per cent of global GDP and 90 per cent of global financial assets. According to the data the shadow banking system had grown rapidly before the crisis, rising from USD 26,000 billion in 2002 to USD 62,000 billion in 2007. It declined slightly in 2008 but reached USD 67,000 billion in 2011. To compare: worldwide GDP is about USD 70,000 billion.

The US has the largest shadow banking system, with assets of USD 23,000 billion in 2011, followed by the Eurozone (USD 22,000 billion) and the UK (USD 9,000 billion). Until the outbreak of the GFC these large sectors were not even on regulators' radar screens.

2.7.4 Consistent failure of banking regulation – the Basel Accords

As stated in section 2.1, two sources of banking regulation exist: statutes passed by parliaments and the Basel rules. This section examines whether those rules can successfully cope with the various sources of fragility in the global banking system.

The provisions of the Basel Accords are the result of negotiations between the central banks and the banks of the 27 member countries. The Bank for International Settlement (BIS, frequently called the 'central bank of the central banks') has its seat in Basel, Switzerland. The rules of the Basel Accords are not made by the parliaments, the proper place for lawmaking.[194] Instead they are made by unelected experts. Despite or perhaps because of this, the Basel rules suffer from fundamental flaws, which contributed to the financial crisis.

2.7.4.A Risk-weighted asset approach (RWA) – susceptible to manipulation

The RWA approach was introduced in 1996 in the form of an amendment to the Basel I Accord – the Market Risk Amendment. It allowed banks for the first time to use their own internal models – so-called Value at Risk (VaR) models – to calculate the regulatory capital needed to protect against market risk.[195]

The underlying rationale is that different assets of a bank require different capital cushions to absorb potential losses. For instance, a loan to a

multinational corporation usually carries a lower risk of default than a loan to a small enterprise or a consumer loan; a mortgage might be safer than an unsecured loan. The VaR models then calculate the probability of default for the various assets. The Basel rules define to a high degree of detail different asset classes and what exactly qualifies as core capital.

However, the RWA approach is susceptible to manipulation and prone to inconsistencies among national regulators. The Basel Committee on Banking Supervision conducted a study in which it handed the same hypothetical trading portfolio to 15 large banks in nine countries and asked them to calculate the total capital required to support it.[196] It turned out that in some cases banks hold only one-eighth of the capital held by their competitors against the same assets.

In a similar and more recent study the European Banking Authority (EBA) looked specifically at RWA versus total assets in the banking books of 89 banks in 16 countries and found that some banks were using risk models that required them to hold 70 per cent less capital than their peers.[197]

What is even more disturbing is that regulators like the Fed and the ECB are relying on this deeply flawed RWA approach when performing their so-called stress tests. Irish banks and the Belgian-French Dexia bank passed these 'stress tests' with flying colours and were declared safe, only to collapse soon after.[198] Hence, when a European bank proudly claims to have 10 per cent 'core capital' one can safely assume that its real equity ratio is significantly lower.

Banks are actively combing through their balance sheets in order to find ways in which assets can be structured differently in order to achieve lower risk weights. Hedge funds and insurers participate by buying or guaranteeing a slice of risk on a bank's books.

Hence it is no wonder that empirical research on the financial crisis shows that a high ratio of equity relative to risk-weighted assets did not mean that a bank was safe. By contrast, a high ratio of equity relative to total assets, without risk weights, meant that a bank was in a better position to deal with the crisis.[199]

In hindsight, it can be said that the RWA approach not only represents a conceptual failure but that it in fact contributed to the GFC.[200] The Basel rules and in particular the VaR models used by the banks suffer from a variety of fundamental flaws.

2.7.4.B Value at Risk (VaR) and the normal distribution trap

The VaR models assume that the probability of financial risk is subject to a normal or bell curve distribution (also called Gaussian distribution). It is not. An enormous body of statistical research shows that it follows the laws of power distribution. A study carried out by Citigroup in 2002 identified frequent moves in the exchange rate between the US dollar and the yen. In a normal distribution this would have happened once in a century. One of the observed moves was such an outlier which according to the Gaussian

probability distribution never should have happened even if the Citigroup had been trading dollars and yen every day since the Big Bang 15 billion years ago.[201]

Those models neglect the catastrophic losses resulting from risk events to which only a 1 per cent probability is assigned – although their true probability is much higher.[202] Again, those so-called fat tails follow a power law distribution that is hard to calculate rather than a normal distribution.

Since VaR models are an industry-wide standard, bank risk managers could assure their CEOs that their banks' operations, including the adoption of the various off-balance sheet tactics, were 'safe'.

James Rickards comments on the VaR models as follows:

> Regulators allowed the banks to self-regulate when it came to risk and leverage. It was as if the US Nuclear Regulatory Commission allowed the builders of nuclear power plants to set their own safety specifications with no independent review.
>
> Many scholars and practitioners had been aware of the flaws and limitations in VaR. The truth is that the flaws were well known and widely discussed over a decade both in academia and Wall Street. The banks continued to use VaR not because it worked but because it permitted a pretense of safety that allowed them to use excessive leverage and make larger profits while being backstopped by the taxpayers when things went wrong. Using VaR to manage risks is like driving a car at a hundred miles per hour while the speedometer has been rigged to stay at fifty miles per hour. Regulators in the backseat of the car glance at the speedometer and see 50, then go back to sleep.[203]

2.7.4.C Interconnectedness ignored – questionable capital treatment rules

Moreover, the VaR models do not capture the interconnectedness, or positive correlations, among different financial assets and financial markets, for instance the correlation between counterparty risk and asset prices.[204] That is what materialized during the financial meltdown of 2007 when banks could not sell their mortgage-related securities in the markets. As the only buyer of last resort the Fed appeared. The same happened a year later when the insurance giant AIG defaulted on the insurance policies it had written for banks to protect against potential losses from their asset- and mortgage-backed baskets of securities. Citibank was one such bank, having purchased CDSs as insurance only to demonstrate to regulators that its portfolio of mortgage-related securities was 'perfectly safe' – until AIG collapsed. Again, the Fed and Congress had to step in with public money.

Some Basel II rules exempted banks from the obligation to provide any capital for certain assets because they were qualified as being risk-free. For

instance, in 2006 Citigroup retained the super-senior and AAA tranches of most of the CDOs it had created.[205]

Part of the rationale for retaining exposures to super-senior positions in CDOs was their favourable capital treatment. If a bank held those assets in its trading book it could get even better capital treatment under the 1996 [Basel] Market Risk Amendment. Citigroup judged that the capital requirement for the super-senior tranches of synthetic CDOs it held for trading purposes was effectively zero, because the prices did not move much. As a result, Citigroup held little regulatory capital against the super-senior tranches.[206] When crisis hit, those assets became effectively worthless.

Again, the government had to step in by providing a capital injection of USD 20 billion and a guarantee of up to USD 306 billion in 'problematic assets'.[207]

2.7.4.D Basel III: insufficient capital provisions – a loss scenario

A series of G-20 summits since 2008 focused on increasing the stability of the global banking system. The Basel Committee on Banking Supervision was charged with that task.

The result was Basel III, issued in late 2010. Basel III changed the definition of existing ratios, as well as the definition of capital, and introduced new ratios for liquidity and funding. The purpose of the new framework was to increase the overall resilience of the global banking system by incorporating some of the lessons learned from the GFC.

With respect to capital Basel III requires banks to hold 4.5 per cent of Common Equity Tier 1 (CET-1) and to have a capital conservation buffer of 2.5 per cent.[208] Global banks, regarded as systemically important, have to take a surcharge, bringing CET-1 to 8.5 per cent.

The main difference between Basel II and Basel III is in the definition of what kind of financial assets qualify for CET-1. Basel II was more generous than Basel III. The key criterion is how fast the assets in question can be liquidated. Since Basel III eliminates certain assets that were allowed to be treated as capital, the 'old' ratios are much higher than the new ones. Hence, the banks are now forced to provide more and new capital. However, the banks have until 2019 to supply that missing capital, through either the sale of assets or the raising of new capital.

But the calculation of the required capital is still based on the flawed RWA and VaR methodology.

With respect to the level of equity it is noteworthy that historically banks had much higher levels of equity than are now required under Basel III.

> [During the 19th century] when banks were partnerships whose owners were fully liable for their debts, it was common for banks to have equity in the order of 40% or even 50% of their total assets. Around 1900, 20% to 30% equity was common for banks in many countries. These equity levels were not mandated by any regulation. Rather, they emerged naturally in the markets . . . The decline that occurred subsequently in the 20th

> century was closely related to governments' needs for finance in World War I and to the development and repeated extensions of the various safety nets by which governments support the banking industry, from explicit guarantees provided by deposit insurance to the bank bailouts and implicit guarantees for too-big-to-fail banks.[209]

The chorus of academics demanding substantially higher equity ratios for banks is growing.[210] Their demands range from 15 to 50 per cent.[211] The rationale for the increase is well expressed by Anath Admati and Martin Hellwig:

> Among the advantages to the stability of the financial system of banks operating with much more equity is the fact that losses to banks' assets deplete equity much less intensely and thus do not require as much of an adjustment as when banks have less equity. A loss of 1 per cent in the value of a bank's assets wipes out fully one-third of the bank's equity if it has only 3 per cent of its assets in equity but reduces its equity by only 4 per cent if the bank's equity represents 25 per cent of its assets. If the bank wants to sell assets to restore the relation between equity and total assets or for other reasons following a loss, it must sell 32 per cent of its assets if the initial equity was 3 per cent of its assets but only 3 per cent of its assets if the initial equity was 25 per cent. The contagion effects of deleveraging through distressed sales are much smaller if the initial equity is much higher.
>
> Another important benefit to the system of requiring much greater bank equity would be that financial institutions would have more confidence in each other. Financial institutions routinely borrow from and lend to each other in order to smooth fluctuations in their funding that might be due to customers' transfers, withdrawals, and deposits. If banks had greater confidence in each other, this smoothing would be less vulnerable to disruptions and would work more efficiently.[212]

There is abundant data to support the argument for far higher levels of equity. The aggregate balance sheet of all banks in the Eurozone looks like this:

Aggregate Balance Sheet of Eurozone Banks (in €billion)[213]

Total Assets		**Liabilities**	
(not risk-weighted)			
Loans	17,900	**Deposits**	17,000
Securities (e.g. Greek government bonds)	4,900	**Debt**	4,800
Foreign assets	4,000	**Others**	8,700
Others	6,000	**Equity**	2,300
	32,800		**32,800**

According to a recent study by Ernst & Young, euro banks have €918 billion in non-performing loans (NPLs). Ernst & Young sees about 15.5 per cent of all loans in Spain, and 10.2 per cent of all loans in Italy, as likely to have NPL status.[214] The corresponding proportion for Germany is 2.7 per cent.

As can be seen from the above table, the equity ratio of the euro banking system is roughly 7 per cent. €918 billion already qualified as non-performing represents roughly 5 per cent of total loans. However, this number is rapidly increasing in the peripheral Eurozone countries.

Assuming that 10 per cent (ca. €1,800 billion) of the value of loans and securities of the euro banking system were to be written off, then approximately 80 per cent of bank equity in the system would be wiped out. Such a write-off on the asset side would have to be reflected on the liability side.

However this 'reflection' would be double the size of the losses, or twice €1.8 billion, because the equity wiped out has to be rebuilt. In order to restore the system, roughly €3,600 billion would be required, which amounts to 13 times the nominal 'rescue volume' of the European Stability Mechanism (ESM). And it would amount to 65 times the size of the European single resolution fund with its €55 billion. This fund is part of the new banking union concept, which was devised by the European finance ministers in December 2013. However, it will only be filled up gradually by the banks over the next decade.[215]

Moreover, the market capitalization of the whole European banking sector was around €565 billion at the beginning of 2012.[216] In addition, the profitability of European banks is projected to move sideward at best in the medium-term.[217]

This back-of-an-envelope scenario shows that even under the new core capital definitions of Basel III the shock absorption capability of the Eurozone banks is severely restricted. Hence, it can be foreseen that additional bank bailouts are around the corner for European societies. Which, of course, 'nobody could see coming'.

Since the bailout of the Cypriot banks in summer 2013, the victims of this write-down fall into five categories: (1) shareholders; (2) bondholders and subordinated debt holders; (3) savers with more than €100,000 of deposits, and (4) the ESM rescue fund, which reserved only €60 billion for bank recapitalizations (insufficient ESM funds would not flow directly to the banks. Instead governments must apply for them. If granted, those funds would come with austerity strings attached); (5) taxpayers.

The irony lies in the fact that these huge sums would go into a system that claims that economic growth can only be promoted with extremely low equity ratios.

Should this 10 per cent loss event occur – most of the southern Eurozone banks are already well beyond the 10 per cent NPL assumption here – the ECB probably would have to step in with measures similar to those taken by the Fed in the US. It would have to purchase bank assets in order to provide liquidity to the banking system. Those sizeable asset purchases would be financed by freshly printed money.

But if the ECB started buying up banking assets on a large scale, it would enter into a vicious cycle, becoming totally dependent on the survival of the banks and their profit and loss situation – like the Fed (see section 2.8.7). This would make monetary policymaking subject to the profit interest of the banks and not to the preservation of the purchasing power of money and the interests of society. The survival of the banking sector would become the sole goal of monetary policy.

It should be noted that under the new banking union concept the ECB is the supervisor of the 130 largest European banks. It is charged with carrying out a new stress test (Asset Quality Review (AQR)) by the end of 2014. Meanwhile the definition of 'bad loans' has already been watered down.[218]

This ongoing dilution of newly introduced ratios by Basel III is a notorious phenomenon.

Basel III introduces three other key ratios in order to enhance the stability of the banking system: the leverage ratio, the liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR).

The LCR introduces a new minimum standard and requires a bank to have sufficient high-quality assets (sovereign bonds) to withstand a stressed 30-day funding scenario specified by supervisors. The NSFR tries to address liquidity mismatches. Its goal is to give banks an incentive to use stable sources to fund their activities.

The leverage ratio is a simple, transparent, non-risk-based ratio intended as a credible supplementary measure to the RWA approach. The ratio is straightforward. It measures total assets against Tier-1 capital. If a bank has assets of 100 and equity of 2.5 then the leverage ratio is 2.5 per cent. Put differently, a bank can leverage its equity by a factor of 22 (100 divided by 2.5). The lower the leverage ratio the lower the shock absorption capacity of a bank. Basel III makes a leverage ratio of 3.0 per cent mandatory. If it is not reached, additional capital must be provided. As shown before, a leverage ratio of 3 per cent is ridiculously low.

These new ratios force the banks to mobilize much more capital than they have. In order to get an idea of how much capital the banking system needs to mobilize in order to be in compliance with the new ratios by 2019, the Basel Committee on Banking Supervision and the EBA have conducted semi-annual monitoring exercises since 2011 in order to measure the impact of the Basel III regime.

The estimates of this monitoring exercise were made on the assumption of full implementation of Basel III under the balance sheet conditions existing today. So, no assumptions were made regarding managerial action to be taken during the transition period until 2019 – deleveraging and sale of assets, for example. Therefore, the results of these reports are not comparable to current industry estimates, which tend to be based on forecasts and consider management actions to mitigate the impact, incorporate estimates where information is not publicly available.

The Basel Committee published the results of this monitoring exercise in April 2012;[219] the EBA followed suit in September 2012.[220]

The report of the Basel Committee on Banking Supervision, which covers the global banking system, showed a capital shortfall of €5,247 billion. The EBA's report showed a capital shortfall of €2,962 billion for European banks, representing 56 per cent of the global shortfall, whereas their profit share within the global system amounts to only 23 per cent.

Raising nearly €3,000 billion by 2019 will be very challenging for European banks and will most likely lead to a large-scale asset disposal at wholesale prices, further stressing the critical condition of the European banks. Therefore, two things can be expected:

1. It is highly unlikely that European banks will boost lending over the next five years.
2. Given the highly fragile condition of the European banking system, a joint effort between the EU Commission and the banks can be expected to water down the new criteria as much as possible, first because the Eurozone banks will have great difficulty meeting those criteria at all, and second because the political class of the Eurozone countries depends on an ever-increasing flow of freshly created credit money that never dries up.

And that is what is already happening. As mentioned above, the bad loan definitions to be applied in the 2014 Asset Quality Review by the ECB have been softened already. In its Basel III implementation proposal the EU Commission weakened the rules[221] about what assets qualify as core capital (CET-1) and as highly liquid.[222] European banks can now count hybrid securities and stakes in insurance companies as CET-1.[223] Both asset classes were explicitly ruled out by Basel III.

Next, the leverage ratio has become significantly moderated in that certain classes of assets have simply been excluded from the calculation of the total of bank assets despite representing a large portion of their assets (derivatives and repo agreements).[224]

And the watering-down goes on. In the autumn of 2013 the ECB announced it would apply a capital ratio of 8 per cent in its Asset Quality Review. In January this ratio was reduced by 25 per cent, down to 6 per cent.[225]

And as will be seen in the following section, the watering-down goes further.

2.7.4.E Sovereign bonds treated as risk-free

A further risk factor is that the Basel rules still treat sovereign debt as 'risk-free' despite the dangerous over-indebtedness of some European states and even regardless of the 'haircut' on Greek government bonds in March 2012 by which investors had to accept losses of roughly 40 per cent.

This leads to the absurd situation that a bank that has €1.8 trillion in loans and €200 billion in Spanish or Greek government debt is not required to have more equity than a bank that has €1.8 trillion in loans and €200 billion in cash. According to this rule government debt is as risk-free as

cash[226] – a fairly daring assumption given the precarious fiscal state of various sovereigns.[227]

As Admati and Hellwig explain,

> When regulations are designed to give preference to government debt, banks are more willing to lend to the government. This is convenient for governments, so they are reluctant to change the regulation. If at some point the taxpayers have to pay for bailout, voters will not be able to identify who was responsible. Nor will they understand the connection if the bailout cripples the government's finances and everyone is affected by austerity policies. In many cases, the responsible politicians actually leave office before the risks from their policies materialize. Banks and governments have always had a symbiotic relationship.[228]

This 'symbiotic relationship' between governments and banks reappears in the stress tests the ECB intends to conduct until the end of 2014. Originally, the ECB said it would require EU banks to hold capital against their sovereign bond portfolios,[229] but it has been reported that they have decided this will only apply to sovereign bonds held in the trading books of the banks whereas sovereign bonds held to maturity in the banking book will not be made subject to this requirement.[230] This provides banks with a back exit for shifting their sovereign bond portfolios from their trading to their banking books during the so-called Asset Quality Review.

Moreover, this kind of regulatory capital treatment of exempting or privileging certain asset classes in combination with retaining the privilege to calculate the risk with their own VaR models distorts the capital allocation in the economy. It also explains why so many funds went into mortgage-related securities as opposed to small-business lending.[231]

2.7.4.F Bank lobbyism against higher capital ratios – hollow arguments

Although significantly higher equity ratios of banks would better protect societies and savers against collective pauperization in the event of the collapse of the banks, bank lobbying continues to defend its insane capitalization practices.

Bank lobbyists usually respond to such arguments with four lines of objections to higher equity requirements:

1. A higher equity ratio would reduce lending to society. A typical example of this argument reads:

   > When used efficiently, a dollar of capital on reserve allows a bank today to put ten dollars to work as expanded economic activity. The new Basel

rules would demand that banks maintain more dollars on reserve for the same amount of business, or more capital for no new economic work.[232]

Such a statement is false and misleading, implying that capital is the same as cash reserves and that Basel is concerned with reserve requirements – which it is not.[233]

In the same line are calculations claiming that each percentage point of higher equity would reduce economic growth by some corresponding amount. In reality, precisely that putative growth engine plunged the advanced economies into deep recession and forced billions of losses on those societies.[234]

2. It would increase banks' funding costs and hence the cost of credit to the economy. Martin Wolf from the *Financial Times* replies as follows:

   If equity is indeed expensive, it is because there is far too little of it or because the balance sheets are too risky. Alternatively, equity may just seem costly because of 'debt overhangs' – situations in which much of the benefit of extra equity goes to creditors, because initial equity was too small. State support to creditors may also make additional equity seem expensive to banks. But this time it is only because the benefits go to taxpayers. Again, equity may seem expensive to managers. But this is probably because lower returns mean lower pay. Yet it is not in the interest of the wider public to permit debt overhangs, subsidize creditors or keep bankers' rewards high. The bigger the costs of failures, the bigger the needed loss-absorbing equity must be.[235]

   Banks simply cannot raise equity and will have to shrink their balance sheets instead, which again means reducing lending to the economy. Again Martin Wolf comments:

   The riposte is simple: if the bank is profitable, it must simply be told to retain earnings until higher ratios are reached; if it is unprofitable, it needs to be wound up smartly, in any case. Pollution is regulated. Economic pollution should also be regulated. Banks that are financially fragile and unprofitable are important sources of just such economic pollution.[236]

3. A nation's banking system would become less competitive relative to banks in jurisdictions with lesser requirements. However, the price of global banking success can be very high. The dire price of the 'global success' of the Icelandic banks up until 2008 was paid by Icelandic society.

Admati and Hellwig devote an entire book to proving those and other arguments made by the global banking lobby patently false.[237]

2.7.4.G Why are banks pressing for low equity ratios?

The explanation is rather simple. The common profitability measure for banks is return on equity (ROE). This percentage measure becomes higher the lower the denominator (equity) for the profits.

This gives banks an incentive to finance their profit-seeking assets with credit money, that is, with leverage. This incentive becomes amplified by the fact that the cost of debt is tax deductible in most developed countries. But the cost of equity financing typically is not tax deductible. This again is a consequence of lawmaking; the law could be changed.

Historically, the ROE for UK banks was in the range of 5 to 10 per cent. By the end of the 20th century and at the beginning of the 21st it was in the range of 20 to 30 per cent.[238] It is empirically evident that increasing leverage and higher volatility lead to a higher ROE.[239] Increasing leverage leads to a build-up of assets.

At the start of the 20th century, the UK's largest three banks' assets accounted for 7 per cent of GDP. By the middle of the century they had reached 27 per cent. By its end, they had reached 75 per cent.

By 2007, assets of the big three banks had risen to 200 per cent of GDP, and the assets of all UK banks to 500 per cent of GDP.[240]

With respect to volatility the purchaser of a portfolio of global banking stocks in the early 1990s is now sitting on a loss, because volatility brings with it good and bad times. This holds true for the long-term investor, but not for the short-term investor. The average holding periods for US and UK banks fell from around three years in 1988 to around three months by 2008: 'Banking became, quite literally, quarterly capitalism.'[241]

Hence, the beneficiaries of rising leverage and higher volatility are short-term investors and bank managers. The latter's income is usually linked to ROE targets. The victims are the stakeholders of society. The attractiveness for banks to increasingly play the leverage-volatility game is reflected in the compensation of bank CEOs. In 1989, the CEOs of the seven largest US banks earned on average USD 2.8 million. That was almost 100 times the median US household income. By 2007, at the height of the boom, CEO compensation among the largest US banks had risen almost tenfold to USD 26 million. That was over 500 times the median US household income. Today, banks rely heavily on debt financing of their assets – it is close to 95 per cent. Andrew Haldane from the Bank of England summarizes the situation as follows:

> What we have, then, is a set of mutually-reinforcing risk incentives. Investors shorten their horizons. They set ROE targets for management to boost their short-term stake. These targets in turn encourage short-term risk-taking behaviour. That benefits the short-term investor at the expense of the long-term, generating incentives to shorten further horizons. And so the myopia loop continues.[242]

He further suggests that the behaviour of the financial system would be improved by an alternative set of performance metrics. The ideal metric would focus less on a narrow subset of the balance sheet (such as equity) and do a better job of adjusting for risk. One metric satisfying those criteria would be return on assets (ROA). This covers the whole balance sheet because it is not flattered by leverage, and does a better job of adjusting for risk. It would be a small step for banks to switch from ROE to ROA targets. The effects on risk-taking and remuneration could be significant. Had the CEOs of the seven largest US banks agreed to index their salaries not to ROE, but to ROA, by 2007 their compensation would not have grown tenfold. Instead it would have risen from USD 2.8 million to USD 3.4 million. Rather than rising to 500 times the median US household income, it would have fallen to around 68 times.[243]

This indeed makes a strong case for the banks and their short-term investors to continue lobbying for irresponsible low capital ratios at the expense of societies.

2.7.4.H Regulatory complexity – beyond effectiveness

The Basel rules are far too complex to ensure effective regulatory oversight. Andrew Haldane made clear the reason for having overly complex regulations that lead to failure of control in his August 2012 speech in Jacksonhole, Wyoming.[244] He explained that the Basel I agreement from 1988 was only 30 pages long, while the Basel II agreement of 2004 came in at 347 pages. The revised framework in the form of Basel III in 2010 amounted to 616 pages. However, the length of the Basel rule book understates its complexity.

> The move to internal models, and from broad asset classes to individual loan exposures, has resulted in a ballooning in the number of estimated risk weights. For a large, complex bank, this has meant a rise in the number of calculations required from single figures a generation ago to several million today. That increases opacity. It also raises questions about regulatory robustness since it places reliance on a large number of estimated parameters. Across the banking book, a large bank might need to estimate several thousand default probability and loss-given-default parameters. To turn these into regulatory capital requirements, the number of parameters increases by another order of magnitude . . .
>
> If that sounds large, the parameter set for the trading book is almost certainly larger still. To give some sense of scale, consider model-based estimates of portfolio Value at Risk (VaR), a commonly used technique for measuring risk and regulatory capital in the trading book. A large firm would typically have several thousand risk factors in its VaR model. Estimating the covariance matrix for all of those risk factors means estimating several million individual risk parameters. Multiple pricing models are then typically used to map from these risk factors to the

> valuation of individual instruments, each with several estimated pricing parameters.
>
> Taking all this together, the parameter space of a large bank's banking and trading books could easily run to several millions. These parameters are typically estimated from limited past samples. For example, a typical credit risk model might comprise 20–30 years of sample data – barely a crisis cycle. A market risk model might comprise less than five years of data – far less than a crisis cycle.[245]

Finally Haldane refers to the Dodd-Frank Act of 2010, the legislative response to the GFC in the US. On its own, the Act runs to 848 pages. For implementation, it requires an additional almost 400 pieces of detailed rule-making by a variety of US regulatory agencies. As of July 2012, two years after the enactment of Dodd-Frank, only a third of the required rules had been finalized. Those completed have added a further 8,843 pages to the rule book. At this rate, once completed Dodd-Frank could comprise 30,000 pages of rule-making.

> The situation in Europe, while different in detail, is similar in substance. Since the crisis, more than a dozen European regulatory directives or regulations have been initiated, or reviewed, covering capital requirements, crisis management, deposit guarantees, short-selling, market abuse, investment funds, alternative investments, venture capital, OTC derivatives, markets in financial instruments, insurance, auditing and credit ratings. These are at various stages of completion. So far, they cover over 2,000 pages. That total is set to increase dramatically as primary legislation is translated into detailed rule-writing . . . were that rule-making to occur on a US scale, Europe's regulatory blanket would cover over 60,000 pages.
>
> It would make Dodd-Frank look like a warm-up Act.[246]

Haldane concludes:

> Modern finance is complex, perhaps too complex. Regulation of modern finance is complex, almost certainly too complex. That configuration spells trouble. As you do not fight fire with fire, you do not fight complexity with complexity. Because complexity generates uncertainty, not risk, it requires a regulatory response grounded in simplicity.
>
> Delivering that would require an about-turn from the regulatory community from the path followed the past 50 years. If a once-in-a-lifetime crisis is not able to deliver that change, it is not clear what will. To ask today's regulators to save us from tomorrow's crisis using yesterday's toolbox is to ask a border collie to catch a frisbee by first applying Newton's Law of Gravity.[247]

Thus, it can be concluded that the current Basel approaches are by no means an adequate response to the various risks in the highly fragile global banking system as described in the previous sections.

Moreover, it is highly questionable that they will ever be implemented, since they have come under fire from both sides – banks and regulators – but for opposite reasons, of course.

Banks make the standard complaints that the new capital requirements are far too high, impossible to reach and would reduce economic growth significantly.[248]

Some regulators in turn increasingly complain that the current Basel III rules are at best a minimum standard that should be exceeded.[249] For instance, the American Systemic Risk Council is demanding a far higher leverage ratio than the 3 per cent demanded in Basel III.[250] This ratio allows banks to carry assets worth 33 times their equity. Instead the Systemic Risk Council requires a ratio of 12 per cent, which would allow banks only to have assets 8 times their equity.

But as shown above and in section 2.7.4.D, the already highly fragile state of the European – and especially the Eurozone – banking sector cannot digest a full implementation of Basel III.

Hence the EU Commission pampers the European political classes' source of funding. Even regulators admit that Basel III has failed to increase the stability of the global banking system. Robert Jenkins, a member of the Bank of England's financial policy committee, summarizes:

> Imagine that until 2007, the rules of the road permitted heavily laden fuel trucks to barrel through urban streets at 100 miles per hour. After a number of catastrophic mishaps, the establishment decides to reduce the speed limit to 75 mph in school zones. Have we tightened the rules? Yes. Have we tightened them enough? No.[251]

Within the overall context of this book, the Basel rules are a prime example of the thesis that the crisis of Western capitalism is primarily caused by illegitimate lawmaking. The Basel committees are unelected bodies acting according to their own interests. This is anything but a democratic lawmaking procedure. If the US Congress can pass a Dodd-Frank regulation then other parliaments could equally pass a framework analogous to Basel III but not driven by special interest groups.

2.7.5 Hidden subsidies exceed profitability of global TBTF banks

The global TBTF banks operating on the fractional reserve principle are in reality, in spite of their officially shown profitability and their high remuneration packages, loss-making. This is primarily due to implied government guarantees and other privileges granted to them by lawmakers and central

banks, meaning that their profits and excessive remuneration schemes are in fact drawn from society's resources.

As explained in section 2.2, banks enjoy the legal privilege of creating money out of thin air, or at no cost. Whenever banks make loans they make accounting entries on the left and right side of their balance sheets. However, they charge borrowers interest on their loans. These seignorage profits were estimated by Huber and Robertson at €58 billion for the Eurozone banks and USD 37 billion for the US banks.[252] Any other type of firm incurs costs of production in order to generate profits, but banks do not. Their administrative costs for loan creation are negligible compared to the size of profits.

The British and US banking industries receive other hidden subsidies as well, primarily in the form of implicit guarantees by governments that do not allow big banks to fail. This significantly reduces the risk to lenders, allowing them to lend money to the banks at a much lower interest rate because a premium for risk is not required.[253] This effect is called 'rating uplift' because it is derived from a ratings-based approach. This approach looks at the difference between the stand-alone ('no support') and 'support' ratings of a set of banks. It uses this difference to determine how much higher the funding cost would have been in the absence of support.[254]

The analysis for the years 2007 to 2010 shows that for UK banks the rating uplift amounted to USD 74 billion annually on average. And for a sample of the four largest UK banks and 22 large international banks the corresponding number reads USD 242 billion annually on average – certainly more than their combined profit.[255]

According to another method (the option-based approach)[256] the corresponding numbers for the same period read USD 340 billion for UK banks and USD 1,256 billion for the four largest UK banks plus 22 international banks.[257]

According to data from the Banker, the largest 1,000 banks in the world reported aggregate pre-tax profits of almost USD 800 billion in the fiscal year 2007–8.[258]

Despite the wide variation between the rating uplift estimates based on different methodological approaches, it suffices to refer to the lowest number of GBP 74 billion per year for the UK banking system.

Rick Whalen of Institutional Risk Analytics produced a similar estimate for the US banking sector.[259] In presenting his conclusions he also questions the results of a study undertaken by the IMF[260] that estimated the quantitative advantage caused by the implicit government rating uplift for the US banking sector at USD 83 billion annually. But according to Whalen this is only half the story. He includes other factors in his back-of-an-envelope estimate, including the Fed's subsidization of the cost of funds for the US banking industry, which he estimates at around USD 90 billion per quarter, or USD 360 billion annually. This subsidy derives from the effects of the

various quantitative easing programmes of the Fed. In the fourth quarter of 2012, for instance, the interest expense for the entire US banking sector was USD 1 billion, compared with over USD 100 billion at the start of 2007, according to the FDIC's Quarterly Banking Profile.

He also cites the deposit insurance scheme, maintaining that the rates paid by banks for the scheme are artificially low. While the FDIC is a mutual insurance scheme backed by the income and capital of all insured banks, behind it stands the US Treasury. This backstop translates into a monetary advantage. Whalen estimates that if the FDIC insurance rates were closer to a 'free market' price of 40 basic points per quarter, like the rate for an FHA mortgage insurance premium, the quarterly cost would be close to USD 30 billion instead of the USD 2,937 billion paid in the third quarter of 2012.

He further refers to several loan schemes for the housing sector guaranteed by the government, calculating the resulting benefits for the banks at USD 200 billion per year.

Another factor he considers is the derivatives complex. 'The lack of capital required in these transactions and other special dispensations from the Fed provide the zombie banks with unlimited leverage and almost no public scrutiny. The fact that OTC contracts are exempt from the automatic stay in bankruptcy is a huge subsidy.'

Whalen concludes:

> The point of this exercise is to show that not only do banks receive huge subsidies from the federal government, but these subsidies are far greater than the stated income of the industry [which was ca. USD 150 billion in 2012].

If Whalen's back-of-an-envelope calculations are accurate, USD 1 of annual income reported by the industry is backed by USD 3 of public subsidies.

2.7.5.A Traditional output measures overstate economic contribution of financial sector

The contribution of an industry sector to the economy is usually measured by the nominal gross value added (GVA), defined as the value of gross output that a sector or industry produces less the value of intermediate consumption, which is goods and services used in the process of production. For example, the gross output of a second-hand car dealer can be calculated as the cash value of all cars sold. The value added of that dealer would then be estimated by subtracting its intermediate consumption, the value of cars bought, from gross output.

In September 2008, the collapse of Lehman Brothers precipitated a chain reaction in the financial markets, which brought the largest financial institutions close to collapse. During the fourth quarter of 2008, the equity prices of the major global banks fell by around 50 per cent on average, representing

a loss of stock market value of around USD 640 billion.[261] As a consequence, world GDP and world trade are estimated to have fallen at an annualized rate of about 6 per cent and by 25 per cent in the fourth quarter of 2008 alone. Banking contributed to a Great Recession on a scale last seen at the time of the Great Depression.

Yet the official statistics on the contribution of the financial sector paint a rather different picture. According to the National Accounts, the GVA of the financial sector in the UK grew at the fastest pace on record in the fourth quarter of 2008 and its share of the whole economy's output rose to 9 per cent.[262] Measured real value added of the financial intermediation sector more than trebled between 1980 and 2008, while whole economy output doubled over the same period. In 2007, financial intermediation accounted for 8 per cent of total GVA, compared with 5 per cent in 1970. The gross operating surpluses (GVA less compensation for employees and other taxes on production) of financial intermediaries show an even more dramatic trend. Between 1948 and 1970, intermediation accounted on average for around 1.5 per cent of whole economy profits. By 2008, that proportion had risen tenfold to about 15 per cent.

Total returns to the holders of banks' equity in the UK, US and Eurozone rose a cumulative 150 per cent between 2002 and 2007. The level of ROEs for major internationally active banks in the US and Europe during the first decade of this century, until 2007, was consistently at or above 20 per cent and the balance sheets of the world's largest 1,000 banks increased by around 150 per cent between 2001 and 2009. Looking at the size of the largest firms' assets in relation to GDP across a spectrum of industries, finance had by far the largest.

All of this data suggests that the financial sector is a positive contributor to the Western economies – displaying a productivity miracle. Other traditional methods of measuring output also show a dramatic increase in the productivity of the financial sector. Until 2007 the global banking sector looked like a success story.

However, Andrew Haldane argues that the traditional measurements of financial sector output are massively distorted by the factor of risk. For instance, if there is an economy-wide increase in the expected level of defaults on loans or in liquidity risk, as occurred in October 2008, banks will respond by increasing interest rates to cover the rise in expected losses. The traditional measure of output will then show an increase, as it did for that quarter.[263]

In other words, at times when risk is rising, the contribution of the financial sector to the real economy may be overestimated. So the issue becomes to what extent the bearing of risk can be measured as a productive service provided by the banking system, which in turn means that a banking system that does not accurately assess and price risk is not adding much value to the economy.

Haldane concludes that unless the price of risk can be evaluated correctly, it is unlikely that the contribution of the financial sector can be measured accurately.

In particular, in the good times during the run-up to the crisis markets systematically underpriced risk. In fact, banks assumed higher risks leading to ROE figures double those of the non-financial sector.

During the period from 1997 to 2008, the major global banks were doing two things: first, they were dramatically increasing leverage. Between 2000 and 2008, the level of leverage among the major global banks was on average more than 50 times their equity. The extent of balance sheet growth was understated by banks' reported assets. Accounting and deregulatory policies permitted banks to place certain exposures in off-balance sheet special purpose vehicles.

Second, while increasing leverage banks managed to maintain broadly constant capital ratios, often by seeking out assets with lower regulatory risk weights. This suggests that banks may have invested in riskier assets, which regulatory risk weights had failed to capture.[264]

For instance, among the major global banks the share of loans to customers in total assets fell from around 35 per cent in 2000 to 29 per cent by 2007. Over the same period trading book asset shares doubled, going from 20 to 40 per cent. This shift was triggered by regulatory arbitrage in that trading book risks attract regulatory risk weights dealing with the lower market but not with the higher credit risk. Banks found it capital efficient to bundle loans into tradable structured credit products for sale – CDOs and other forms of securitization, for example.

As a result, it was hypothetically possible for two banks to swap their underlying, and now securitized, credit claims and at the same time to claim regulatory capital relief. This explains in part why the banks were selling to each other their securitized sub-prime loans. However, through this operation the system as a whole was holding less capital for the true underlying credit risk.

Thus, holding a large trading book is a very good strategy when underlying asset prices in the economy are rising rapidly – as they were during the housing bubble. In addition the rising asset prices were booked as marked to market and by this increasing profitability.

However, because these gains were driven by the mispricing of risk, trading book profits were in fact largely illusory. Hence the productivity miracle was in fact a risk illusion and a productivity mirage. And when this productivity illusion burst the losses were shifted to the taxpayers.

What follows is that the levels of hidden subsidies and regulatory privileges are indeed exceeding the profits generated by global TBTF banks.

The current banking system, shaped by irresponsibly low fractional reserves and counterproductive regulation, is clearly parasitic, generating profits by extracting public resources from societies but distributing its profit

gains through out-of-control remuneration schemes within the system. The losses, by contrast, are socialized.

2.8 Role of the Fed and US Congress in responding to the GFC during 2007 and 2010

During the peak of the GFC in 2008 both the Fed and the US Congress took unprecedented emergency measures to avoid the meltdown of the TBTF banks. Congress passed the so-called Troubled Assets Relief Program (TARP) to bail out Citigroup and others. Its total volume was around USD 700 billion, representing almost one-third of the annual federal budget. The largest share of the bailout money went to the then largest insurance group worldwide – American International Group (AIG).

During and after the passage of TARP Congress held a series of hearings in which they repeatedly demanded that the then-Fed Chairman, Ben Bernanke, give them information regarding the amount of aid facilitated by the Fed and the receiving banks. Bernanke repeatedly refused to provide the information, claiming that its publication would stigmatize the receiving banks, drive them out of competition and thereby put the whole rescue operation in jeopardy.

However, when the Dodd-Frank Act was passed in early 2010, some members of Congress managed to insert an amendment to make the Fed subject to an audit by the Government Accountability Office (GAO).[265] Again, the Fed tried to torpedo that amendment through intensive lobbying in Congress but ultimately failed to do so.[266]

The audit, published in July 2011,[267] revealed shocking insights into the sheer scale of the rescue operations: the Fed concocted more than ten different rescue schemes, with unpronounceable abbreviations, amounting to a mindboggling total of USD 26,000 billion – nearly double the GDP of the US. Furthermore, roughly USD 10,000 billion of that amount was used to support foreign global banks.[268] The report also revealed extensive conflicts of interest between Fed members and the banks benefiting from those rescue operations.[269]

A successful lawsuit brought against the Fed by the news group Bloomberg under the Freedom of Information Act brought to light still more shocking facts.[270] According to the documents obtained, during the height of the crisis the Fed continuously reassured Congress and the public that only 'financially sound' institutions would receive support from its various rescue programmes. However, the information obtained by Bloomberg clearly showed that there were no 'financially sound' institutions left. Moreover, the CEOs from the benefiting banks concealed the life support provided by the Fed when making statements in order to reassure their shareholders and the public of the 'financial soundness and strength' of their banks.[271]

The question remains whether Congress would have legislated the break-up of the TBTF banks had they been aware of the true scale of the bailouts required for the big Wall Street banks, instead of passing the TARP – which only represented a tiny fraction of the total bailout funds.

2.8.1 Problematic ownership and governance of the Fed

What the public is less aware of is that the Fed is not a clear-cut branch of government like the central banks of other countries. Instead, the Fed is owned by the banks. The Federal Reserve System in the US is made up of 12 regional branches which are also owned by the banks. They elect the regional presidents from amongst themselves. Historically the largest and most powerful regional bank has been the Federal Reserve Bank of New York.

This is not to say that the Fed is a purely private entity, however. The seven members of the Board of Governors are nominated by the president and must be confirmed by the Senate. But the committee that defines and sets monetary policy is the Federal Open Market Committee (FOMC). The FOMC is comprised of the seven board members and the 12 presidents of the regional branches, of whom five have voting rights in the FOMC meetings (these voting rights rotate among them). This means that around 40 per cent of the members of the FOMC are bankers, elected by the member banks. With respect to governance, the Fed is not subject to any kind of democratic accountability – exactly like other central banks.

However, its ownership structure and its voting structure lead to a profound conflict of interest because the Fed has two masters. Hence, the question is: 'Is the Fed supposed to defend the public interest against the bankers? Or is it supposed to help the bankers be profitable and therefore stable?'[272]

Joseph Stiglitz, winner of the Nobel Prize in economics and former chief economist at the World Bank, has a clear opinion:

> If we had seen a governance structure that corresponds to our Federal Reserve system, we would have been yelling and screaming and saying that country does not deserve any assistance, this is a corrupt governing structure.[273]

From September 2008 the US government's crisis management approach was heavily influenced by the fact that at this time the former CEO of the leading investment bank, Goldman Sachs, was Secretary of the US Treasury. By then the US government was already heavily penetrated by members of the Wall Street banks thanks to the revolving-door policy.[274]

The three responses to the crisis by the US Treasury and the Fed described below go some way towards answering the question asked above: 'Is the Fed supposed to defend the public interest against the bankers? Or is it supposed to help the bankers be profitable and therefore stable?'

2.8.2 How US Congress was led into the TARP legislation

In October 2008 the US Congress passed the Emergency Economic Stabilization Act containing the TARP, with an initial volume of USD 700 billion. The Office of the Special Inspector General for the Troubled Asset Relief Program (SIGTARP) was created to administer the TARP funds. The programme was effectively designed to secure the survival of the banking system, either by buying its toxic assets at face value or through capital injections.

The circumstances under which members of Congress were persuaded to consent are disputed. Some members claim that the Secretary of the Treasury, Henry Paulson (former CEO of Goldman Sachs), threatened them during a conference call in October 2008 with the suggestion that if the TARP law did not pass, martial law might be imposed on the nation (the proclamation of martial law leads to a suspension of the constitution and the rights guaranteed in it). US Senators James Inhofe and Brad Sherman said that Paulson brought up a worst-case scenario as he pushed for the Wall Street bailout in September.[275]

The reason some representatives were rebellious was that Paulson, without further notice, eliminated a certain provision from the draft version. According to Congressman Peter Welch the bailout bill originally called for a cap on executive salaries, but Paulson eliminated this provision at the last minute. Welch and other members of Congress were enraged by 'news that banks getting taxpayer-funded bailouts are still paying exorbitant salaries, bonuses, and other benefits.'[276]

Another senator questioned whether banks that accepted bailout funds should be allowed to continue paying dividends on their common stock.

Moreover, some lawmakers felt betrayed regarding the goals of the bill. Reluctant lawmakers had been told that TARP would be used to purchase up to USD 700 billion worth of mortgages in order to help families preserve their home ownership by helping them renegotiate the terms of their mortgages.[277]

Instead the TARP funds were almost exclusively used for bailouts of financial institutions, prominent among them Citigroup and AIG.

Regardless of whether members of Congress were explicitly or implicitly threatened with the introduction of martial law in combination with the threat of a financial Armageddon about to happen, this procedure certainly is not in compliance with democratic lawmaking procedures. It rather represents the blackmailing of lawmakers.

2.8.3 Accounting relief for TBTF banks – engineered by Congress

In early 2009 Congress urged the Financial Accounting Standards Board (FASB) to change the rules according to which banks were obliged to set the value of their assets. The FASB is an independent, private, not-for-profit

organization that defines the generally accepted accounting principles (GAAP) according to which banks are obliged to value their assets along the mark to market rule. That is, the assets have to reflect market prices. In other words, banks were not allowed to mark the values according to their own judgement. However, the problem was that there was no longer a market in which to trade their toxic assets. Hence at the request of Congress the 'independent' FASB issued the new rule FAS-157 to allow banks to calculate the value of those 'assets' themselves.[278]

Another interesting but under-reported fact is that already on 5 May 2006 President George W. Bush had signed a memo to transfer broad authority to the director of the CIA, in the name of national security, to excuse publicly traded companies from their usual accounting and securities disclosure obligations.[279] It is not known what the purpose of this authorization was, whether it was applied or whether it was invoked during the financial crisis.

But whether this presidential decree was ever applied or not is irrelevant, since banks have the ability to bend accounting rules to their own advantage either way. During the housing bubble they were eager to mark their assets at market value in order to boost their fictional income; after the bubble burst they could again manipulate their balance sheets.

The introduction of FAS-157 could potentially lead to the impression that US lawmakers either have a high interest in the survival of the TBTF banks at any price or are under their de facto control. This issue will be further examined in section 2.10.

2.8.4 Secret bailout operations of the Fed in 2008–9 – withholding information from lawmakers

As noted in section 2.8, the Fed stubbornly withheld information about the details of its various rescue operations despite the repeated and explicit demands of lawmakers and the media. The lawsuit by Bloomberg only succeeded after a two-year battle. The 29,000 pages finally released by the Fed show the extent of the support it had provided to the largest banks by late 2008 and early 2009. On a single day, 5 December 2008, the Fed loaned out a combined USD 1,200 billion.[280] This secret lending occurred parallel with the TARP. The six biggest US banks received USD 160 billion in TARP funds and 63 per cent of all the money lent by the Fed to the financial sector.[281]

Through this disbursement the Fed basically protected the TARP investments by preventing the banks from failing. For instance, Bank of America and Citigroup each received USD 45 billion from TARP while at the same time tapping the Fed. Citigroup's peak borrowing line stood at USD 99.5 billion in January 2009, and Bank of America's at USD 91.4 billion in February 2009.[282]

The Fed stated repeatedly and publicly that only 'sound institutions' would receive money. The sheer volume of funds mobilized shows that almost no bank was sound and that they received a loan with only 0.01 per cent interest,

well below market rates. Normally if a bank has recourse to turn to a central bank it receives liquidity at a penalized rate. But thanks to the cheap Fed loans, banks were not required to sell assets in order to compensate for the money withdrawals of investors and depositors. Instead they could keep all assets on their balance sheets and continue to earn interest, but now at a higher spread by courtesy of the Fed.

In order to further stabilize the banking system the Fed decided to merge the 'unsound' banks into the supposedly 'sound' banks. Thus, JP Morgan absorbed Washington Mutual and the investment bank Bear Stearns. Bank of America took over Merrill Lynch and the biggest US home lender Countrywide. Wells Fargo bought Wachovia. All those transactions were financed by multibillion-dollar loans from the Fed.

As a result the total assets of the six largest US banks increased by 39 per cent, to USD 9,500 billion, on 30 September 2011 from USD 6,800 billion on the same day in 2006. Hence, the TBTF banks became even bigger, presenting an even larger cluster risk for society.

The CEOs of the banks were more than happy to join the Fed in its policy of secrecy. On 26 November 2008 the CEO of Bank of America, Kenneth Lewis, wrote to shareholders that he headed 'one of the strongest and most stable major banks in the world'. He did not disclose that his firm owed the central bank USD 86 billion that day.[283] Neither did the CEO of Deutsche Bank, Josef Ackermann, who frequently boasted that his bank did not need rescue money from the German government. He was right, because Deutsche Bank received USD 30 billion from the Fed.[284]

Moreover, the Fed's course of action was a godsend for the TBTF banks because it significantly increased their profitability. Since the banks did not pay even 1 per cent for the money borrowed from the Fed, they could buy US Treasuries yielding close to 3 per cent. Hence in the first quarter of 2010 not one of the four largest US banks had a single day of trading losses and all reported record profits.

That is another way of subsidizing the TBTF banks.[285]

2.8.5 The AIG bailout

In sections 2.7.2.D–G the nature and purpose of CDSs was described. They served as the most important tool in making bets on a falling housing market. And among the most important players in this merry-go-round CDO structuring was the insurer AIG. Other insurers, so-called monoliners, were involved as well – all of whom went bankrupt. AIG, however, was the most important because it provided the money for the written CDS protection to the big banks. By June 2007 AIG had written swaps on USD 79 billion in multi-sector CDOs, five times the USD 16 billion held at the end of 2005. On 16 September 2008 AIG could not fulfil its contractual obligations and collapsed. Hence the bailout of AIG was of the utmost importance to the survival of the global TBTF banks as counterparties to AIG.

The government and the taxpayers were forced to assume financial responsibility for AIG's CDS losses in order to prevent a derivatives Armageddon. The September 2008 bailout adopted a two-pronged approach borne by the Fed and the US Treasury: first, a direct investment of USD 69.8 billion in AIG, thanks to which the government then owned 70 per cent of AIG; and second, the Fed set up an SPV through which the banks who were counterparties to the swaps were paid. This step, funded by the Fed with freshly printed money, amounted to USD 112.5 billion. It was the largest bailout in history, totalling USD 182.3 billion.[286]

According to the November 2009 report released by SIGTARP,[287] Goldman, UBS, Deutsche Bank, Société Générale and Merrill Lynch held the largest AIG exposure of the 16 banks that were part of the deal with the Fed. Collectively the five firms received USD 20 billion from the Fed's SPV set-up to take on the AIG securities. The five were also allowed to keep USD 11.3 billion in collateral. In total, all the counterparties received USD 62 billion, USD 27 billion of it paid directly from the SPV, and USD 35 billion of collateral they had already had from AIG and were allowed to keep. Goldman received USD 5.6 billion from the special purpose entity and was allowed to keep USD 8.4 billion in collateral.[288]

The way in which the US Treasury and the New York Fed handled the bailout in favour of the Wall Street banks is of serious concern in terms of transparency, conflicts of interest, integrity and citizen oversight. Among many examples, a key member of the Paulson team retained shareholdings in Goldman Sachs while serving as Paulson's point man for the AIG bailout. He was staunchly opposed to banks being subjected to a haircut.[289] William Dudley, a former Goldman Sachs executive and a member of the New York Fed's Board of Directors, held shares in AIG and General Electric at the same time as the two firms were receiving bailouts,[290] but he was granted a waiver by the Fed of New York.[291] The CEO of JP Morgan was also a member of the Board of the New York Fed when his bank received more than USD 369 billion in financial assistance from the Fed.[292]

In order to receive the bailout money AIG needed to sign a waiver barring the firm from suing the benefiting banks for damages in case some of the insured products turned out to be of a legally questionable nature.[293] As it turned out, in the aftermath of the GFC the majority of the securities issued and insured were of a legally questionable nature. Several banks were fined billions of dollars for misrepresentation; many of those lawsuits are still pending.

In particular, neither the New York Fed nor the US Treasury made any attempt to negotiate a discount with the benefiting banks despite recommendations from their own advisors to force the banks to accept losses on their AIG deals. Instead, the taxpayer gave the banks 100 cents on the dollar.[294]

Finally, the GAO report also shows that the Fed outsourced the handling of nearly all of its emergency lending programmes to the very banks that

were receiving the bailout and assistance money. Those contracts were awarded on a non-competitive basis.[295]

2.8.6 The Fed and its various rescue programmes

The Fed reacted to the imminent meltdown of the banking system from late 2007 on by flooding the system with freshly created liquidity beyond imagining: according to the GAO report, with USD 26,000 billion. The size of those rescue programmes was unprecedented.

Moreover, on 25 November 2008 the Fed announced a programme called 'quantitative easing 1' (QE1). Additionally it declared its intention to buy up to USD 300 billion of longer-term Treasury securities over the succeeding six months to help improve credit markets.

During QE1 the Fed bought USD 1,750 billion worth of debt, primarily from the financial sector. As a result of the Fed purchases the debt held by the financial sector declined by USD 2,500 billion, or 15 per cent, between November 2008 and March 2010.[296] Through this market assistance the Fed accomplished three things. First, through its artificial demand it propped up the prices of toxic assets and so kept the balance sheets of the banks intact. Second, it kept down the yield on bonds issued by government-sponsored enterprises (GSEs) like Freddie Mac and Fannie May.[297] Third, it increased liquidity in the markets, helping to drive up stock prices. The TARP money flowing into the system and the various stimulus programmes also contributed to this effect.

The Fed's balance sheet reflects the magnitude of its programme. Prior to the QE1 the Fed held roughly USD 900 billion in assets. When the programme ended on 31 March 2010, the Fed's balance sheet had more than doubled to USD 2,300 billion. No precedent existed for fiat money creation on this scale in the US during peacetime.[298]

However, quantitative easing means the creation of paper money. When a boom busts, there are no longer any viable new projects in which to invest. Therefore, the demand for loans from viable borrowers collapses, and interest rates plunge. By increasing the supply of money, the Fed simply perpetuated the imbalances that had triggered the crash. Society had more debt than it could afford to support. Creating more debts to compensate for the old does not make them go away. Private households are still over-indebted. Richard Duncan comments: 'The Fed is in charge of US monetary affairs. The emergence of the liquidity trap is its fault and the resort to quantitative easing is testimony to its failure.'[299]

The Fed not only printed money in order to provide liquidity for the global TBTF banks, it also bought the toxic assets from the banks at face value, that is, at 100 cents on the dollar. Researchers estimate that the default rate on homeowner loans in 2006 was 40 per cent, and in 2007 66 per cent. This suggests that the majority of subprime loans for those two years alone will ultimately default.[300]

2.8.7 The Fed bypassed the will of lawmakers to ensure its own survival

The huge default risk associated with the bought-out toxic assets created a serious problem for the Fed. As of April 2011 the Fed held USD 3,000 billion worth of assets. Its equity (assets minus liabilities) was around USD 60 billion. If the value of the Fed's assets had declined by just 2 per cent its capital would have been wiped out. In theory the Fed would then have been insolvent.

However, since the Fed is not required to revalue its assets to market value its de facto insolvency did not surface. But it will surface at some point when the Fed begins to unwind its toxic asset portfolio by selling it off, a problem the Fed was well aware of at the time.

Therefore, already in 2008, the Fed held discussions with the US Congress in an effort to obtain permission to issue its own bonds – as the US Treasury does – to prop up its vulnerable balance sheet. In 2009 Janet Yellen, then president of the Federal Reserve Bank of San Francisco, went public with the request.[301] With permission from Congress to issue new Fed bonds, the Fed could unwind quantitative easing without having to sell the existing assets on its books. But the plan was rejected by Congress.

The Fed needed to come up with another solution quickly, so it struck a deal with the US Treasury that did not require approval from Congress. The Fed has traditionally paid back to the Treasury the enormous profits it has earned each year in interest payments on the government bonds it holds. But in 2010 the Fed and the Treasury, then headed by the former president of the Fed of New York, Timothy Geithner, agreed that the Fed could suspend these payments indefinitely. This means the Fed can keep the amount it usually sends to the Treasury and set up a new liability account – basically an IOU, a simple loan note.[302]

James Rickards comments:

> This is unprecedented and is a sign of just how desperate the situation has become. Now as losses on future bonds arise, the Fed does not reduce capital, as would normally occur. Instead the Fed increases the amount of the IOU to the Treasury. In effect, the Fed is issuing private IOUs to the Treasury and using the cash to avoid appearing insolvent. As long as the Fed can keep issuing these IOUs, its capital will not be wiped out by losses on its bond positions. On paper the Fed's capital problem is solved, but in reality the Fed is increasing its leverage and parking its losses at the Treasury . . . It should not escape notice that the Treasury is a public institution while the Fed is a private institution owned by the banks, so this accounting sham is another example of depriving the taxpayers of funds for the benefit of the banks.[303]

This agreement between the Treasury and the private Fed infringes the human right of collective self-determination. The people of the USA are thereby

deprived of an enormous amount of capital that could be employed elsewhere according to their will. Waiving this aspect of self-determination could only be legitimized if it were subject to a democratic decision-making process requiring a pluralistic debate of the pros and cons in a common public arena, and a vote by parliament. None of those essential criteria were fulfilled here.

Hence, this agreement between the US Treasury and the Fed (owned by the banks) is another blatant example of the results of capitalism being left unchecked by democratic procedures. This has a negative and illegitimate impact on society and is unacceptable from a democratic and ethical point of view.

It also answers the question posed in section 2.7.6.A in an unambiguous manner: 'Is the Fed supposed to defend the public interest against the bankers? Or is it supposed to help the bankers be profitable and therefore stable?'[304]

2.8.8 Caretaking for banks not matched by caretaking for private households in the US

Since private household consumption accounts for 70 per cent of GDP, the health of the household sector will determine the health of the entire economy. Thus, the key question is whether private households will again be able to take up credit. The likelihood of this is very low.

From the mid-1960s to the mid-1980s the ratio of household debt to disposable household income was around 70 per cent. Soon after Greenspan became Chairman of the Fed in 1987, this ratio began to rise sharply. By the end of 2007, it peaked at nearly 140 per cent. If that ratio were to contract back to its pre-Greenspan level of 70 per cent, household debt would have to contract by USD 6,000 billion and total credit market debt would shrink by more than 10 per cent.[305]

As of the first quarter of 2012 USD 1,060 billion of consumer debt was delinquent, and as of the first quarter of 2013, USD 909 billion was.[306] As of 31 March 2013, aggregate consumer debt declined in the first quarter, by USD 110 billion, resuming the longer-term downward trend. On the same date, total consumer indebtedness was USD 11,230 billion, considerably below its peak of USD 12,680 billion in the third quarter of 2008. Of that USD 11,230 billion the share of housing debt was USD 8,480 billion.[307] Outstanding student loans were at USD 986 billion in the first quarter of 2013.

The numbers clearly show that households are more concerned with deleveraging as opposed to taking on new credit.

The notion that households will again become a growth engine is doubted even by members of the Fed. Sarah Bloom, a member of the Board of Directors, said in a speech on 18 April 2013:

> About two-thirds of all job losses in the recession were in middle-wage occupations – such as manufacturing, skilled construction, and office

> administration jobs – but these occupations have accounted for less than one-fourth of subsequent job growth. In contrast, the decline in lower-wage occupations – such as retail sales, food service, and other lower-paying service jobs – accounted for only one-fifth of job loss and more than one-half of total job gains in the recovery . . .'[308]

Those facts strongly indicate that American households can dispose of significantly less purchase power in the years to come. This will also affect federal income tax revenue.

Moreover, the net wealth position of households is shrinking. The median net wealth reflects the proportion of wealth households hold in comparison to the average wealth number. The average wealth figure is deceptive because it includes the wealth of the super-rich 1 per cent: if Bill Gates walks into a room occupied by ten unemployed people, the average wealth jumps immediately. The median net wealth figure removes that distortion. In the 1990s the median wealth was about 25 per cent of the average. In the 2000s, it fell to about 20 per cent, and in 2010 it was only 16 per cent of the average.[309]

Those data stand in sharp contrast to the recovery stories reported by the mainstream media, making clear that in the face of falling or at least stagnating incomes credit growth cannot resume.

Another source of private credit growth could be housing, because private households could use their homes as collateral against credit. However, since the bursting of the housing bubble values have dropped by up to 40 per cent. The recently reported 'recovery data' in the housing market are seriously distorted because institutional money is driving those increases.

Out-of-state equity funds are rushing into those areas where the sharpest declines in house prices have occurred, buying houses by the thousands in the hope of generating value increases and future rental income.[310]

An analysis of the Case Shiller Index shows that the steepest increases in home prices have occurred in those states in which big funds are most active.[311] This information perfectly squares with the fact of stagnant to falling income for private households and the reduction in lending to them by banks.

Hence, the recovery of the US economy cannot come from the private household sector.

2.9 The global banking sector – criminally polluted?

This section examines three cases of global banking practices in the months and years leading up to the sub-prime crisis that provide evidence that the global banking sector may be criminally polluted.

2.9.1 Did banks trigger the sub-prime crisis in a legally questionable way under the eyes of regulators?

There are many indications that the US sub-prime crisis was to a large extent the result of legally questionable if not fraudulent behaviour on the part of many of the financial institutions involved, with the acquiescence of their financial regulator – the Fed.[312]

In 2009 Congress passed the Fraud Enforcement and Recovery Act, which was signed by the president in May 2009. This led to the establishment of the Financial Crisis Inquiry Commission (FCIC), charged with the task 'to examine the causes of the current financial and economic crisis in the Unites States'.[313] This Congressional Commission published its findings and conclusions in January 2011.[314] The introduction of the report states:

> The report catalogues the rising incidence of mortgage fraud, which flourished in an environment of collapsing lending standards and lax regulation. The number of suspicious activity reports – reports of possible financial crimes filed by depositary banks and their affiliates – related to mortgage fraud grew 20-fold between 1996 and 2005 and then more than doubled again between 2005 and 2009.[315]

When confronted by the Commission with the regulatory failure of the Fed and its lack of aggressiveness in regulating the mortgage market, Chairman Bernanke admitted: 'It was, indeed, I think it was the most severe failure of the Fed in this particular episode'.[316]

Section 2.7.1 discussed the rationale behind the securitization process. The value chain started with a loan originator or a mortgage broker generating loans for a bank. The bank then sold a package of loans to an investment bank. The investment bank restructured and repackaged the loans and transformed them into a tradable security. In order to be tradable the security needed a rating from a rating agency.

As the FCIC report shows, some elements of this value chain adopted deceitful practices in the run-up to the sub-prime crisis. As will be shown, regulators, particularly the Fed, were well aware of these questionable practices but chose not to act. The rational agents in the securitization value chain became greedy and reckless.

Problems arose at the beginning of the value chain: with the generation of loans and mortgages. Because a bank can sell its originated loans, it no longer has an incentive to observe high standards in the credit generation. The time-tested 30-year fixed-rate mortgage, with a 20 per cent down payment, went out of style.

Instead, new types of mortgages were invented – non-traditional loans – for instance interest-only mortgages, where the borrower only had to pay for the interest but never for its principal amount.

Another toxic type was the adjustable-rate mortgage (ARM), which had a low monthly cost at the beginning, but later payments that could easily be double or triple (called 'shock payments'), making the default of the borrower a near certainty.

These non-traditional loans were aggressively marketed by the banks. For example, Countrywide and Ameriquest hired young, inexperienced and often underqualified staff – previous work experience being 'flipping burgers' – and gave them superficial training to become loan officers.[317]

Across the US more than 200,000 mortgage brokers began their jobs during the boom. In Florida alone, between 2000 and 2007 at least 10,500 people with criminal records entered the field – including 4,065 who had previously been convicted of such crimes as fraud, bank robbery and extortion.[318] Hence, the number of so-called low-doc, no-doc and ninja loans (ninja = no income, no job, no assets) soared.

If, for example, an applicant was jobless then frequently 'antique dealer' was given as a profession.[319] Some companies targeted people in their 70s, giving them 30-year loans. In loan applications the income of the borrowers was grossly overstated. These non-traditional loans enabled investors to buy properties they otherwise could not afford to buy with little or no down-payment. In the majority of cases the mechanics and numbers of the future debt service were insufficiently explained to the borrowers, due to pressure by the originators to get the loans signed.

California, with its high housing costs, was a particular hotbed for this kind of lending. In 2001, nearly USD 52 billion worth of loans, or 25 per cent of all non-traditional loans nationwide, were made in the state. California's share rose to 35 per cent by 2003, with these types of loans growing to USD 95 billion or by 84 per cent in just two years.[320] In 2005 the proportion of non-traditional loans accounted for 59 per cent of originations at Countrywide, 58 per cent at Wells Fargo, 31 per cent at Washington Mutual, 26.5 per cent at CitiFinancial and 18.3 per cent at Bank of America.[321]

In the late 1990s Wall Street banks began to acquire formerly independent consumer finance companies, which focused more and more on mortgage lending. Many were involved in lawsuits over predatory lending practices that ended in nine-digit settlements. However, in 1998 the Fed decided not to conduct consumer compliance examinations of non-bank subsidiaries of bank holding companies nor to investigate consumer complaints.[322]

Former Fed governor Edward Gramlich would later write:

> In the prime market, where we need supervision less, we have lots of it. In the subprime market, where we badly need supervision, a majority of loans are made with very little supervision. It is like a city with a murder law, but no cops on the beat.[323]

Officials were made aware of this alarming expansion of predatory lending practices across the US as early as 1999 – including Greenspan and Bernanke.[324]

The Department of Housing and Urban Development and the Treasury Department issued a joint report on predatory lending in June 2000.[325] In 2002 Gramlich noted again the 'increasing reports of abusive, unethical and in some cases illegal, lending practices'.[326]

In 2004 a report by the GAO repeated its call to examine the sub-prime affiliates of the banks, saying:

> The significant amount of subprime lending among holding company subsidiaries, combined with recent large settlements in cases involving allegations against such subsidiaries, suggests a need for additional scrutiny and monitoring of these entities.[327]

The FCIC found that the Fed had the statutory authority to regulate the terms of mortgages issued by all lenders nationwide and to address predatory lending practices under the Home Ownership and Equity Protection Act of 1994 (HOEPA). The Fed was well aware of the widespread abuses in mortgage lending practices, having received reports from lenders, consumer advocates, and its own staff. Nonetheless, the Fed refused to take effective action to regulate this irresponsible lending – in particular because of its deregulatory attitude.[328]

Because of the Fed's inaction, from 2002 many state attorneys began investigating these practices and finally sued the California-based, fast-growing lender Ameriquest on behalf of more than 240,000 borrowers. The result was a USD 325 million settlement.[329]

Many states began issuing and enforcing their own lending regulations. However, the Office of the Comptroller of the Currency (OCC), which is responsible for the regulation of banks with a national charter, presented the biggest obstacle to effective state regulation.[330] For instance, Wachovia told state regulators it would not abide by state laws because it was a national bank and fell under the supervision of the OCC.[331] Michigan protested Wachovia's announcement, and Wachovia sued Michigan. The OCC, the American Bankers Association, and the Mortgage Bankers Association entered the fray on Wachovia's side; the other 49 states aligned themselves with Michigan. The legal battle lasted four years. The Supreme Court ruled 5–3 in Wachovia's favour on 17 April 2007, confirming the OCC as its sole regulator for mortgage lending. Prentiss Cox, a Minnesota assistant attorney general, criticized the federal government: 'Not only were they negligent, they were aggressive players attempting to stop any enforcement action . . . Those guys should have been on our side.'[332]

In a news conference in Washington in 2004 the FBI also tried to get people to pay attention to mortgage fraud. It said: 'It has the potential to be an epidemic . . . We think we can prevent a problem that could have as much impact as the S&L crisis.'[333]

But the FBI was hopelessly understaffed and unable to start a meaningful investigation. Its capacity problems had been exacerbated when 500

white-collar specialists were transferred to national security investigations in response to the 9/11 attacks and the administration refused to allow the FBI to hire new agents to replace them.[334]

Overall mortgage indebtedness in the US climbed from USD 5,300 billion in 2001 to USD 10,500 billion in 2007. The mortgage debt of American households rose almost as much in the six years from 2001 to 2007 as it had previously over the course of the country's more than 200-year history.[335]

For the mortgage brokers, the sub-prime affiliates of the banks and the banks themselves it was foreseeable from early on that mortgage borrowers would default over time, in part because of the increasing burden of debt service.

Thus those mortgage loans were presumably not designed to be held to maturity, with interest and principal being completely discharged by the debtor. Instead, serial refinancing was intended and built into the product when the mortgages were sold. To protect the lender from the risky borrower, the loans were structured to be held for a relatively short period – two or three years – then made due for refinancing. As price appreciation of the underlying asset was expected, the refinancing was expected to occur before the rates of an ARM or a mortgage with an initial teaser rate were adjusted upwards and the mortgage payment exceeded the debtor's resources. The appreciation of the house became the basis for refinancing every two or three years.

Research shows that termination rates for sub-prime mortgages were relatively constant for origination years from 2001 to 2006. At 12 months of maturity, termination rates were about 20 per cent, at 24 months they were about 50 per cent and at 36 months they were about 80 per cent.[336] Thus sub-prime mortgages were very vulnerable to declines in house prices. Nevertheless, the core assumption of pricing and rating was that housing prices would never decline. All the credit rating agencies shared the two assumptions that housing prices would not decline and that loan losses would not exceed 5 per cent. They conscientiously ignored empirical data showing that housing prices had repeatedly fallen in the past, for instance in the 1980s and early 1990s. Despite all these well-known activities the industry's reserves-to-loan ratios in those years were at record lows.[337]

In the aftermath of the 2007 collapse it was revealed that senior management of the rating agencies had actively suppressed efforts by their staff to collect and analyse data regarding the housing market more thoroughly.[338]

The rating agencies were well paid for their work; they failed to conduct conscientious evaluations before assigning credit ratings. The financial author Michael Lewis opines: 'To judge from their behavior, all the ratings agencies worried about was maximizing the number of deals they rated for Wall Street investment banks, and the fee they collected from them.'[339]

The same behaviour was displayed by the banks. In many cases loan underwriters were reduced in ranks or redeployed if they brought their concerns to the attention of the senior management.[340]

The loan generation became more and more questionable. Mortgage brokers were paid high commissions by the banks – a broker could easily make between USD 20,000 and USD 40,000 on a USD 500,000 loan. Property appraisers frequently overvalued the homes given as collateral and received kickbacks from the mortgage brokers. In some cases the property did not even exist. Some mortgage brokers even resorted to bribing underwriting officers in order to get a loan approved.[341]

Frequently they grossly overstated the income of the loan applicants and provided no documentation at all – so-called liars' loans. In fact, mortgage brokers only needed to make sure that the borrowers paid the first three months in order to collect their commission. Senior management of the banks put aggressive pressure on their staff to grow the sub-prime loan book.[342] The growth of these toxic assets or non-traditional loans became to a considerable extent the source of income and bonuses for the bankers.

The situation began to resemble in a startling way the situation leading up to the S&L crisis in the 1980s.

Professor William K. Black, a former regulator and specialist in white-collar crime who became the S&L regulator in 1984 in response to the nationwide disaster, described the prevailing practices as follows:

> We found that there was a distinctive fraud pattern . . . the frauds used accounting as their 'weapon of choice' . . . and that they followed a fraud 'recipe' that was a 'sure thing.' The recipe had four ingredients:
>
> (1) Grow like crazy by (2) making really crappy loans at a premium yield while (3) employing extreme leverage, and (4) providing only trivial allowances for loan and lease losses . . .
>
> The recipe produced three sure things. The S&L was certain to report extreme (albeit fictional) income in the near term, the CEO would ensure that the S&L adopted a plan of executive compensation that would turn the fictional reported income into real wealth to the CEO, and the S&L was certain to suffer catastrophic losses because the loans had a negative expected value when made . . . We also recognized that the first two ingredients of the formula required fraudulent S&Ls to adopt distinctive operational characteristics that no honest firm would follow. An honest conventional (as opposed to microfinance) lender has redundant internal and external controls designed to prevent the lender from making bad loans . . . Fraudulent lenders often inflate appraisals. We recognized that the fraudulent lenders were finding means to create perverse incentives to suborn their key controls, particularly the outside auditor and the appraisers, into becoming fraud allies.[343]

More than 1,000 perpetrators were convicted of fraud.

As described above, the environment that led to the current sub-prime crisis was a near replay of the S&L crisis of the 1980s.

The system also rewarded the creation of bad loans. Mortgage brokers were paid by quantity and not by quality. The loans they sold to Wall Street to be securitized carried a 90-day warranty only. Derivatives traders knew that what they were buying was going to blow up. Senior management of investment banks suppressed internal warnings hinting at the ever-growing build-up of balance sheet risks.[344] Instead it aggressively continued to bloat its bad loans and securitize them in order to turn income that in the medium and long term was only fictional into real short-term income for themselves. Lehman Brothers CEO Richard Fuld made USD 490 million from selling Lehman stock in the years before it filed for Chapter 11 bankruptcy.

Countrywide Financial's founder and CEO, Angelo Mozilo, cashed in USD 122 million in stock options in 2007. His total take is estimated at more than USD 400 million.

Stanley O'Neal, who steered Merrill Lynch into financial collapse, was given a package of USD 160 million when he retired.

Bear Stearns former chairman Jimmy Cayne, rescued by a USD 29 billion Fed shotgun wedding to JPMorgan Chase, received USD 60 million when he was replaced.[345]

The whole sub-prime system became perverted into one of private profit but public risk under the very eyes of the Fed. And the striking difference between the S&L crisis and the sub-prime crisis is that so far none of the perpetrators of the latter have been convicted. Hence, the fraudulent behaviour they were charged with cannot be proven beyond doubt.[346]

Nevertheless, professors William Black and Randall Wray maintain:[347]

> This nation's most elite bankers originated and packaged fraudulent nonprime loans that destroyed wealth – and working class families' savings – at a prodigious rate never seen before in the history of white-collar crime. They created the worst bubble in financial history [and] echo epidemics of fraud among elite professionals, loan brokers, and loan servicers, and would (if left to their own devices) have caused the Second Great Depression . . . The key facts are that there was massive fraud by nonprime lenders and packagers of fraudulent nonprime loans at the direction of their controlling officers. By 'massive' we mean that lenders made millions of fraudulent loans annually and that packagers turned most of these fraudulent loans into fraudulent securities. These fraudulent loans and securities made the senior officers (and corrupted professionals that blessed their frauds) rich, hyper-inflated the bubble, devastated millions of working class borrowers and middle class home owners, and contributed significantly to the Great Recession – by far the worst economic collapse since the 1930s.

The renowned expert in derivatives and securities Janet Tavakoli called the build-up of the sub-prime crisis the 'biggest fraud in the history of capital markets'.[348]

2.9.2 The collapse of Lehman Brothers Inc.

This kind of criminal activity by senior managers of banks is called 'control fraud' – a term coined by Professor William K. Black. In prepared testimony presented to the House Financial Services Committee on 20 April 2010 he elaborated on the case of the collapse of Lehman Brothers.[349]

According to his testimony, control fraud is a criminology term that refers to a situation in which the persons controlling a seemingly legitimate entity use it as a 'weapon' of fraud. Financial control fraud's 'weapon of choice' for looting is accounting. Lehman was specializing in so-called Alt-A loans (considered to be a step above sub-prime lending) and in sub-prime lending itself. However, those Alt-A loans also contained substantial amounts of no-doc loans and loans with false information on applications, hence the term liar's loans. Therefore, liar's loans have a deeply 'negative expected value'. On average a dollar lent on a liar's loan creates a loss ranging from 50 to 85 cents. At some point in time someone has to take those inevitably occurring losses from liar's loans – either the lender itself or the buyers of the securities into which those loans were transformed.

That loss, however, may not be recognized for many years – particularly if the liar's loans become so large that they help to hyper-inflate a financial bubble. In the short term, making massive numbers of liar's loans creates a mathematical guarantee of record, albeit fictional, income. As long as the bubble inflates, the liar's loan can be refinanced – creating additional fictional income and delaying, but increasing, the eventual loss. The industry saying for this during the S&L debacle was: 'a rolling loan gathers no loss'.

Lehman was the world leader in making liar's loans. Lehman had become the only vertically integrated player in the industry. Through its subsidiaries – Aurora,[350] BNC Mortgage LLC and Finance America – it was one of the ten largest mortgage lenders in the US. The subsidiaries fed nearly all their loans to Lehman, making it one of the largest issuers of mortgage-backed securities. In 2007 Lehman securitized more than USD 100 billion worth of residential mortgages – in spite of the fact that an internal review of Aurora's loan portfolio revealed endemic fraud. Lehman made no meaningful disclosure of the fraud or the fatal consequences of selling legally questionable loans to other parties as a business strategy.[351]

Volume created immense real losses, but it also maximized Mr Fuld's compensation. Lehman's real estate business helped sales in the capital market unit jump 56 per cent from 2004 to 2006, faster than from investment banking or asset management. Lehman reported record earnings in 2005, 2006 and 2007. Those purported profits led to very large bonuses and stock appreciation for Lehman's senior officers.

Lehman's underlying problem, however, was that it was insolvent because it had made so many bad loans. It hid its insolvency through the traditional means – it refused to acknowledge its losses. It could not resolve its liquidity crisis because it was insolvent and its primary source of fictional accounting

income collapsed along with the secondary market in non-prime loans. Various attempts by employees to urge Lehman's top management to address its highly questionable loan book were suppressed. In 2006, one employee filed a Suspicious Activity Report hinting at accounting abuses and gave it to the FBI. He was subsequently fired despite Lehman's employee policy requiring him to do so.[352] He was only interviewed after the collapse in 2008. In November 2006 the rating agency Fitch published a study that found evidence of fraud in nearly every loan.

Lehman, Citi, Washington Mutual, Indymac and Bear Stearns never could have auctioned their securities for sale in order to raise liquidity. Hence Lehman entered at the end of each quarter into a so-called repo-105 transaction. It 'sold' certain of its 'assets' for cash only to buy those 'assets' back after the reporting date. The Fed of New York was well aware of the transactions. The Valukas report[353] revealed that former Secretary of the Treasury Henry Paulson and then President of the New York Fed Timothy Geithner both knew that Lehman's assets were substantially below its reported book value. In fact, the New York Fed acted shamefully in covering up Lehman's inflated asset values. It constructed three, progressively weaker, stress tests – Lehman failed even the weakest test. The Fed of New York then allowed Lehman to administer its own stress test, which it passed.[354] The New York Fed knew that Lehman was engaged in fraud designed to overstate its liquidity but it remained willing to lend to a fraudulent, systematically dangerous institution. In his testimony Black stated: 'This is an egregious violation of the public trust, and the regulatory perpetrators must be held accountable.'[355]

He summarized the situation as follows:

> Criminologists refer to entities that spread fraud epidemics as 'vectors' (. . . the anopheles mosquito is a 'vector' that spreads malaria and can create epidemics). Lehman was one of the largest vectors that spread fraud epidemic . . . The Fed, due to its unique HOEPA authority, and the SEC, because it has jurisdiction over every publicly traded company, were the only entities that could have shut down the vectors spreading the fraud epidemic . . . They had ample warnings of the epidemic of liar's loans and the fact that it was spreading rapidly. Lehman, Citi, Washington Mutual, Indymac, and Bear Stearns were on everyone's list of the worst vectors, yet the Fed and the SEC took no effective action until after virtually every major originator of liar's loans had failed.[356]

He concludes that the GFC clearly could have been avoided had the regulators, here primarily the Fed, honoured their duties.

2.9.3 The dubious foreclosure practices of the TBTF banks

The legally questionable behaviour of the banks continued even after the bubble burst. When homeowners eventually defaulted on their mortgage

payments, banks evicted them and repossessed their homes. Legal foreclosure procedures were circumvented in an egregious and bold manner: because banks were unable to produce the paper trail required for legal repossession their service providers forged those documents in the millions. This procedure became known as 'robo-signing' as it involved the counterfeiting of missing signatures on a massive scale.[357]

After 50 state attorneys had investigated the allegedly fraudulent actions committed by the banks during the housing boom and finally brought legal action against the major banks, a large settlement was reached in late 2012. The banks agreed to pay USD 20 billion, some of it to homeowners in the form of cash or loan reductions.[358]

Joseph Stiglitz commented on the outcome:

> Legal penalties for financial fraud in the US have become 'just a cost of doing business' . . . like a parking fine. Sometimes you make a decision to park knowing that you might get a fine because going around the corner to the parking lot takes you too much time.
>
> 'We fine them, and what is the big lesson?' said Stiglitz. 'Behave badly, and the government might take 5% or 10% of what you got in your ill-gotten gains, but you're still sitting home pretty with your several hundred million dollars that you have left over after paying fines that look very large by ordinary standards, but look small compared to the amount that you've been able to cash in.' . . . Among the casualties of this whole mess, according to Stiglitz: Faith in the legal system itself. 'The legal system is supposed to be the codification of our norms and beliefs, things that we need to make our system work,' he said. 'If the legal system is seen as exploitative, then confidence in our whole system starts eroding.'[359]

2.9.4 The Libor scandal

A scandal arose in 2012 over Libor, the London inter-bank offered rate, used worldwide as a reference rate for a multitude of financial products – savings, loans, mortgages, derivatives contracts and so on. Libor is reset daily by a panel that includes the leading global banks and determines the interest rate at which banks will lend money to one another.

More than USD 800 trillion in securities and loans are linked to Libor, including USD 350 trillion in swaps and USD 10 trillion in loans, including car and home loans, according to the Commodity Futures Trading Commission. Even small movements – or inaccuracies – in Libor affect investment returns and borrowing costs, for individuals, companies and professional investors.[360]

Currently around ten authorities across the globe are probing as many as 20 of the world's biggest financial institutions over the rigging of Libor.[361]

As of mid-2013 three global banks had entered into settlements with authorities admitting wrongdoing. In June 2012 Barclays settled for USD

450 million, Royal Bank of Scotland for USD 612 million and UBS for USD 1,500 million.[362] The Libor scandal may qualify as among the 'biggest fraud in history of capital markets'.

It is alleged that Japanese banks were keeping Tibor – the Tokyo equivalent of Libor – artificially high in order to boost profits on domestic products such as mortgages.[363]

The panel setting the daily Libor rate is comprised of representatives from18 global banks. The rate itself includes the borrowing rate for ten currencies and 15 maturities. The most important of these, the three-month dollar Libor, is supposed to indicate what interest rate a bank would pay if it were to borrow dollars for three months from other banks. This rate is set each day at 11am.

The British magazine *The Economist* commented on this procedure: those involved in setting the rates have often had every incentive to lie, since their banks stood to profit or to lose money depending on the level at which LIBOR was set each day.'[364]

The former chief economist of the IMF and a professor at MIT, Simon Johnson, wrote in the *New York Times*:

> The Libor scandal is different in some ways than other recent financial fiascos; it involves egregious, flagrant criminal conduct, with traders caught red-handed in emails and on tape. This is the definition of a 'smoking gun'. It is inexcusable and indefensible if these traders aren't soon brought to account, facing criminal charges in court. That should be the first step . . .[365]

Moreover, with respect to Barclays, two very different sorts of rate fiddling emerged.

The first sort, and the one that raised the most ire, involved groups of derivatives traders at Barclays and several other unnamed banks trying to influence the final Libor fixing to increase profits (or reduce losses) on their derivatives exposures. The sums involved may have been huge. Barclays was a leading trader of this sort of derivatives, and even relatively small moves in the final value of Libor could have resulted in daily profits or losses worth millions of dollars. In 2007, for instance, the loss (or gain) that Barclays stood to make from normal moves in interest rates over any given day was GBP 20 million (USD 40 million at the time). In settlements with the Financial Services Authority (FSA) in Britain and America's Department of Justice, Barclays accepted that its traders had manipulated rates on hundreds of occasions. Risibly, Bob Diamond, its chief executive, who resigned on 3 July 2012 as a result of the scandal, retorted in a memo to staff that 'on the majority of days, no requests were made at all' to manipulate the rate. This was rather like an adulterer saying that he was faithful on most days.[366]

A second type of Libor rigging was also exposed in the Barclays settlement. According to *The Economist*:

> Barclays and, apparently, many other banks submitted dishonestly low estimates of bank borrowing costs over at least two years, including during the depths of the financial crisis. In terms of the scale of manipulation, this appears to have been far more egregious—at least in terms of the numbers. Almost all the banks in the LIBOR panels were submitting rates that may have been 30–40 basis points too low on average. That could create the biggest liabilities for the banks involved (although there is also a twist in this part of the story involving the regulators).[367]

This part of the Barclays case also hints at the ambiguous role played by the regulators. In its defence Barclays contended that the rate rigging was tacitly agreed to by its regulator, the Bank of England, in a phone call with one of the senior regulators.[368] This contention was fiercely denied, but regulators may have wanted to turn a blind eye on the possibly fraudulent rate-fixing. At the height of the crisis in 2008 credit markets for banks began to freeze up and inter-bank lending practically stopped because of mutual fears that the counterparty might default due to still unexploded toxic sub-prime bombs on their balance sheets. This funding squeeze brought down the Irish banks, which were then nationalized. In the period 2008 to 2010 British banks were also shut out of credit markets and the two largest British banks became partly nationalized in order to secure their survival.

With respect to the role of the Bank of England *The Economist* speculates:

> Whether the BoE instructed Barclays to lower its submissions or not, regulators had a pretty clear motive for wanting lower LIBOR: British banks, in effect, were being shut out of the markets. The two hardest-hit banks, RBS and HBOS, were both far too big to fail, and higher LIBOR rates would have made the regulators' job of supporting them more difficult.[369]

In order to clarify its role the Bank of England published the following news release on 12 March 2014:

> The Oversight Committee has appointed Lord Grabiner QC to lead its investigation into the role of Bank officials in relation to conduct issues in the foreign exchange market. As previously announced, the investigation, supported by Travers Smith LLP, will focus on matters relevant to the FCA's current investigation into trading on the foreign exchange market, and specifically whether any Bank official, during the period July 2005 to December 2013:
>
> (a) was either (i) involved in attempted or actual manipulation of the foreign exchange market (including the WMR FX benchmark), or (ii) aware

> of attempted or actual manipulation of the foreign exchange market, or (iii) aware of the potential for such manipulation or (iv) colluded with market participants in relation to any such manipulation or [was] aware of any such collusion between participants;
>
> (b) was either (i) involved in the sharing of confidential client information or (ii) aware of the sharing of such information between participants for the purposes of transacting business in the foreign exchange market; or
>
> (c) was involved in, or aware of, any other unlawful or improper behaviour or practices in the foreign exchange market.[370]

Moreover, the transatlantic regulators had been aware of Libor rigging since at least 2008. On 1 June 2008 Timothy Geithner, then president of the Federal Reserve Bank of New York, sent an email to Mervyn A. King and Paul Tucker, then respectively governor and executive director of markets at the Bank of England. In his note Mr Geithner transmitted recommendations (dated 27 May 2008) from the New York Fed's Markets and Research and Statistics Groups regarding 'Recommendations for Enhancing the Credibility of Libor'.[371]

The New York Fed was apparently aware of Libor rigging at some level in 2007 and serious allegations – although presumably not the full details of what the CFTC later established – had reached the most senior levels of the Federal Reserve System by early 2008. In a Congressional hearing on 17 July 2012, Fed Chairman Ben Bernanke confirmed that he had become aware of Libor-related issues in April 2008. When asked why the Fed had tolerated the rate rigging for four years he replied that the Fed lacked the ability to change it due to insufficient influence on the British Bankers' Association.[372] This answer is strange given that the Fed is responsible for the 'safety and soundness' of the financial system in the United States. Moreover, Bernanke's colleague Mervyn King was made aware of the Libor problems and certainly would have had sufficient influence on the British Bankers' Association.

In response to rising suspicion that it had itself colluded in the rate-rigging, the Bank of England fiercely denied all charges[373] but subsequently in early March 2014 announced a new investigation into the matter.[374]

Meanwhile, lawsuits against the banks involved in the Libor-fixing were launched worldwide by pension funds, municipalities, savers and homeowners. In New York a class action suit representing homeowners who held so-called Libor Plus ARMs was filed against 12 banks.[375] There are at least 900,000 outstanding US home loans indexed to Libor that originated between 2005 and 2009, with an unpaid principal balance of USD 275 billion, according to the Office of the Comptroller of the Currency, a bank regulator. Increasing Libor allowed banks 'to raise the interest rates paid by the plaintiffs on their adjustable-rate notes', the complaint reads. In most ARMs the first of the month was the 'change date' on which new repayment rates would be set, it adds. Statistical analysis shows that Libor consistently rose

on the first day of each month between 2000 and 2009, the lawsuit claims. It alleges that between 2007 and 2009 Libor moved by as much as 7.5 basis points on certain reset days.

Another example is a lawsuit brought by the now government-controlled mortgage giant Freddie Mac[376] against more than a dozen banks and the British Bankers' Association, alleging that it had suffered 'substantial losses' as a result of the manipulation of the Libor benchmark interest rate.

Freddie Mac alleged that the banks were 'collusively suppressing' the rate, which caused it to receive payments on Libor-linked products 'well below' what it should have been paid. As a result of the alleged manipulation, Freddie suffered 'substantial losses' from hundreds of swap transactions indexed to Libor as well as on billions of dollars of mortgage securities whose coupon payments were linked to Libor, the lawsuit claims. The inspector general for the Federal Housing Finance Agency, the regulator of Freddie Mac and its sister company Fannie Mae, has estimated that the Libor manipulation scheme may have cost them a combined USD 3 billion in uncollected interest payments.[377]

Those lawsuits put the banks in a very uncomfortable position: for every client who had suffered a loss due to Libor manipulation, another may have profited from it. Thus the banks will be sued by those who have lost and cannot reclaim the gains from those who profited.

Another possible case of rate-rigging, this time of the ISDAfix rate, is being investigated by regulators. The ISDAfix rate is a benchmark in the USD 379 trillion market for interest rate swaps, which corporations and governments use to fine-tune their borrowing costs. US regulators have subpoenaed as many as 15 banks and about a dozen current and former brokers at ICAP, the company that collects the data submitted by banks to set ISDAfix prices, to determine if they're colluding to manipulate quotes.[378]

More cases of legally questionable conduct by the TBTF banks may be revealed, including actions taken during the dot.com boom and a money-laundering scandal at HSBC.

During the dot.com boom analysts from investment banks were praising and recommending internet companies due for initial public offering (IPO). The trading departments at that time devised so-called 'friends and families' programmes in which 'friends' – usually investment funds – were obliged to continue buying shares in the company for a couple of trading days in order to keep up the price of the freshly issued and totally overvalued share. In that short period of time the investment bank would sell its shares at the maximum price and cash in the profits. Between the last quarter of 1998 and the first quarter of 2000 Wall Street earned USD 10 billion in fees by raising nearly USD 245 billion for 1,300 companies, many of them profitless tech outfits that later blew up, according to Thomson Financial/First Call.[379] After the crash banks were heavily fined and some analysts barred for life from their profession, but no one was convicted of criminal activity.

The same was true in the case of money laundering by the British bank HSBC.[380] On 17 July 2012 the US Senate Permanent Subcommittee on Investigations published the report 'US Vulnerabilities to Money Laundering, Drugs and Terrorist Financing: HSBC Case History'.[381] The report concluded that HSBC was in breach of anti-money-laundering (AML) laws on a large scale, that HSBC had circumvented a ban by the US Treasury Department's Office of Foreign Assets Control (OFAC) on dealing with Iran, that it had conducted substantial business with Al Rajhi Bank of Saudi Arabia, which was a benefactor of al Qaeda (9/11), and that it supported the laundering of Mexican drug money.

In early December 2012 the giant British bank HSBC entered into an agreement with the US Department of Justice regarding an investigation of the laundering of drug money.[382] HSBC admitted to laundering billions of dollars for Colombian and Mexican drug cartels and violating a host of important banking laws (from the Bank Secrecy Act to the Trading With the Enemy Act). In spite of the seriousness of these crimes, the Justice Department elected not to pursue criminal prosecution of the bank, opting instead for a 'record' financial settlement of USD 1.9 billion, which as one analyst noted is about five weeks of income for the bank. A similar agreement for the same crimes was reached with Standard Chartered bank, the same month.

In a Congressional hearing in early March 2013 the US Attorney General, Eric Holder, told Congress that some banks were too large and were thereby impeding attempts to bring criminal charges due to the seriousness of the crimes committed.[383] A senator commented:

> It was stunning to hear the nation's top prosecutor acknowledge that, from the justice department's perspective, the big banks are too big to jail. This is worrisome for the fair application of justice in our country.[384]

This is not only worrisome. It erodes the foundations of justice in a society. Thanks to the mechanics of fractional reserve banking banks have become so large that they have managed to establish a two-class system of justice in civil society. Financial capitalism has evolved into an oligarchy that not only extracts the resources of society but also annihilates its ethical and legal foundations.[385]

2.10 Financial sector lobbyism in the US

As the FCIC discovered, in the ten years between 1999 and 2008 the financial sector spent USD 2.7 billion on lobbying, USD 270 million a year on average.[386] The financial contributions of the financial sector from 1989 until 2010 far outweighed the combined lobbying expenses of the energy, healthcare, defence and telecom sectors.[387]

Moreover, campaign contributions act as a substantial leverage for influencing legislation. One chamber of Congress, the House of Representatives,

is subject to a two-year election cycle. The other chamber, the Senate, is principally subject to a six-year election cycle. However, one-third of the members of the Senate are elected every two years. Hence all members of Congress are in a state of permanent election campaigning and devote a substantial amount of their time to fundraising. According to statistics from OpenSecret.org the average winner in a Senate race had had to raise USD 10.2 million. The average winner in a House election has had to raise USD 1.5 million. The statistics also show that the amounts have been ever-increasing over past election cycles.[388]

The amount of money spent by US representatives running for re-election in 2011–2 totalled around USD 654 million.[389] The corresponding number for the 22 senators running for re-election was around USD 220 million.

In addition, Congressional committee assignments are very important for lawmakers because the lawmaking process starts there. New bills are drafted, debated and revised in the committees and subcommittees of Congress. Therefore it is of the utmost importance for lawmakers to be assigned to the 'right' committee. Those who win seats on the lucrative banking, tax-writing or commerce committees quite often enhance their campaign war chests with contributions from industries seeking to influence legislative outcomes. Many newly elected members receive 'donations' from special interest groups.[390]

The Financial Services Committee of the House received a total of USD 85 million in the 2012 election cycle from 13 industry sectors, USD 28.5 million from the financial sector alone – roughly a third of total industry contributions.[391] One can safely assume that this secures a share of voice in the lawmaking process.

Research shows that the probability of draft legislation being signed into law depends on how favourable or unfavourable the law is to the financial industry.[392] In the period 2000 to 2006 a bill advocating regulations and rules less favourable to the financial sector was three times less likely to be enacted than a bill promoting deregulation.[393]

This research further shows that lobbying expenditures by the affected financial firms were significantly associated with how politicians voted on the key bills that were considered before the crisis. Second, if a lobbyist had worked for a legislator and then switched to a lobbying firm, the legislator's vote was usually in his favour.

2.10.1 The problem of 'revolving doors'

It must be noted that there is a highly active revolving door policy between lobbying firms and legislative bodies. Remuneration in the public sector is far less attractive than in lobbying firms, and it is common for public employees to gain experience and contacts and then move to the lobbying industry. Sometimes lobbyists return to the legislative branch temporarily, but always with a return ticket.[394]

The revolving door numbers are staggering. In 2009 and the first half of 2010 alone the overall financial service sector as a whole commissioned 1,447 former federal employees to lobby Congress and federal agencies, including 73 former members of Congress.[395] More specifically, between 2006 and 2010, 219 former SEC employees filed 789 statements saying they would be representing a lobbyist or industry group in front of the SEC, according to the Project on Government Oversight.[396]

A case in point is that of former CFTC Commissioner Jill Sommers: prior to joining the CFTC she worked for the Chicago Mercantile Exchange (CME), one of the largest privately owned exchanges in the world, which is overseen by the CFTC; she also worked at the International Swaps and Derivatives Association (ISDA).

2.10.2 Once Congress passed a law – lobbying in the rule-making process starts

Lobbying does not end when a law is passed by Congress. When statutes deal with complex issues, Congress often makes them deliberately vague, deferring to the rule-maker's technical expertise and policy decisions and giving them significant authority to interpret the law. These rule-makers include federal agencies such as the Food and Drug Administration, the CFTC and the SEC.

This rule-making process that follows the lawmaking process is governed by the Administrative Procedure Act of 1946.[397] According to this Act rule-makers send their draft rules to other federal agencies and to industry group associations affected by them and invite comments (comment letters). This step of the process is called giving Notice of Proposed Rulemaking (NPRM). And at this point a second wave of lobbying occurs.

The fate of the Dodd-Frank Wall Street Reform and Consumer Protection Act serves as an illustrative example. Since the passage of Dodd-Frank, the industry has spent an estimated USD 1.5 billion on registered lobbyists alone – a number that most dismiss as comically low, as it does not take into account the industry's much more influential allies and proxies, including a battalion of powerful trade groups, like the US Chamber of Commerce, Business Roundtable, and American Bankers Association. It also does not take into account the public relations firms and think tanks, or the silos of campaign cash the industry has funnelled into lawmakers' re-election campaigns.

The Dodd-Frank Act explicitly directed the CFTC to introduce position rules in commodity markets. This would have put a leash on heavyweight traders, like Goldman Sachs and JP Morgan, to manipulate commodity markets to their advantage. However, the proper implementation of that rule would have meant lower revenues for the privately owned CME and Intercontinental Exchange (ICE). Global banks hold majority stakes in both. And the two groups together represent the biggest speculator in the world.

But if a federal agency can limit positions it would mean fewer derivatives trades, and hence less business. Section 737 of the Dodd-Frank Act reads:

> The Commission shall by rule, regulation or order establish limits on the amount of positions, as appropriate.

The lawyers hired by CME and ICE took the view that the CFTC was not required to establish position limits at all.

In September 2012 the US Court for the District of Columbia Circuit overturned the CFTC's rule. The court reasoned that the commission lacked a clear and unambiguous mandate to set position limits without first demonstrating that they were necessary and appropriate.[398] This ruling conflicts with the explicit intent of the drafters of the law, who later weighed in by saying they had intended the language to explicitly instruct the CTFC to establish position limits at levels that were appropriate.

Bartlett Naylor, a financial policy advocate at Public Citizen, one of the handful of public interest groups tracking the rule-making process for Dodd-Frank, summarized that since the law was passed, the financial industry has spent billions of dollars on lawyers and lobbyists, all of whom had been charged with one task: weaken the thing. One strategy has been to carve loopholes into the language of the law – a verb, an imprecise noun, a single sentence in an 876-page statute.[399] Industry lobbyists are well aware that they do not need to kill a rule outright – they only need to weaken it. This strategy is even better because the rule remains on the books, the newspapers cover it, and it looks like a success for financial reform. But the industry remains as unfettered as before.

Industry lobbyists enjoy outsize influence in meetings with the agencies, in comment letters on draft rules, on the rule-makers' access to vital information and on the interpretation of the law itself.

For instance, the famous Volcker Rule requires that regulators determine what is proprietary trading and what is market trading. Proprietary trading is when banks trade with their capital base for their own profit. Market trading is when banks trade at the request of their clients. A Credit Suisse lobbyist recently claimed that in a test run the bank had found out that proprietary trading and market trading were indistinguishable. Credit Suisse's claim will go into the rule-maker's record, which in turn can be used as evidence in court should implementing agencies be sued. The problem here is that Credit Suisse owns the data and will not share it publicly.[400]

And a fundamental problem of Dodd-Frank is that agencies are required by Congressional mandate to effectively regulate new, never-before-regulated products in never-before-regulated markets that change by the month.

The whole rule-making process is dominated by asymmetric warfare. The financial sector maintains an army of highly paid lawyers and consultants who outnumber the understaffed and underpaid agencies. Moreover, if the number

of meetings held with banking and agency representatives is compared with the number of meetings with public policy organizations and other reform groups, the banking camp outnumbers the latter by a factor of 1,000.

Another weapon of lobbyists, and in particular lawmakers who voted against the Dodd-Frank legislation, is to bring forward retroactive legislation to weaken the Act. For example, another provision in the Dodd-Frank Act was to make swaps dealers subject to regulatory oversight and force them to back their trades with more capital. The first joint rule proposal by the CFTC and the SEC determined that the rule would apply to dealers who trade more than USD 100 million in swaps. A bill proposed by Illinois Republican Representative Randy Hultgren raised that threshold to USD 3 billion, but the agencies, intimidated by lobbyists' doomsday scenarios and under constant threat of litigation, raised it again, to USD 8 billion. The rule that eventually emerged now exempts about two-thirds of all swaps dealers from the new capital requirements.[401]

Yet another weapon of financial sector-friendly lawmakers is to add riders to appropriation bills that define the funding of a given agency. The goal is to underfund the agencies so that they simply lack the resources to implement and enforce the legislation. This ruse is adopted frequently. For instance, the House Appropriations Committee cut the CFTC's annual budget by USD 25 million, to an anaemic USD 180 million, even though the workload of the CFTC increased significantly with the passage of Dodd-Frank.

The ongoing use of all those 'weapons' by financial sector-friendly lawmakers and lobbyists means that more than two years after the passage of Dodd-Frank in Congress fewer than 150 of the estimated 400 rules in the bill have been finalized. Nearly the same number had not even been proposed yet. Overall nearly 65 per cent of the law, including significant provisions regarding systemic risks, have yet to be finalized. Given the trajectory of the rule-making process so far, the final Dodd-Frank law can be expected to resemble Emmental cheese and be as toothless and useless as Basel III.

2.10.3 Comparing bank lawmaking in the US and the EU

In both the US and the EU banking legislation is effectively handed over to banks themselves. The only difference is the method.

As shown in sections 1.2 and 1.3, the lawmaking process in the EU is an oligarchic one as opposed to a democratic one. The institutional design of the EU has broken with one of the most fundamental principles developed by the political theory of the European Enlightenment movement – the principle of separation of powers. According to this principle the right to initiate law must be vested in the parliament, the legislative branch of government. But the member states of the EU vested this fundamental right of self-determination in the unelected executive branch – the EU Commission. And whenever the unelected EU Commission wants to enact legislation it calls in unelected expert groups, the members of which it did not even publish

initially. As illustrated in section 1.3, those expert groups are fully dominated by industry insiders.

It was also argued that the consent required later in the process by the 'European Parliament' and the consenting laws of the national parliaments do not compensate for this fundamental democratic deficit. Unelected officials determine what shall be regulated, not the will of the people. In the EU, lobbyists and bankers are officially appointed to draft the banking laws, even though the EU Commission is exclusively funded by EU taxpayers.

In the US, on the other hand, banks must pay for special interest lawmaking. But it does not follow that they are less able to shape legislation to their advantage. In 1999 and 2000, when the two deregulatory breakthrough laws – FSMA and CFMA – were passed by Congress, a total of USD 445 million was invested in lobbying over the two-year period.[402] Campaign contributions further exacerbate the situation. The political careers of representatives can depend on the campaign contributions of the financial sector far more than on their true and honest representation of the will of the people.[403]

In addition, in both jurisdictions there is a highly active revolving door policy between regulators, banks and politicians that naturally fosters amicable relations between the two.

Thus it must be concluded that in both jurisdictions the lawmaking process regarding the banking sector in no way reflects the will of the people. Instead, it reflects the will of a powerful special interest group. This lawmaking process is of an oligarchic nature instead of a truly democratic one. And the end result of all those laws and regulations is a banking sector that cannot survive on its own. It is totally dependent on public resources (see section 2.7.5) and the money-creation capability of the commercial and central banks, on a scale unprecedented in monetary history.

This chapter has shown that all the financial and fiscal problems plaguing Western societies have their roots in two factors. First, the lawmaking procedures leading to the regulation of the banking sector are not in compliance with the rules of democratic lawmaking as established by the political theory of the European Enlightenment movement (see section 1.0). Second, the continuation of human standards in Western civil society has been put in jeopardy by the fact that the global banking system operates in accordance with an out-of-control fractional reserve banking principle.

This chapter also demonstrates that all current regulatory attempts to ring-fence the tremendous risks of the current banking system are dead on arrival – as even regulators admit (see section 2.7.4.H).

2.11 The Chicago Plan for banking reform – killing the fractional reserve banking principle

The economists who devised the Chicago Plan were well aware that credit creation in a fractional reserve banking system can go out of control. In 1933,

when Henry Simons of Chicago University circulated the first draft of the plan,[404] he had a clear understanding of the cause of the Great Depression: the fractional reserve banking principle. Through its sheer existence it enabled the commercial banking system to expand the money supply through credit money. This increase in the credit money supply was the key enabler of the rampant and credit-financed stock market speculation. When the bubble burst, billions of dollars were annihilated. The replay of the run-up to the Great Depression took place during the dot.com bubble and on an even larger scale during the housing bubbles in Ireland, Spain and the US.

With respect to the Great Depression the economists surrounding Henry Simons clearly understood that in order to ensure that 'it will not happen again' radical reform of the way the banking system operates was required. Since in their view the fractional reserve banking system was the cause, they aimed to abolish it, requiring a change with respect to how money is created and by whom. Another goal was to protect depositors and to avoid bank runs.

The next section illustrates the need for such a radical change.

2.11.1 Increasing share of total debt of financial sector – enabled by fractional reserve principle

Recent decades have seen a dramatic expansion of credit. In 1968 credit exceeded GDP by 1.5 times. In 2007 the amount of credit in the economy had grown to 3.4 times total economic output and amounted to USD 50,000 billion.[405]

When the Fed was created in 1913 it was required to hold 40 cents' worth of gold for each paper dollar it issued, later lowered to 25 per cent. In 1968, at the urging of President Lyndon Johnson, the US Congress removed that constraint entirely through the passage of the Gold Requirement Elimination Act. The reserve requirements for banks have been continuously lowered ever since. By the early 21st century, the reserve requirement played practically no role in constraining credit creation.[406] The Fed justified reducing banks' reserve requirements on the grounds that they were no longer necessary because the Fed itself would always be able to provide liquidity support to any bank that required short-term funding.

In so doing the Fed enabled commercial banks to create credit money at unprecedented levels and changed the structure of debtors in the economy significantly.

The share of debt owed by private households increased from 8 per cent in 1945 to 28 per cent in 2007. Between 1982 and 2007, the mortgage debt of the household sector rose ten times to USD 10,500 billion. Consumer credit increased six times over the same period to USD 2,500 billion.

The share of the financial sector in total credit increased from 1 per cent in 1945 to 32 per cent in 2007. By 2007, the financial sector had USD 16,000 billion in debt. The household sector owed USD 14,000 billion.[407]

Among the main drivers of this increase in debt were the GSEs Fannie Mae[408] and Freddie Mac.[409]

Both GSEs were founded to promote homeownership in the US. Originally they were supposed to buy mortgages of certain quality standards only, repackage them and then sell them to investors. Through this process the lending capacity of the commercial banking system increases because they can use their equity to back new mortgages. Over time those GSEs expanded their scope to acquire any form of asset-backed securities.

Due to their business model they have no deposits to finance their purchases. Instead they issue bonds to generate the funds to buy the debt assets from banks and other investors. When both GSEs resold those repackaged securities they attached a performance guarantee to them, for which they earned an additional fee.

What is noteworthy with respect to the overarching topic of fractional reserve banking is that those GSEs and agency- and GSE-backed mortgage pools had extremely favourable regulatory treatment with regard to capital adequacy requirements.

Fannie and Freddie were required to hold only 2.5 per cent capital against the mortgage loans held on their books and only 0.45 per cent for the mortgages they had guaranteed. Far more importantly, the GSEs didn't face any liquidity reserve requirements at all.[410]

Thus, the fractional reserve banking system mutated into a de facto zero reserve system, as it turned out when the housing bubble burst in late 2007. In July 2008 both GSEs had to be quasi-nationalized by being taken into conservatorship by the government at a taxpayer expense of roughly USD 169 billion.[411]

2.11.2 Switching from fractional reserve to full reserve banking – money creation does the trick

The mechanics of the Chicago Plan are fairly simple as it rests on a fundamental change to the concept of how fiat money is created. Under the current system each dollar created is backed by a debt of the same value. This debt is sold into the market in the form of a security – a Treasury bond, backed by the sovereign promise to pay the debt holder the face value plus interest. The central bank acts as an intermediary between government and the market. The Fed sells the bonds but it can also buy them. The important notion here is that whenever money is 'printed', debt is thereby created.

Money creation in the commercial banking sector works the same way except that it is backed not by a sovereign promise but instead by a private one. If a bank makes a loan of USD 1,000 it appears on the left side of its balance sheet as an asset. The origin of this asset appears on the right side of the balance sheet in the form of a deposit, that is, a debt promise to pay it back according to the terms stipulated.

This system of debt-based money creation leads to the odd insight that if at a given moment all debt in the world were paid back, money

would disappear – except for the interest on the debt created. When a bank makes a loan, it creates only the principal amount but not the interest, leading to two consequences. First, the amount of interest has to be earned in the economy through investments with a return higher than the accumulated interest. This can be difficult for governments because their expenditures are usually of a consumptive nature. Second, due to the mechanics of compound interest, the total amount of interest in an economy is always increasing and usually can only be met through the creation of new debt. Hence, in the current system of money creation an ever-swelling volume of debt is sown. In other words, the tendency to reach a state of over-indebtedness is encoded in the DNA of today's mechanics of money creation.

The notion that money must be backed by something has a long history. In 1910, for example, the Financial Commission of Congress considered backing money with securities issued by railway companies, among other things.[412] However, in most of monetary history money was backed by precious metals – gold and silver. From 1870 to 1914 all important nations operated under the gold standard, meaning that the amount of money created was linked and limited to the amount of gold a nation had. During that period the world experienced enormous economic growth with almost zero inflation.

With the introduction of the Fed in 1913, the money supply was still linked to gold, although at a defined fraction only. More important was the establishment of the fractional reserve principle, leading to the disastrous Great Depression just 16 years later. This understanding of the true causes of the Great Depression was common among leading American economists at that time.

Yet a crucial concept was presented to them by a non-economist, the British chemist and Nobel Prize laureate Frederik Soddy. In 1926 he published the book *The Role of Money*, in which he advocated (a) that money should be issued directly by governments free of debt and interest, and (b) that deposits should be backed 100 per cent – thus money just created by decree and ex nihilo as today but free of debt. This idea is anything but new in monetary history, but Frank Knight read Soddy's book and wrote:

> The practical thesis of this book is distinctly unorthodox, but is in our opinion both highly significant and theoretically correct. In the abstract, it is absurd and monstrous for society to pay the commercial banking system 'interest' for multiplying several fold the quantity of medium of exchange [i.e., money] when (a) a public agency could do it at negligible cost (b) there is no sense in having it done at all, since the effect is simply to raise the price level, and (c) important evil results, notably the frightful instability of the whole economic system and its periodical collapse in crisis, which are in large measure bound up with the variability and uncertainty of the credit structure if not directly the effect of it.[413]

2.11.3 How the Chicago banking reform plan would work

Once the question of the creation of money is solved and exclusively assigned to government and its central bank the translation into the banking system is simple. The following illustration of the Chicago banking reform plan is only the principal form of it – modified forms have also been suggested.

The main task is to accomplish the transition from a fractional reserve to a full reserve banking system.

Step one would be to spin off all deposits from banks into a separate money-market fund. This fund could still be managed by the bank's staff and would not represent an expropriation of bank funds since the deposits are owned by the customers and would continue to be so. Customers could exchange their proportionate shares in the fund for money at any time. Another variant would be to divide banks into two departments, one a warehouse for money, the checking department, and the other the money-lending department – virtually a savings bank and an investment bank.[414]

The second step would be to 'fill up' the liability side. As explained above, loans are backed only by a fraction of a bank's capital. If for instance a bank loans out USD 1,000 for five years, it only needs to back this loan with around 3 per cent of its capital, which in this case is USD 30. Hence, the difference in a full reserve system is USD 970. This gap could be filled by a freshly created government bill of that value. Because the 'value bill' would be a book-keeping entry and not eligible for circulation, there would be no inflationary effect. As the loan would be paid back over the next five years the value of the government bill would shrink in proportion, finally down to zero. At that point it would be phased out and voided. Alternatively, since the government would now be printing debt-free money, it could also lend banks the differential between fractional and full reserve – against interest. In this way the government would receive a large claim against the banking system. In the US the total credit market debt is around USD 52 trillion versus roughly USD 17 trillion of public debt.

Loans and other assets that are non-performing would need to be written off. In that case the 'value bill' provided by the government would not shrink, but the bank would still have the advantage of being fully capitalized. It seems reasonable then that the remaining balance in favour of the government might be turned into either an equity share in the bank or an interest-bearing liability.

Any new loans made in the transition phase would need to be funded either by government-issued money against interest or by private savings against interest or through retained earnings. Savings in developed economies are huge, in particular with insurance companies and pension funds.

This kind of credit creation under the Chicago reform system would have two immediate effects: (1) it would eliminate the unjustifiable seignorage profit commercial banks rake in today and shift it to the public (see section 2.2) and (2) it would return commercial banks to their proper role as

intermediaries of credit instead of the out-of-control creators of debt they are today.

2.11.4 Implementation of the Chicago reform plan would produce four fundamental benefits for the economy

The Yale economist Irving Fisher attributed the following fundamental feature to the Chicago banking reform plan:

> I have come to believe that the plan, properly worked out and applied, is incomparably the best proposal ever offered for speedily and permanently solving the problem of depressions; for it would remove the chief cause of both booms and depressions, namely the instability of demand deposits, tied as they are now to bank loans. In an earlier book, I tried to show that the recent depressions, and so far as I was able to get any evidence, all the other great depressions, have been due mainly to one or both of two causes: too much short-term debt to start with and, later, when liquidation is attempted and as a consequence of such liquidation, too great a contraction of the circulating medium [i.e., money]. Both of these two factors, debt and deflation, are found combined in our short-reserve banking system.[415]

Overall, banking under the Chicago reform plan would have four fundamental advantages over the current banking system:

1. Boom and bust cycles would by and large be eliminated, since they are caused by excessive credit expansion by the private banking system followed by sharp contractions in the money supply. Instead government would be in direct and effective control of the money supply. In sharp contrast to today's banking usage, banks could only lend out pre-existing money created in the real economy and translated into savings. Banking would be not nationalized, but money would. Today, money is already nationalized and decreed as legal tender by statutes. However, due to the fractional reserve principle nations and central banks are not in effective control of the money supply.
2. Bank runs would be eliminated because deposits would be outsourced into mutual funds or other separate entities and backed at 100 per cent by real money. Any form of deposit insurance scheme would become obsolete. Even the more realistic bank runs on the wholesale level, that is, the shadow banking system and inter-bank lending, would be eliminated since banks would operate on a full reserve level. The precarious and gigantic short-term debt rollover schemes to which banks are subjected today would be eliminated.
3. Government debt would be drastically reduced. Governments could buy back the Treasury bonds held in the national banking system. This would

not be inflationary because the banks would be obliged to use the funds received to increase their reserves by up to 100 per cent. The money supply would not expand, nor would the credit money supply, because it would be restricted.

4. The level of private debt would be significantly lower since banks would have to back it by 100 per cent of their capital. Hence, the lethal upward debt spiral caused by making legally questionable and predatory loans then securitizing and selling them in order to make new loans backed by insufficient capital could not happen.

These positive effects cannot be overstated. Hence, speedy implementation is advisable. At least four recipients of the Nobel Prize in economics supported the establishment of a 100 per cent banking system during the 20th century: Friedrich Hayek, Milton Friedman, James Tobin and Maurice Allais.[416]

It is interesting that the Chicago concept seems to have escaped the collective memory of the current generation of 'top economists', although it was vivid in the minds of an earlier generation.

The Chicago Plan is currently experiencing a kind of resurrection among a minority of economists. One version put forth is an initiative referred to as 'monetative'. The name alludes to the establishment of a fourth branch of the state, the monetative, alongside the existing three branches of state – the legislative, executive and judiciary. This initiative was first suggested by the German professor Joseph Huber and the English economist James Robertson in the late 1990s and early 2000s.[417] It is in essence a second edition of the Chicago Plan that turns the monetary authority into a fourth branch of the state. Another follower is the American Monetary Institute (AMI), driven by Stephen Zarlenga.[418]

Moreover, in August 2012 the IMF published the working paper 'The Chicago Plan Revisited', [419] endorsing the four main advantages stated above.

2.11.5 The key vulnerability of the Chicago Plan and its offshoots: political naiveté and historical ignorance

Despite the massive advantages of the Chicago Plan, it suffers from one fundamental flaw: political naiveté – independence when government controls the monetary system has never been realized in monetary history. Governments throughout history have abused the money creation process and bent laws for their own political gain, gradually allowing a fractional reserve banking system to operate (despite Roman law explicity forbidding it; see sections 2.3 and 2.4). Eventually fractional reserve banking became the legal standard.

Serial breaches of monetary law by governments and their central banks occur whenever the law stands in the way of their political agendas. At the beginning of World War I governments left the gold standard because they needed to print money in order to finance the war. Had they stuck to the

gold standard the only way to finance the war would have been the introduction of a war tax. This legislation would have had to pass the parliaments, giving them the option to reject it.

The serial breach of monetary law continues still. When the euro was introduced it was sold to the people as the currency of stability, and politicians called the Economic and Monetary Union (EMU) a 'stability union'. Only 13 years later the 'stability union' was on the brink of collapse. The first version of the Maastricht Treaty, later folded into the Lisbon Treaty, dictated that the annual fiscal deficit of the member states should never exceed 3 per cent per year and that the ratio of sovereign debt to GDP never exceed 60 per cent. Italy never met those criteria but was admitted to the 'stability union' from day one. From 2003 to 2005 France and Germany repeatedly broke the deficit rule.

The treaty also explicitly forbade the bailout of member states (Art. 125). When Greece was on the verge of bankruptcy in 2010 Eurozone politicians broke this provision to rescue their currency project. Since this was a clear breach of the Lisbon Treaty, the EU later introduced Article 136, paragraph 3 to allow future bailouts. Two new bailout vehicles were set up: The European Financial Stability Fund (EFSF) and the European Stability Mechanism (ESM). Both issue debt notes to raise the required funds at a combined volume of roughly €1,500 billion – in order to facilitate further bailouts.

Moreover, in 2010, the then-head of the Eurogroup publicly claimed the right to lie when required to defend the euro.[420] The then Italian Prime Minister, Mario Monti, was complaining that the elected representatives of the people, the national parliaments, unduly interfered with the monetary policy of the unelected EU Commission and the unelected ECB.[421]

Further on, it was boasted that the ECB would be as independent as the former Deutsche Bundesbank. The notion of the independence of central banks is a particularly German one and historically naive. Both decision-making bodies of the ECB, the Executive Board and the Governing Council, are dominated by member states in urgent need of money. The German president of the Bundesbank is fighting a losing battle for independence.

Central banks were founded to finance governments, not to be independent of them. For instance, the Bank of England was founded by private businessmen in 1694 to help William III raise funds for a naval build-up in exchange for the privilege to issue money. The Bank remained in private hands until 1946. The Bank of France was similarly brought under government control by Napoleon in 1806.[422]

The Fed itself is far from independent, having been established to serve the interests of the large banks and in fact being owned by them. As seen in section 2.8, the Fed primarily acts in the interests of its member banks.

Regardless of whether central banks are biased towards financing government deficits or propping up the banking system, even under the Chicago Plan central banks would remain exposed to political pressures.

This is particularly so if money can now be issued free of debt and interest. And, as in the past, central banks will always give in to political pressure.

It is foreseeable that under such a currency regime states would embark on tremendous spending sprees and again increase the supply of money in a reckless manner. The result would be an inflationary collapse of the new system, as has always been the case with government-created fiat money systems.

Monetary history is littered with examples of unbacked fiat money creation leading to inflation. The first case in Europe was John Laws' Banque Générale, established in Paris in 1716. The Banque Générale was granted the right to issue notes but it over-issued and the bank collaped five years later due to a speculation disaster. It was succeeded by the Caisse d'Escompte in 1776, which issued 'assignats', or short-dated interest-bearing government bonds, in 1789. These became legal tender in 1790. France was flooded with them, and the Caisse collapsed.[423]

The US in the 18th century experienced similar disasters. Colonial governments frequently issued paper money to facilitate economic activity. In particular during the American Revolution paper money was issued to finance the war. Many colonies issued notes in expectation of future taxes. Those notes were declared to be redeemable in commodity cash at some future point in time. The Continental Congress also issued paper money to finance the war. In each and every case those notes devalued substantially.[424] And by the end of the war they were practically worthless.

2.12 The Proposal of the Austrian School modifies the Chicago Plan

The Austrian School advocated a full reserve banking system long before the Chicago Plan was developed.[425]

The Spanish economist Huerta de Soto, an adherent of the Austrian School, uses the Chicago Plan as a blueprint for his proposed reform. The following section adopts some elements of his plan.

The first crucial difference between his reform and the Chicago Plan lies in the way money is created and by whom.

De Soto's plan would not nationalize the money in circulation but rather de-nationalize, or privatize, it through the reintroduction of the gold standard. Under a true gold standard citizens can freely convert paper notes into specie, whereas today citizens can only hold government money, even if it loses significant purchasing power. They have no choice. Both targeted and out-of-control inflation translate into an equal loss of purchasing power, leading to a stealthy expropriation of the citizens. As long as money is nationalized they have no chance to escape. Under a true gold standard they can.

Elgin Groseclose observed:

> Human liberty is co-extensive with the right of property. The simplest and most usable and most marketable form of property consists of a piece of intrinsic money – a coin of good metal. When, by whatever means,

> the individual is deprived of the possession of that piece of metal – that intrinsic substance of worth – . . . we witness the first steps on the road to serfdom and submission to an all-powerful state.[426]

The pros and cons of a return to the gold standard will be examined in Chapter 3.

The gradual transition from fractional to full reserve banking would work according to the same mechanics as described in section 2.11.3. The value bill would be 'filled up' over time through the repayment of loans. An important factor is that the government bill would be (a) non-tradable and (b) backed by incoming cash flows. The issuance of this bill would not be inflationary, since its sole purpose would be to back the total amount of demand deposits (and equivalents). Each bank would receive notes for a sum identical to its corresponding deposits.[427]

From then on new loans could only be made out of prior savings. Banks would become true intermediaries.

A significant amount in assets would most likely need to be written off as worthless. As to those written-off amounts the government bill could not be matched by bank assets. That negative value differential could be turned into bank equity participation, or alternatively into an interest-bearing liability.

Bank shareholders would profit tremendously from the restitution of full reserves because they would now own all proprietory assets at 100 per cent. Previously, debt obligations stood against the value of those proprietory assets, like real estate, shareholdings in companies, securities and government bonds, because they were credit-financed. *To compensate for that undeserved increase in the wealth position of the shareholders*, de Soto proposes that those assets be spun off into separate mutual funds to be managed by private banks. The question he poses then is, who should be the shareholders of those funds? He suggests that those newly created funds should purchase sovereign debt via a swap. The sovereign debt would be paid for in specie, with shares in those new funds. Through this operation a substantial reduction of sovereign debt could be achieved.

Such a move seems equitable and fair. As illustrated in section 2.7.5, the (fictional) profitability of global banks was due to public subsidies for the benefit of their shareholders *('quarterly capitalism')*. Without such a move the transition from fractional to full reserve would amount to another gift of societies to bank shareholders.[428]

2.13 Chapter summary

(Numbers in brackets refer to the sections in this book.)
In this chapter six theses have been put forward:

1. The fractional reserve banking system is the root cause of over-indebtedness

One of the root causes of the GFC is the fractional reserve banking system on which the current global banking system is operating.

A key feature of a fractional reserve system is that the commercial banks need to back their activities, say a loan to a customer or deposits of savers, only by a tiny fraction of their capital. For instance, a saver's deposit or a loan to a customer needs only to be backed by 3 per cent of the capital of the bank. This means that the bank has a risk exposure of 97 per cent. Fractional reserve banking also increases the money supply in an economy, which fuels speculation. Example: A deposits USD 10,000 with his bank. Customer B wants a loan of USD 10,000. In both cases the bank has to reserve only USD 300. If A withdraws his deposit the next day then USD 20,000 are in circulation (2.2).

Now A and B can compete for the same goods. What is important to understand is that the bank created this additional money 'out of thin air' via book-keeping entries. The bank also receives interest from the loan to B. This amounts to a subsidy to the bank because it has almost no cost of production in comparison to other industries. That profit is called **'seignorage'**. The rationale for allowing A to withdraw his USD 10,000 right after the bank granted the loan to B is that empirically all 'A's never withdraw their money at the same time. If so, this would be a bank run and the bank would fall into bankruptcy because it could not pay back the deposits of all 'A's because it had loaned them out to the 'B's. This makes fractional reserve banking vulnerable in times of turbulence and leaves banks with an inadequate shock absorption capability.

Bank runs do happen. The most famous example is the stock market crash of **October 1929** in the US when more than 4,000 banks fell into bankruptcy. A recent example is the GFC of 2008, when most of the large banks needed **taxpayer-financed bailouts** to avoid collapse.

Fractional reserve banking failures can bring down states. That was the case with **Ireland** when the government decided to bail out its banking sector. In order to avoid state bankruptcy Ireland needed to borrow €85 billion from the rescue schemes of the Eurozone. Another example is the **US** where in October 2008 Congress passed the so-called **TARP legislation** (2.8.2), which mobilized USD 700 billion of taxpayers's funds just to bail out the TBTF ('too-big-to-fail') banks. Hence, fractional reserve banking can deeply hurt societies. It also leads to massive distortions and inefficient capital allocations in economies. In normal times 80 per cent of all money in circulation is credit money created by the commercial banking sector. The ever-production of credit money at low interest rates makes investment projects look profitable when they are not (2.5.1 and 2.5.4). Credit money, created at an increasing scale leads to **'asset price inflation'**, as happened more than twice in the rampant stock speculation in the US in the second half of the 1920s, in internet companies in the late 1990s and in the housing sector between 2000 and 2007. Since all the credit money created flew into speculation instead of productive investments (2.5.5), the availability of funds was painfully missing once the bubbles burst. Because debt has to written off – all the money

literally evaporates. That was exactly what happened after the disastrous stock market crash in October 1929. In the years following, the GDP of the US shrank by more than 30 per cent and unemployment soared to 25 per cent (section 2.5.1). The famous American economist Irving Fisher coined for this phenomenon the term 'debt-deflation'.

A **full reserve banking system** would prevent such cyclicality unless loans were granted in a grossly negligent manner. Under a full reserve regime credit could only be created out of prior savings in the economy. Hence, it cannot become over-indebted. In simplified terms: in the above example A could not withdraw his USD once the loan was made to B. Because now A needs to agree that the bank will lend his money to B.

Such a regime would turn banks into true intermediaries of credit from the excessive producers of credit money they are today. For the transition from fractional reserve banking to a full reserve banking system elements from the **'Chicago Plan for Banking Reform'** were borrowed as well as from the Spanish economist **Jesus Huerta de Soto** – a follower of the **Austrian School**.

The Chicago Plan (2.11) was developed by leading American economists in the early 1930s, among them Henry Simons and Frank Knight. It was heavily promoted by Irving Fisher. They recognized that the excessive credit creation of the commercial banking system was the main culprit, enabled through the fractional reserve banking system. In order to facilitate the transition De Soto introduces a governmental 'equity bill', which is supposed to fill the gap between the fractional reserve and the full reserve required. This bill would be of a transitory nature and non-tradable. To illustrate: a loan of USD 10,000 granted to X requires a backing of bank capital of, say, 3 per cent. So the gap between the fractional and the full reserve is USD 9,700. Over time the bank will recover this amount because X will repay the loan. Those payments will be used for establishing the full reserve – correspondingly the governmental 'equity bill' will be reduced. Moreover, it is suggested that the deposits of the customers are brought into a separate entity, which could be a money-market fund. It could be managed by a bank. If the bank wants to make a loan it can tap that fund according to established rules. According to De Soto the overall money supply would not be regulated by an unelected body of 'experts', that is central bankers; instead he advocates the re-introduction of the gold standard (2.12). The viability of this will be examined in Chapter 3.

2. The deregulation laws passed in the US and the regulatory framework of the Basel Accords contributed substantially to the outbreak of the GFC

At the turn of the century US Congress passed two important pieces of legislation: (1) the 'Financial Services Modernization Act' (**FSMA**), also called the

Gramm-Leach-Bliley Act, and (2) the Commodity Futures Modernization Act (**CFMA**). The first abolished the Glass–Steagall Act of 1933, which foresaw the separation between commercial and investment banking activities – lesson learned by the Senate Committee on Banking and Currency (Pecora Commission) in the aftermath of the 1929 stock market and banking crash. The rationale was that IPOs and security trades should not be backed by customers' deposits. The FSMA repealed this (2.6.5) and the CFMA repealed the Commodity Exchange Act of 1936, whose purpose was that all futures and commodities options should be regulated and traded through organized exchanges in order to ensure transparency and to prevent manipulative schemes.

In 1998–9 Brooksley Born, a member of the President's Working Group on Financial Markets, forwarded a proposal suggesting the regulation of the growing derivatives sector. However, it was shot down by Alan Greenspan and other members of this group because they were worshippers of the then popular deregulation movement. Hence the vast majority of derivatives traded today are unregulated – and hence the term 'over-the-counter' (OTC) derivatives market.

Its notional value is around USD 650,000 billion – roughly ten times global GDP – and it was precisely this sector which contributed massively to the near-death experience of the TBTF banks in 2008. Back then, the largest insurance group worldwide (American International Group (**AIG**)) was among the largest counterparties to **credit default swaps** through its London based subsidiary (2). CDS contracts are a kind of insurance against a loss-making event. Because of a lack of regulation this derivative became abused through malign speculation. Because the buyer of this insurance had any incentive to help to trigger the loss-making event in order to cash in the insurance compensation (2.7.2.G – the Magnetar hedge fund). When Lehman Brothers collapsed, together with the housing market, AIG could not fulfil its contractual obligations. Its London subsidiary was located there because there was no regulatory regime. And in the USA it was not viewed as an activity that would have brought it under insurance regulation. Instead it was viewed as a 'specie of its own'. Hence, no need for provisions. In order to avoid the meltdown of the TBTF banks the largest bailout in financial history was engineered. The taxpayer-financed TARP fund and the Fed together mobilized a total of USD 182 billion in order to make the TBTF banks even by bailing out AIG. For this generous gesture the regulators did not even ask for a slight haircut of the banks (2.8.5).

And still an accident is waiting to happen in the OTC derivative complex, because 80 per cent of them are so-called **interest swaps** (2.7.2.C). The parties to an interest swap contract are betting on opposing moves of interest rates with respect to currencies (sovereign) bonds, loans and so on. In order to warrant mutual fulfilment of the contractual obligations the parties have to come up with collateral. The most often used collateral is

sovereign bonds. The amount of collateral required can vary significantly over the duration of the contract. For instance, from mid-2007 to the end of 2008, during the crisis, the market values of foreign exchange (FX) and interest rate derivatives almost tripled from USD 11 trillion to USD 32 trillion, even though their notional values moved by less than 9 per cent (2.7.2.H). In such cases the parties have to pledge more collateral. Similarly, when the collateral becomes downgraded, a sovereign bond for instance. This can lead to a 'collateral crunch'. Banks have to provide more bonds, which simultaneously should act as a liquidity buffer in turbulent times, as required by regulators (2.7.2.I).

The majority of interest swaps are linked to the low-interest environment that has prevailed for years and has been engineered by the central banks. Should for any reason the risk perception of the markets suddenly rise, and lead to higher interest rates in order to compensate for higher risk, and/or should a significant downgrade of sovereign bonds take place then the TBFT banks might be overwhelmed by the demand for additional collateral. Since the global OTC complex is more or less in the hands of roughly 14 global banks, the fall of one will bring down the others. That would lead to a too-big-to-bail-out scenario.

According to an IMF paper the OTC market is already under-collateralized to the magnitude of USD 2,000 billion and the five largest European banks alone carry a derivative-related tail risk of USD 700 billion.

In the wake of the GFC, regulators were charged with the task of increasing the stability of the OTC derivative complex. The currently favoured avenue is to set up so-called Central Counter Parties (CCPs). However, another IMF paper maintains that this might lead only to a new kind of TBTF entities. Or, alternatively, that only a small fraction of the OTC derivatives might be transferred to them (2.7.2.I). It is anything but sure that the risks in this market can be contained at all because the size it has reached might simply be too large.

And if regulation took place in other areas – it was simply counter-productive.

The main lapse of Basel was the **'Market Risk Amendment' of 1996**, which gave the banks the privilege of assessing their own risks.

The Basel Accords mainly rest on two pillars: (1) the 'risk-weighted asset' approach (RWA) and (2) the value-at-risk (VaR) method (2.7.4.A–B). The RWA approach operates on the rationale that banks' assets carry different degrees of risk. Those with a higher risk require more (fractional) capital backing than those with a lower risk. However, the RWA approach is susceptible to manipulation. A study conducted by the European Banking Authority (EBA) looked at RWA versus total assets in the banking books of 89 banks in 16 countries and found that some banks were using risk models that required them to hold 70 per cent less capital than their peers. And the VaR method suffers from a conceptual flaw. The assessment of the probability of risk events is based on the normal distribution assumption. However,

most risk events are subject to power laws. For instance, a study carried out by Citigroup in 2002 identified frequent moves in the exchange rate between the US dollar and the yen that according to a normal distribution should have happened only once in a century. One of the observed moves was such an outlier which according to the Gaussian probability distribution never should have happened even if the Citigroup had been trading dollars and yen every day since the Big Bang 15 billion years ago – but it happened (2.7.4.B). This explains why in 2011 some banks passed the so-called stress tests of the ECB with flying colours, thereby being declared safe, only to collapse soon afterwards.

The new **Basel III** rules on increased capital requirements turn out to be insufficient as well. As shown in section 2.7.4.D, they still provide an insufficient loss-absorption capability. To illustrate: in the peripheral countries of the Eurozone the loans, categorized as **non-performing-loans** (NPL), are on a steady rise – in some cases up to 18 per cent. It is not clear whether the banks made sufficient provisions. As shown in this section, total loans outstanding in the Eurozone amount to roughly €18,000 billion. The combined equity is ca. €2,300 billion. A write-off of only 10 per cent would translate into €1,800 billion, wiping out 80 per cent of their combined equity. However, since such a wipe-out would have to be restored, the total doubles to €3,600 billion. It can hardly be imagined that the governments of the already over-indebted (3.4.1.) Eurozone could stem a bailout of such size. The proposed banking union will not mitigate those losses – instead savers will be bailed in (3.5.1). This back-of-an-envelope calculation does not include potentially looming write-downs of other assets of the Eurozone banks, like bonds and derivatives. Moreover, as stated by Andrew Haldane from the Bank of England, regulatory complexity has grown beyond effectiveness (2.7.4.H). Probably the best evaluation of what Basel III has accomplished with respect to increased stability of the banking system is the statement a member of Bank of England's financial policy committee cited at the end of this section:

> 'Imagine that until 2007, the rules of the road permitted heavily laden fuel trucks to barrel through urban streets at 100 miles per hour. After a number of catastrophic mishaps, the establishment decides to reduce the speed limit to 75 mph in school zones. Have we tightened the rules? Yes. Have we tightened them enough? No.'

It was also shown that over the last two decades the banking system became dangerously dependent on **short-term financing** and the **shadow banking system** (2.7.3). Short-term financing exacerbates maturity mismatches. When a bank grants a 30-year loan at 5 per cent interest, and has 2 per cent of refinancing cost, it will make a profit of 3 per cent if the refinancing is secured over 30 years as well. However, if it makes the same loan but refinances itself every year then it is exposed to an increase in refinancing

cost. There might be periods in which the bank has refinancing costs of 10 per cent. In that case, it is suffering a loss of 5 per cent. That is a maturity mismatch. And that is what happened in the USA in the 1980s during the **saving & loans crisis**, which led to the collapse of more than 1,000 banks. That is also what triggered the collapse of the Icelandic banks in 2008. Their size was ten times the Icelandic GDP. They financed their aggressive growth strategy with short-term financing. When Lehman Brothers collapsed, sources of short-term funding dried up. And the same happened to the Irish banks. But not only this. The trend to use short-term refinancing among EU banks was even stimulated by the ECB (2.7.3.A).

An equally disastrous trend was the increasing reliance of banks on the shadow banking system. The term 'shadow' derives from the fact that non-banks are not subject to bank regulation – unlike money-market Funds (MMF), hedge and pension funds or insurance groups. MMFs were a preferred source of funding for banks via off-balance sheet special purpose vehicles (SPVs). Those SPVs issued commercial papers, a short-term debt instrument, and sold them to MMFs. Since MMFs, due to their statutory framework, are obliged never to let a dollar invested suffer a loss, they immediately withdraw their funding once they 'smell' risk. Banks depending on this type of funding collapsed almost immediately. The US bank Countrywide is an example (2.7.3.B).

All those developments occurred under the eyes of the regulators.

Due to the efforts of the EU Commission and the EU finance ministers to forge a banking union the ECB will become the regulatory and supervisory body for the largest 130 EU banks. Prior to that, the ECB intends to carry out another 'stress test', now called an **'asset quality review'** (AQR), before the end of 2014. Section 2.7.4 showed that already prior to that AQR certain crucial key-ratios became watered down. This was because the ECB knows only too well that the political euro-class totally depends on a banking system that can provide funds for continuing over-spending and for increasing levels of debt. The most striking example is that sovereign bonds are still treated as risk-free. This leads to the absurd situation that a bank that has €1.8 trillion in loans and €200 billion in Greek government debt is not required to have more equity than a bank that has €1.8 trillion in loans and €200 billion in cash. According to this rule government debt is as riskless as cash. Under the AQR, the ECB is being reported to have decided that this will apply only to sovereign bonds held in the trading books of the banks. Sovereign bonds held to maturity in the banking book will not be made subject to this requirement. This opens a back exit for the banks to shift their sovereign bond portfolios from their trading to their banking books during the so-called AQR.

3. Mainstream economic theory, the neoclassical synthesis, prompted the GFC

Worldwide, central banks and other financial authorities are dominated by a school of economic thinking called the **neoclassical synthesis**. It has two

offsprings, commonly labelled monetarism and Keynesianism. Both share the same conceptual foundation, which is a set of three dogmas: (1) the **equilibrium dogma**, (2) the **rational agent dogma** and (3) the **efficient market dogma**.

The equilibrium dogma maintains that an inherent feature of the economic system is to keep the supply and demand of economic goods and services in equilibrium. Disequilibria are caused by external shocks or governmental action. Nothing could be further from the truth. Research shows that natural systems display a complex cyclical behaviour with unstable equilibria. Although the dogma has been refuted by scientific research, mainstream economists still stick to it (2.6.1).

The same holds true for the rational agent dogma, which assumes that individuals make their decisions in a rational manner only and that they do not influence each other in their economic decision-making (2.6.2).

The efficient market dogma states that financial markets are 'informationally efficient' and that prices on traded assets – stocks, bonds or properties – already reflect all known information and instantly change to reflect new information. Hence no investor can outperform the market and by definition bubbles cannot arise and therefore do not occur, because all information is processed rationally and efficiently by the rational agents (2.3). Meanwhile, this dogma too has been empirically and scientifically refuted.

Moreover, these dogmas are embedded in a 'pseudo-scientific' approach which tries to mimic Newtonian physics. In order to accomplish this task in mathematical form, grossly simplified and often ridiculous assumptions must be made, which drive such efforts into the realm of fiction. For instance, in order to allow the rational agent dogma to be described in mathematical form, it is assumed that the economy consists of just one 'economic agent', instead of billions of different individuals. Because they merge into one agent, it is assumed that their preferences are identical, do not change over a lifetime and do not influence each other.

The former Chairman of the Fed **Alan Greenspan** zealously adhered to these dogmas and used them to block any regulation of the OTC derivative complex, because he believed that banks behave rationally and their rational self-interest inhibits excesses. However, in October 2008 he publicly admitted in Congress that his **'intellectual edifice'** had **collapsed**. This collapse was mirrored by the fact that no 'top economist' of the neoclassical camp could foresee the collapse of the housing market. Instead they produced totally wrong and optimistic forecasts for the year 2008. And since then they have been consoling themselves with the mantra: 'nobody could see this coming.'

Other economic schools clearly saw it coming – like the Austrians and Post-Keynesians. The Independent Evaluation Office of the IMF conducted a study into why the economists of the IMF had been so utterly wrong with their forecasts. The main findings were that they suffered from 'groupthink' and 'cognitive bias' (2.6.6).

As an alternative approach, complexity theory was briefly presented (2.6.4).

4. The problematic ownership and governance of the Fed contributed to the GFC

The Fed, including its 12 regional branches, is owned by the banks. Those branches elect their presidents themselves. They have a seat on the Federal Open Market Committee (FOMC). Five of them have a vote rotating among the 12. The seven other voting members of the FOMC are the 'Federal Board of Governors'. They are appointed by the president and confirmed by the Senate. The FOMC sets monetary policy. This semi-public structure harbours a permanent conflict of interest. Hence the question is: 'is the Fed supposed to defend the public interest against the bankers? Or is it supposed to help the bankers be profitable and therefore stable?' (2.8.1).

As shown in section 2.8.7, the answer is: the latter. At the peak of the crisis the Fed withheld information Congress was explicitly and repeatedly asking for. Congress wanted to know which bank received how much money. Hence, Congress finally passed a bill that made the Fed subject to a one-time audit by the Government Accountability Office (GAO), which published its report in July 2011. This revealed that the Fed had lent the TBTF banks a total of USD 26,000 billion of freshly printed money. That amounts to nearly twice the GDP of the US. Of that amount, USD 10,000 billion – roughly the GDP of the Eurozone – went to foreign global TBTF banks. During those rescue programmes the Fed permanently assured Congress that support would be granted only to financially 'sound institutions'. The CEOs of the receiving banks also concealed that information from their shareholders. For instance, on 26 November 2008 the CEO of Bank of America wrote to shareholders that he headed 'one of the strongest and most stable major banks in the world'. He didn't disclose that his firm owed the central bank USD 86 billion that day (2.8.4).

The report further revealed that some members of the Board of the New York Fed had shares in the banks they were representing and supporting at the same time (2.8.5).

In November 2008 the Fed announced its first 'quantitative easing' (QE) programme, primarily concocted to help the banks. Under QE1 the Fed bought debt from the banks totalling USD 1,750 billion. Through this artificial demand the Fed kept the prices of the toxic assets up and at the same time stabilized the balance sheet of the banks.

However, in doing so the Fed realized that it might impair its own balance sheet should it ever try to sell those toxic assets some day in the future, since a decline of only 2 per cent in their value would wipe out its capital. Hence it approached Congress for permission to issue its own bonds, which would have propped up its balance sheet. That move was supported by the now acting chairwoman Janet Yellen. But it was rebuffed by Congress.

Instead the Fed forged another deal with the then Secretary of the Treasury and former president of the New York Fed Timothy Geithner. This deal did not require approval by Congress. The Fed each year earns enormous profits through the interest payments it receives for the government bonds it holds. It is customary for the Fed to pay these profits back to the Treasury. However, under the new deal Geithner agreed that the Fed could suspend these payments indefinitely whenever it liked. Through that deal it not only bypassed the will of the lawmakers but also damaged the taxpayers. This constitutes a blunt assault on democratic principles (2.8.7).

This deal in particular confirms the analysis of section 2.7.5, which showed that hidden subsidies exceeded the profitability of the global TBTF banking sector. Such an industry sector can only be labelled as extractive and parasitic to civil societies.

It was also shown that the supererogatory care-taking of the banks was not matched by a similar care-taking of private households in the US (2.8.8).

Since private consumption accounts for 70 per cent of US GDP, the well-being of private consumers is crucial for a recovery. However, they are over-indebted. From the mid-1960s to the mid-1980s the ratio of household debt to disposable household income was around 70 per cent. Soon after Greenspan became chairman in 1987, this ratio began to rise sharply. By the end of 2007, it had peaked at nearly 140 per cent. If that ratio were to contract back to its pre-Greenspan level of 70 per cent, household debt would have to contract by USD 6,000 billion and total credit market debt would shrink by more than 10 per cent. A sure recipe for massive deflation.

It was also established that the median household income had shrunk in comparison to the 1990s and that the current 'recovery' in employment was taking place in the semi-skilled and low-paid segment. This would have a negative impact on future tax revenues. The same holds true for the purported housing recovery. It is driven by institutional money only. Out-of-state funds are rushing into areas where housing prices have fallen the most sharply in the hope of an overall recovery and future rental income (2.8.8).

5. The subprime crisis was precipitated through the legally questionable behaviour of many players and could have been avoided had the Fed exerted its regulatory power

In May 2009 Congress established The Financial Crisis Inquiry Commission (FCIC), which was charged with examining the causes of the subprime crisis. In January 2011 it published its report.

It describes in detail how the whole value chain from the origination of loans, to their final distribution around the world represented highly questionable behaviour (2.9.1). From 2000 on, federal agencies like the Department of Housing and Urban Development, the Treasury, the GAO and the FBI issued various reports warning about the alarming expansion

of predatory lending practices. Many employees of the loan-originating companies had a criminal record, the income levels of mortgage applicants were overstated, as well as property valuations and unemployed applicants were declared as 'antique dealers'. Employees and traders of the investment banks were fully aware of the questionable nature of the mortgages they were securitizing and selling.

All this was repeatedly brought to the attention of the Fed and its board members. Partly due to the deregulatory philosophy then prevailing the Fed did not act, although it had clear authority to do so under the Home Ownership and Equity Protection Act of 1994 (HOPEA).

With their reckless business models the banks reported record-high incomes and paid ever increasing salaries and bonuses. CEOs quickly turned those fictional incomes into real income for themselves. Lehman Brothers' CEO sold Lehman stocks prior to the outbreak of the crisis for USD 490 million; the founder of Countrywide made USD 400 million; Merill Lynch's CEO, who had steered it towards financial collapse, was given a package of USD 160 million – and so on. Lehman Brothers was the clear leader in reckless mortgage origination (2.9.2). It fired a whistleblower who had reported to the regulators accounting abuses even though he was required to do so under Lehman's employment policy. When the Fed started to carry out stress tests in early 2008, Lehman was given three tests, with progressively lower thresholds. Since it failed all of them, the Fed allowed Lehman to carry out its own stress test, which it unsurprisingly passed. The then secretary of the Treasury, Hank Paulson, former CEO of Goldman Sachs, and Timothy Geithner, then President of the New York Fed, were aware of this state of affairs according to testimony to the Committee on Financial Services submitted by Professor William Black.

Hence the FCIC report concludes that the financial crisis could have been avoided had the Fed exercised its statutory power. The former Chairman of the Fed Ben Bernanke admitted in a Congressional hearing that the Fed's behaviour amounted to 'the most severe failure of the Fed in this particular episode' (2.9.1)

6. Lawmaking in the US with respect to the financial sector is in full contradiction to democratic principles due to excessive lobbyism and campaign contributions

Section 2.10 describes in some detail how the banking sector influences the lawmaking process to its own benefits. From 1999 until 2008 the financial sector spent USD 2.7 billion on lobbying. This outweighed the combined efforts of other industry sectors. The amount of campaign contributions is breathtaking. For the re-election cycle in 2011/12 Representatives and Senators received a total of USD 874 million. Senators and Representatives basically depend on those contributions if they want to be re-elected. And if

they get a seat in one of the important committees that prepare legislation, they receive extra benefits.

As shown in section 2.10.2 by the example of the Dodd-Frank regulation, lobbyism does not stop once legislation is passed. It continues in the ensuing rule-making process. Currently the rule-making process of Dodd-Frank is under such furious attack the armies of lawyers employed by the banks overwhelming the resources of the agencies. Their only goal is to weaken those rules as much as possible and to maintain the regulatory status quo. Hence, three years after its passage in Congress, two-thirds of the rules are even not written. Thus, it is foreseeable that the final Dodd-Frank law will be as useless as the Basel III regulation.

This undue influence on the lawmaking process is exacerbated by a highly active revolving-door policy. Former members of Congress are employment in the financial sector once they retreat from politics and members of other agencies like the SEC switch to lobbying firms after a couple of years for a much better salary. Or government officials move directly to banks. In 1999 Citibank merged with the insurance group Travelers. This merger was not allowed under the then existing law. However, the Fed and the US Treasury green-lighted that deal. At that time Robert Rubin was the Treasury Secretary. And with the passage of the FSMA this mega-merger was legalized. Right after that Rubin became a director of Citigroup, and from December 2007 until January 2009 he was its chairman. He is reported to have made more than USD 126 million in cash and stocks.

6.1. Financial regulation under the EU regime in comparison

In sections 1.2 and 1.3 it was explained that the right to initiate legislation is exclusively assigned to the executive branch of the EU, that is the unelected EU Commission. Whenever it contemplates a new regulation, it invites expert groups made up of lobbyists or industry insiders. Hence financial regulation in the EU is a showcase for regulatory capture. Thus the main difference between the equally undemocratic lawmaking procedures in the EU and the US is that in the US influencing the legislative process is much more expensive for the banks. But in both cases financial legislation is hijacked by special interest groups.

7. Final conclusions

In order to restore democratic principles and to design a financial sector that is not extractive to societies, the following demands are made:

(1) Set up parliamentary commissions charged with the task of designing legislation to regulate the transition from the fractional reserve system to a full reserve system.

(2) At the same time, draft legislation for the break-up of the TBTF banks. This legislation should ensure (a) that customer deposits are spun out into separate legal entities, for example money-market funds, and (b) that investment banking activities may only be conducted in private partnerships, as was the case until the 1970s. This would solve all problems regarding excessive remuneration and excessive risk-taking because partners would be personally liable, not the 'collective' taxpayer.

3
Currency

3.0 The road to the euro

The most important legal milestones on the road to the single European currency were the Single European Act (SEA) of 1985 and the Maastricht Treaty of 1992.

Both are treaties under international law among the member states of the EU, made binding when passed by parliaments.

The main purpose of the SEA was the creation of a single European common market by the end of 1992. It was also intended to overhaul the principles of political cooperation among the then 12 member states. It further gave the EU new competences for regulation and gave the 'European Parliament' some say regarding the admission of new members but still no say in the process of lawmaking. However, the SEA in principle became the conceptual framework for the successor treaties: Maastricht (1992), Nice (2005) and Lisbon (2009).

The Maastricht Treaty contained some new arrangements: (a) it conferred for the first time a co-determination right upon the 'European Parliament' in the legislative process. As outlined in Chapter 1, the 'European Parliament' passes legislation jointly with the Council, consisting of members of the executive branches of the member states; (b) the EU became a legal entity in its own right; (c) it introduced an EU citizenship which exists in parallel to national citizenship; (d) most importantly, it stipulated the introduction of a single currency – the euro – by the turn of the century.

The biggest proponents of a single currency among politicians at the time were Valéry Giscard d'Estaing (President of France from 1974 to 1981), the former German chancellors Helmut Schmidt and Helmut Kohl, and the then German Secretary for Foreign Affairs Hans-Dietrich Genscher, just to name a few. Both Kohl and Genscher were considered to be distinguished agnostics in financial and monetary issues. Genscher, for instance, had in 1987 suggested the establishment of a full political European Union, implying the transformation of national sovereigns

into one supra-national entity. As an appetizer he offered the sacrifice of the Deutschmark. However, his proposal was rejected.[1] In the same year Schmidt and Giscard d'Estaing founded the lobbying group 'Association for the Monetary Union of Europe'. It was supported by most of the largest multinational corporations in Germany.[2]

3.1 German economists had warned in 1992 against the conceptual flaws of a single currency regime (EMU)

In June 1992 a group of 62 German economists published an opinion in which they articulated in particular the following warnings about the single currency regime:[3]

1. **Insufficient proof of economic convergence**
   A functioning economic and currency union requires as an indispensable prerequisite that a sufficient convergence of the economic structures of the member states takes place. Proof of the convergence should be seen over a period of a couple of years. Whereas compliance with some criteria at one-time cut-off date may be more or less accidental. Hence, it gives no reliable base for a judgement on convergence.
2. **Achievement of price stability highly unlikely because of conflicting national interests**
   The European Central Bank (ECB) would not be able to force through a policy of price stability because the interests of the delegates from the member states diverge substantially. Moreover, the independence of the governors on a personal level is not guaranteed. No penalties would be levied for failure to meet stability targets.
3. **Lack of consent regarding price stability because of differences in political cultures of member states**
   In Germany there is broad consensus about the importance of assigning high political priority to the pursuit of price stability, but the same is not true in many member states. A policy of price stability can only be credibly pursued if such consensus within society and the government exists, as it directly affects wage and fiscal policy.
4. **The huge differences in economic competitiveness of member states' economies will require transfer payments**
   Due to lower levels of productivity and competitiveness, economically weaker member states would be exposed to increased competitive pressures under a single currency regime. This in turn would drive up unemployment in those countries and necessitate transfer payments from the more productive countries.
5. **A single currency is not a prerequisite for the establishment of a common market**

As of today *[then 1992]*, there is no compelling argument to impose a single currency, as desired by politicians, on a highly heterogeneous Europe with its divergent economic and social conditions and national interests. The establishment of a common market in no way requires a single currency.

6. **The overhasty introduction of a single currency would generate considerable political tension and put in jeopardy the goal of integration**
   The overhasty introduction of the single currency would produce massive economic tension within Europe, which would likely lead to near-break-up situations and thereby undermine the goal of integration.
7. **The resolutions of the Maastricht summit endanger a further peaceful integration of Europe – and not their criticism**
   It is the resolutions of Maastricht that endanger a conflict-free integration of Europe, not the critical review of them.

With respect to the latter point, recall that at the time the opinion was published, in the early 1990s, the euro-political class was campaigning forcefully for the introduction of the euro. Critics were stigmatized as anti-European and obstructors of lasting peace, and compared with the nationalists of the past. It took considerable to courage to publish the critical and sober statement cited above.

Time has indeed validated their prescient concerns. Since 2010, political cartoons in Greece and Italy have portrayed German Chancellor Angela Merkel and Minister of Finance Wolfgang Schaeuble dressed in Nazi costumes.

3.2 The most important conceptual flaws of the EMU

3.2.1 Uniform interest rate policy led to destructive results

The euro-political class sold the EMU as a stability union. And the future ECB would walk in the footsteps of the German Bundesbank.

Investors in sovereign bonds, including banks, insurance companies and pension funds, fell into their trap. By anticipating the stability union they significantly reduced their interest rate requirements for bonds of the former soft-currency countries. For instance, the total interest on Italian government bonds stood at €110 billion in 1996. By 1999, it had fallen to €79 billion.[4]

Since this pricing behaviour continued after the introduction of the euro, it gave to those former soft-currency countries an incentive to continue with their overspending and to pile up more sovereign debt – at lower cost of finance.[5] When the cost of interest service on government debt is measured in per cent of GDP, then the number for Greece in 1994 stood at 12.4 per cent. By the same measure the number in 2006 was 4.4 per cent. This means

that the cost of refinance for Greece fell by 65 per cent. In the eight years preceding the introduction of the euro, Greece's ratio of debt-to-GDP stood at 92.5 per cent on average. Following the introduction of the euro it climbed to 102 per cent on average until 2009.[6] This shows that the 'stability premium' resulting from the proclaimed stability union incentivized some governments to adopt irresponsible fiscal policies.

A second consequence of the EMU was that national central banks could no longer control the supply of credit money created by their commercial banking systems, because interest rates were now set on the supra-national level by the ECB. Normally, a national central bank can reduce the supply of credit by raising interest rates on the money banks borrow from it. It does so in cases of economic overheating. But this was no longer possible for the central banks of Ireland and Spain. From 2002 on the two largest economies of the Eurozone, Germany and France, were in a recession cycle. Thus the ECB reduced interest rates in an attempt to stimulate those two economies, which represent roughly 50 per cent of the Eurozone's GDP. By doing so, the ECB stimulated the overheating of the construction and housing sector in Ireland and Spain. That is the disadvantage of the one-size-fits-all approach under a single currency spanning heterogeneous economies.

When this credit and housing bubble burst in 2007–8, the consequences for both Ireland and Spain were disastrous. In both countries GDP shrank dramatically, unemployment rose and banks began to fail due to their balance sheets being bloated with long-term credits financed by short-term borrowing. In Ireland the banking system finally collapsed and had to be nationalized, in turn leading to a breakdown in the fiscal sustainability of the Irish government. As a consequence, the government was forced to take shelter under the so-called rescue umbrella of the Eurozone and has since had to adopt an austerity policy aimed at restoring economic growth and fiscal stability.

In both countries the government's finances were relatively healthy prior to the crisis. In 2007 Spain had a debt-to-GDP ratio of 36.3 per cent, while Ireland's was 25 per cent. In 2012 the ratio for Spain was 84 per cent, and for Ireland it stood at 117 per cent.[7] Hence, the debt-to-GDP ratio doubled in Spain and grew almost six-fold in Ireland. The annual government surplus in Spain was 2.4 per cent of GDP in 2006, but became an annual deficit of minus 10.7 per cent of GDP by 2010. In Ireland, over the same period, it fell from plus 2.9 per cent to minus 30.8 per cent in 2010.[8] Due to the rise in unemployment, social security costs as measured in per cent of GDP jumped around 50 per cent in both countries from 2007 to 2012, from 11.6 per cent to 16.1 per cent in Spain, and from 10.3 per cent to 15 per cent over the same period in Ireland.[9]

Moreover, both countries are suffering from an over-indebtedness of the private household sector driven by the fact that credits were so cheap and credit-financed housing increased so rapidly in value – just as in the US.

The ratio between income and household debt in 2007 stood at 130 per cent in Spain and at a stunning 204 per cent in Ireland, compared with 140 per cent in the US.[10]

In view of those numbers the monetary regime of the EMU can hardly be called a success. Had both countries kept their own monetary regimes, they at least would have had the option to counteract their ever-inflating housing bubbles by raising interest rates. That they did not have that option was due to the passion for integration of their euro-political classes.

3.2.2 Elimination of national currency devaluations infringes upon the right of self-determination

In normal circumstances a country has to devalue its currency when its fiscal condition deteriorates. This deterioration usually occurs when a government's spending exceeds its tax revenue. If such behaviour on the part of the government is perceived by investors as a trend, two things happen:

(a) the value of a government bond decreases and the interest rate on it increases. This increase in interest rates reflects the heightened risk that a government might potentially default on its bonds because of the deterioration of its fiscal condition. This increase raises the cost of debt service and can potentially put a country on the brink of bankruptcy. This effect was seen in Greece prior to the bailout in 2010.

(b) If the overspending pattern persists, foreign exchange (FX) markets begin to devalue the currency in relation to others. Hence, the decision to devalue a national currency is initially made at the trading desks of currency traders and only later followed by official government acknowledgement.

Under the EMU this smoothly working option is no longer available. Those decisions are now shifted from the FX trading desks into the political arena of the Eurozone.

3.2.3 The problem of trade deficits and surpluses within the EMU

A country's currency can also become devalued if it runs a persistent current account deficit. The underlying logic is simple: if a country imports more than it exports, those imports have to be paid for and therefore money is leaving the country. If one imagines for a moment the money supply as constant, then under a persistent trade deficit the money supply would finally shrink to zero. This of course never happens because a country can take various countermeasures to make up for the money drain. It can devalue its currency to make its exports cheaper for importing countries and thus more competitive. It can also instruct its central bank to print more money, causing inflation to rise. Or it can issue debt instruments. Prior to the EMU all of these measures were adopted by the former soft-currency nations but with the introduction of the euro that flexibility was lost. So where does the money come from now? The answer is: transfer

payments, as predicted by German economists 18 years before the first bailout of Greece in 2010.

The future trajectory of the internal Eurozone trade deficit is hard to predict, because prior to the GFC those trade deficits were substantially driven by domestic demand for foreign goods. Once the crisis hit, governments across the Eurozone began implementing sharp austerity policies that drove down domestic demand, although not as a result of improved competitiveness.

3.2.4 Transfer payments to trade deficit countries were substantial – the TARGET2 system

Within the Eurozone various transfer mechanisms are available, one of which is hidden and therefore preferred by the euro-political class – the so-called TARGET2 system,[11] a kind of clearing system among the national central banks of the member nations. Prior to the currency union, a trade deficit country had to send the money for its imports to the central bank of the exporting country. If the money supply in the deficit country fell short it expanded it, as described above. Since this expansion of the national money supply is no longer possible under the EMU, it becomes substituted through a credit facility by which the exporting country concedes a line of credit – an overdraft facility – to the importing country instead of receiving money. Within this system Austria, Finland, Germany and the Netherlands are the lenders while the other 13 countries are the borrowers. Germany's claim against the TARGET2 system is by far the largest, roughly €600 billion as of May 2013.[12]

One of the problems with the TARGET2 system is that it bypasses democratic decision-making and democratic control.

This point was made in PIMCO's[13] March 2012 European Perspectives newsletter:

> The large TARGET2 positions developing among national central banks de facto introduce transfer and burden sharing elements of a common fiscal policy to the Eurozone without democratic taxpayer representation. Taxpayers in the Eurozone are contingently liable for eventual losses incurred by the Eurosystem's monetary policy operations according to each country's share of the ECB's paid-up capital, in Germany's case 27%, in Greece's 3%. Were Greece to leave the Eurozone, for example, and default on its €109 billion TARGET2 liability (as of November 2011), taxpayers in all other Eurozone countries would shoulder the loss with Germany on the hook for the largest slice. The EU's loans to Greece, Ireland and Portugal are thus the tip of the iceberg of a transfer system that is creeping into the Eurozone via the back door. A far bigger implicit subsidy is growing beneath the surface in the form of TARGET2 imbalances *without the legitimization that the electoral process entails*. No wonder voters in the Eurozone's current account surplus countries increasingly mistrust the euro.[14]

According to estimates by the German economist Hans-Werner Sinn, the exit of the trade deficit countries from the euro would lead to a loss of €416 billion in German claims against the TARGET2 system.[15]

3.2.5 Internal devaluation as consequence of the EMU

Another problem is that the provision of liquidity for the deficit countries via the TARGET2 system withdraws the pressure for them to force through the required internal devaluation process. Internal devaluation is a very painful and fairly brutal process, and again it is made necessary by the EMU. Prior to the EMU, countries could opt for external devaluation of their currencies which could be expected to increase their export opportunities and their competitiveness because their products were then cheaper for others. The critical objective of an external currency devaluation is to reduce the overall price level of the deficit country relative to other countries – for instance, the wage level. As stated above, this option is no longer available to the trade deficit countries. Hence, the only option left is internal devaluation, meaning those countries must lower their national wage levels. While the unit labour cost in Greece fell by 3.7 per cent in 2011, it will have to fall a further 10 per cent just to reach the Eurozone average and a full 25 per cent before reaching the level of Germany.[16]

3.2.6 The EFSF and ESM rescue vehicles not of short-term nature

Another transfer facility is via the European Financial Stability Fund (EFSF) and the European Stability Mechanism (ESM) rescue vehicles. The EFSF was set up in May 2010 and had an original 'fire power' of €440 billion, of which €250 billion remain available after the Irish and Portuguese bailouts. Its capacity was increased to €780 billion in the second half of 2011. In contrast to the TARGET2 system, the EFSF required ratification by all Eurozone parliaments. The EFSF is backed by guarantees of the Eurozone countries, and their proportionate amount is derived from their shareholding in the ECB. The EFSF finances itself through the issue of debt instruments in the capital markets. Once a country receives financial assistance it is no longer a guarantor and its share of guarantee is distributed among the remaining parties. The ultimate liability lies with the taxpayers. And the highest risk is borne by the few remaining countries with a AAA rating. Should the EFSF – that is, the countries guaranteeing it – ever be downgraded, the interest service on its debt will rise.

Whenever a country needs financial assistance from the EFSF, it is required to commit itself to an austerity programme negotiated with the fund that is designed to achieve the effects of an internal devaluation and a reduction in government spending. Because public services like education, health care and social security are adversely affected, austerity bailouts are unpopular.

As an aside, the EU Commission has never adopted an austerity policy for itself. Its budget for 2013 foresaw an increase of 6.8 per cent[17] and the

salaries of its employees are higher than those in their home countries due to generous tax privileges.

The ESM, set up in 2012, has a total volume of €700 billion of which €200 billion are kept in reserve to ensure the AAA rating of its debt instruments. As with the EFSF, any country applying for financial assistance is required to commit to an austerity programme to be negotiated with the so-called Troika, consisting of the EU Commission, the ECB and the IMF. The combined volume of both is €1,480 billion which amounts to roughly 15 per cent of the GDP of the Eurozone.

These rescue vehicles are touted by the euro-political class as temporary measures only, but that clearly is not the case. Fiscal deficits will persist. As long as the PIIGS countries remain in the Eurozone they will have to submit themselves to continued internal devaluation. The reason trade deficits shrank is not due to these countries having reached a competitive price level but rather to massively reduced domestic demand because of austerity. This leads to a further reduction in domestic demand, higher unemployment, higher costs for social security, falling tax revenues for governments, and hence to widening fiscal deficits for some years to come.

Moreover, the rise in trade deficits during the boom was due not only to rapid growth in domestic demand in the periphery, but also to a large deterioration in competitiveness compared to Germany.[18] This deficit in competitiveness relative to Germany still exists, despite some recent progress.

Whether austerity programmes will be pushed through with the required consequence and discipline *by the respective political classes* is highly doubtful. Austerity fatigue, *particularly* in the Mediterranean countries, is swelling.

This implies that if the Mediterranean countries were to abandon austerity measures and increase spending, trade deficits would be likely to re-emerge because a competitive price level has not yet been reached.

3.3 If austerity is reversed – catch 22

If austerity policy is reversed and spending increases in response to growing austerity fatigue in the *Mediterranean* countries, two things are likely happen.

First, the unobtrusive TARGET2 system will reflate and increase German claims against it. One *could* let it be a German problem.

But the second potential consequence is more dire. If trade deficits within the Eurozone do recur, the required transfers cannot all be routed through the TARGET2 system since Germany simply does not have the capacity to absorb the liquidity needs of the Eurozone. Therefore the ECB will also inject liquidity into the deficit countries. This already happened when the ECB devised and implemented its Long Term Refinancing Operation (LTRO) programme. The LTRO came in two tranches, in late 2011 and early 2012, with a total volume of €1,000 billion.

The mechanics of the programme allow banks to borrow money from the ECB at an interest rate of 1 per cent. With that borrowed money banks can buy newly issued debt from their governments, yielding an interest rate of around 5 per cent – a fairly profitable deal for the banks. Almost 75 per cent of the funds in the programme went to banks in the trade deficit countries. In the two months of December 2011 and January 2012 alone, the banks of Italy and Spain increased their portfolio of government bonds by 13 per cent and 29 per cent respectively.[19] Thus the debt-to-GDP ratio would continue to increase and trigger a vicious cycle as rating agencies would downgrade governments, causing the bond portfolios of their banks to lose value as well.

As explained in section 2.7.4 regulators are pressing banks to improve their capital ratios and liquidity positions through debt instruments, which can be sold immediately in times of stress. Government bonds are the instrument of choice and are still treated as risk-free by regulators (2.7.4E). However, when Ben Bernanke indicated in May 2013 that the Fed might be tapering its QE3 programme, bond prices fell and their yield increased.

A falling bond price directly affects the capital and liquidity position of a bank due to mark-to-market valuation and will force it to increase both positions.[20] This might be difficult in times of market stress.

Government bonds have a tremendous impact on banks' capital and liquidity ratios, as well as on their derivatives trading books. Government bonds, and therefore fiscal behaviour, are the contagious link to the banking system.

Government bonds are the preferred collateral for global derivatives contracts. The amount of collateral required varies over the time of the contract and can increase dramatically if volatility increases. This forces banks to post more collateral, which becomes increasingly scarce in times of market stress ('collateral crunch' – see section 2.7.2H).

Those two factors – huge margin calls from derivatives contracts and maintenance of regulatory ratios – will put the European banking system under tremendous pressure that may well bring it to its knees. As shown in section 2.7.4 D, the European banking system is grossly undercapitalized even according to Basel III rules.

What follows is that the ongoing debate between the 'austerians' and the 'spendigans' is largely pointless[21] because the only choice left is that of the Scylla of internal devaluation, that is austerity, and the Charybdis of financial collapse through downgraded sovereign bonds caused by reckless fiscal behaviour.[22]

That is the legacy of the EMU pushed through by a euro-political class obsessed with an irresponsible and all-consuming integration passion. Hence, the call for the introduction of euro bonds is so tempting.

3.4 Euro bonds as problem solver?

The euro-political class and the financial establishment repeatedly claim that the introduction of euro bonds would solve the problem.[23] The rationale

behind the introduction of euro bonds is that if the high debt-to-GDP ratios of the over-indebted peripheral countries are merged into a single Eurozone debt-to-GDP ratio, the average would only be slightly higher but the peripheral countries would experience significant relief.

It would likely only lead to a replay of the 'stability union premium effect' that occurred prior to the introduction of the euro (see section 3.2.1), from which the highly indebted countries benefited most. But as shown, it did not lead to a change in fiscal behaviour – just the opposite.

In the third quarter of 2012, the Eurozone combined debt-to-GDP ratio stood at 90.6 per cent, whereas the same ratio for Greece, Ireland, Italy and Portugal stood at 152, 117, 127.3 and 120.3 per cent respectively.[24] From those numbers it is evident that this second funding advantage would be significant for those countries.

However, the counterargument is that history has shown that lower cost of sovereign finance only incites governments to increase spending. Simultaneously, any austerity pressure is taken from them.

The problem in the case of the Eurozone is that the only things to have really increased since the start of the EMU are sovereign debt, annual fiscal deficits and unemployment.

The Eurozone debt-to-GDP ratio stood at 69.1 per cent in 2003,[25] and at 90.6 per cent in 2012 – a nominal growth rate of around 24 per cent. The annual public budget deficit rose from minus 2.9 per cent in 2004 to minus 4.2 per cent in 2011[26] – a nominal growth rate of around 30 per cent. And 24.4 per cent of Europe's under-25 population is unemployed.[27]

The Eurozone as a whole therefore has a consistent record of failure to attain its fiscal goals – in spite of loudly proclaimed growth and stability pacts. Hence, euro bonds would only buy time for the euro-political class in the best case. Given this record of failure, the euro-political class has lost all credibility.

However, the real counterargument is one of democratic theory. The introduction of euro bonds would place additional debt burdens on countries with more favourable debt-to-GDP ratios, despite their having no real chance of controlling the further piling up of debt in other countries. And moreover, the taxpayers of those countries would be held liable for debt they never wanted. This clearly constitutes a serious infringement on the right of collective self-determination. Moreover, and precisely for this reason, it would most likely require a change in the constitution of Germany, which can only be accomplished through a referendum. In such a case, euro bonds would never fly.

3.4.1 Real over-indebtedness of the Eurozone – social security and healthcare entitlements

What is regularly ignored in the debates among the euro-political class is the fact that the Eurozone is already hopelessly over-indebted.

This unfortunate fact stems from the unfunded liabilities for social security/retirement and healthcare incurred by the Eurozone governments. Currently those systems are funded on a pay-as-you-go basis, with current workers funding retirees. Due to catastrophic demographic declines in all euro states, this relationship between working population and retirees is destined to become untenable over the next decade – a sure-fire recipe for economic decline.

The already existing funding gap is breathtaking. For the 12 founding member states of the Eurozone those commitments amount on average to 254 per cent of their combined GDP. The official debt-to-GDP ratio for those 12 stood at 90 per cent in 2012. If both ratios are added then the total debt-to-GDP ratio is 344 per cent.[28]

None of the 12 founding Eurozone members set aside the required financial resources for investment in order to prefund such future expenditures. In order to secure financing of those liabilities the euro-12 founders would need to reduce their annual expenditures by 5.1 per cent of their budgets on average.

For the already crisis-ridden countries the numbers are far more frightening. The numbers for Greece, Ireland and Spain read 17.6, 10.4, and 7.0 per cent. Even Germany would need to reduce its annual expenditure by €100 billion – amounting to one-third of the budget. Obviously such reductions are not achievable.

What is less obvious is that those liabilities cannot be substantially reduced, even with an increase in the retirement age to 70, because the bulk of the liability is in healthcare. Hence the future appears bleak both for retirees and for the Eurozone.

The Eurozone's public debt is already on a steep upward trajectory and growth prospects are meagre due to the onset of a recession cycle and adverse demographic trends. The debt service capability of the whole Eurozone is likely to be impacted and thus any talk of regaining growth momentum is misleading.

3.5 A banking, fiscal and political union as a solution?

3.5.1 Banking union

That a banking union would improve the stability of the highly fragile European banking system is illusory and incomprehensible. A banking union would only mutualize the existing unsolved problems. Such a collectivization of risks cannot increase the stability of the European banking system, since it does not address the fundamental problems faced by the ailing EU banks: drastic under-capitalization and overdependence on short-term financing (see section 2.7.3). And, as shown in section 2.7.4, the EU Commission, in its implementation of the ineffective Basel III rules, is further watering down these rules.

From the perspective of fairness it is difficult to accept that citizens of one country should pay for the reckless and frequently corrupt lending practices of banks in other countries. According to a study by the economist Jean Pisany-Ferry,[29] the cost of a banking crisis in a developed economy has historically amounted to roughly 10 per cent of its GDP. For the Eurozone, that 10 per cent amounts to €950 billion, a sum that cannot be shouldered by the hopelessly over-indebted Eurozone member nations.

Furthermore the total debt of banks located in the six countries most damaged by the crisis amounts to €9,400 billion. The combined government debt of these countries stands at €3,500 billion. Even a relatively small write-off would exceed ESM's loss-bearing capacity – it only set aside €60 billion for bank recapitalizations (see section 2.7.4.D).[30] The bank resolution fund to be established by 2025 as part of the banking union itself will only hold €55 billion.[31]

Another illustration of the uselessness of a banking union is the following back-of-the-envelope calculation: as of July 2013 the total assets of the Eurozone banks stood at €33,000 billion. Bank losses in Ireland amounted to 10 per cent, in Greece 24 per cent, in Spain and Portugal 10 per cent, and the central bank of Slovenia estimated losses of 18.3 per cent.[32] A write-off of 10 per cent would lead to €3.3 billion. Since the banks would have had to be recapitalized the total doubles to €6.6 billion. This clearly exceeds the loss absorption capability of sovereigns. Given these facts, a banking union makes no sense in terms of increased financial stability.

Hence the true rationale behind the plan must be something different. During the Cyprus banking crisis of 2013, a bail-in strategy was developed that will be adopted across the EU beginning in 2016. The pecking order will be: shareholders, creditors and savers, that is customer deposits. Most savers are not aware that their status is *a mere* creditor *status*, which is only protected up to €100,000. Once the banking union is established, liabilities will become mutualized across the EU banking system. Since the rescue funds are insufficient, it is foreseeable that customer deposits across the EU will receive a 'duty call'. This means that all deposits in the EU beyond €100,000 may be used to the stem the rescue. That amounts to a cold expropriation of EU citizens who save their money for retirement. The only rationale for the banking union then is to avoid a contagious spread within the system should banks in the peripheral countries fail. Savers in the core countries then will be held liable for the losses. They will provide the real backstop for the foreseeable crisis to come.

It should be noted that the inherent and gigantic risks of the EU banking system only grew to such a size due to regulatory failure and intensive bank lobbying over recent decades. Hence, such a banking union proposal adds serious injury to intellectual insult to alert democrats (see sections 1.3 and 2.10).

Moreover, the convergence of the banking industry in the Eurozone has already shifted into reverse. Banks are retrenching their cross-border lending

to a significant extent. Businesses, consumers and governments in the south are facing dramatically higher borrowing costs than those in the north. A company borrowing less than €1 million for up to five years can expect to pay an interest rate of 6.5 per cent in Spain, but just 4 per cent in Germany.[33]

3.5.2 Fiscal union

The euro-political class frequently suggests that a fiscal union is the salutary way out. Their argument hinges on the notion that a supra-national controlling authority could fix the fiscal problems – an absurd idea for a number of reasons.

First, it would be anti-democratic. The right of national budget sovereignty is anchored in national parliaments, that is, in the assembly that is supposed to represent the will of the people. This concept represents one of the key achievements of Western constitutional history. A fiscal union would assign budget sovereignty to an unelected office located within the unelected EU Commission. The proposition of a fiscal union represents another shameless assault on democracy committed by the euro-political class and preferences the preservation of the single currency over the human right of self-determination. It would also put European integration in jeopardy because it would finally cement the division of the EU into euro members and non-members.

A paper published by the IMF reflects the spirit of the proposal.[34] It frankly admits that the euro in its current form is a failed concept.[35] In order to make it work, 'architectural gaps' must be closed. The paper suggests strengthening the 'centre' by conferring on it the power to rein in national budgets not in line with the medium-term fiscal plans.[36] Those plans would be based on economic forecast models. It further suggests the set-up of a 'rainy day fund' with seemingly prescient capabilities intended to provide *ex ante* support, namely before a shock turns into a funding crisis. It goes without saying that the funding will come from Eurozone citizens. It then suggests extending fiscal risk-sharing among its members[37] flanked by pooled debt instruments – without naming those as euro bonds.[38] The introduction of a banking union is also deemed crucial. To justify its proposals it draws analogies with other federations, specifically the US and Germany, without mentioning that in both those cases a political union preceded a fiscal union.

It frankly admits that such a construction would lead to a loss of national sovereignty. In an *incredibly twisted way of reasoning* it claims that this loss would be counterbalanced by the fact that governments that had led their countries into crisis through imprudent policies would not lose market access in times of distress.[39]

Hence, the whole concept is a recipe for moral hazard, leaving aside that bureaucratic planning and forecasting always fail.

The paper might have been viewed as the perverse work of bureaucratic cranks had it not been fully endorsed by the EU Commission and the

President of the Council.[40] This goes back to a request made by the Eurozone leaders at their June 2012 summit to the EU Commission and the President of the Council 'to develop a specific and time-bound roadmap toward a genuine Economic and Monetary Union (EMU)' . . . so as to ensure the irreversibility of the EMU.[41]

The fundamental problem with such a briefing is that it runs against the substance of democratic theory. One of the key achievements of a democracy is that human beings can reverse decisions made earlier, which is an emanation of the human right of self-determination. The reversibility of policy decisions gives democracies a problem-solving capability. If a certain policy decision turns out not to deliver the expected results, it can be reversed by the electorate. To eliminate that option of 'discontinuity' represents a blatant attack on the human right of individual and collective self-determination and deprives democracies of their problem-solving capabilities.[42]

3.5.3 Political union – 'United States of Europe'

Members of the euro-political establishment frequently propose the erection of a political union, referred to as the 'United States of Europe'. The political union aims at the erection of a supra-national state into which the EU members will be merged. This idea is particularly popular among German politicians, because they regard it as an ideal instrument with which to whitewash over the stigma of Auschwitz. The means to this end was supposed to be the introduction of the EMU as demonstrated in a speech given by the former German chancellor, Helmut Kohl, to the German parliament in 1991:

> It cannot be repeated often enough: a political union is the indispensable complement to the economic and currency union. Recent history . . . tells us that the idea that an economic and currency union can be successfully run without a political union is void.[43]

As argued in section 1.12, a political union of 28 or 17 EU member states is a democratic impossibility. In section 1.17 the case was made that prior to any further integration the edifice of the European institutions, currently rife with totalitarian features, must be democratized.

What is particularly condemnable is that the pressing troubles of the poorly designed and dilettantish introduction of the EMU will now be used to force EU citizens into an opaque political union of undemocratic nature.

3.6 Haircut on Eurozone's sovereign debt as a solution?

The total sovereign debt of the Eurozone stood at €8,500 billion – a debt-to-GDP ratio of 90 per cent – in the third quarter of 2012. One-third of that debt – around €2,800 billion, or roughly 36 per cent of the Eurozone's GDP – would have to written off to return it to the 60 per cent level of the Maastricht

Treaty. Those losses would be borne primarily by insurance groups, banks and pension funds. The hardest-hit group would be private savers and retirees.

As shown in section 2.7.4D, the combined equity of the euro bank system is around €2,300 billion, and its total assets are roughly €33,000 billion. Were the banks the only owners of the sovereign debt, their equity position would drop to minus €500 billion. Assuming that banks hold only half of the total European sovereign debt (€4,250 billion), they would bear half the loss (€2,800 minus €1,400 billion). That would reduce their equity to €900 billion (€2,300 billion minus €1,400 billion) – a loss of roughly 60 per cent. Obviously, the European banking system would not survive such a step without raising capital amounting to double the experienced loss – €2,800 billion – in order to restore their equity.

Retirees in particular would see their pensions cut drastically, probably driving them into pauperization.

Furthermore, even if the financial system and the citizens were able to cope in some fashion with such a drastic stroke, it would only lead to a restart of the flawed EMU and fractional reserve banking regime. There would be no conceptual gain, only actual pain. Without a radical reform of those systems, such a move would not make sense.

Nevertheless the IMF, in its 'Fiscal Monitor' from October 2013,[44] proposed a one-off capital levy of 10 per cent as a means of addressing the over-indebtedness of nations. The only alternatives it sees are debt repudiation or inflation.[45]

Such is the result of a fiat money regime in combination with a fractional reserve banking system leading to out-of-control credit creation.

3.7 ECB purchase of peripheral bonds as a solution?

On 6 September 2012 the president of the ECB, Mario Draghi, declared that the ECB stands prepared to buy the sovereign bonds of the over-indebted countries – up to an unlimited amount if necessary. The goal of this 'Outright Monetary Transactions' (OMT) programme is to reduce interest rates for those countries. However, in the long run, capital market investors price bonds according to their perceived risks. Even if the ECB would in the end hold 90 per cent of their bonds, the remaining 10 per cent of investors still would require a risk premium on those bonds. In the case of Greece, the ECB's strategy failed miserably.

But the real problem lies elsewhere: through this OMT programme the ECB would own a bond portfolio bloated with sovereign bonds of over-indebted countries but would not control the underlying fiscal policy. As shown by the economists Carmen Reinhart and Kenneth Rogoff, sovereigns fall serially into bankruptcy or default on their debt.[46] And Greece, Italy, Portugal and Spain are not exceptions to this rule. Therefore, the ECB is taking a high risk that at some point in time considerable parts of its portfolio will need

to be written off. As a consequence, the capital of the ECB might face a full or partial wipeout, in which case the remaining shareholders would have to bite the bullet of recapitalizing the ECB with taxpayers' money.

Through its OMT programme the ECB spreads the risk across all the Eurozone members instead of containing it. This constitutes a fundamental assault on the right of collective self-determination and represents another assault on democratic principles. No EU citizen of the few and still somehow healthy countries was asked whether he or she would be prepared to shoulder this potential risk.

As another consequence, the ECB could be blackmailed by the benefiting countries. The ECB has offered to start the OMT programme only if the benefiting countries submit themselves to strict conditions via the ESM procedure. But in fact they will be powerless to enforce this condition since cutting the country in question out of the OMT would cause it, and the euro, to fail – an outcome the ECB explicitly wants to prevent.

Moreover, many taxpayers in Germany have taken their case to the German Constitutional Court. In its preliminary judgment on the legality of the EFSF and ESM rescue vehicles in September 2012, the court indicated that it considers the OMT programme a breach of European law. Since the German Court has no jurisdiction over the ECB and European law, it ruled on 7 February 2014 that the question should be referred to the European Court of Justice for a final answer.[47] However, its ruling clearly stated that the OMT programme of the ECB, not yet in effect, was in clear violation of the German constitution. This means that the OMT programme is de facto suspended, or at least that if ever put into action it would be without Germany.[48]

Given that so far the euro-political class has broken every fiscal and legal provision of the Treaty of Lisbon and of various 'Stability and Growth Pacts' (SGPs) as well, it can be anticipated that it will continue and expand the OMT programme as it deems suitable.

It is to be expected that powerful investors will retreat from buying European sovereign bonds. The largest European sovereign wealth fund, the Government Pension Fund of Norway, has already begun doing so.[49]

The euro project is in a hopeless and dire situation: its mechanisms bypass democratic control and oversight and it is likely to reduce the wealth of its citizens. Hence, it can be said that this project ranks among the worst crimes in monetary history committed by governments and their political classes.

Such a situation can only be justified if it is legitimated through a democratic lawmaking process. *Because the European treaties, on which the whole system is based are laws passed by parliaments*.

3.8 Introduction of the EMU in compliance with democratic lawmaking?

The key criteria for a democratic lawmaking process were derived and formulated in section 1.0.

3.8.1 Public debate in Germany about the Maastricht Treaty was *featherbrained* and manipulated by political parties

Despite the predicted defectiveness of the EMU the political parties in Germany acted with unprecedented decisiveness to approve it unanimously (see section 3.1). Mass advertising campaigns touted the supposedly fabulous advantages of the euro. German holidaymakers were swayed by the breath-taking argument that with the euro, the need for exchanging currencies during holidays would disappear. Posters were distributed across the country, including one featuring Berti Vogts, then trainer of the national soccer team, saying:

> The euro is a through pass into the next century. In the team of Europe Germany has to play in the economic top bracket. With the euro we will be successful players in the global competition. The single currency is the superior hedge against volatility in exchange rates. The exporting industry of Germany has to get prepared against the challenges of the next century. Hard work is required to preserve our opportunities – in soccer as well as with the euro. Only the one who exploits opportunities will have success. If you have further question dial up the official euro-line with the federal information agency.

When the Danes in a first referendum voted down the Maastricht Treaty, the German government raised its advertising budget from 5.5 to 17 million Deutschmarks.[50] A majority of leading German politicians publicly requested there be no fundamental discussion about the euro concept, insisting that it was essential for maintaining peace in Europe – at a time when Germany was still occupied by Allied troops. They further argued that if Germany did not introduce the euro the country would become politically isolated.[51]

3.8.2 Britain and France threatened a unified Germany with political isolation unless it introduced the single currency

This latter argument had some truth in it. In 1989, the Iron Curtain fell and German reunification became a real possibility.

The French president, François Mitterand, and the British prime minister, Margaret Thatcher, were frightened by this prospect. They feared that a reunified Germany would become an even stronger economic powerhouse than it already was. And given the strength of the Deutschmark, they were scared by the vision that a reunified Germany could disturb the existing balance of power in Europe and emerge as a dominating power. Hence, Mitterand called on Germany to agree to serious negotiations on the EMU before the end of 1990. Otherwise, Mitterand said Germany risked a 'triple alliance' between France, Britain and the Soviet Union that would isolate Germany as it had on the eve of the First and Second World Wars – a return to the world of 1913. Under this threat, Kohl backed down. He agreed at the Strasbourg summit on 8 December 1989 to start an intergovernmental

conference on the EMU in the second half of 1990. This was the essential deal that propelled Europe into to the EMU orbit.

The French prime minister Michel Rocard later explained:

> There was a balance between unification of Germany and the establishment of European monetary union. Both processes accelerated after the fall of the Berlin Wall. Kohl and Mitterand were already engaged in both efforts. Mitterand had to accept reunification more quickly than he thought likely, in the same way that Kohl had to accept monetary union more quickly than he had intended.[52]

Given the foreseeable problems resulting from the EMU regime it is interesting that Kohl preferred the speedy unification of Germany over the pain to come from a flawed single currency regime and its implicit assaults on democracy.

Kohl and Hans-Dietrich Genscher (German Foreign Secretary, 1974–92) could have played the game differently and slowed down the reunification process, for instance by granting the former East Germany the status of a pre-accession country to the EU, admission made dependent on convergence criteria. This would have left both the allies and the Germans sufficient room to manoeuvre. With clever politics reunification could have been brought about later, while in the meantime Germany could have entered into various bilateral treaties with the former East Germany leading to de facto reunification.

3.8.3 EU Commission suppressed criticism of the euro in public debates

A leading German news magazine, the *Focus*, reported on 5 May 1997 that the EU Commission had invited 250 economists from all future member countries to a meeting and presented them with a contract demanding they refrain from voicing any opinions contradicting those of the EU Commission regarding the EMU regime. 80 of the economists left the event immediately. The remainder signed. The article claims:

> In order to bolster the confidence in the euro, the EU Commission contracted 170 economists and other experts. They are tasked to clear out in scientific manner any fears and reservations citizens might have with respect to the euro . . . and the wording of the oppressive contract of the Commission reads: 'You will omit any personal or subjective interpretations of the information provided by the Commission. Also in personal conversation you shall not make any statement contradicting those of the Commission.'[53]

Clearly the deomocratic consciousness of the euro-crats and politicians was insufficiently strong to overcome their willingness to heavily manipulate the formation of the political will of the people.

3.8.4 Agreement to German reunification was made dependent on the introduction of the euro

As historical records and minutes surrounding the 'Two Plus Four Treaty' of 1990 show, the French agreement was made subject to the sacrifice of the Deutschmark. A former translator for Mitterand, Brigitte Sauzay, writes in her memoirs that Mitterand would only agree to German reunifiction 'if the German chancellor sacrificed the Mark for the euro.' Jacques Attali, an advisor to Mitterand, made similar remarks in a TV interview in 1998:

> It is thanks to French reticence with regard to an unconditional reunification [of Germany] that we have the common currency . . . The common currency would not have been created without the reticence of François Mitterand regarding German unification.[54]

Extensive evidence shows that the introduction of the euro was based on power politics rather than sound economic reasoning.[55] However, the truth was withheld from the European citizens during the public campaign for the euro.

Hence, Europeans never had a chance to form an independent political will with respect to the single currency regime thanks to the suppression of crucial information and the lack of a pluralistic debate in the respective public arenas. Instead, it was sold as a stability union leading to economic prosperity for all of its members. In fact, the European citizens were deceived.

Thus, the lawmaking process regarding the introduction of the single currency was not in compliance with the criteria governing a democratic lawmaking process as defined in section 1.0.

3.8.5 The targeted elimination of the Deutsche Bundesbank

In the years preceding the introduction of the euro the Bundesbank was regarded as an enemy by the other EU members because of its behaviour during the regime of the failed European Monetary System (EMS). The EMS was introduced in 1979 in response to the desire among EU members to bring currency fluctuations under control. Those sometimes massive fluctuations had their roots in the unilateral cancellation of the Bretton Woods agreement by US President Richard Nixon in August 1971. Prior to that year the international currency regime was fairly stable because the value of the US dollar was linked to gold. The problem for the US, however, was that it was building up a persistent trade deficit. As explained in section 3.2.3, if a country imports more than it exports, money will leave the country. Under the Bretton Woods agreement the US's trading partners had the right to convert their money claims on dollars into gold, but it was foreseeable that the US's ever-increasing trade deficit would shrink her gold reserves to zero. Hence, President Nixon cancelled the Bretton Woods system and the trading partners were left with paper money only. In response to the elimination of

a firm anchor of defined value, the international currency system began to reel and exchange rates began to fluctuate wildly.

The EMS was then set up by the Europeans in an attempt to bring exchange rates under control, because the fluctuations were having a negative impact on intra-European trade. The parties to the EMS defined brackets within which exchange rates were allowed to fluctuate, but the system was not anchored to gold or any other commodity money; instead it was built on paper.

Problems arose when some countries, France and Italy in particular, permanently inflated their money supply in order to finance public deficits.

The mechanism worked in the following way: if the currency of a country appreciated against the Deutschmark, for instance, its central bank had to inflate its domestic money supply in order to bring the value of its currency down. In the reverse, when a currency depreciated against the Deutschmark the central bank of the depreciating country had to buy its own currency and sell Deutschmarks. This game was limited however by the level of reserves held by the depreciating central bank.

Moreover, under the EMS it was not possible to force the Deutsche Bundesbank to buy up the depreciating currency with freshly created Deutschmarks for this purpose. Had it been the case, an absurd system would have emerged: the most rapidly inflating country could have forced another central bank to inflate as well, and to buy up the currency of the depreciating country.

Due to its strictly anti-inflationary policy the Deutsche Bundesbank became the spoilsport of the coordinated inflation schemes of the other participating countries.

However, the other countries continued to inflate their money supply in order to finance their deficits. Therefore, the margins of exchange rate fluctuations had to be permanently expanded. The EMS started in 1979 with a range of +/− 2.25 per cent and ended in 1993 with a range of +/− 15 per cent.[56] The EMS experienced its final crisis in 1992, when the Spanish peseta and the Irish pound had to readjust their exchange rates. In the same year the British pound also came under massive pressure. After a critical interview on the pound given by the president of the Bundesbank, Helmut Schlesinger, the British government had to stop trying to stabilize the exchange rate and left the EMS. At the same time, the famous financial speculator George Soros made his gigantic bet against the British pound and won. The French franc came under pressure as well, and France wanted the Bundesbank to buy up French francs in the international Forex markets in unlimited amounts. The Bundesbank refused.[57]

Anyone who inflated more than the Bundesbank was showing its citizens the weakness of their currency caused through reckless overspending – a slap in the face of the inflating governments. The French in particular were furious with the Bundesbank.

A remark by the former chairman of the Federal Reserve Board, Paul Volcker, describes the French attitude towards the Bundesbank:

> The French made a very honourable effort to cling to the D-Mark. They didn't like to play the second fiddle to the Germans, yet they didn't have the power, the authority or the currency to do otherwise. They learned over a period of years a rather ironic lesson: that in order to stand up to the Germans, you had to be subservient to them – by following their lead in key questions of monetary affairs.[58]

François Mitterand himself remarked:

> The Germans are a great people deprived of certain attributes of sovereignty, with reduced diplomatic status. Germany compensates for this weakness with its economic power. The Deutsche Mark is to some extent its nuclear force.[59]

Thus the introduction of the single currency reflected the French desire to get rid of the Bundesbank by replacing it with the ECB.[60] With respect to the 'independence' of the ECB, Mitterand claimed that the ECB would execute the economic decisions of the Council of the European Union. In the conception of French politicians, the Council of the European Union controls the ECB.[61]

The Germans seem to be the only ones within the Eurozone who believe in the 'independence' of the ECB. They will get mercilessly overruled by the majority of the countries in desperate need for additional liquidity. Hence two former 'Bundesbankers' and members of the board of the ECB already resigned for 'personal reasons' – Axel Weber in 2011 and Juergen Stark in 2012.

3.8.6 Conclusion: the introduction of the euro was not in compliance with the criteria of democratic lawmaking

Since most of the true motivations behind the imposition of the EMU were withheld from the European citizens, they had no chance to form an independent political will. There was no discussion at all of British and French fears regarding German reunification and whether they were justified or not.

There was no discussion about the fact that the so-called Club Med countries, *that is the Mediterranean countries*, were persistently applying coordinated inflation schemes in order to finance their reckless overspending. There was no discussion about whether the continued increase in the money supply was in compliance with democratic principles and the protection of human rights. The only discussion was about the preservation of peace and the convenience to Eurozone holidaymakers of no longer needing to exchange currencies. Additionally there was no discussion about the foreseeable need for transfer payments among Eurozone members – already predicted in 1992

by German economists (see sections 3.1 and 3.8.1) – or the foreseeable pain that internal devaluation would cause to the people of the former 'soft currency' countries.

Moreover, the EU Commission employed unethical means to manipulate the public debate (see section 3.8.3). Governments mobilized taxpayer money to finance meaningless pro-euro campaigns, while opponents had no chance to mobilize an equal share of public voice. Therefore the introduction of the single currency was not in compliance with the criteria of democratic lawmaking as stated in section 1.0.

3.9 The way forward for the euro

The majority of reliable forecasts foresee a no growth scenario for the Eurozone in the medium term.

As explained in section 3.3, two routes are available to the Eurozone. The first is to continue with austerity until the debt-deflation cycle reaches its end and price levels are in sync relative to others. The likelihood that politicians and societies will have the stomach to endure this process is extremely low. The second route is the one already taken: putting brakes on austerity, taking on more debt, increasing the money supply and trying to reduce debt through targeted inflation.

However, further increases in the Eurozone's sovereign debt will lead to progressive downgrades of its sovereign ratings. That gradual downgrading of sovereign debt will have a negative impact on the value of the bond portfolios of the already highly fragile European banking system because due to regulatory provisions, they will have to make up for this loss in value in order to comply with the liquidity and capital provisions of Basel III. The BIS estimates that if bond yields were to rise by 3 per cent across the maturity spectrum of US Treasuries then mark-to-market losses would be more than USD 1,000 billion.[62]

This would in turn trigger a second effect: the European TBTF banks would be forced to provide more collateral in order to back their OTC derivatives trading books. As explained in section 2.7.2H, those margin calls are subject to tremendous swings in volatility in times of turmoil and can potentially bring the banking system to its knees.

This risk is aggravated by the fact that the global OTC derivatives market is already massively under-collateralized – by USD 2,200 billion. And it becomes even further aggravated by the fact that the five largest European banks already carry a combined derivatives tail risk of USD 700 billion.

Capital markets have become much more volatile since becoming subject to central bank planning. The investment rationale of markets and investors nowadays is based on psychologizing and reading the minds of central planners rather than on fundamental calculations. In May 2013, when Ben Bernanke announced that the Fed might begin to phase out its

money-printing programmes, designed to buy US Treasuries and assets from the banks at a rate of USD 85 billion a month, by the end of that year, yields on sovereign bonds soared and their prices fell almost immediately.

That is the fate of a centrally planned money supply in a merely paper-based monetary system backed by nothing other than fallible academics.

The situation is aggravated by the fractional reserve banking system, in which the creation of credit money always spins out of control. And given the fact that capital markets are now driven by psychology and expectations only, an accident can easily happen. If it happens, it is far from guaranteed that the Eurozone and its fragile banking system can withstand it.

It is in this context that the Eurogroup persistently undermines its own credibility and integrity. Their first lapse of judgement was the transformation of the 'stability union' into a 'debt, transfer and austerity union'. This move was explicitly forbidden in the Maastricht and Lisbon Treaties (Art. 125 of the Treaty on the Functioning of the EU – the 'no bailout clause').

The second was when the former head of the Eurogroup, Jean-Claude Juncker, publicly declared and subsequently defended his right to lie if necessary to defend the euro.[63]

The third error was the IMF's publication of a paper in early June 2012 in which it confessed that it had broken its own policy rules by granting financial assistance to Greece, that it had fudged its forecasts regarding the debt-service capability of Greece and that an earlier haircut on the Greek sovereign debt would have been cheaper.[64] This public confession was simply rebuffed by the EU Commission – no confessions, nothing.

The fourth breach was its consistent failure to comply with its own fiscal targets (3.5.2).

In light of these lapses in judgement the euro in its current form cannot survive. Given that the euro-political establishment is 150 per cent committed to keep it at 'any price', an orderly break-up scenario is highly unlikely. Instead the euro is likely to die a slow death, causing massive financial repression for the citizens. The final collapse will probably be triggered through the 'sovereign banking nexus'. The piling up of collective debt and serial downgradings will squash Eurozone banks, until the final death knell is sounded by their derivatives books. This could happen practially overnight. 'Nobody could see this coming.'

3.9.1 Proposals to change membership of EMU – short overview

Proposals to change the membership of the EMU are all set in the context of the existing banking and currency regime, therefore variants of the existing euro system will not be examined in depth. However, a very brief overview is given here.

One variant proposes granting a temporary opt-out right to the problematic countries of the Eurozone,[65] the rationale being that those countries could then devalue their currency and carry out the reforms required to regain

competitiveness in a less painful way. Having reattained competitiveness, those countries could again opt in.

Others prefer the exit of Germany,[66] arguing that due to consistent trade surpluses within the Eurozone the German money claims against the trade deficit countries will become more exposed to a default risk. However, this argument is faulty since the German trade surplus stems mainly from outside the Eurozone.[67] Second, it is regarded as doubtful that Germany would support the targeted inflation strategy to be adopted by the majority of other Eurozone countries. Third, Germany's competitiveness has suffered since it joined the Eurozone and the incomes of its private households have stagnated. Thus Germany would be forced to re-establish its competitiveness on an international level and, after a while, income levels of private households would begin to rise again.

The terms of the exit could be negotiated in an amicable fashion, for instance if Germany would commit further limited transfer payments. The same might hold true for the Netherlands. Both countries would of course remain in the EU, but the number of the Eurozone countries would be reduced from 17 to 15 and the number of non-euro EU countries would increase from 11 to 13. Such a proposal certainly has some merit.

The financial investor George Soros has made a similar proposal:[68] that Germany should either pay for the rescue of the euro or exit the Eurozone. The same argument was made by Martin Wolf, saying that the remaining countries could then continue with their inflationary policy and debt build-up. It is of course questionable whether such a policy would lead to success, because there are limits to a continuous debt build-up, as explained in section 3.3. But as opined above, the exit of Germany, perhaps to be followed by Austria, Finland and the Netherlands, might have its merits. However, none of these proposals would lead to a fundamentally changed banking and monetary regime.

Thus, the following sections will examine the merits of the gold standard in more detail.

3.10 The international gold standard from 1870 to 1914

The biggest difference between the gold standard and a fiat money standard is that in the former the money supply is not controlled by academic central planners but rather is subject to the amount of gold a country has. Currency is backed by a commodity that cannot be manipulated.[69]

3.10.1 Under a fiat money standard money creation amounts to debt creation

Under a fiat money standard currency is backed by a sovereign debt instrument. Each monetary unit created is backed by a sovereign payment promise. As explained in more detail in section 2.10.2, money and debt come into existence simultaneously. Hence, the more money is created, the more debt is created.

Consequently, the value of a currency today depends on the credibility of the sovereign promise. The credibility of a sovereign promise is a function of its ability to pay back its debt in full and of its economic growth prospects. However, under a fiat money standard sovereign debt almost never gets paid back – it simply gets rolled over and more debt gets issued. When commercial banks create credit money, they only create the principal amount – not the interest which has to be earned elsewhere in the economy. Due to the arithmetic of compound interest a final state of over-indebtedness is encoded into the system.

Today most advanced economies are in the dire situation that their rate of growth is below the rate of interest they have to pay on their debt. If such a situation is not of short-term nature a lethal spiral sets in[70] because debt grows faster than the economy. Thus, the credibility of a sovereign promise is dwindling. As a consequence, the debt holders will demand a higher interest rate for the debt instruments they hold.

The fact that current interest rates are extremely low in comparison to the unhealthy debt levels of sovereigns is a result of central bank interventions. Via the so-called QE programmes the central banks print money and buy the bonds of their governments and banks. This creates demand, so prices go up and yields go down.

But this money printing has risks, because today sovereign bonds represent another huge bubble. That is, sovereign bonds are overpriced relative to their intrinsic risk. The amount of sovereign debt in the world is huge and stood according to BIS data at USD 34,000 billion worldwide in 2009. Half of this amount is owed by Japan and the US.[71]

When this bubble pops it will cause disaster. As Andrew Haldane, Executive Director of Financial Stability of the Bank of England, confessed to members of the British parliament in June 2013: 'We've intentionally blown the biggest government bond bubble in history.'[72]

The bursting of that bubble was a risk he felt 'acutely', he warned. There have already been 'shades of that'. And he saw 'a disorderly reversion in the yields of government bonds' as the 'biggest risk to global financial stability'.

It can be concluded from this statement that the sovereign credibility of the advanced economies is fading away at an increasing pace leading to the next disaster waiting to happen. This disaster will cause havoc and pain for societies on a global scale.

Such a development was impossible under the global gold standard in the second half of the 19th century. Moreover, economic growth and prosperity blossomed and the wealth generated came free of inflation.

3.10.2 Inflation under a fiat money standard – a hidden instrument of governments to extract wealth from society

When the growth of money in circulation is consistently higher than economic growth, sooner or later inflation will set in. The mechanism is fairly

simple. If more and more money is in circulation for the purchase of a static number of goods, consumers will be competing for those goods as if in an auction and prices will go up. The gain for governments is not as easy to detect. Hence, for illustration, the following simple calculation scenarios:[73]

Scenario 1

Inflation is 0 per cent per year and the real interest rate is 2 per cent per year. Hence the income on any given loan or savings account is 0 per cent +2 per cent, that is, 2 per cent of interest income.

The government might impose a tax of 40 per cent tax on this income, producing an after-tax interest rate of 1.2 per cent per year – not great but still a profit. Government income is 0.8 per cent.

Scenario 2

In the next scenario inflation is 2 per cent and the real interest rate is still 2 per cent.

The interest rate on a savings account then is the inflation rate of 2 per cent plus the real interest rate of 2 per cent, that is, an interest income of 4 per cent. This minus the 40 per cent tax rate leads to an after-tax interest rate of 2.4 per cent – twice as much as above. Government income has risen to 1.6 per cent.

Scenario 3

In this case inflation is 4 per cent but the real interest rate is still 2 per cent.

The gross interest rate is still the inflation rate of 4 per cent plus the real interest rate of 2 per cent, that is, a total interest income of 6 per cent. This minus the 40 per cent tax rate leaves an after-tax interest rate of 3.6 per cent – three times the earnings in scenario 1. But government income has tripled as well to 2.4 per cent.

The government's tax intake has increased from 0.8 per cent to 1.6 per cent and finally to 2.4 per cent.

But from the taxpayer's perspective the after-tax income of 3.6 per cent adjusted for inflation (minus 4 per cent) has fallen to minus 0.4 per cent, amounting to the stealthy confiscation of citizens' wealth.

The attempt to devalue a currency in the government's favour is anything but new in monetary history; only the methods have changed. In mediaeval times rulers seized the coins in circulation, melted them, took out some portion of gold or silver for their own benefit and reissued the coins, now containing less gold or silver but keeping their face value.

Nicolas d'Oresme,[74] a bishop, scientist and philosopher, commented in the 14th century:

> But a prince, by unnecessary change in coinage, plainly takes the money of his subjects against their will, because he forbids the older money to

> pass current, though it is better, and anyone would prefer it to the bad; and then unnecessarily and without any possible advantage to his subjects, he will give them back worse money . . . In so far then as he receives more money than he gives, against and beyond the natural use of money, such gain is equivalent to usury; but is worse than usury because it is less voluntary and more against the will of his subjects, incapable of profiting them, and utterly unnecessary. And since the Usurer's interest is not so excessive, or so generally injurious to the many, as this impost, levied tyrannically and fraudulently, against the interest and against the will of the whole community, I doubt whether it should not rather be termed robbery with violence or fraudulent extortion.[75]

Many centuries on in monetary history, the economist Joerg Huelsmann comments:

> The reason why governments have abandoned debasement and started cooperating with fractional reserve banks was the technical superiority of this type of fiat inflation. It allowed governments to obtain additional revenue that they could not get from their citizens through taxation, yet without diminishing their other revenues, without hurting their creditors, without disrupting the inclusion of their countries in the international division of labor, and without abolishing competition in banking altogether.[76]

Inflation is a highly unethical instrument, especially the policy of targeted inflation as adopted by most central banks. Besides stealthily expropriating the wealth of its citizens, in so doing the sovereign is also attempting to devalue its debt burden. The effect of targeted inflation on debt is powerful: an annual increase in inflation by 3 per cent will produce a 34 per cent cumulative reduction on a ten-year sovereign bond. However, the owner of that bond will suffer a corresponding loss of purchasing power.

The bluntest example of the use of inflation as a coercive tool by central money planners was the Bank of Japan's announcement in early April 2013[77] that central planners would double the amount of base money by the end of 2014. One of the aims of this policy is to force citizens to spend their high savings into the economy by subjecting them to an otherwise substantial loss of purchasing power. Should savers decide to flee the yen and convert their savings into other currencies, capital controls will no doubt follow.

Over-indebted governments must also strive by any means to keep interest rates as low as possible to prevent interest payments on their debt burdens becoming unbearably high. This in turn means that pension funds can no longer find investments yielding sufficient returns to meet their future payout obligations towards their retirees unless they turn to riskier investments, an approach largely forbidden in their by-laws or by legal provisions.[78]

The resulting and ever-increasing funding gaps of most Western pension systems are huge – in the US they had reached a mind-boggling USD 2,500 billion by 2010, almost 20 per cent of its GDP.[79] Every citizen over 50 in the US and the Eurozone should be on the street protesting and blaming the political class for the foreseeable pauperization of a whole generation of retirees.

In fact, a fiat money standard in combination with a fractional reserve banking system is a standing invitation for governments to extract wealth from their citizens with reckless overspending by their political classes. In so doing they seriously infringe upon the human right of self-determination.

3.10.3 The democratic aspect of a gold standard

As seen, a centrally planned paper money standard is highly coercive and irreconcilable with the human right of self-determination.

In sharp contrast is the true gold standard, under which citizens can freely exchange their paper money for gold. And if they feel the political classes are debasing the currency, they will probably exchange their paper money in larger numbers for physical gold. This would reduce the stock of gold and by this the money supply, thereby forcing politicians to change their behaviour. Otherwise it would soon become obvious that the political class was on the verge of bankrupting society because the monetary base – gold – would be about to disappear, leaving no further tools of manipulation.

This is a fundamental element of the gold standard as it means that people can vote daily on government spending and have the option to preserve their wealth, unlike the citizens of Japan. It also demonstrates the fundamental interfaces between any given currency regime and democracy and freedom.

3.10.4 The money supply under the gold standard

From around 1870 to 1914 the international monetary standard was based on gold. Each of the major nations joined this regime sequentially and voluntarily. There was no international conference resolving that the gold standard would be introduced, nor were there international bodies like today's IMF charged with monitoring international trade and financial stability. The issue of global imbalances was non-existent. Over this period the major nations experienced strong economic growth, increasing prosperity, falling unemployment and no inflation. This was the case because under a gold standard the regulation of the money supply was achieved through a self-regulating mechanism that steered the behaviour of economic agents. Moreover, the gold standard impressed through its simplicity.

When the supply of gold grew at a faster rate than productivity, for instance following the spectacular gold discoveries in South Africa, Australia and the Yukon between 1886 and 1896, the price level temporarily rose (increase of money supply). This led to increased costs for gold producers,

who responded by reducing their production; in this way a long-term trend of price stability materialized.

If productivity increased as a result of technological innovation the price level temporarily fell, meaning the purchasing power went up. This lower price level then caused gold producers to increase their gold production, and by this the supply of gold, thereby restoring the price level. In both instances, the temporary supply and demand shocks in gold led to changes in behaviour that restored long-term price stability.[80]

3.10.5 International trade under the gold standard

According to James Rickards, in international trade, these supply and demand factors achieved equilibrium in the same way. A nation with improving terms of trade – an increasing ratio of export prices versus import prices – would begin to run a trade surplus. This surplus in one country would be mirrored by deficits in others whose terms of trade were not as favourable. The deficit nation would have to pay the surplus nation in gold. This caused money supply in the deficit nation to shrink and money supply in the surplus nation to expand. In other words, the price level would then shrink in the deficit nation and rise in the surplus nation. The surplus nation would experience some inflation and the deficit nation deflation. But this equation would go into reverse over time as exports from the exporting nation became more expensive while exports from the original deficit nation became less expensive. Eventually the surplus nation would enter into a trade deficit and the deficit nation a surplus. Then gold would start to flow back to the nation that originally lost it. Economists called this the price-specie-flow mechanism. This rebalancing worked naturally without central bank intervention. It was facilitated by arbitrageurs who would buy the cheaper gold in the deficit country and sell it in the surplus countries.

Not every claim had to be settled in gold immediately. Most international trade was financed by short-term trade bills and letters of credit that were self-liquidating when the imported goods were received by the buyer and resold for cash without any gold transfers.[81] Banks played a fairly important and constructive role. If, for example, a British exporter wanted to sell goods to an American buyer, he went to his bank and presented the invoice. The English bank wired it to its American correspondent bank asking whether it would guarantee payment for this purchaser. If it was approved, the British exporter was paid by his or her bank. This was an important feature because at that time international settlement could easily last a couple of months, subjecting the exporter to an uncomfortable liquidity strain. Of course, banks charged fees for this service.

Under the gold standard it was not possible for a country to compensate for the outflow of gold via a currency devaluation because it would be possible for the money supply of a deficit country to shrink to zero – a theoretical possibility only under a fiat money regime. Therefore, each country was forced to take countermeasures.

3.10.6 International trade under the fiat money standard

One of the main problems of today's global trade is that trade surplus nations have built up enormous foreign currency reserves and trade deficit countries corresponding current account deficits. As just shown, under an international gold standard this would not be possible.

Those very imbalances endanger the stability of the International Monetary and Financial System (IMFS). Consider the following statement from a 2011 paper by the Bank of England:

> The paper sets out three objectives for a well-functioning IMFS: i) internal balance, ii) allocative efficiency and iii) financial stability. The IMFS has functioned under a number of different regimes and each has placed different weights on these three objectives. Overall, the evidence is that today's system has performed poorly against each of its three objectives . . . There is little consensus in the academic literature, or among policy makers, on what are the underlying problems in the global economy which allow excessive imbalances in today's IMFS . . . In a world where there were no underlying imperfections, or frictions, market forces should lead to an IMFS where all three objectives are achieved simultaneously. There would be no need for any 'rules of the game' – market forces would automatically result in the optimal outcome for the global economy. But in reality, of course, there are frictions in today's IMFS. And those frictions can result in externalities, which mean that one country's actions distort the choices open to others. The result is an IMFS that is unable to achieve its three objectives and a global outcome that is sub-optimal . . . Members of the Gold Standard, for example, fixed their currencies to gold, allowed capital to flow freely across borders and tended not to use monetary policy actively. So they gave up on the internal balance objective to achieve allocative efficiency and financial stability . . . In contrast, in today's system there are almost no binding rules; rather there exists a hybrid arrangement in which countries are free to choose whether to fix or float their exchange rate and whether to impose capital controls or not. While today's IMFS affords countries the freedom to pursue policies to suit their domestic policies, this flexibility has created problems.[82]

The problem in short is that in a centrally planned fiat money system central planners are free to manipulate the currency to the detriment of others.

Trade relations between the US and China are a good example. China's foreign reserves are the largest in the world, having risen from USD 168 billion in 2000 to USD 1,530 billion in 2007 – an increase of USD 1,362 billion in just seven years. In 2007 its trade surplus with the US was USD 259 billion. That is, China sold the US USD 259 billion more in goods and services than the US sold to China that year.

When Chinese companies sold their goods in the US they were paid in dollars. Most companies wanted to convert those US dollars into Chinese yuan, but had they bought USD 259 billion worth of yuan in the foreign exchange market without government intervention, the value of the yuan would have appreciated sharply. The surge in the value of the currency would have made Chinese exports less competitive, which would have caused China's export and economic growth to slow.[83] Because the Chinese government is pursuing an export-driven business model, it instructed the Chinese central bank to buy all those incoming dollars with freshly printed yuan in order to keep the exchange rate between dollars and yuan stable.

The central banks of other US trading partners have adopted the same procedure. In 2007 the foreign reserves of central banks worldwide stood at USD 6,700 billion. The respective central banks created/printed the money by which they bought those dollars.

The US has had very large trade and current account deficits for three decades. In the past, when a country had a current account deficit its currency would depreciate against other currencies, making its exports cheaper on the global market and the products of other countries more expensive to import. This worked as an adjustment mechanism to bring the country's trade back into balance.

It no longer works that way. The US has incurred current account deficits on an unprecedented scale but the dollar has not depreciated sufficiently to correct the US trade deficit because many of the countries that trade with the US are manipulating the currency's value by creating fiat money in order to buy dollars.[84]

From 1996 the increase in worldwide dollar reserves has exceeded the amount of debt the US government issued every year. Between 1996 and 2007 the US government sold USD 1,250 billion in new debt, while the cumulative increase in dollar reserves amounted to USD 3,960 billion. In other words, the central banks accumulating those dollar reserves could have bought every new US government bond sold between 1996 and 2007 and still had USD 2,700 billion left to invest in other dollar-denominated assets.

The Fed's flow of funds data show that foreign investors bought USD 1,130 billion in US government bonds between 1996 and 2007 – almost 90 per cent. So what did foreign central banks buy with the remaining USD 2,830 billion?

The financial author Richard Duncan believes they bought up existing, older US government bonds from other investors and other dollar-denominated assets. The purchase of pre-existing bonds would explain why the interest rate on US Treasuries did not go up – because there was demand for them. And this would further explain the conundrum facing the former chairman of the Fed, Alan Greenspan: why did the yields of US government bonds not rise despite the 17 rate hikes introduced by the Fed between June

2004 and June 2006? The answer is that the Fed lost control of the interest rate because of the dollars created by other central banks.

Official statistics also show that the GSEs Fannie Mae and Freddie Mac issued and guaranteed almost USD 5,000 billion of debt and that 'official' foreign buyers bought 19 per cent of it. By this, foreign buyers injected roughly USD 1,000 billion into the US housing market and helped fuel the bubble.[85]

This example illustrates the inherent flaws of combining a fractional reserve banking system and a fiat money standard. First, the creation of a tremendous number of debt instruments was only possible under a fractional reserve standard. As explained in section 2.10.1, the GSEs benefited from considerable regulatory privilege in that they were only required to back those issued debt instruments with a tiny range of 0.45 per cent to 2.5 per cent of their equity. And as shown in section 2.9, the majority of those debt instruments were created in a fraudulent manner. The money used to buy those debt instruments was simply printed by the 'foreign official' buyers as a result of arbitrarily set domestic policy goals. Whatever was bought with that printed money, it drove up asset prices everywhere.

Moreover, the following two developments in the US could not have happened under a gold standard:

1. Since 1983 the US has run a persistent trade deficit. This would have been impossible under a gold standard. In the years following Nixon's unilateral cancellation of the Bretton Woods agreement linking the dollar to gold, the global money supply – and the credit money supply – increased dramatically.
2. Although the cancellation of Bretton Woods terminated the connection between the dollar and gold, the dollar kept its status as a worldwide reserve currency because US Secretary of State Henry Kissinger in 1973 convinced Saudi Arabia and the OPEC countries to conduct their oil trade exclusively in US dollars.

Because the dollar still enjoys the status of a world reserve currency, the US can borrow an almost infinite amount of debt in order to finance its budget and trade deficits. Should the dollar ever lose its world reserve currency status the US would simply collapse and with it its huge military-industrial complex.

The Bank of England study quoted above compares the different monetary regimes from 1870 to 2010: the classic gold standard, the interwar gold exchange standard, Bretton Woods from 1945 to 1971 and the current system. It concludes:

> There was no formal mechanism to force countries to adjust their domestic policies under the Gold Standard. Instead, they did so out of convention. Net capital flows tended to be large under the Gold Standard. However, passive domestic monetary policy responses meant that they were not

> accompanied by large cross-country policy inconsistencies and so did not pose the same threat to global financial stability as those of today . . . a range of summary statistics on the performance of different IMFS regimes, shows for example that the incidence rate of banking and currency crises in the Gold Standard was much lower than in today's system.[86]

Given the clear advantages of a gold standard it remains to be asked why the majority of economists and policymakers do not advocate its reintroduction.

A foray in that direction was made by Robert Zoellick, then president of the World Bank, in November 2010. In an article for the *Financial Times* he proposed various reform measures for the IMFS.[87] One of them was:

> The system should also consider employing gold as an international reference point of market expectations about inflation, deflation and future currency values. Although textbooks may view gold as the old money, markets are using gold as an alternative monetary asset today.

Nobel laureate Robert Mundell wrote in 1997:

> When the international monetary system was linked to gold, the latter managed the interdependence of the currency system, established an anchor for fixed exchange rates and stabilized inflation. When the gold standard broke down, these valuable functions were no longer performed and the world moved into a regime of permanent inflation. The present international monetary system neither manages the interdependence of currencies nor stabilizes prices . . . An international monetary system in the strict sense of the word does not presently exist. Every country has its own system. Most people do not understand how unusual the system is. For thousands of years countries have anchored their currencies to one of the precious metals or to another currency. But in the quarter century since the international monetary system broke down, countries have been on their own, a phenomenon that has no historical precedent in the cooperative game known as the international monetary system.[88]

The real reason the majority of mainstream – that is, neoclassical synthesis – economists have not joined the gold standard camp is likely their lack of understanding of what went right, and what went wrong, with gold in monetary history.

3.11 Arguments against the gold standard

3.11.1 The Great Depression

One of the most prominent critics of the gold standard is former chairman of the Fed Ben Bernanke. Drawing on the academic work of Peter

Temin and Barry Eichengreen anlysing the period of the gold exchange standard between 1924 and 1936 – not the classic gold standard – Bernanke concluded:

> Countries that left gold were able to reflate their money supplies and price levels, and did so after some delay; countries remaining on gold were forced into further deflation. To an overwhelming degree, the evidence shows that countries that left the gold standard recovered from the Depression more quickly than countries that remained on gold. Indeed, no country exhibited significant economic recovery while remaining on the gold standard.[89]

This conclusion fails to recognize that it amounts to the recommendation of a currency war – exactly what the current IMFS is suffering from. For instance, had France gone off the gold standard at the same time as the UK, in 1931, the UK advantage relative to France would have been negated. However, France waited until 1936 to devalue, allowing the UK to steal growth from France in the meantime. What Bernanke is really saying is, if one country invades and loots another, it will be richer and the victim poorer, which certainly is not a viable blueprint for international trade.[90]

In support of his thesis that gold is in part to blame for the severity and protracted nature of the Great Depression, Bernanke developed a six-factor model to illustrate the relationships among a country's: (1) monetary base created by the central bank (2) the money supply created by the commercial banking system (3) the gold reserves – broken down by (4) quantity and (5) its price, and (6) the foreign exchange reserves. Bernanke's model resembles an upside-down pyramid, with some gold and foreign exchange on the bottom, money created by the Fed on top of gold, and even more money created by the commercial banks on top of that. The trick is to have enough gold so the upside-down pyramid does not topple over.

However, the model has to account for the fact that in the 1920s and 1930s the US gold supply was increasing yet the money supply was shrinking. This was the result on the one hand of the deleveraging of the banking system, and on the other hand of a policy decision by the Fed not to increase the money supply, which it could have done since the US had an ample supply of gold.

Bernanke gives two reasons for this counterintuitive contraction. The first reason involves policy choices by the Fed and the second involves the preferences of depositors and private bankers in response to banking panics. Based on these points Bernanke concludes that under the gold exchange standard there exist two money supply equilibria. One equilibrium exists where confidence is high and the leverage ratios are expanded. The other exists where confidence is low and the leverage ratios contract. Where a lack of confidence causes a contraction in money supply through deleveraging,

that process can depress confidence, leading to a further contraction of bank balance sheets and declines in spending and investment. Bernanke concludes, 'In its vulnerability to self-confirming expectations, the gold standard appears to have borne a strong analogy to a . . . banking system in the absence of deposit insurance.'[91]

However, this academic case has one enormous flaw. The argument against gold has nothing to do with gold per se; it has to do with monetary policy decisions. In the 1930s the Fed could have expanded the money supply by up to 2.5 times the value of the gold it had. The Fed failed to do so and actually reduced the money supply, in part to neutralize the expansionary impact of the gold inflows. So this was a policy choice by the Fed.

Further, Bernanke points to the banking panics of the early 1930s and the preference of banks and depositors for reducing the ratio of the broad money supply to the monetary base, that is, the ratio between money created by the central bank and money created by the commercial banking system. Bankers expressed a preference for gold over foreign exchange in the composition of their reserves. Those observations are historically correct but have no necessary relationship to gold. The reduction in the ratio of broad money supply to the narrow money supply need not involve gold at all and can happen any time – and in fact has happened in the aftermath of the panic of 2008.

Hence, it is historically and analytically false to blame gold for this money supply contraction.[92]

Nevertheless, a whole generation of mainstream economists have cited Bernanke's findings and Eichengreen's empirical evidence to mistakenly blame gold for the Great Depression.[93]

3.11.2 The case of the UK leaving the gold standard in 1931

Another classic argument made by opponents of the gold standard involves the case of the UK. In 1914 the major European powers left the gold standard in order to print money with which to finance the First World War. By 1918 when the war ended the money supply was many times the prewar level. Inflation set in and price levels more than doubled across Europe. A contraction of the money supply was required. In order to achieve this, a variant of the prewar gold standard was introduced at the Genoa Conference in 1922.

At that time Winston Churchill was Chancellor of the Exchequer. In the face of warnings from some economists, Churchill decided to return to the gold standard at the prewar exchange rate despite the now-bloated money supply. Instead of devaluing the pound relative to gold he stuck to the prewar exchange ratio. For him, it also was a point of national honour and prestige.[94] The consequences for the UK economy were disastrous. British products lost their competitiveness in international markets, massive deflation set in, unemployment rose to unbearable levels and society sank into poverty. Again, this was a policy decision.

3.11.3 The regime of the gold exchange standard

Although the leading European nations wished to return to the gold standard, there was a shortage of gold in Europe due in part to the enormous borrowing by the UK and France from the US during the war. The German gold was gone due to enormous reparation payments owed to the UK and France, both of which countries used it to pay down their own debts to the US.

Therefore a hybrid gold standard was introduced in that foreign reserves were treated like gold. Since the US was the only nation with abundant gold reserves, European currencies were linked to the dollar, which in turn was linked to existing gold – hence the name gold exchange standard. Like the classic gold standard, the gold exchange standard was designed as a self-equilibrating system dependent on some 'rules of the game'. The expectation was that nations experiencing large inflows of gold to ease monetary conditions, accomplished in part by lowering interest rates, would allow their economies to expand, while those experiencing gold outflows would tighten monetary conditions and raise interest rates, resulting in economic contraction. Eventually the contracting economy would find that prices and wages were low enough to cause its goods to be cheaper and more competitive internationally, while the expanding economy would experience the opposite. At that point the flows would reverse, with the former gold outflow country attracting inflows as it began to run a trade surplus based on cheaper goods, whereas the former surplus country would start to run a deficit until the next cycle of adaptation set in.

However, nobody played by the rules. By 1927 France had accumulated gold and foreign exchange, much of it from the UK. Due to the latter's botched return to the prewar gold ratio, British products had lost their competitiveness internationally. The rules dictated that it should tighten its monetary conditions, but the central bank refused to do so for fear of a domestic backlash. Britain was already suffering massive economic contraction due to the false return to the gold standard, leaving the British pound steeply overvalued.

Simultaneously another flaw became apparent in the gold exchange standard. Since countries were allowed to treat dollar reserves as gold, highly leveraged credit pyramids began to emerge.

The following example illustrates this effect:

> An Austrian corporation, for instance, obtains a long-term loan in New York, the net proceeds of which are USD 1 million, credited to the borrower as a deposit in a New York bank. The corporation, which needs schillings, sells these dollars to a Viennese bank. Because this dollar deposit was then readily convertible into gold, the national bank could treat this deposit as part of its prime reserve. Thus, it was able to increase its notes in circulation or extend credit by about USD 3 million or about

> 21 million schillings, assuming a reserve ratio of 33.3 per cent (the legal requirement at that time). As these notes or deposits were in turn reserves for the commercial banks of Austria, commercial credit of three or four times this amount could be created.
>
> The loan to the Austrian corporation of USD 1 million resulted in an equal increase in deposits on the books of the New York bank with which the proceeds of the loan were deposited. Against this deposit the New York bank had to maintain a reserve with the Federal Reserve Bank of 13 per cent, or USD 130,000. The latter in turn, was required to maintain a reserve of 35 per cent against its deposits, or USD 45,000. Thus, under the gold exchange standard system, as it functioned during these years, against an actual gold reserve of less than USD 50,000 in the Federal Reserve Bank of New York, a central bank abroad operating on the gold exchange standard was able to increase its notes in circulation or demand deposits by about USD 3 million upon which, in turn, the commercial banks could build a deposit credit structure of USD 10 million to USD 12 million.[95]

The gold exchange standard thus allowed for, and became abused through, a pyramid-shaped build-up of credit.

In 1931 the Credit-Anstalt of Vienna announced losses that effectively wiped out its capital.

This caused bank runs across European countries, and bank holidays were declared. This panic soon spread to the UK, and by July 1931 massive gold outflows had begun. Leading UK banks had made leveraged investments in illiquid assets funded with short-term liabilities, exactly the type of investing that destroyed Lehman Brothers in 2008.[96]

These financial disasters during the years of the regime of the gold exchange standard cannot be used as an argument against the reintroduction of the classic gold standard. They were the result of wrong policy decisions and built-in instability resulting from the treatment of foreign reserves as gold. When panic finally set in and people tried to convert their paper notes into gold, there was not enough gold to go around and the hybrid system collapsed.

3.11.4 A gold standard would cause extreme deflation leading to impoverishment of societies

The first riposte is that the same happens in a paper-based money system. In the US the number of recipients depending on food stamps rose from 26 million in 2007 to 46.5 million in 2012. That amounts to 15 per cent of the entire population or 20 per cent of all households.[97] Debt deflation cycles are inherent in fiat systems.

Another popular argument is that the deficit countries of the Eurozone are experiencing deflationary pain because the single currency regime has the same effects as the gold standard. This confuses the relationship between

cause and effect. Under a gold standard those countries could never have built up such massive trade deficits and sovereign debt, created by arbitrarily printing money backed by nothing other than debt.

This created the bond bubble, the possible bursting of which now concerns the central money planners (see section 3.9). The QE experiment is the biggest monetary experiment ever carried out, and the central money planners have no idea whether it will succeed or lead to collapse. This is irresponsible.

Richard Fisher, president of the Fed of Dallas, frankly admitted in a speech in September 2012 that the outcome of the experiment was uncertain:

> It will come as no surprise to those who know me that I did not argue in favor of additional monetary accommodation during our meetings last week. I have repeatedly made it clear, in internal FOMC deliberations and in public speeches, that I believe that with each program we undertake to venture further in that direction, we are sailing deeper into uncharted waters. We are blessed at the Fed with sophisticated econometric models and superb analysts. We can easily conjure up plausible theories as to what we will do when it comes to our next tack or eventually reversing course. The truth, however, is that nobody on the committee, nor on our staffs at the Board of Governors and the 12 Banks, really knows what is holding back the economy. Nobody really knows what will work to get the economy back on course. And nobody – in fact, no central bank anywhere on the planet – has the experience of successfully navigating a return home from the place in which we now find ourselves. No central bank – not, at least, the Federal Reserve – has ever been on this cruise before.[98]

Thus, monetary expansion programmes are certainly more dangerous than the mild deflationary effects a gold standard might cause.

As to the deflation phantom of the gold standard, the most popular argument is based on the fallacy that economic growth requires an increase in the money supply. Hence, the saying goes, if the economy grows by 5 per cent then money supply also must grow by 5 per cent, otherwise the goods produced cannot be sold. This argument is flawed because any quantity of goods and services can be exchanged with virtually any money supply. If 5 per cent more goods and services are offered on the market, then the money prices of these goods and services will just decrease. The same mechanism would allow economic growth even if the quantity of money shrank.

Others argue that if entrepreneurs are forced to sell their products at lower prices, the prices might be too low in comparison to cost expenditure and force them into bankruptcy. This proposition is based on a mechanistic understanding of entrepreneurship. Entrepreneurs do in fact anticipate future reductions in the selling price of their products and so can cut offering prices on their own cost expenditure and thus thrive in times of

declining prices. Even now entrepreneurs include inflationary effects when calculating their cost structure. No one asserts that targeted inflation will drive entrepreneurs into bankruptcy because their cost structure increases.

However, the situation for entrepreneurs under a centrally planned paper money system is even worse. It is no longer sufficient for entrepreneurs to take into consideration inflationary or deflationary assumptions in their business planning. They also must guess what fiscal actions neoclassic theory will come up with in order to rescue over-indebted governments and economies. Again in the words of Richard Fisher, president of the Dallas Fed:

> Surveys of small and medium-size businesses, the wellsprings of job creation, are telling us that nine out of 10 of those businesses are either not interested in borrowing or have no problem accessing cheap financing if they want it. The National Federation of Independent Business (NFIB), for example, makes clear that monetary policy is not on its members' radar screen of concerns, except that it raises fear among some of future **inflationary consequences**; the principal concern of the . . . small businesses surveyed by the NFIB is with **regulatory and fiscal uncertainty**. This is not terribly difficult to understand: If you are a small business . . . you are stymied by not knowing what your tax rate will be in future years, or how you should cost out the social overhead of your employees or how you should budget for the proliferation of regulations flowing from Washington.[99]

Moreover, the deflation arguments of the gold standard opponents have no basis. Just the opposite is true: in the last three decades of the 19th century, both Germany and the US experienced high growth rates at stable and falling consumer price levels.[100] The same is true in the market for computers and information technology, the most vibrant market since the 1980s, which has combined rapid growth in output with constantly falling product prices.[101]

3.12 Measuring economic growth by GDP can be misleading

GDP is a very unreliable measure of economic growth. In principle it has four components: (1) consumption (C); (2) investment (I); (3) government spending (G); and (4) net exports, consisting of exports (X) minus imports (M). The overall growth definition is expressed in the following equation:

$$\mathrm{GDP} = \mathrm{C} + \mathrm{I} + \mathrm{G} + (\mathrm{X} - \mathrm{M}).$$

In European nations government spending is high – close to and above 50 per cent of GDP. If government spending is financed through debt, this amounts to a pledge of future tax revenues. Hence, GDP 'growth' can also

mean a redistribution of income from the private to the public sector. Under a classic gold standard this would not be possible. Citizens could always change their paper money into gold, and by that force governments to change their policy.

However, to provide for some elasticity in the money supply, letters of credit, or similar commercial instruments rooted in the real economy could be treated as money-like. With this option the real economy could breathe with the money supply.[102]

3.13 Some preliminary thoughts about how a gold standard could be reintroduced

The reintroduction of the gold standard was proposed already in the 1960s by the financial journalist and author Henry Hazlitt.[103] He clearly saw that the UK's attempt to reintroduce the gold standard in the 1920s had been a disaster, but he had greater faith in free markets than in monetary central planners. He came up with the following five-step proposal:

1. The Administration will immediately announce its intention to return to a full gold standard by a series of steps dated in advance. The Federal Reserve Banks and the Treasury will temporarily suspend all sales or purchases of gold, merely holding on what they have. Simultaneously with this step, a free market in gold will be permitted.[104]
2. After watching this market, and meanwhile preventing any further inflation, the government, within a period of not more than a year, will announce the dollar-gold ratio at which convertibility will take place.
3. On and after Convertibility Day, and for the following six months, any holder of dollars will be entitled to convert them into gold bars, but at a moderate discount on the paper dollars he turns in. To put the matter the other way, he would be asked to pay premium on gold bars above the new valuation – equivalent, let us say, to ½ of 1 per cent a month. The purpose of this would be to spread out the first demands for conversion and discourage excessive pressure on reserves at the beginning. The same purpose could be achieved also by a wide but gradually narrowing spread between the official buying and selling prices of gold bars. Of course, the free market in gold would continue during this period, and if gold could be obtained in this free market for less than the official premium rates, it would not be demanded from the government's reserves.
4. Six months after Convertibility Day, the country will return to a full gold-bullion standard. Conversion of dollars into gold bars, or vice versa, will be open to all holders without such discounts or premiums and without discrimination.
5. One year later still, on January 1, 19xx, the country will return to a full gold coin standard, by minting gold coins and permitting free conversion.[105]

A full gold coin standard is desirable because a gold bullion standard is merely a rich man's standard. A relatively poor man should be just as able to protect himself against inflation, to the extent of his dollar holdings, as a rich man. The reason for returning to a full gold coin standard in several stages is to prevent a too-sudden drain on gold reserves before confidence has been re-established.

The trick of the whole enterprise is to find a price that devalues the piled-up debt of the advanced economies so that a credible debt service capability level is achieved. The danger is that such a devaluation, if carried too far, would disproportionally hit creditors.

The main point here is that it should be left to the markets to define an adequate convertibility rate for a national currency and gold – not left to central money planners or academics to decide.

An argument frequently made against the reintroduction of the gold standard is that there simply is not enough gold available. This is irrelevant because what matters is the price. The price per gold unit will be higher for countries with lower gold reserves, and probably lower for countries with higher gold reserves. Again, this price-finding mechanism would be left to free markets and not to academics.

3.14 The current monetary system is anchored to psychological factors only

It should be clear by now that an IMFS based on a paper money standard in combination with a fractional reserve banking system is highly fragile, and that banks under such a system are unable to absorb even minor shocks. As history has shown, such a system is inherently unstable and produces debt deflation and boom cycles.

One key feature of the system is a central planning agency that controls the supply of money. No one in their right mind would ever propose that a central planning agency should determine the supply of fuel and its price because obviously it could not process the multitude of information and price signals continually produced by *millions* of market participants. Such a system would always experience either an over- or under-supply of fuel – as it does with money. But with money no one seems to have a problem with this approach. Financial markets are complex systems in contrast to complicated ones (see section 2.6.4), and the notion that central planners can control them is nothing but an illusion.

Today, market participants are left to coffee grounds reading of statements of central bankers and each sentence gets scrutinized. Markets have swung wildly based on such statements ever since the current fiat system lost its anchor in 1971. This could be observed in May 2013 when Bernanke first proposed a programme of 'tapering' and bond prices plummeted. When ECB President Mario Draghi said he would save the euro 'whatever it takes'

and simultaneously announced his OMT programme, yields on peripheral sovereign bonds fell.

The whole system hinges on the credibility of the central banks, on confidence in the future viability of the financial system per se and on the perceptions of market participants. All three are merely psychological factors, making the system subject to manipulation, fear, even 'perceived perceptions' and herd behaviour. It is highly susceptible to shocks of volatility, even those arising from the dissemination of false information. That is not exactly what the anchor of an IMFS should look like.

3.15 A heavily over-indebted US coerces BRIC and ASEAN countries into corrective action: hoarding gold

It should be noted that non-Western central banks have been aggressive in increasing their holdings of gold since the outbreak of the GFC in 2007 – as can be seen from the statistics of the International World Gold Council.[106] These include the central banks not only of the so-called BRIC countries – Brazil, Russia, India and China – but also the member countries of the Association of Southeast Asian Nations (ASEAN) and the Shanghai Cooperation Organisation (SCO). Taken together, these three organizations represent roughly 60 per cent of the world's population.

At the same time, the financial standing of the US is faltering and is nearly on a par with that of Greece, as the numbers below illustrate.

	Greece	**US**
Annual budget deficit to GDP:	13.6%	10.4%
Debt-to-GDP ratio:	115.1%	121.6%[107]
Debt-to-tax revenues:	312.2%	358.1%

The above numbers represent the situtation in 2010, since which time the ratios in both countries have further deteriorated.

The US will never be in a position to pay back its debt, as the following numbers show:[108]

Annual tax revenues:	USD 2,200 billion
Debt outstanding (2009):	USD 12,000 billion
Social security:	USD 17,500 billion
Healthcare obligations:	USD 89,300 billion
Total obligations:[109]	USD 118,700 billion

According to Willem Buiter, a state cannot meet its payment obligations if its debt exceeds the net present value of its future tax income.[110] That is the situation in which the US finds itself.

In its long-term fiscal outlook from January 2010 the US GAO stated:[111]

> Both simulations show that absent changes to federal entitlement programs, spending on Social Security, Medicare, Medicaid, and interest on the federal debt will account for an ever-growing share of the economy . . . assuming revenue remains constant at 20.2 percent of GDP – higher than the historical average – by 2030 there will be little room for 'all other spending,' which consists of what many think of as 'government,' including national defense, homeland security, investment in highways and mass transit and alternative energy sources, plus smaller entitlement programs such as Supplemental Security Income, Temporary Assistance for Needy Families, and farm price supports.
>
> In our Alternative simulation, which assumes expiring tax provisions are extended through 2020 and then revenue is held constant at the 40-year historical average, roughly 93 cents of every dollar of federal revenue will be spent on the major entitlement programs and net interest costs by 2020. By 2030, net interest payments on the federal government's accumulating federal debt exceed 8 percent of GDP – making it the largest single expenditure in the federal budget.

The chairman of the Joint Chiefs of Staff of the US military declared in August 2010 that the 'single biggest threat' to American national security is the US national debt.[112] It is no wonder then that in an interview with the *Financial Times* in 2010 the chairman of the Chinese rating agency Dagong Global Credit Rating said:

> The western rating agencies are politicised and highly ideological and they do not adhere to objective standards . . . China is the biggest creditor nation in the world and with the rise and national rejuvenation of China we should have our say in how the credit risks of states are judged . . . The US is insolvent and faces bankruptcy as a pure debtor nation but the rating agencies still give it high rankings . . . Actually, the huge military expenditure of the US is not created by themselves but comes from borrowed money, which is not sustainable.[113]

Hence, the BRIC and ASEAN countries are facing a five-fold problem:

1. Because of the QE programmes of the Fed the dollar has lost purchasing power and exported inflation to countries pursuing a fixed exchange rate policy – like China. Food prices have increased signifantly in China, while their exports have become more expensive for other countries.

2. With the combination of an aggressive expansion of the money supply and the pursuit of an almost zero interest policy, Western capital is unable to find enough investment opportunities yielding sufficient returns, a problem confronting pension funds and insurance companies in particular. As a result huge amounts of capital are flowing into the emerging countries, driving up their currencies even more. Should the Fed reverse – or even simply indicate it might reverse – its QE programme, investors will withdraw their money from those countries causing an enormous loss of capital and by this putting their economies in jeopardy.
3. Finally, the default risk of the US is increasing, as shown above, which in turn puts at risk their foreign exchange reserves.
4. Only thanks to the dollar's privileged status as a world reserve currency can the US afford to refinance its twin deficits (current account and budget deficits). That in turn is the key enabler for its military presence around the globe and for the pursuit of its power interests. In fact, the US increasingly refinancing itself by accumulating more and more debt in the context of the dollar's declining purchasing power amounts to a form of global 'Pentagon' tax paid by countries who do not share the foreign policy objectives of the US.
5. None of those countries' currencies qualify to become another world reserve currency in the *near-term* future.

The combination of these five factors shows the pressure those countries feel to demote the US dollar from its status as the world reserve currency. Hence, in October 2013 the Chinese news agency Xinhua demanded a 'de-Americanized world'.[114]

Since none of their currencies has the potential to displace the dollar, they must find another way.

One option currently being pursued is to decouple trade among themsleves from the dollar. The number of trade agreements among those countries allowing for settlement with their own currencies has increased rapidly since 2008.[115] This probably represents the most under-reported strategic currency trend.

Since neither the euro nor the Swiss Franc nor other currencies qualify for a world reserve status, the only option would be to anchor their currencies to gold. This might explain why those countries are piling up holdings of gold at an unprecedented rate. China is already the world's largest producer of gold and at the same time recently has imported roughly 50 per cent of the annual global gold production.

Other central banks of the BRIC/ASEAN/SCO bloc have also announced that they are massively increasing their holdings of gold. In January 2011 First Deputy Chairman Georgy Luntovsky of the Central Bank of Russia (CBR) announced plans to purchase over 100 metric tons of gold every year – increasing the bank's gold reserves by 13 per cent in 2011. In 2010

alone, the CBR expanded its gold holdings by 23.9 per cent to 790 tons. The idea of a gold ruble as an anchor world currency was suggested in 2009 by the Kremlin's chief economic advisor, Arkady Dvorkevich, who declared that Russia would favour a new world reserve currency backed by gold. Discussing a new economic order, he stated, 'We could also think about [a] more effective use of gold in this system.'[116]

In July 2010, Bloomberg reported that then Russian President Dmitry Medvedev showed the other members of the G-8 meeting a sample gold coin with the minted title 'United Future World Currency'.[117] Medvedev repeatedly demanded the creation of a new reserve currency linked to gold.

If a bloc of countries were to emerge from the BRIC, SCO and ASEAN organizations and announce the creation of such a gold-backed currency, the days of the dollar and the military might of the US would be numbered. The euro would also go into freefall. If such an announcement were made convertibility with non-members would probably be restricted in order to prevent an explosive appreciation.

The usual argument against such scenarios is that China would never pursue such a policy because it would destroy its own foreign reserves. But consider the following: (a) those reserves are already in jeopardy; (b) over recent years China has restructured its Treasury holdings towards shorter-term bonds; however, its portfolio structure is not published; (c) in recent years China has used its dollars to invest massively in the global commodity complex, in particular in Africa; (d) China is at least as dependent on oil imports from Iran as it is on the US market. Should any foreign policy move by the US endanger that source, such a statement could come overnight.

3.16 Special drawing rights (SDRs) as an alternative?

Some see SDRs as a platform for building a new world reserve currency. SDRs are issued by the IMF and represent a monetary value for the 187 member countries. The amount of SDRs a member country receives depends on its shareholding in the IMF. The single largest shareholder is the US with 16.75 per cent, and the 17 countries of the Eurozone have together 22.43 per cent. At the G-20 summit in October 2010 the decision was made to redistribute the respective shareholdings in favour of emerging countries. The exchange rate of an SDR into national currency is calculated from a basket of currencies with different weightings. The SDRs assigned to a country are put in a reserve account with the IMF. Countries can use them to settle trade imbalances among them.[118]

SDRs are backed by nothing and in theory can be created in an unlimited fashion. Hence, they would be the ideal way out for the paper-based system because they would become increasingly money-like among the 187 IMF member countries. In 2009, when the world faced a liquidity shortage due

to the Lehman collapse in 2008, the IMF created SDRs with a value of USD 289 billion.[119] If the SDR route were pursued and expanded, the IMF would mutate into a fully-fledged world central bank under the control of the G-20 leaders, some of whom are not democratically elected. In January 2011 the IMF prepared a paper in which it discussed options for expanding the role of SDRs. Among other things it said:

> Advisory group. In order to give comfort that decisions on SDR allocations are not dominated by political considerations, an advisory board of eminent experts – possibly including central bankers issuing freely usable currencies – could be established to provide an independent opinion on matters concerning the provision of global liquidity to guide the Managing Director's proposals and Board of Governors' decisions on the need and frequency of SDR allocations.[120]

Hence the IMF proposes not only to copy the current central banking system – the exact system that drove the current monetary system to the edge of collapse – but to elevate it to the global level.

However, SDRs suffer from a number of flaws: (a) similar to the Eurogroup, the IMF would have to coordinate the fiscal policies of the 187 member states – an impossible task; (b) the SDR system would demand transfers as in the Eurozone to compensate for trade imbalances. Because the trade deficit countries would be among the first to receive those transfers, it is far from certain whether trade surplus countries like China and Russia would tolerate such a policy since it would perpetuate the current situation.

The most essential argument against the establishment of an SDR regime is again based on democratic theory. First, it represents the perpetuation of a paper-based money system that severely infringes on the human right of self-determination, as shown in the examples of Japan and in the instrument of targeted inflation (see section 3.10.2). Since this book argues for the reintroduction of the gold standard in order to re-establish the human right of self-determination, the SDR proposal must be discarded as anti-democratic because it aims at the opposite goal. Its only positive feature is that it would not work anyway because it would be impossible to coordinate.

3.17 Chapter summary

(Numbers in brackets refer to sections in this book.)

It is tragic that all the problems currently being suffered by the European Monetary Union (EMU) were foreseen by a minority group of German economists who, in an open letter in 1992, warned against the ratification of the Maastricht Treaty by the German parliament (3.1).

One of the main flaws is the 'one-size-fits-all' approach with respect to the interest rate policy of the ECB. When, around 2002, the German and

French economies were stuttering, the ECB reduced interest rates in order to restimulate those two economies because they represented roughly 50 per cent of the GDP of the Eurozone.

This cheap money in turn stimulated the housing boom in Ireland and Spain. When the bubble burst in 2007–8 the consequences for both countries were disastrous. In both countries debt-to-GDP ratios jumped as did unemployment (2.0 and 3.2.1). Since Ireland decided to take over the bad debts of its collapsed private banking system it needed to rush under the European 'rescue umbrella'.

Another fundamental flaw of the EMU was its failure to recognize that trade imbalances can occur within a single currency area. A trade deficit occurs if a country imports more than it exports.

Trade deficits occur because of a lack of competitiveness and strong domestic demand for imports. If one imagines for a moment the national money supply as constant and the trade deficit as permanent, then the national money supply will eventually shrink to zero. That this never happened was because governments had various countermeasures available to them. They could print more money, borrow more money in the capital markets and devalue their currencies.

Most of the former 'soft currency' – and today's problem – countries employed a combination of all three tools, resulting in inflation, rating downgrades and a higher cost of interest on sovereign bonds. A currency devaluation normally increases the competitiveness of a country because its overall price and wage levels fall relative to its trading partners, making the country's products and services cheaper. Under the EMU this avenue is blocked because national currencies no longer exist.

Hence, the only means to compensate for the money drain are transfer payments from the trade surplus countries and internal devaluations. The former are channelled through rescue vehicles like the EFSF and its successor fund ESM. Their combined volume amounts to €1,480 billion – roughly 15 per cent of the GDP of the Eurozone (3.2.6). Their funds are only disbursed if receiving countries submit to a strict set of austerity measures, usually requiring the cutting of public services and higher taxes. Moreover, on a de facto basis they need to confer the national budget sovereignty of their parliaments on the unelected body of the Troika, made up of the EU Commission, the ECB and the IMF, that supervises the austerity programmes. At the same time they are obliged to force through an 'internal devaluation', that is, a significant reduction of the national wage level. It must be stressed that, prior to the EMU, countries had the option of pursuing external devaluation of their currencies instead, thus mitigating the effects on their citizens.

Another, hidden route of transfer payments is the central banking clearing system of the EMU – the TARGET2 system. If a trade deficit country lacks the money to pay for imports, it receives an overdraft facility from the trade

surplus country. In mid-July 2012 Germany had around €650 billion – roughly two times its annual national budget or 35 per cent of its GDP – in outstanding claims against its EMU partners. As an aside, Germany's trade surplus mainly stems from trade outside the Eurozone. And the fact that the TARGET2 balances have since shrunk is due not to regained competitiveness on the part of the deficit countries but rather to reduced domestic demand because of austerity (3.2.2–3.2.6).

The overall conclusion in the context of this book is that all these circumstances severely infringe on the human right of individual and collective self-determination and on Western constitutional theory. The surrender to the Troika deprives the parliaments of their national budget sovereignty, while the TARGET2 system bypasses parliamentary budget oversight and control.

The euro-political class committed itself to rescue the euro 'at any price', suggesting four approaches to accomplish that goal: a fiscal union, a banking union, a political union and euro bonds. A fiscal union would impose an unelected bureaucratic superstructure to plan and control national budgets. This would exacerbate the dearth of democratic legitimation of national budget decisions because it would be accompanied by a loss of national sovereignty. Section 3.5.2 cited an IMF paper describing the absurd bureaucratic structure of such a fiscal union, already endorsed by the EU Commission and the Council. However, it would lead to nothing. In 2004 the fiscal deficit of the Eurozone stood at 2.9 per cent, while in 2011 it stood at minus 4.2 per cent. Its overall debt-to-GDP ratio was 69.1 per cent in 2003, while in 2012 it was 90.6 per cent – a nominal growth rate of 24 per cent. Hence, the only things to have grown and prospered since the introduction of the euro are fiscal deficits, debt-to-GDP ratios and unemployment. Youth unemployment stands at a mind-boggling 25 per cent on average. In addition, if unfunded liabilities for national retirement and healthcare systems are accounted for the true over-indebtedness of the Eurozone reaches a debt-to-GDP ratio of 344 per cent (3.4.1).

These facts make clear that the euro-political class has lost its credibility. Moreover, the former president of the Eurogroup repeatedly and publicly declared that he reserves the right to lie to the public should he deem it necessary to save the euro (3.9).

A banking union would not increase the stability of the euro system. The aggregated balance sheet of the Eurozone's banks shows total assets of €33,000 billion and capital of €2,300 billion. Across the Eurozone the percentage of non-performing loans (NPLs) is growing rapidly. A write-off of 10 per cent would wipe out the capital of the banks. Moreover, the burden would double to €6,600 billion since the capital of the banks would have to be restored. Given that such an amount far exceeds the volume of all rescue vehicles, the fostering of stability cannot be used as a rationale for a banking union. It would only succeed in avoiding immediate contagion should

a bank of a peripheral country fail because markets would believe it was protected by the banking union. That assumption would indeed be correct, because in light of the banking crisis in Cyprus 2013 the banking union foresees a new bail-in strategy, defining a new pecking order for these bail-ins: first shareholders, then bondholders and holders of other debt instruments, and finally savers beyond a deposit of €100,000. This makes savers in northern countries personally liable for the losses of failed peripheral banks.

As has been shown, a 'United States of Europe' is an impossible notion when viewed from the theory of democratic legitimation (3.5.3 and 1.12).

The introduction of euro bonds would only prolong the limited life expectancy of this currency experiment. The rationale is that the average interest rate to be paid on sovereign bonds for all Eurozone members would be lower than the national interest rate of the peripheral countries. Hence, debt would become cheaper for them and more expensive for the other countries. However, this would only lead to a replay of the 'stability premium' they received prior to the actual introduction of the euro. Because since 1992, the euro was sold to the public as a stability union, with an ECB copying the Bundesbank. Therefore, capital markets began to demand lower interest rates from the 'soft currency' countries. The benefit for them was tremendous. The percentage of GDP to be paid for interest on sovereign debt fell by 50 per cent on average (3.2.1), translating into a benefit for them in the three-digit-billion range. Having been the true beneficiaries of the EMU, however, they subsequently increased their public debt – a showcase for moral hazard.

Neither would a one-time haircut on the sovereign debt of the Eurozone provide a solution. By the end of 2012 the total sovereign debt of the Eurozone stood at €8,500 billion, leading to a debt-to-GDP ratio of 90 per cent. To bring it down to 60 per cent, the Maastricht requirement, 30 per cent of that amount (€2,800 billion) would have to be written off. The victims of that write-off would be insurance groups, pension funds, savers and of course banks, as shown in the back-of-the-envelope estimate made in section 3.5.1. The Eurozone's economies would be unlikely to survive.

And even if they did, it would only lead to collective pain but no conceptual gain. It only would amount to an extremely painful reset of the same rotten, flawed system.

Nevertheless in its 'Fiscal Monitor Report' from October 2013 the IMF proposed a one-time personal wealth tax of 10 per cent in order to reduce the out-of-control public debt (3.6).

The central question posed in this book, whether the EMU with all its fundamental deficiencies reflects the will of the citizens of the Eurozone and represents the result of a democratic lawmaking procedure, has clearly been answered: no.

First, no meaningful public debate in a common public arena has occurred. Instead, the political establishment in Germany ran a media campaign featuring the trainer of the national soccer team. It promised that holidaymakers

would no longer need to exchange foreign currencies. The political parties labelled dissenters as 'nationalists of yesterday' and 'warmongers' (3.8.1).

Second, the EU Commission hired 'experts' and imposed oppressive contracts on them, allowing them to speak only about the advantages of the EMU (3.8.3).

Third, the true reasons for the introduction of the EMU were concealed from the public (3.8.2). Britain and especially France pursued the targeted elimination of the Deutsche Bundesbank (3.8.5) in retaliation for the role it played during the regime of the preceding European Monetary System (EMS) as the permanent spoilsport of the coordinated inflation schemes of the other participating countries – in particular France and Italy. Hence, when German reunification was on the table Britain and France made their approval explicitly dependent on the commitment of the German government to enter into the EMU with a new ECB (3.8.4).

Thus, the introduction of the EMU was in blatant violation of the criteria for democratic lawmaking (1.0.). The electorates of the Eurozone were given no chance to form an autonomous and independent political will.

It has been maintained that an orderly break-up of the euro is unlikely given the dead certain commitment of the euro-political class to preserve it 'at any price'. Thus it will die a slow death accompanied by massive financial repression until the moment it suddenly collapses. This sudden collapse will likely be triggered by the 'sovereign-banking nexus' connecting fiscal performance with the sovereign bond portfolio of banks and their bloated derivatives books (3.9 and 2.7.2H)

Some economists have proposed changes to EMU membership as a means of saving the euro – the exit of either Germany or the peripheral members, with a re-entry option once economic convergence is achieved (3.9.1). However, because these proposals do not call for any fundamental change, they have not been further elaborated.

Instead a plan for the reintroduction of the gold standard and its refutation by mainstream economists as suitable for managing a currency were examined. The main arguments against the gold standard's suitability were exposed as largely due to a misreading of historical facts. The financial expert James Rickards supports this claim in his book *Currency Wars: The Making of the Next Global Crisis*. He dissects Ben Bernanke's arguments in which he framed the classic 'anti-mantra' that the gold standard was to blame for the Great Depression. However, the gold standard was not the cause – rather, it was the out-of-control supply of credit money that fuelled the rampant stock market speculation leading to the crash of October 1929 (2.5.2). The fact that the Fed did not increase the money supply in the aftermath of the crash was merely a policy decision having nothing to do with gold. In the years following the First World War the Fed was awash with gold and could have increased the money supply by a factor of 2.5, but chose not to.

Another 'classic example' is the UK, which left the gold standard in 1931 after having reintroduced it in 1925. In that brief period the country experienced

one of the worst depressions in its history. However, this was due to a fatal policy decision by then-Chancellor of the Exchequer Winston Churchill. Driven by the notion of national prestige, he reintroduced the gold standard at the exchange rate that existed between sterling and gold prior to the First World War. In 1914 most nations left the gold standard in order to print money to finance the cost of the war and the money supply multiplied. Hence, Churchill would have been well advised to devalue the pound and apply a new exchange rate reflecting the drastically bloated money supply, but he did not do so. Again, this was a policy decision only. As a result the pound was drastically overvalued and the UK lost its competitiveness in international markets.

Moreover, the 'gold standard' in the interwar period was not a true gold standard. Rather, it was the gold exchange standard. The name derives from the fact that foreign exchange reserves could be treated as gold. Because at that time there was a shortage of gold in Europe but a massive surplus in the US, USD loans were treated like gold, which led to pyramidal credit structures (3.11.3).

Another popular counter-argument is that a gold standard would lead to massive deflation that would hinder economic growth. The first retort is that the current debt deflation cycles inherent in a fiat money regime in combination with a fractional reserve banking system lead to the same result. In addition, under the gold standard between 1870 and 1914 Western nations achieved enormous economic growth and prosperity without inflation – a puzzle to monetarists.

The main argument for a real gold standard is rooted in democratic theory. Only under a gold standard can citizens freely change their notes into physical gold at any time. The latter determines the money supply. Whenever a government embarks on a reckless fiscal path, the people can change their notes into gold and by this shrink the money supply, forcing the government to change course because it has less money to spend. This argument has the same basis as the argument made in section 1.15 for introducing more plebiscitary rights: to give the ultimate sovereign means of corrective action **within** election cycles (3.10.3).

Moreover, ever since the GFC the fiat money system itself has become deflationary. Worse still, it has become financially repressive. Since the over-indebtedness of most advanced economies is combatted with more debt, central banks must hold down the interest rates of sovereign debt while at the same time try to inflate their debt away (3.10.2). Since most pension funds, retirement schemes and insurances are legally bound to invest in sovereign bonds, they will be unable to earn the future payouts needed for their retirees. The pension fund gap in the US alone is estimated at USD 2,500 billion as of 2010. One sure effect of the fiat money regime is the guaranteed pauperization of retirees and the stealth expropriation of savers.

With respect to the sustainability of an International Monetary and Financial System (IMFS) the argument was made that the BRIC and ASEAN

countries are gradually depriving the US dollar of its role as the international reserve currency. They are doing so first through a steady increase in bilateral trade agreements provisioning settlement in their own currencies and second through an unprecedented build-up of their gold reserves. Since the outbreak of the GFC non-Western central banks have emerged as the largest net buyers of gold worldwide. This is true particularly of China, although it is already the largest producer of gold. The claim was made that at some time in the future those countries will launch a currency system linked to gold, since none of their national currencies could qualify as a world reserve currency. That, of course, would represent a death blow to the US dollar. The argument that China would never endanger the US, being its largest export market, was refuted with the fact that the US already represents the same creditor risk as Greece (see 3.15). Second, such a move might be justifiable in light of geo-strategic considerations: the fact that the US can police the world according to their perceived national interests is based on the status of the dollar as a global reserve currency and thus the country's ability to build up enormous fiscal and trade deficits. At the same time the purchasing power of China's dollar reserves is declining, triggered by the reckless QE programmes adopted by the Fed.

Finally, via reference to a study by the Bank of England (3.10.5), it was established that (a) the current IMFS is out of control intellectually, and (b) that fewer crises occurred under the gold standard than under all other monetary regimes.

Therefore the demand is made to set up parliamentary commissions in order to draft legislation for the reintroduction of the gold standard (3.13).

Two final and crucial remarks must be made:

1. The author is fully aware that the theses presented here will never have a hearing in politics or within the financial establishment. However, this book was written to demonstrate what a truly democratic regime for all three areas would look like – EU institutions, banking and currency. Through this exercise it has been revealed how far distant from democratic and ethical principles Western capitalism has driven political sytems. Should the reader recognize that, the book will have achieved much of its purpose.
2. This book assesses the current mischiefs of the political system, the global banking system and the prevailing fiat money system from the perspective of democratic lawmaking as developed by the European Enlightenment tradition (1.0). It was established that this tradition was primarily concerned with the preservation of the human right of individual and collective self-determination – which is liberty. Hence the reader might conclude that the author is not aware of another fundamental idea of that tradition – 'fraternité'. To fill that essential gap the author asked Professor Alfredo Pastor from IESE to provide the preface.

Notes

Foreword

1. On this, see J. Pieper, *Über die Liebe* (Munich, Kösel Verlag, 1972).
2. S. Grand Larousse, 1977 edn, pp. 5577–8.
3. S. A. MacIntyre, *A Short History of Ethics* (London, Routledge, 1967), p. 185. The author is referring to Kant.
4. Zamagni, Stefano, in D. K. Finn (ed.), *The True Wealth of Nations* (Oxford, Oxford University Press, 2010), p. 84.
5. Ibid., p. 85.
6. Pietro Ulivi and St Bernardino da Siena are the best-known names for a contemporary reference. Luigino Bruni and Stefano Zamagni, *Economia Civile* (Bologna, Il Mulino, 2004).
7. *Wealth of Nations*, Book 1, Ch 1. It is interesting to note that while the improvement in the productive powers has been borne out in practice, the qualitative effects predicted by Smith have, by and large, failed to materialize.

1 Democracy

1. For the US, Alexander Hamilton, John Jay and James Madison ('Federalist Papers') should be mentioned.
2. The case of Switzerland with its three public languages cannot serve as a counter argument, because the Swiss people explicitly expressed their will to form the 'Corporatio Helvetica' (CH) via a plebiscite. But there are no plebiscites at the EU level.
3. The Lisbon Treaty combines two treaties: The Treaty on the European Union and the Treaty on the Functioning of the European Union. The two treaties are of equal rank. Including protocols and annexes it reaches an extent of up to 500 pages. It can be downloaded from the official website of the EU Commission (http://europa.eu/lisbon_treaty/full_text/index_en.htm). The Article 17, No. 2 quoted is in the first one. The two treaties are hereinafter referred to as 'Treaty on the EU' and 'Treaty on the Functioning of the EU'.
4. According to research by the German initiative www.lobbycontrol.de the roughly 150 officials of the Directorate for Financial Regulation were joined by 229 industry insiders in drafting the regulation.
5. On this topic see the Alliance for Lobbying Transparency and Ethics Regulation in the European Union's website. www.alter-eu.org; the ALTER-EU initiative published the following study: *A Captive Commission: The Role of the Financial Industry in Shaping EU Regulation*, 5 November 2009.
6. Revolving Door Watch – Corporate Europe Observatory, http://corporateeurope.org/.
7. www.lobbycontrol.de.27 October 2011, Erfolg: Europaparlament sperrt Gelder für einseitige Expertengruppen.
8. *A Captive Commission*; www.alter-eu.org (October 2009), pp. 7–9.
9. Ibid., p. 14.
10. The Basel Accords become effective by being translated into national (or EU) laws. Most national laws comply with (most of) the conditions in these agreements

because this is a prerequisite for the application of the so-called home country principle, by which a country's banks can do business in other countries subject to supervision from the home supervisor only. See A. Admati and M. Hellwig, *The Bankers' New Clothes: What's Wrong with Banking and What to Do About It* (Princeton, Princeton University Press, 2013), p. 169, fn 2 and p. 302, notes section.

11. Section 2.7.4.
12. 'Five Myths about the Federal Incandescent Light Bulb Ban', National Policy Analysis, December 2011.
13. See Article 14 of The Treaty on the EU, 'Representation of citizens shall be degressively proportional'. In its decision on the Lisbon Treaty in June 2009, the German Constitutional Court confirmed that the elections to the 'European Parliament' violate the principle of equality and would not be tolerable on a national level, because the effect of this provision is that the citizens of the smaller states have a weight per voter exceeding the one of the citizens of the larger states by a factor of 12 (a clear violation of the 'one man, one vote' principle). The Court unambiguously stated that the 'European Parliament' is by no means a legitimate and democratic representation of the will of the European people. However, it argues that the laws on the EU level are derived from the authoritative sovereign states and hence are of a quasi secondary nature only. Therefore, the 'European Parliament' was only considered as an additional source of legitimation. And therefore, the institutional design of the EU needs not to be a 1:1 mirror image of the national institutional design. The Constitutional Court based this view on the assumption that as long as any empowerment of EU institutions rests on the principle of sufficiently specified and limited conferral of power from the national to supra-national level (see Art. 13, No. 2 of Treaty on the EU) the true source of legitimation rests in the national parliaments. See: BVerfGE, 123/267, notes 271, 275 and notes 280, 281 and 284).
14. This link to nationality instead of citizenship constitutes a violation of the principle that no EU citizen shall be discriminated on account of his or her nationality. See BVerfGE123/267, note 287.
15. Article 67–76 in Part III, Title V (Area of Freedom, Security and Justice) of the Treaty on the Functioning of the EU; also, Article 87, III in the same treaty, which grants only a right to be heard to the 'European Parliament' (for further reading: 'Nomos Kommentar, Europäisches Unionsrecht – EUV, AEUV, Grundrechte-Charta', 1st edn (2012); Art. 87, Rz 21).
16. Article 103, I, Part III, Title VII (Common Rules on Competition, Taxation and Approximation of Laws) Treaty on the Functioning of the EU. See also in the same treaty Article 109.
17. Article 121, II, Part III, Title VIII (Economic and Monetary Policy); Treaty on the Functioning of the EU.
18. There are two 'Councils' on the European level: (1) The 'European Council', which is the assembly of the heads of the member states (Art. 15, Treaty on the EU), and (2) the 'Council' which consists 'of a representative of each state at ministerial level' (Art. 16, Treaty on the EU). They are not elected by the people.
19. Article 16, Nos. 1&2, Treaty on the EU: '. . . It shall carry out policy-making and coordinating functions as laid down in the Treaties'. Since the members of the 'Council' are appointed officials of the executive branches overseen and run by the governments, they do not represent the opposition in the national parliaments. Hence they lack representative capacity. Moreover, via its appointed executive representatives a national government can outwit its own parliament, because it can initiate lawmaking on the European level for which it would not find a majority

in its own parliament. This route might be particularly attractive in cases where the national government is made up of a coalition of political parties.

20. The problem of insufficient democratic legitimation of law creation through the interaction of the EU Commission, the Council and the parliament is elaborated on in more depth in Christoph Moellers, *Die drei Gewalten – Legitimation der Gewaltengliederung in Verfassungsstaat, Europäischer Integration und Internationalisierung* (Velbrück Wissenschaft, 2008), p. 175.
21. See Article 294, Treaty on the Functioning of the EU.
22. See Article 294, No. 11, Treaty on the Functioning of the EU: 'The Commission shall take part in the Conciliation Committee's proceedings and shall take all necessary initiatives with a view to reconciling the positions of the European Parliament and the Council.'
23. The Treaty of Maastricht contained a similar provision. In 1992 a considerable number of German constitutional lawyers published an expert opinion in which they stated that through this Conciliation Committee the influence of the 'European Parliament' in shaping a law becomes unduly marginalized. See Deutsche Bundesbank, Auszüge aus Presseartikeln, 1992, Nr. 45, S. 11–14; 'Der Vertrag von Maastricht sollte nicht ratifiziert werden.' See Richard Corbett, 'So arbeitet das Parlament: Der Ablauf des Gesetzgebungsprozesses', in Kurt J. Lauk (ed.), *Europa von innen gesehen: Europa jenseits der Bürger?* (Stuttgart: Hohenheim Verlag, 2009), p. 173.
24. In combination with the 'Protocol (No. 2) on the Application of the Principles of Subsidiarity and Proportionality'.
25. BVerfGE123, 267, note 305.
26. Article 17, No. 7, Treaty on the EU reads:
'Taking into account the elections to the European Parliament and after having held the appropriate consultations, the European Council, acting by a qualified majority, shall propose to the European Parliament a candidate for President of the Commission. This candidate shall be elected by the European Parliament by a majority of its component members. If he does not obtain the required majority, the European Council, acting by a qualified majority, shall within one month propose a new candidate who shall be elected by the European Parliament following the same procedure.'
27. Article 17, No. 7, paragraph 2 reads:
'The Council, by common accord with the President-elect, shall adopt the list of the other persons whom it proposes for appointment as members of the Commission. They shall be selected, on the basis of the suggestions made by Member States, in accordance with the criteria set out in paragraph 3, second subparagraph, and paragraph 5, second subparagraph.'
28. See: BVerfGE 123, 267, note 250.
29. The Nizza Treaty was designed to establish a formal constitution for the EU as a legal entity. Its aim was to establish it as a supra-national, state-like entity. The difference between the Nizza Treaty and the Lisbon Treaty is that in the latter the features establishing a supra-national constitution were eliminated. The rest remained more or less the same.
30. Article 2, No. 2, Treaty on the Functioning of the EU.
31. Precisely this point had already been made in 1992 by German constitutional scholars prior to the ratification of the Maastricht Treaty. See Deutsche Bundesbank, Auszüge aus Presseartikeln, 1992, Nr. 45, S. 11–4; 'Der Vertrag von Maastricht sollte nicht ratifiziert werden' – a critique by German constitutional scholars. Since the Maastricht Treaty (1992) preceded the Lisbon Treaty, it did not

contain the above-mentioned Article 12. However, as explained, Article 12 grasps into nothing. Hence, the material situation remains the same.

32. BVerfGE 123, 267, notes 271, 272, 275, 276–89.
33. Article 48, No. 6, Treaty on the EU was one of the provisions on which the Constitutional Court felt the need for clarification. Article 48 defines the rules according to which the Lisbon Treaty might be changed. The envisaged change might lead to an increase of competences conferred on the EU but also their reduction. It offers an 'ordinary revision procedure' and some 'simplified revision procedures'. Article 48, No. 6 deals with the simplified revision procedure. According to this provision the 'European Council' might resolve in unanimity to amend the provisions of the third part of the Treaty on the Functioning of the EU. Since this part covers almost all domestic policy areas of the EU with 172 articles, the Constitutional Court opined that for the German parliament the consequences might not be foreseeable, because it is not sufficiently specified. Therefore, it required that in each case when this provision should be invoked the German parliament needed to pass a statute in which it expressed its explicit consent. See BVerfGE,123, 267, notes 307–24. In this section the Constitutional Court deals with two other procedures as well.
34. BVerfGE, 123, 267, notes 326–31.
35. BVerfGE, ibid., notes 276–99.
36. In particular: BVerfGE, ibid., 280, 289, 295.
37. For example the former German Secretary for Foreign Affairs, Joschka Fischer, in: www.zeit.de, 'Fischer attackiert Bundesverfassungsgericht', 8 July 2009.
38. At this time the Lisbon Treaty didn't exist. Therefore, nor did Articles 4, Nos. 1 and 5, No. 1 which contain the new wording for the principle of conferral of powers. However, this principle had already been incorporated in the preceding treaties. See: Nomos Kommentar, Europäisches Unionsrecht Art. 5, Rz 1.
39. www.alter-eu.org. 'A Captive Commission – The role of the financial industry in shaping EU regulation, 5 November 2009; section 3.2 'removing parliamentary oversight of the financial sector', p. 8.
40. Example of relevance: the regulation, properly speaking the non-regulation, of rating agencies.
41. This area is covered in Title XIX of the Treaty on the Functioning of the EU (Art. 170–90).
42. www.telegraph.co.uk, 19 September 2009: 'EU funding "Orwellian" artificial intelligence plan to monitor public for "abnormal behaviour".'
43. Treaty on the EU.
44. Peter Mair, *Ruling the Void: The Hollowing of Western Democracy* (London and New York, Verso, 2013), pp. 138, 142.
45. Also: BVerfGE123, 267, notes 2, 3 and 31.
46. Explicitly so: Streinz, Ohler and Herrmann, *Der Vertrag von Lissabon zur Reform der EU – Einführung mit Synopse* (Munich, C.H. Beck, 2010), vol. 3, pp. 18, 25, 27, 40.
47. BVerfGE123, 267, notes 58–71.
48. BVerfGE123, 267, note 249.
49. BVerfGE123, 267, notes 212, 213, 250, 252, 256.
50. Mair, *Ruling the Void*, pp. 120, 127.
51. BVerfGE123, 267, notes 179, 263, 264.
52. Mair, *Ruling the Void*, pp. 134–5.
53. www.telegraph.co.uk, 8 January 2014, 'We want a United States of Europe says top EU official.'

54. For a more detailed discussion of this argument, see Joachim Starbatty, *Tatort EURO* (Berlin, Europa Verlag, 2nd edn, 2013), ch. 4, pp. 218–86.
55. Section 3.2.5.
56. Section 3.4.1.
57. Alexis de Tocqueville had previously described this feature of political parties in Europe: 'The members of these parties respond to an order like soldiers at war; they profess the dogma of passive obedience, or rather, by uniting together, they have at one stroke made the complete sacrifice of their judgement and free will.' German edition: Über die Demokratie in Amerika, 1. Buch, Kapitel 7: 'Die politischen Parteien in den Vereinigten Staaten', pp. 109–10.
58. www.reuters.com, 11 March 2013, 'One in four Germans would back anti-euro party.'
59. For further illustration, see www.ZeroHedge.com, 28 May 2010, 'Europe: A Continent of Lies and Broken Promises; How the EU Elite Got It Wrong on the Euro.'
60. Article 125, No. 1, Treaty on the Functioning of the EU. Although there was no legal basis for the Greek bailout, it was 'justified' via a scandalous interpretation of Article 122, No. 2 of the same treaty. This provision allows assistance by other member states in case of 'natural disasters or exceptional occurrences beyond its control'. However, the more than decade-long piling-up of national budget deficits through reckless overspending by Greek governments clearly was within the control of the state. Since the euro-political classes were clearly aware of the fact that the bailout could not be supported by this provision, they later changed the treaty and introduced a new section 3 into Article 136 of this treaty, which finally provides the legal basis for bailouts and the other rescue vehicles like EFSF and ESM. However, this course of action by the euro-political classes clearly demonstrates that they have no hesitation in breaching existing law if this is deemed appropriate.
61. BVerfGE 89, 155.
62. See Article 125 of the Treaty on the Functioning of the EU (Bailout prohibition).
63. www.ZeroHedge.com, 23 May 2011: 'Jean-Claude Junker – Europe Is Doing God's Work by Lying about Greek Insolvency, and Keeping EUR/USD Longs Profitable.' In a later interview with the German magazine *SPIEGEL*, Junker defended this 'privilege' because he wanted to prevent harm from the EURO. Der SPIEGEL, 21/2011, 23 May 2011: 'Athen ist nicht pleite.'
64. This amount does not include potential liabilities from the so-called TARGET 2 system – see section 3.2.4.
65. SPIEGEL-Online, 30 September 2011, 'Euro-Votum im Bundestag: Denn sie wussten nicht, worüber sie abstimmen.'
66. Mair, *Ruling the Void? The Hollowing of Western Democracy;* New Left Review 42, November–December 2006 (https://newleftreview.org/II/42/peter-mair-ruling-the-void).
67. Ibid., p. 11.
68. For example, by controlling access to the public broadcasting media during election campaigns (Mair, ibid., p. 12).
69. Ibid., p. 13.
70. Mair, *Ruling the Void*, p.1 – Introduction.
71. Karl Jaspers, *Wohin treibt die Bundesrepublik?* (Piper, 10th edn, 1988), p. 154.
72. SPIEGEL-Online International: '"Attack on democracy": Monti Comments Enrage German Politicians', 6 August 2012.
73. See Title 4 of the Swiss constitution: 'People and Cantons', Chapter 2; 'Initiative and Referendum' (Art. 136–42).

74. Alexis de Tocqueville, *Democracy in America*, Boston (1873); Michigan Historical Reprint Series; Fourth Book, Chapter 6: *'What Sort of Despotism Democratic Nations Have to Fear'*, pp. 389–93.
75. This principle is embodied in the Swiss Constitution in an exemplary manner. In its sections 2 and 3 (Article 44 to Article 50) it defines the relationship between the federal, the regional ('Cantons') and the local level. It guarantees their autonomy and explicitly leaves them 'sufficient' matters to regulate and decide on their own. Article 47 of the Swiss Constitution reads:
'Article 47 Autonomy of the Cantons (1) The Federation preserves the autonomy of the Cantons. (2) It leaves the Cantons sufficient functions of their own and respects their organisational autonomy. It leaves the Cantons sufficient financial resources and contributes towards ensuring that they have the financial resources required to fulfil their functions'.
76. See Title 4 of the Swiss Constitution: 'People and Cantons', Chapter 2; 'Initiative and Referendum' (Art. 136–42).
77. According to Article 48 of the Treaty on the EU, the treaty can be amended and changed in different procedural ways.
78. The European Free Trade Association'. It was founded 1960 in Stockholm. Its members were Austria, Denmark, Finland, Iceland, Liechtenstein, Norway, Portugal, Sweden, Switzerland and the UK. Today only Iceland, Liechtenstein, Norway and Switzerland are left.

2 Banking

1. www.ft.com, 5 March 2012, 'European bank bailouts.'
2. GAO Report to Congressional Addressees, Federal Reserve System – Opportunities exist to strenghten policies and processes for managing emergency assistance (July 2011), pp. 131 and 205.
3. According to data from the Federal Deposit Insurance Corporation (FDIC) and from the Bureau of Economic Analysis the assets of the six largest US banks as a percentage of GDP was 60.1 per cent in the first quarter of 2012, whereas the same banks in 2005 had combined assets amounting to 48.4 per cent of GDP. See Admati and Hellwig, *The Bankers' New Clothes,* p. 238, fn. 49.
4. Statistical Data Warehouse of ECB.
5. 'The Financial Crisis Inquiry Report – Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States' (Official Government Edition), preface, p. xxii. This commission was established by Congress in 2009 and chaired by Phil Angelides. It delivered its report in January 2011.
6. Between 1999 and 2008 the financial sector spent USD 2.7 billion on lobbying. See FCIC-Report, p. xxviii.
7. www.ZeroHedge.com, 20 April 2012, 'The Food Stamp Nation.'
8. Admati and Hellwig, *The Bankers' New Clothes*, p. 238, fn. 51.
9. The voluntariness of this move was called into question via statements of the former Irish Minister of Finance Brian Lenihan, who said that in particular the ECB had built up massive pressure on the Irish government. See Baldur Thorallsson and Professor Peadar Kirby, 'Financial crisis in Iceland and Ireland: Does EU and Euro membership matter?' TASC Institute Dublin/Institute of International Affairs, University of Iceland, November 2011, p. 32.
10. Data from 'The National Recovery Plan 2011–2014'. It can be downloaded from the website of the Irish Ministry of Finance: http://budget.gov.ie/RecoveryPlan.aspx.

11. As to the making of the Basel Accords see section 1.3. (notes) and Admati and Hellwig, *The Bankers' New Clothes*, p. 169, fn. 2 and p. 302.
12. In particular the 'Market Risk Amendment'. See Andrew Haldane, 'The Dog and the Frisbee', Bank of England, 31 August 2012, p. 8.
13. The full version of this credit expansion process can be found in *Modern Money Mechanics – A Workbook on Bank Reserves and Deposit Expansion* (1994), p. 11. Edited by the Federal Reserve Bank of Chicago. More extensively: De Soto, *Money, Bank Credit and Economic Cycles*, 2nd edn (Auburn, AL, Ludwig von Mises Institute, 2009), ch. 4, 'The Credit Expansion Process', pp. 167–263.
14. James Robertson estimates that the commercial banking system creates about 90 per cent of the total money supply, far exceeding the portion of the money supply created by central banks – see James Robertson and John Bunzi *Monetary Reform – Making it Happen* (London, International Simultaneous Policy Organisation, 2003), p. 19. James Rickards estimates the portion of money created by the commercial banks in the US at 80 per cent, see James Rickards, *Currency Wars – The Making of the Next Global Crisis* (New York, Portfolio/ Penguin, 2011), p. 179.
15. Joseph Huber and James Robertson, 'Creating New Money – A monetary reform for the information age', New Economics Foundation, London, www.new economics.org, pp. 31–32.
16. Ronnie J. Phillips, *The Chicago Plan & New Deal Banking Reform* (New York, M.E. Sharpe Inc., 1995), foreword by Hyman Minsky, pp. 45–70.
17. De Soto, *Money, Bank Credit and Economic Cycles*, pp. 41–50.
18. Ibid.
19. Over history banks sourced their funding needs with loans as well, but in combination with customer funds. For the historic development of this practice see: De Soto, *Money, Bank Credit and Economic Cycles*, pp. 83–97 and ch. 3.
20. 436–338 BC.
21. De Soto, *Money, Bank Credit and Economic Cycles*, pp. 50–1.
22. Ibid., p. 70.
23. Ibid., p. 77.
24. Ibid., p. 39.
25. 'From 1999 to 2008, the financial sector expended USD 2.7 billion in reported federal lobbying expenses; individuals and political action committees in the sector made more than USD 1 billion [from] campaign contributions. Comparing the campaign contributions of the one hundred biggest contributing firms since 1989, we find contributions from firms in the financial sector total more than the contributions of energy, health care, defense and telecoms combined.' Admati and Hellwig, ibid., p. 324, fn. 46.
26. Ibid., p. 193.
27. 'After adjusting for double counting and offsetting receipts, in 2012 the US will spend: $125bn on veterans, $49bn for separate retirement funds and sundry activities, $42bn on homeland security, $22bn for foreign military sales and aid, and $18bn broadly on nuclear programmes. Throw in $58bn to cover a fair share of the government's interest costs and the total hits $960bn. The consequences are profound. US spending on national defence jumps from about 3 per cent to 6 per cent of forecast GDP and rises from about 14 per cent to about 26 per cent of total federal spending'. www.ft.com, 28 May 2012, 'US defence spending: unreal numbers.'
28. Michael Hudson, *Super Imperialism: The Origin and Fundamentals of US World Dominance*, 2nd edn (London and New York, Pluto Press, 2002), preface and ch. 11.

29. Inflation can also occur in certain asset classes – 'asset price inflation'. This happened in the US with the dot.com bubble in 1998–2001 and with the housing bubble between 2000 and 2007.
30. Section 2.8.1 deals with the problematic semi-public nature of the Fed.
31. Elgin Groseclose, *America's Money Machine: The Story of the Federal Reserve* (Connecticut, Arlington House, 1980), p. 112.
32. A detailed description of this development of thinking can be found in Groseclose chapters 15 and 16, as well as in De Soto, *Money, Bank Credit and Economic Cycles*, ch. 7, 'A Critique of Monetarist and Keynesian Theories'.
33. John Butler, *The Golden Revolution: How to Prepare for the Coming Global Gold Standard* (Hoboken, NJ, Wiley, 2012), pp. 174–5.
34. Groseclose, *America's Money Machine*, pp. 137–8.
35. Ibid.
36. Ibid., p. 137.
37. John Kenneth Galbraith, *The Great Crash 1929* (Boston and New York, Mariner Books, 2009), pp. 3–7.
38. Groseclose, *America's Money Machine*, p. 137.
39. Numbers from Hyman Minsky, *Stabilizing an Unstable Economy* (New York, McGraw-Hill, 2008), p. 331.
40. Groseclose, *America's Money Machine*, p. 138.
41. Liaquat Ahamed, *The Lords of Finance: 1929, The Great Depression, and the Bankers Who Broke the World* (London, Windmill Books, 2010), p. 322.
42. Whether a rate increase, say from 5 to 6 or 7 per cent, would have helped at this stage of the bubble is highly questionable, because the brokers were charging on average 10 per cent, in some cases even 20 per cent but speculators were counting on gains of 25 per cent. Due to the ongoing rampant speculation on the New York Stock Exchange, which was delivering legendary returns, an enormous inflow of capital from other parts of the world would have made up for any shrinking of the discount window of the Fed. Those were forces beyond their control. The Fed should have acted earlier. See Ahamad, *The Lords of Finance*, pp. 323–4.
43. At the latest in mid-1927 the Fed should have increased the discount rate. But in an almost single-handed decision the then chairman of the New York Fed, Benjamin Strong, reduced the rate by 0.5 per cent – intentionally bypassing the other board members who would have opposed that decision. Strong's motive for that move was driven by concerns over the sustainability of the international financial system. Because under Churchill the UK made the fatal mistake of returning to the gold standard with a significantly overvalued pound sterling, it had lost its export competitiveness, and gold reserves began to flow to France and the US. After a meeting with the heads of the central banks of the UK, France and Germany in summer 1927 Strong agreed to reduce the interest rate and to buy a considerable amount of government securities from the banks. The money the banks received flew into the stock market. Strong's motive was that a US reduction in interest rates would mitigate the drain on the pound and on the gold reserves of the Bank of England. If the prices of goods were high and interest rates were low, the US would be a poor place in which to buy and invest. Hence, less gold would flow from the UK to the US. See Ahamad, *The Lords of Finance*, pp. 291–300. Also Galbraith, *The Great Crash 1929*, p. 10.
44. Daniel Gros, 'Banking during the Great Depression – The good news', 1 May 2009, www.voxeu.org.
45. Data from the Encyclopedia Britannica, www.britannica.com, 'Great Depression'.

46. According to De Soto more than 4,000 out of a total of 24,000 banks failed or suspended payments between 1929 and 1932; De Soto, *Money, Bank Credit and Economic Cycles*, p. 492.
47. Gregory Mankiw, 'The Macroeconomist as Scientist and Engineer', *Journal of Economic Perspectives*, 20 (4): 29–46; (Fall 2006)
48. However, as Hyman Minsky has shown, neoclassical synthesis turned Keynes' theory into what he calls 'bastard Keynesianism'. Minsky, *Stabilizing an Instable Economy*, p. 113.
49. Rickards, *Currency Wars*, pp. 185–7.
50. De Soto, *Money, Bank Credit, and Economic Cycles*, p. 542–3, fn. 50.
51. Remarks by Governor Ben S. Bernanke at the conference to honor Milton Friedman, 8 November 2002.
52. Richard Duncan, *The Corruption of Capitalism* (CLSA Books, 2009), pp. 8–9.
53. Rickards, *Currency Wars*, p. 177.
54. Section 2.2. stated that in normal times the commercial banks provide 80 to 90 per cent of the credit money supply which is also called the broader money supply. The remainder is created by the Fed which is called the monetary base. Since the outbreak of the GFC this relation reversed. From January 2008 to January 2011 the monetary base increased by 242 per cent and the broader money supply only by 34 per cent. Rickards, ibid., p. 179.
55. Ibid., p. 178.
56. Ibid., p. 179.
57. Ibid., p. 180.
58. M-1 was the name given to the traditional definition of money, i.e., currency plus demand deposits. M-2 includes M-1 plus time deposits and money market funds. M-3 includes M-2 plus time deposits and ter repos. MZM, money zero maturity, includes M-2 less time deposits, but including money market funds – Duncan, ibid.
59. Richard Duncan, *The New Depression: The Breakdown of the Paper Money Economy* (Singapore, John Wiley, 2012), p. 56.
60. The designation 'Austrian' derives from the fact that this school of economic thinking was developed in Vienna at the turn of the 19th to the 20th centuries. One of their founders was Ludwig van Mises – of Jewish descent (1881–1973). Due to the upcoming Nazi terror he left for the US in 1940. Since then it is called the 'Austrian School of Economics'. Today, the Ludwig van Mises Institute is the centre of the Austrian School. It is situated in Auburn, Alabama. There is a considerable number of economists around the world who follow that school, however, still a minority.
61. This line of thinking goes back to the economist John Bates Clark (1847–1938). His work constitutes 'the foundation for the entire neoclassical-monetarist edifice. Indeed Clark considers production and consumption to be simultaneous. In his view production processes are not comprised of stages, nor is there a need to wait any length of time before obtaining the results of production processes. It is evident that Clark's concept of the production process consists merely of a transposition of Walras's notion of general equilibrium to the field of capital theory . . . The main flaw in Walras's model is that it involves the interaction, within a system of simultaneous equations, of magnitudes, which are not simultaneous, but which occur sequentially in time as the actions of the agents participating in the economic system drive the production process. In short, Walras's model of general equilibrium is a strictly static model which fails to account for the passage of time and which describes the interaction of supposedly concurrent variables and parameters which never arise simultaneously in live.' De Soto, *Money, Bank Credit and Economic Cycles*, p. 514. Also p. 565, fn 80.

62. This was also recognized by Hyman Minsky: 'Even if market processes tended to correct deviations from full employment, the evidence of the 1930s was that correction did not take place quickly. The time it took for the internal adjustment processes to lead the economy back to full employment after a great recursive decline like that of 1929–33 was too long and too costly to be acceptable politically.' Minsky, *Stabilizing An Unstable Economy*, p. 136.
63. H. Minsky illustrates this pattern of the boom & bust cycle by the Real Estate Investment Trusts (REITs) in the early 1970s. Minsky, *Stabilizing An Unstable Economy*, pp. 68–73.
64. It is not withinthe scope of this book to give a detailed account of the differences between the Austrian School and Monetarism and Keynesianism. For more detail: de Soto, *Money, Bank Credit, and Economic Cycles*, esp. ch. 7.
65. Sarah Bloom Raskin, 'Building a Financial Structure for a More Stable and Equitable Economy', 22nd Annual Hyman. Minsky Conference on the State of the US and World Economies, New York, New York – 18 April 2013, p. 6.
66. As the more prominent ones could be named: Wynne Godley (The Levy Economics Institute of Bard College – US), Michael Hudson (University of Missouri, Kansas City – US), Steve Keen (University of Western Sidney – Australia), Paul Davidson, Emeritus Professor at the University of Tennessee in Knoxville.
67. An exemplary model, used by the US administration and other agencies such as OECD and IMF, is the 'Washington University Macro Model' (WUMM) – developed and marketed by the firm 'Macroeconomic Advisers'. Although the various DSGE models differ in detail, their similarities are more striking than their differences. They all have an essentially Keynesian structure. In the back of each model builder's mind was the same simple model taught to undergraduates today: an IS curve relating financial conditions and fiscal policy to the components of GDP, an LM curve that determined interest rates as the price that equilibrates the supply and demand for money, and some kind of Phillips curve that describes how the price level responds over time to changes in the economy. See Mankiw, 'The Macroeconomist as Scientist and Engineer', p. 4.
68. For a more detailed description, see Dirk Benzemer, 'No One Saw This Coming: Understanding Financial Crisis through Accounting Models' – MPRA (Munich Personal RePRc Archive – MPRA Paper No.: 15892 posted 16 June 2009).
69. Michael Hudson and Dirk Benzemer, 'Incorporating the Rentier Sectors into a Financial Model', *World Economic Review*, vol. 1 (2012), p. 2.
70. Benzemer, 'No One Saw This Coming', p. xx and appendix: 'They saw it coming', p. 35.
71. OECD Economic Outlook 2007/1, No. 81, June 2007, p. 7.
72. Benzemer, 'No One Saw This Coming', pp. 20–1.
73. The Council of Economic Advisers (CEA) is a group of three respected economists (frequently 'nobel' laureates) who advise the President of the United States on economic policy. It is a part of the Executive Office of the President of the United States, and provides much of the economic policy of the White House. The council prepares the annual Economic Report of the President – see.www.wikipedia.com.
74. Quoted from Steven Keen, Debtwach No. 36 (4 July 2009). The same holds true for the growth projections of national GDP.
75. 'IMF Performance in the Run-Up to the Financial and Economic Crisis: IMF Surveillance in 2004 – 2007', 10 January 2011, issued by the Independent Evaluation Office (IEO) of the IMF.

76. Ibid., pp. 21–2.
77. De Soto, *Money, Bank Credit, and Economic Cycles*, p. 541. He writes further: 'Keynesians simply attribute crisis to sudden halts in investment demand, interruptions caused by irrational behavior on the part of entrepreneurs or by an unexpected loss of confidence and optimism on the part of economic agents.' p. 561.
78. Minsky, *Stabilizing An Unstable Economy*, p. 127
79. De Soto, *Money, Bank Credit, and Economic Cycles*, p. 495, fn. 103.
80. This explanation of the Great Depression finds increasing support by some contemporary economists like William White, former head of economic research at the BIS (William White, 'Modern Macroeconomics Is on the Wrong Track', in IMF – *Finance and Development*, vol. 46, no. 4 (December 2009). In the same direction: Thomas Mayer, former chief economist of Deutsche Bank AG, 'I'm an Austrian in economics', 16 September 2011; Deutsche Bank Research (www.dbresearch.com). And the American economist Irving Fisher arrived at that conclusion in 1933 in 'The Debt-Deflation Theory of Great Depressions'.
81. The American economist Kenneth Rogoff is reported to have said: 'The mainstream of academic research in macroeconomics puts theoretical coherence and elegance first, and investigating the data second.' *IEO Report of the IMF*, January 2011, p. 22, fn. 27.
82. W.S. Jevons, *The Theory of Political Economy* (1871). Quoted in Donald Gillies, 'Can Mathematics Be Used Successfully in Economics', in *What's Wrong With Economics*, edited by Edward Fullbrook, London 2004 – Chapter 18, p. 188.
83. Edward Fullbrook, 'Are You Rational?', in *A Guide To What's Wrong With Economics*, ed. Edward Fullbrook (London, Anthem Press, 2004), p. 71.
84. The correct name of the prize is 'The Bank of Sweden Prize in Economic Sciences in Memory of Alfred Nobel.' The prize money comes from the Bank of Sweden and not from the Alfred Nobel Foundation. The Bank of Sweden convinced the Royal Swedish Academy of Sciences and the Nobel Foundation to allow for the exact copy of the ceremonial procedures. See Yves Gingras, 'Beautiful Mind, Ugly Deception – The Bank of Sweden Prize in Economics', post-autistic economics review, issue no. 17, 4 December 2002.
85. Victor A. Beker, 'On the Economic Crisis and the Crisis of Economics', *Real-world Economics Review*, issue no. 58, p. 74.
86. Tony Lawson states: 'We have good reason to suppose that the scope of relevance of mathematics is very limited indeed in the social realm. For example, it can be demonstrated that not only the poor success rate of modern economics, but also the phenomenon of modern economists repeatedly making assumptions known to be wildly false, are due to mathematical methods being employed where they do not fit.' See *The Crisis in Economics – The post-autistic economics movement: the first 600 days*, Edward Fullbrook (ed.) (London and New York, Routledge, 2003), p. 130.
87. John Kay, 'The Map Is Not the Territory: An Essay on the State of Economics', INET blog, 4 October 2011 (Institute for New Economic Thinking): author's emphasis.
88. Paul A. Samuelson ('Nobel Prize' laureate), *Economics, An Introductory Analysis*, 4th Edition of a total of 19 editions. Quoted from George Cooper, *The Origin of the Financial Crisis* (New York, Vintage Books, 2008), p. 6.
89. Ibid.
90. Minsky, *Stabilizing An Unstable Economy*, p. 193.
91. Steve Keen, *Debunking Economics: The Naked Emperor of the Social Sciences* (London and New York, Zed Books, 2004), p. 167.
92. Keen, *Debunking Economics*, p. 181.

93. Marc Blaug (1927–2011), *Economic Theory in Retrospect* (Cambridge, Cambridge University Press, 1997), pp. 569–70.
94. Unlike speculative bubbles, informational cascades do not reflect the behaviour of rational speculators betting on the continuance of overpricing. But neither are the investors in a cascade necessarily behaving irrationally, as are those investing on the basis of a fad. Rather, they are attempting to make rational decisions based on all the information available to them, but their aggregation of that information results in mispricing relative to fundamentals. Imperfect information aggregation may occur when individuals follow the behavior of preceding individuals rather than acting on their own information. Or later investors, unaware of the information that motivated earlier ones, will be tempted to base their decisions on the action of those investors. See Bruce J. Jacobs, *Capital Lies and Market Realities: Option Replication, Investor Behavior and Stock Market Crashes* (Oxford, Blackwell, 1999 and reprint 2000), p. 98.
95. Ibid., p. 100.
96. James Rickards, 'Economics and Financial Attacks', unrestricted Warfare Symposium Proceedings Johns Hopkins University, 24 March 2009, p. 80.
97. Ibid., p. 83.
98. Jeremy Bentham (1748–1832).
99. J. Bentham, *The Principles of Morals and Legislation* (New York, Hafner Press, 1948 [1780]), quoted from Keen, *Debunking Economics*, p. 26.
100. Ibid., p. 28.
101. See: Daniel Kahneman, *Thinking Fast And Slow* (New York, Farrar, Straus and Giroux, 2011).
102. Keen, *Debunking Economics*, p. 40.
103. Ibid., p. 46.
104. Steve Keen, 'Improbable, Incorrect, or Impossible: The Persuasive but Flawed Mathematics of Microeconomics', ch. 20, in *What's Wrong With Economics*, ed. Richard Fullbrook (Cambridge, Cambridge University Press, 2004), pp. 215–16.
105. Benoit B. Mandelbrot and Richard L. Hudson, *The (Mis) Behavior of Markets: A Fractal View of Financial Turbulence* (New York, Basic Books, 2006), p. 55.
106. In chapters 4 and 5 Mandelbrot is lambasting the most commonly used 'working horses' in the financial community: the portfolio-theory of Markowitz, and the CAPM (Capital Asset Pricing Model) of Sharpe, the option pricing model of Black & Scholes. All three tools rest on the dogmas of the neoclassical synthesis, and in particular on the normal distribution assumption.
107. Further examples in: Rickards, *Currency Wars*, p. 198.
108. Kahnemann's colleague and friend, Amos Tversky, already died in 1996.
109. Quote taken from: Paul Krugman, 'How Did Economists Get It So Wrong?', www.nytimes.com (magazine), 2 September 2009.
110. Buiter also was a founding, external member of 'The Monetary Policy Committee of the Bank of England' from 1997 to 2000. The quote is taken from Willem Buiter, 'The unfortunate uselessness of most "state of the art" academic monetary economics'; www.voxeu.org, 6 March 2009.
111. The following description is quoted from: Rickards, *Currency Wars*, pp. 200–12.
112. Rickards, ibid., p. 210, with more examples.
113. Ibid., p. 211.
114. www.telegraph.co.uk, 5 November, 2008, 'The Queen asks why no one saw the credit crunch coming.'
115. Robert Lucas, www.economist.com, 6 August, 2009, 'In defence of the dismal science.'

116. Jean-Claude Trichet, 8 June, 2008 in Singapore, 'Asset price bubbles and monetary policy.'
117. He received the prize for his work on arbitrage theory in 1990 ('Modigliani-Miller Theorem').
118. Jacobs, *Capital Lies And Market Realities*, p. 281.
119. FCIC-Report, p. 57.
120. Jacobs, ibid., p. 290.
121. Remarks by Chairman Alan Greenspan, 'Financial derivatives', before the Futures Industry Association, Boca Raton, Florida, 19 March, 1999 (www.federal reserve.gov).
122. www.washingtonpost.com, 15 October, 2008, 'What Went Wrong? The Crash Risk And Regulation'. This article gives a detailed account about how Greenspan, Robert Rubin (then Secretary of the Treasury), Arthur Levitt (then Chairman of the SEC) and Lawrence Summers (then Deputy Treasury Secretary) torpedoed the efforts of Brooksley Born.
123. Remarks by Chairman Alan Greenspan, 'Corporate governance', at the 2003 Conference on Bank Structure and Competition, Chicago, Illinois, 8 May, 2003.
124. According to the FCIC-Report (p. xvii), the financial sector between 1999 and 2008 expended USD 2.7 billion in reported lobbying expenses; individuals and political action committees made more than USD 1 billion in campaign contributions.
125. Named after Ferdinand Pecora, then assistant district attorney for the New York County. The official name of this commission was 'Senate Committee on Banking and Currency'. The commission was charged with the task to investigate the practices of stock exchanges in order to uncover the causes of their collapse. Its findings brought to daylight numerous fraudulent practices adopted by bankers and brokers. Among them were widespread insider trading, outright market manipulation, fraudulent public offerings by banks in order to obtain cash. A vivid account can be found in: Galbraith, *The Great Crash*, p. 144.
126. www.bloomberg.com, 18 October 2011, 'BofA Said to Split Regulators Over Moving Merrill Derivatives to Bank Unit.'
127. Duncan, *The Corruption of Capitalism*, p. 149 (my emphasis).
128. *The New Yorker*, 23 October 2008, 'The Whole Intellectual Edifice.' Also: Reuters.com, 23 October 2008, 'Greenspan "shocked" at credit system breakdown.'
129. Ibid.
130. University of Texas Press, Austin (2008), p. 142. Auerbach was an economist with the US House of Representatives Financial Services Committee for 11 years. Today he is Professor of Public Affairs at the University of Texas, Austin.
131. 'IEO Report of the IMF', January 2011.
132. Ibid., chapter 4, pp. 21–2.
133. *Inside Job* is a 2010 documentary film about the late 2000s financial crisis directed by Charles H. Ferguson. The film is described by Ferguson as being about 'the systemic corruption of the United States by the financial services industry and the consequences of that systemic corruption.' In five parts, the film explores how changes in the policy environment and banking practices helped create the financial crisis. *Inside Job* was well received by film critics who praised its pacing, research, and exposition of complex material; Wikipedia, 'Inside Job (film)', as of 23 April 2013 at 00.11.
134. Also *Business Week*, 12 June 2006, 'The Leadership Factory', and www.nytimes.com, 17 October 2008, 'The Guys from "Government Sachs".'
135. United States National Economic Council, Wikipedia, 4 March 2013, 20.58.

136. See also, Charles Ferguson, 'Larry Summers and the Subversion of Economics', in *The Chronicle of Higher Education*, 3 October 2010. Also: *Washington Post*, 4 April 2009, 'White House Economics Aide Summers Discloses Income.' According to this article Summers collected in 2008 USD 5.2 million from the hedge fund D.E. Shaw and USD 2.7 million in speaking fees from several troubled Wall Street firms.
137. E.g., Glenn Hubbard was a Board Member of Matropolitan Life and Capmark, a major commercial mortgage lender, which went bankrupt. The declared income from Metropolitan Life was USD 250 K p.a. Laura Tyson was on the Board of Directors of Morgan Stanley (USD 350 K p.a.); from: Charles Ferguson, 'Larry Summers and the Subversion of Economics', in *The Chronicle of Higher Education*, 3 October 2010.
138. www.wsj.com; 9 January 2012, 'Economists Set Rules on Ethics.'
139. 'Larry Summers and the Subversion of Economics', *The Chronicle of Higher Education*, 3 October 2010.
140. www.time.com, '25 People to Blame for the Financial Crisis'.
141. Robert Scheer in www.thenation.com, 19August 2009, 'UBS Money Laundering: What did Phil Gramm Know.'
142. In 1999, the financial sector spent USD 187 million lobbying at the federal level, and individuals and political action committees (PACs) in the sector donated USD 202 million to federal election campaigns in the 2000 election cycle. FCIC-Report, p. 55.
143. www.cnbc.com, 16 March 2011, 'Citigroup Tops List of Banks Who Received Federal Aid.'
144. www.nytimes.com, 9 January 2009, 'Rubin Leaving Citigroup; Smith Barney for Sale.'
145. www.nytimes.com, 10 June 2007, 'Goldman Runs Risks, Reaps Rewards.'
146. www.thenation.com, 11 January 2013, Robert Scheer, 'The Inconvenient Truth about Jack Lew'.
147. www.nytimes.com, 6 November 2012, 'Wall Street Offers a Second Career for Former Politicians.'
148. The so-called S&L crisis was quite severe. 1,043 out of 3,234 savings banks had been closed. The total cost had been USD 153 billion, USD 124 billion were shifted to the taxpayer and USD 29 billion via industry support for the deposit insurance institutions – Admati and Hellwig, *The Bankers' New Clothes*, p. 55. See also William K. Black, *The Best Way to Rob a Bank Is to Own One: How Corporate Executives And Politicians Looted The S&L Industry* (Austin, University of Texas Press, 2005). There Black shows that the crisis was caused by bad deregulation and endemic fraud. Over 1,000 'rational agents' were convicted of felonies.
149. There are rumours that the fees for customers of derivative contracts are rigged by a cartel of nine global banks: www.nytimes.com, 11 December 2011, 'A Secretive Banking Elite Rules Trading in Derivatives'.
150. For details, see www.bloomberg.com, 18 December 2009, 'Harvard Swaps Are So Toxic Even Summers Won't Explain (Update 3).'
151. Data from www.bloomberg.com, 15 April 2010, 'Saint-Etienne Swaps Explode as Financial Weapons Ambush Europe.'
152. FCIC Report, p. 50.
153. GAO report, July 2011, pp. 133, 137 and 205. For more details, see section 2.8.6.
154. FCIC-Report, p. 194.
155. www.nytimes.com, 23 December 2009, 'Banks Bundled Bad Debt, Bet Against It and Won'.

156. The following description of the Magnetar example is a summary of an article by www.propublica.org, 9 April 2009, 'The Magnetar Trade: How one Hedge Fund helped Keep the Bubble Going.'
157. FCIC Report, p. 191
158. www.nytimes.com, 15 July 2010, 'Goldman Pays $ 550 Million to Settle Fraud Case.'
159. www.nytimes.com, 23 December 2009, 'Banks Bundled Bad Debt, Bet Against It and Won.'
160. Moody's rating of Aaa is equivalent to S&P's AAA, Aa to AA, Baa to BBB, and Ba to BB.
161. FCIC-Report, p. 203.
162. Ibid., p. 191.
163. Brooksley Born, 'Deregulation: A Major Cause of the Financial Crisis', *Harvard Law & Policy Review*, Vol. 5, 2011, p. 235.
164. Richard Duncan writes: 'One thing is certain: $669 trillion of transactions [the notional value at the time of writing] is too large an amount to have been entered into for hedging purposes alone. It is equivalent to roughly $ 100,000 per person on earth – or, more or less, the value of everything produced on this planet during the last 20 years combined. There simply aren't $ 669 trillion worth of things in the world to hedge.' Duncan, *The New Depression*, p. 99.
165. FCIC-Report, p. 48.
166. BIS Quarterly Review, December 2012, p. 19.
167. Peter Warburton, *Debt and Delusion – Central Bank Follies That Threaten Economic Disaster* (Princeton, WorldMetaView Press, 2005), p. 113.
168. www.ft.com, 4 August 2011, 'Derivatives "data gap" could pose systemic risk.'
169. www.CalculatedRisk.com, 24 July 2010, 'Part 5 B: "What Happens If Things Go Really Badly? More Things Can Go Badly: Credit Default Swaps, Interest Swaps and Options, Foreign Exchange.'"
170. Articles 147 to 155 of the Basel II accord.
171. www.CalculatedRisk.com, 24 July 2010.
172. www.ft.com, 7 May 2012, 'M Stanley reassesses downgrade impact.'
173. www.ft.com, 23 March 2013, 'Global pool of triple A status shrinks 60%.'
174. www.ft.com, 25 June 2013, 'Bond yields threaten recovery in global bank's balance sheet.'
175. IMF Working Paper (WP/11/66), Monetary and Capital Markets Department, 'Making OTC Derivatives Safe – A Fresh Look', Manmohan Singh – March 2011.
176. Singh, 'Making OTC Derivatives Safe', p. 8, fn. 10.
177. Ibid., p. 5.
178. European Bank for Reconstruction and Development.
179. Ibid, pp. 6 and 14. The European banks are: Deutsche Bank, Barclays, UBS, RBS and Credit Suisse. The US banks are: Goldman Sachs, Citi, JP Morgan, Bank of America, and Morgan Stanley.
180. Ibid., p. 20.
181. IMF Working Paper WP/12/82, 'Systemic Risk from Global Financial Derivatives: A Network Analysis of Contagion and Its Mitigation with Super-Spreader Tax.'
182. IMF Working Paper WP/12/82, p. 8.
183. Ibid., p. 14.
184. Ibid., pp. 42–7.
185. For details see: B. Born, 'Deregulation: A Major Cause of the Financial Crisis', pp. 232, 236, 241.
186. For more detail see: Peter Boone and Simon Johnson, '*Europe on the Brink*'– Policy Brief No PB 11–13 July 2011, p. 2, Peterson Institute for International Economics.

187. FCIC-Report, pp. xix–xx.
188. The Financial Stability Board (FSB) defines shadow banking activities as follows: 'The "shadow banking system" can be broadly described as credit intermediation involving entities and activities outside the regular banking system'. FSB – Global Shadow Banking Monitoring Report 2012, p. 3. The FSB was established after the 2009 G-20 London summit in April 2009. It is based in Basel, Switzerland.
189. www.ft.com, 22 September 2011, 'US funds slash exposure to European banks' and www.ft.com, 4 September 2011, 'US money market blow for eurozone.'
190. www.ft.com, 18 August 2011, 'European banks: new funding fears.'
191. www.ft.com, 30 April 2012, 'Shadow banking: destructive and benign.'
192. FSB Interim Report of the FSB Workstream on Securities Lending and Repos, 27 April 2012, pp. 10/13/14/15. See also www.ZeroHedge.com, 29 May 2013, 'Central Banks' Central Bank Warns About Rehypothecation Threats.' BIS – CGFS Papers No. 49, May 2013, 'Asset encumbrance, financial reform and the demand for collateral assets.'
193. For further details: IMF Working Paper 10/172, 'The (sizeable) Role of Rehypothecation in the Shadow Banking System.' (Manmohan Singh and James Aitken, July 2010). On 29 August 2013 the Financial Stability Board (FSB) published a paper, 'Strengthening Oversight and Regulation of Shadow Banking' in which it lays out some preliminary proposals to regulate those lending practices. See also: www.ft.com, 29 August 2013, 'Shadow banks face limits to security trading' and www.ft.com, 23 April 2013, Satyajit Das, 'Misuse of collateral creates systemic risk.'
194. As to the mechanism how the Basel Accords become law, see section 1.3. (notes) and Admati and Hellwig, *The Bankers' New Clothes*, p. 169, fn. 2 and p. 302.
195. Haldane, 'The Dog and the Frisbee', p. 8. 'With hindsight, a regulatory rubicon had been crossed . . . The acceptance of banks'own models meant that the baton had been passed . . . The Basel regime became, if not self-regulating, but self-calibrating.'
196. www.ft.com, 31 January 2013, 'Study fuels fears on bank safety.' Similar results were found by a study of the British Financial Service Authority (FSA) in 2011, in which it handed out to the participating banks three hypothetical portfolios. For instance, for the same portfolio estimated capital requirements for the most 'prudent' banks were more than three times higher than the most 'aggressive' banks. Consequently, the difference in risk weights translates into differences in capital ratio computations. See, 'Salz Review – an independent review of Barclays' business practices', April 2013, Appendix J – 'Variability in Risk Weighted Assets Calculations', p. 225.
197. www.ft.com, 26 February 2013, 'Banks suspected of tweaking risk measure', see also www.ft.com, 31 January 2013, 'Study fuels fears on bank safety.'
198. Admati and Hellwig, *The Bankers' New Clothes*, p. 187.
199. Ibid., p. 186.
200. Ibid., p. 185.
201. Mandelbrot, *The Mis-Behavior of Markets*, p. 97, in chapter 5, 'The Case against the Modern Theory of Finance'. Other examples are provided by Andrew Haldane, Bank of England, 'The Dog and the Frisbee', there he also shows that the complex VaR models of the banks simply lack any predictive power, pp. 13–18.
202. Admati and Hellwig, *The Bankers' New Clothes*, pp. 185–314, fn. 73.
203. Rickards, *Currency Wars*, pp. 192–3.

204. Although the counterparty risk is considered in the new Basel-III definitions of core capital it is still insufficient viewed against the potential risks.
205. FCIC-Report, pp. 196–7.
206. Ibid, p. 197.
207. www.ft.com; 24 November 2008, 'US agrees bail-out for Citigroup.'
208. The rationale of this buffer is that banks can use this capital in times of financial and economic stress to absorb losses. While banks are allowed to draw on the buffer during such periods of stress, the closer their regulatory capital ratios approach the minimum requirement, the greater the constraints on earnings distributions. For detailed explanation, see Admati and Hellwig, *The Bankers' New Clothes*, p. 307, fn. 36.
209. Ibid., p. 178.
210. www.ft.com, 9 November 2010, 'Healthy banking system is the goal, not profitable banks.' Anat Admati et al.
211. Admati and Hellwig, *The Bankers' New Clothes*, pp. 175, 308, fn. 45.
212. Ibid., p. 181.
213. ECB, January 2013; approximates. Numbers from: Degussa Marktreport, 28 March 2013.
214. www.ZeroHedge.com, 15 February 2013, 'Euro-Land Banks in Trouble.'
215. www.reuters.com, 19 December 2013, 'Europe moves to banking union with blueprint for failing lenders.'
216. www.ZeroHedge.com, 29 April, 2012, 'A Trillion Here, A Trillion There . . . – Why 90% Of the European Bank Sector's Market Cap Is Vaporware.'
217. DB Research, 26 September 2013, 'Bank performance in the US and Europe – An ocean apart.'
218. www.reuters.com, 14 January 2014, 'ECB to simplify bad loan definition in health check.'
219. Basel Committee on Banking Supervision – Results of the Basel III monitoring exercise as of 30 June 2011; Bank for International Settlement (BIS).
220. EBA Results of the Basel III monitoring exercise based on data as of 31 December 2012.
221. www.ft.com, 1 October 2012, 'Inspectors fault EU bank capital plans.'
222. www.MarketWatch.com, 7 January 2013, 'Global regulators water down bank liquidity rules.'
223. www.ft.com, 27 May 2011, 'Basel III and the EU.'
224. www.ft.com, 13 January 2014, 'Investment banks hail victory in Basel battle', see also www.ft.com, 12 January 2014, 'Banks win Basel concessions on debt rules.'
225. www.ZeroHedge.com, 15 January 2014, 'ECB Eases European Bank Stress Test By 25%, Lowers Capital Ratio Requirement From 8% to 6%.' Also www.bloomberg.com, 16 January 2014, 'ECB Said to Favor 6% Capital Requirement in Stress Test.'
226. Admati and Hellwig, *The Bankers' New Clothes*, p. 177.
227. www.ZeroHedge.com, 'European Banks Still Treat Their Sovereign Debt Holdings As Risk-Free, BIS Finds.'
228. Admati and Hellwig, *The Bankers' New Clothes*, p. 201.
229. www.ft.com, 11 December 2013, 'ECB poised to get tough on sovereign bond risks.'
230. www.eleconomista.es, 15 January 2014 (translated by Google), 'Most of the public debt held by banks not penalized in the stress test.'

231. Admati and Hellwig, *The Bankers' New Clothes*, p. 185.
232. Ibid., p. 274, fn. 61.
233. Ibid.
234. In the advanced economies the output contraction amounted to 3.2 per cent, as opposed to an average growth of 1 per cent in the preceding years. For the US, the Congressional Budget Office estimate of the loss in GDP from the recession by 2016 will be USD 5,700 billion relative to potential. The Federal Reserve estimates that during 2007–2010, median household wealth declined 38.8 per cent in real terms. For further data: Admati/Hellwig, *The Bankers' New Clothes*, p. 233, fn. 19.
235. www.ft.com, 17 March 2013, Martin Wolf, 'Why bankers are intellectually naked.'
236. Ibid.
237. Admati and Hellwig, *The Bankers' New Clothes*.
238. Andrew Haldane, 'Control rights (and wrongs)', 24 October 2011, Bank of England, pp. 7–8 and chapter 4.
239. Ibid., pp. 5–8.
240. Ibid., pp. 6 and 10.
241. Ibid., p. 12.
242. Ibid., p. 12
243. Ibid., p. 17.
244. Haldane, 'The Dog and the Frisbee'.
245. Haldane, ibid., pp. 8–9. See also section (6) Modelling Financial Risks – Simple or Complex where he is questioning the accuracy of the VaR models.
246. Ibid, pp. 9–10.
247. Ibid., p 24. In the same direction some US regulators – www.ft.com, 14 September 2012, 'Regulator attacks new bank standards.'
248. The Institute of International Finance (IIF) is the Association of global banks advocating their interests. On 6 September 2011 it issued a report, which claimed that the introduction of the Basel-III would reduce economic growth by 3.2 per cent. See, 'Multiple Layers of Financial Regulatory Reforms Hold Back Economic Growth and Will Continue To Do So For Some Time.' It can be downloaded from IIF's homepage. The regulators response came four weeks later, stating that the IIF grossly exaggerated. See www.ft.com, 10 October 2011, 'Regulators stand up for the new capital rules.'
249. www.ft.com, 4 October 2012, 'US regulators urged to outdo Basel III rules.'
250. www.ft.com, 14 September 2012, 'Regulator attacks new bank standards.'
251. www.bloomberg.com, 3 January 2013, 'Basel Becomes Babel as Conflicting Rules Undermine Safety.'
252. Joseph Huber and James Robertson, *Creating New Money – A Monetary Reform for the Information Age*, New Economics Foundation, London (UK); www.neweconomics.org, pp. 31–2.
253. The substantial impact of those implicit government guarantees was revealed during 2009/10. The big British auditing companies held secret talks with government officials regarding the annual audits of the big banks. Assurance was given that should be a bank subject to failure the government would step in. Had this assurance not been given the auditors would have been forced to add in their audit reports on the financial statements of some banks a so-called 'emphasis of matter' paragraph. Such an insertion could have raised even more concerns among creditors and investors regarding the going-concern viability of some important banks. See: ft.com, 20 December 2010, '*Details of secret bank talks revealed.*'

254. Haldane, 'Control Rights', p. 11.
255. Ibid., p. 11 and table 1.
256. Ibid., p. 11.
257. Ibid.
258. Andrew Haldane in, 'The Contribution of the Financial Sector Miracle or Mirage?', 14 July 2010, p. 5.
259. Rick Whalen is also member of the Economic Advisory Committee of the Financial Industry Regulatory Authority (FINRA) – see the website: www.institutionalriskanalytics.com.
260. www.ZeroHedge.com, 12 March 2013, 'Question for Liz Warren: How many Subsidies Does a Zombie Bank Need?'
261. Andrew Haldane, 'The Contribution of the Financial Sector Miracle or Mirage?', 14 July 2010, p. 2.
262. Ibid., p. 3.
263. Ibid., p. 7.
264. Ibid., p. 15–16.
265. See website of Senator Sanders (www.sanders.senate.gov); 21 July 2011, 'The Fed Audit.'
266. www.HuffingtonPost.com, 4 May, 2010, 'Fed Privately Lobbying against Audit, Documents Show.'
267. The GAO report, July 2011.
268. Ibid., pp. 133, 137 and 205.
269. Ibid., pp. 70 and 80.
270. www.bloomberg.com, 25 August 2009, 'Court Orders Fed to Disclose Emergency Bank Loans (Update 2).'
271. www.bloomberg.com, 28 November, 2011, 'Secret Fed Loans Gave Banks $13 Billion Undisclosed to Congress.'
272. Quote from an interview with William Greider, author of the book, *Secrets of the Temple – How The Federal Reserve Runs The Country* (New York, Simon & Schuster, 1987). The source of the interview is: www.alternet.org, 12 May 2010, 'Exposing the Secrets of the Temple: How the Federal Reserve Makes Money Out of Thin Air.'
273. www.Huffingtonpost.com, 25 May 2011, 'Stiglitz, Nobel Prize-Winning Economist, Says Federal Reserve System "Corrupt".'
274. www.nytimes.com, 17 October, 2008, 'The Guys from "Government Sachs"'. See also Robert Scheer in www.thenation.com, 15 July 2009, 'Government Sachs Strikes Gold . . . Again' and *Business Week*, 12 June 2006, 'The Leadership Factory.'
275. Ibid. See also www.washingtonsblog.com, 9 February 2010, 'Yes, America is Still in an Official State of Emergency.' And www.independent.co.uk, 17 July 2009, 'Paulson reveals US concerns of breakdown in law and order.'
276. www.globalresearch.ca, 8 June, 2012, Peter D. Scott, 'The US Treasury's Financial Bailout.'
277. Neil Barofsky in www.nytimes.com, 29 March 2011, 'Where the Bailout Went Wrong.' Also georgewashingtonblog.com, 16 December 2010, 'Should Hank Paulson Be In Jail?'; www.azcentral.com, 22 February 2010, 'Sen. John McCain: I was misled on bailout.'
278. See also Duncan, *The Corruption of Capitalism*, p. 16.
279. *Business Week*, 23 May 2006, 'Intelligence Czar Can Waive SEC Rules.' This order was seven days later published in the Federal Register under the title 'Assignment of Function Relating to Granting of Authority for Issuance of Certain Directives: Memorandum for the Director of National Intelligence'.

280. www.bloomberg.com, 21 November 2011, 'Secret Fed Loans Gave Banks $ 13 Billion Undisclosed to Congress.'
281. Ibid.
282. Ibid.
283. Ibid.
284. GAO report, July 2011, p. 132.
285. www.bloomberg.com, 12 May 2010, 'Perfect Quarter at Four US Banks Shows Fed-Fueled Revival.'
286. Data from the homepage of the US Treasury – www.treasury.gov, *'Investment in AIG'* – 22 April 2013. According to this report the government meanwhile recouped the whole sum with a profit of USD 22.7 billion through the sale of its AIG shares and various subsidiaries of AIG over the last years.
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3 Currency

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   Portugal: between 1991 and 1998 they fluctuated between 8.7% and 12.5%; since 1999 they fell to 7.4% in 2000, and finally settled at 6.5% in 2001.
   Ireland: between 1991 and 1998 they fluctuated between 7.6% and 3.3%; since 1999 they fell to 2.3% and finally settled at 3.0%.
   Italy: between 1991 and 1998 they fluctuated between 7.9% and 12.7%; since 1999 they fell to 6.6% and finally settled in 2002 at 5.6%. During the first half of the 1990s they were on average at 12%.
   Greece: between 1991 and 1998 they fluctuated between 8.2% und 12.5%; since 1999 it fell to 7.4%, and finally settled in 2002 in at 5.6%.

Spain: Between 1995 and 1998 they fluctuated between 4.2% und 5.2%; in 1999 and 2000 they finally settled at 3.0% and 2.9% respectively.

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Index

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