OECD DEVELOPMENT CENTRE

Working Paper No. 210

(Formerly Technical Paper No. 210)

INSTITUTIONS AND DEVELOPMENT: A CRITICAL REVIEW

by

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Research programme on:
Social Institutions and Dialogue

OECD OCDE

July 2003
DEV/DOC(2003)08

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ACKNOWLEDGEMENTS

The Development Centre would like to express its gratitude to the Swiss Authorities for the financial support given to the project which gave rise to this study.

The author would like to thank Thomas Dannequin for excellent research assistance as well as participants in a seminar at the Development Centre who commented on an earlier version of the paper.

PREFACE

It has been argued that institutions and institutional mechanisms for development provide the “missing link” that can explain differences in growth rates and development paths across developing and developed countries as well as the difficulties encountered in the transition process of the former socialist countries.

Although there has been substantial progress in our understanding of institutions, the casual use of the term “institution”, combined with the lack of an analytical framework, has produced vague policy recommendations. Against this background, the author proposes an analytical framework that helps to detect the various links and channels running from institutions to development outcomes. This is a highly valuable tool for future analysis.

To take research and understanding further, it will be important to address the questions of what makes a particular institutional arrangement work in one context and fail in another, and of how to overcome existing institutional bottlenecks. In particular, how can deeply-rooted rules, norms of behaviour and laws be combined with a more formal and modern institutional framework? Activity 3 of the Development Centre’s work programme 2003/04 on social institutions and dialogue deals with these issues, concentrating on the role of indigenous social institutions in development. These are of major importance for low-income countries, but still receive only marginal attention. As our knowledge is still limited on the actual economic and social impact of traditional social institutions, on the determinants of institutional change, and on policy options to induce institutional innovations in a low-income environment, the results of this activity will lead not only to an improvement of our knowledge, but also to highly relevant and hitherto elusive policy conclusions.

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RÉSUMÉ

Depuis quelques années, le rôle des institutions dans le développement a été abondamment étudié par les chercheurs, les décideurs et les praticiens du développement. Ce Document technique fait le point des théories concernant l'impact des institutions sur la croissance économique et sur d'autres aspects du développement. La plupart des travaux font état d'une forte corrélation positive entre la qualité et les performances des institutions d'une part, et les résultats en matière de développement d'autre part. Toutefois, du fait de la diversité des méthodologies appliquées et des problèmes d'ordre conceptuel, le lien de causalité n'est pas clairement établi. Certaines lacunes ont été identifiées. Pour y répondre, ce Document propose un cadre analytique qui cartographie quelles sont les voies d'influence des institutions sur le processus de développement. Le cadre d'analyse souligne que les institutions ne sont pas seules en cause mais qu'elles s'insèrent dans une configuration locale influencée par des évolutions historiques et culturelles. Les analyses de l'impact des institutions sur le niveau de développement doivent tenir compte des différences entre les institutions exogènes et endogènes, la configuration locale, la perspective des acteurs économiques et l'existence de différents niveaux d'institutions avec des horizons temporels de changements variables. Ce dernier point est particulièrement important pour les décideurs dont l'objectif est de réformer le cadre des institutions dans leur pays. En effet, si l'on peut agir sur les institutions endogènes à relativement court terme, changer des institutions exogènes telles les règles informelles, les normes sociales et les coutumes peut être un processus beaucoup plus long, voire impossible. De fait, les décideurs doivent s'assurer que les réformes des politiques soient cohérentes avec les structures sociales existantes de la société. Des travaux qui proposeraient des solutions visant à améliorer le lien entre les structures sociales locales existantes et les cadres institutionnels formels — tels que les structures de gouvernance — non seulement enrichiraient un domaine encore mal exploré mais ouvriraient aussi des perspectives d'avenir d'une grande pertinence pour la mise en œuvre des politiques.

SUMMARY

In recent years, the role of institutions for development has received considerable attention from development researchers, policy makers and practitioners. This paper reviews the evidence on the impact of institutions on growth and other development outcomes. Most of the reviewed studies find a strong positive correlation between the quality and performance of institutions on the one hand and development outcomes on the other. However, due to various methodological approaches and conceptual problems, the evidence on *causation* is still thin. To address some of the identified weaknesses, the paper proposes an innovative analytical framework that maps out channels of influence between institutions and development outcomes. The developed framework stresses the idea that institutions do not stand alone but are embedded in a local setting influenced by historical trajectories and culture. Studies analysing the impact of institutions on development outcomes need to take into account the differences between exogenous and endogenous institutions, the local setting, the actor perspective and the existence of different levels of institutions with different time horizons of change. The last point is in particular relevant for policy makers aiming to reform the institutional set-ups of their countries. While endogenous institutions can be changed within a relative short time span, the change of exogenous institutions like informal rules, social norms, and customs might take a very long time or is even impossible. Hence, policy makers have to ensure that policy reforms have to be coherent with the existing social structures of the society. Research that finds solutions to improve the links between existing indigenous social structures and formal institutional set-ups such as governance structures would not only address a currently under researched area, but also promise to yield highly relevant policy results.

I. INTRODUCTION

Over recent years, the role of institutions in economic development has received steadily increasing attention from researchers, policy makers and development practitioners[1]. Institutions are generally defined as “constraints that human beings impose on themselves” (North, 1990). Following this definition, institutions prohibit, permit or require specific type of action, i.e. political, economic or social, that are important for reducing transaction costs, for improving information flows and for defining and enforcing property rights. However, this definition does not have universal acceptance. Other scholars include in their definition of institutions organisational entities, procedural devices, and regulatory frameworks (Williamson, 2000). In most of the recent articles, institutions are defined in a broader sense, linking various different measures of institutional quality to development outcomes from various angles and disciplines.

This paper addresses the important question of the impact of institutions on development outcomes[2]. Although a consensus that institutions “matter” has now emerged, the causality of the various links and channels of influence between the institutional set-up and development outcomes is not well understood. A thorough assessment of the impact of institutions is however necessary if one wants to evaluate alternative institutional arrangements against the status quo. This paper therefore reviews the existing literature on the impact of institutions on development outcomes with a view to setting out an analytical framework for future analysis.

The main conclusion of this paper is that although recent years have witnessed a surge in the number of studies measuring the impact of institutions on development outcomes — in particular growth — many questions remain unsettled. In the paper, three important caveats are discussed: First, the literature has not settled on an overall accepted definition of institutions. Quite divergent definitions and concepts of “institutions” are given, ranging from the narrow definition proposed by Douglas North — i.e. rules and norms that constrain human behaviour — to definitions that include organisational entities. Some of the reviewed studies did not clearly spell out what they understood by “institution”, making judgement on their impacts rather difficult. Secondly, the reviewed studies often did not base their analysis on an analytical framework that mapped out the hypothesised channels of influence, thereby leading to various methodological problems. Development outcomes are not only influenced by the institutional set-up but also by other variables such as the local setting and the behaviour of human actors. Reverse causalities might therefore operate. Third, policy recommendations are often vague and based on strong assumptions about causalities. It would be desirable for future studies to pay more attention to the hierarchy level of the institution at stake and to the question of how institutions at different levels affect each other. The impact of social norms, values and traditions on the current governance structure and vice versa is one of the important questions for future research. Based on the review, an analytical framework of the literature is proposed that differentiates between exogenous and endogenous variables and highlights the diverse channels of influence from institutions to development outcomes.

The remainder of this paper is organised as follows: In Section II, three different ways of classifying institutions are presented. Section III reviews empirical studies on the impact of institutions on development outcomes, differentiating between cross sectional and case studies. A major finding of the review — the importance of high quality institutions — is critically examined in Section IV. An analytical framework for analysing the impact of institutions is then developed in Section V. Conclusions and research needs are set out in Section VI.

II. CLASSIFICATION OF INSTITUTIONS

In the literature there exist various ways of classifying institutions. They can be regrouped into three approaches depending on:

- the degree of formality;
- different levels of hierarchy;
- the area of analysis.

II.1. Degree of Formality

Following North (1990), institutions include any form of constraint that human beings devise to shape human interaction. These constraints include both what individuals are prohibited from doing and, sometimes, under what conditions some individuals are permitted to undertake certain activities. In other words, they are the framework within which human interactions take place. Institutions consist of formal written rules as well as typically unwritten codes of conduct that underlie and supplement formal rules. Formal rules and constraints are made up of:

- constitutions, laws, property rights, charters, bylaws, statute and common law, and regulations;
- enforcement characteristics (sanctions, etc.).

Arising to co-ordinate repeated human interaction, informal rules are:

- extensions, elaborations, and modifications of formal rules;
- socially sanctioned norms of behaviour (customs, taboos and traditions);
- internally enforced standards of conduct.

People in both rich and poor countries rely on informal institutions to facilitate transactions, but these institutions are relatively more important in poor countries where formal institutions are less developed. Moreover, poor people in developing countries are often ill-served by the limited formal institutions available. In poor countries, and poor regions in particular, informal institutions substitute for formal institutions. Countries and communities can go a long way towards resolving information and enforcement problems without using their formal public legal systems (World Bank, 2002).

That the informal constraints are important can be observed from the evidence that the same formal rules and/or constitutions imposed on different societies produce different outcomes[3]. And discontinuous institutional change, such as revolution or military conquest and subjugation, produces new outcomes. But what is more striking is the persistence of so many aspects of a society in spite of a total change in the formal rules. Although formal rules may change overnight as the result of political or judicial decisions, informal constraints embodied in customs, traditions, and codes of conduct are much more impervious to deliberate policies (North, 1990).

The informal and norm-based institutions that small community-based groups rely on tend to support a less diverse set of activities than do formal legal institutions. As countries develop, the number and range of partners that market participants deal with increases and market transactions become more complicated, demanding more formal institutions. Ideally, informal and formal institutions should complement each other.

II.2. Different Levels of Hierarchy

An alternative to a classification along the formality of institutions is offered by Williamson (2000). He proposes a classification scheme based on different hierarchical levels. The different levels of institutions presented in Table 1 are not exclusionary; rather they are interconnected. The higher level imposes constraints on the lower level, and feed-back exists from the lower level to the higher level.

Table 1. **A Hierarchy Based Classification Scheme for Institutions**

Level	Examples	Frequency of change	Effect
Institutions related to the social structure of the society (level 1)	Mainly informal institutions such as traditions, social norms, customs. Exogenous	Very long horizon (10^2 and 10^3 years) but may change also in times of shock/crisis.	Defines the way a society conducts Itself.
Institutions related to rules of the game (level 2)	Mainly formal rules defining property rights and the judiciary system. Exogenous or endogenous	Long horizon (10 to 100 years).	Defines the overall institutional environment.
Institutions related to the play of the game (level 3)	Rules defining the governance private structure of a country and contractual relationships, e.g. business contracts, ordering. Endogenous	Mid-term horizon (1 to 10 years).	Leads to the building of organisations.
Institutions related to allocation mechanisms (level 4)	Rules related to resource allocation, e.g. capital flow controls; trade flow regimes; social security systems. Endogenous	Short term horizon and continuous.	Adjustment to prices and outputs, incentive alignments.

Source: Author's presentation based on Williamson (2000).

Level 1 institutions are located at the social embeddedness level. Social norms, customs, traditions, etc. are located at this level. These traditional institutions often date back many centuries, are generally informal and can be regarded as exogenous to the economic system. This level is of utmost importance for people living in developing countries, where the other levels (II–IV) have only been partly established and/or do not function properly. Although institutions are in principle never static and could change in response to new economic opportunities or to crisis, the path of change on this level is rather slow or even non-existent. The purpose of these institutions is to define the way the society regulates itself. Most of the transactions undertaken are regulated by expectations, which in turn are based on beliefs and identities. Although no formal enforcement mechanism is in place the commitment to informal institutions is usually quite strong. The non-respect of certain values, traditions and norms can result in economic and social sanctions.

Level 1 institutions exert a certain influence on the design of property rights (level 2 institution). If, as an overall norm in a society, a certain minimum income is guaranteed for every member, a collective organisation of property rights is more likely to prevail than a private market setting with free exchange.

Level 2 institutions relate to the rules of the game. Their main purpose is to define and enforce property rights. Most of them are formal institutions like conventions or laws, but examples also exist of informal institutions, e.g. rules governing access to natural resources, that are not written down but are quite strongly binding and therefore fit under this umbrella. In contrast to the institutions described in level 1 the time horizon of a potential change is shorter. However it usually still takes between 10 and 100 years. Beside the rules of the game in the "Williamson sense", the way the game is played is equally important. To define and enforce property rights, a legal system for defining contract laws and enforcing them is needed.

Institutions that relate to governance are classified as Level 3 institutions. These institutions craft order and reshape incentives, thereby building the governance structure of a society and leading to the building of specific organisations like the local or national government, state agencies, NGOs, etc. The time frame for changing and reorganising transactions among governance structures is estimated to range from a few years to a decade. Though this level is influenced both by level 1 and 2, the various channels of feed-back loops and linkages are not yet clear.

Finally, level 4 institutions define the extent to which adjustment occurs through prices or quantities, and determine the resource allocation mechanism. Examples of this type of institutions are rules that are easy to change and that have an impact on resource allocation, employment, the social security system, etc.

This classification system helps to better understand institutional change and the impact of institutions on outcomes. If the interactions between institutions and development are analysed, the type of institutions, i.e. the level where a particular institution operates, will matter greatly.

II.3. Area of Analysis

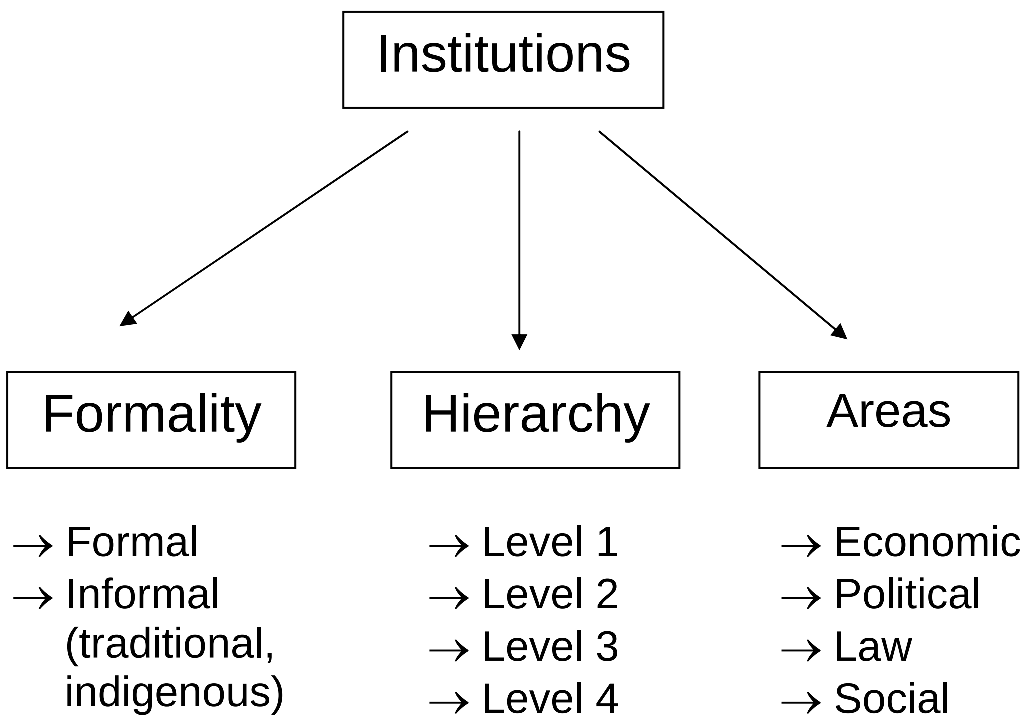
Finally, a third alternative used in the literature to classify institutions is to differentiate between various areas of analysis. The four categories most commonly found in the literature are:

— economic institutions;
— political institutions;
— legal institutions;
— social institutions.

Under economic institutions, authors usually place rules that define the production, allocation and distribution process of goods and services, including markets (Bowles, 1998). Studies of political institutions usually employ variables that provide details about elections, electoral rules, type of political system, party composition of the opposition and the government, measures of checks and balances and political stability (Beck *et al.*, 2002). Studies related to law and institutions refer to the type of legal system, the definition and enforcement of property rights and legal origin. Finally, studies on social institutions usually cover rules that have to do with access to health and education and social security arrangements, have an impact on gender balance and govern more generally the relationship between economic actors.

Figure 1 summarises the different concepts used in defining and classifying institutions.

Figure 1. **Different Ways of Classifying Institutions**



Having given an overview on the different definitions and concepts, the following chapter sets out the results of a detailed literature review on the impact of institutions on development outcomes.

III. EMPIRICAL EVIDENCE OF THE IMPACT OF INSTITUTIONS ON DEVELOPMENT OUTCOMES

The following chapter is based on an extensive literature review looking at studies that deal with the impact of institutions on selected development outcomes. The review concentrates on development goals rather than on the means to achieve the goals. Hence, the emerging literature that looks at the effect of how political institutions and regimes affect economic policy (Persson and Tabellini, 2002; Milesi-Ferretti *et al*., 2002; Henisz, 2000; Beck *et al*., 2002; Tavares and Wacziarg, 1998) is not addressed here.

The review identifies two different types of study: *cross-sectional country studies* mainly explaining differences in growth rates, government performance and corporate structures by invoking different institutional settings; and, *country case studies* analysing the effect of institutions in specific areas such as sustainable resource management, market development and conflict management.

III.1. Cross-sectional Country Studies

The question of how institutions and development outcomes, in particular growth, are interlinked and affect each other has recently become a “hot topic” in the international debate on development. A review of the cross-sectional studies shows that while there is a consensus in the literature that institutional quality matters for growth, the literature is quite ambiguous about the relative importance of “institutions” vis-à-vis other factors like geography and trade. Whereas the literature in the early 1990s used variables such as political violence and civil liberties to proxy for institutions, the more recent literature focuses on measures that capture institutional quality by referring to the risk of expropriation, degree of corruption, quality of bureaucracy and strength of the rule of law (Table 2).

Table 2. **Cross-sectional Studies of the Impact of Institutions on Development Outcomes**

Author(s)/Year	Measures of institutions	Dependent variable	Scope of the analysis	Findings
Sachs (2003)	Institutional index measuring institutional quality (no further details given)	GDP per capita	The note aims to show that geography has a direct effect on growth without being channelled through institutions	1. Malaria transmission that is strongly affected by ecological conditions directly affects the level of per capital income after controlling for the quality of institutions. 2. The paper proposes to use a more complete model of development that go beyond simple specification test so far applied in the literature in order to better detect the complex interactions of institutions, policies and geography.
Beck *et al*. (2002)	Legal origins	Financial development	Through a historical comparisons and cross-country regressions, paper discusses and empirically assesses 2 theories of why legal origins matters for financial development: the “political” the “adaptability” channels. Paper examines the mechanisms via which legal origins operates.	1. The results provide relatively more evidence for the adaptability channel than for the political channel. 2. The exogenous components of the indicators of legal system adaptability frequently explain cross-country differences in financial intermediary development, stock market development, and private property rights protection even when controlling for the political channel. 3. The exogenous component of the political channel does not explain cross-country variation in financial development. 4. German civil law and British common law have significantly better-developed financial intermediaries and markets and better property rights protection than French civil law countries, which is fully consistent with the adaptability channel.
Dollar & Kraay (2002)	Institutional quality measured using an index of rule of law constructed by Kaufmann, Kray & Zoido-Lobaton, which uses a large number of available subjective measures of rule of law and protection of property rights and combine them into a composite indicator.	Trade and Growth	Unbalanced panel of 274 observations on growth in the 1990s, 1980s and 1970s for roughly 100 countries. Estimation of cross-sectional regressions of growth in the very long run on institutions and trade: difficult to separately identify the effects of institutions and growth. Instead, uses a regression of growth on lagged growth, and on changes in the set of explanatory variables.	1. Cross-country regressions of the log-level of per capita GDP on instrumented measure of trade and institutional quality are uninformative about the relative importance of trade and institutions in the long run, because of the very high correlation between the latter two variables. 2. In contrast, regressions of changes in decadal growth rates on instrumented changes in trade and changes in institutional quality provide evidence of a strong effect of trade on growth, with a much smaller role for improvements in institutions. 3. These results are suggestive of an important joint role for both trade and institutions in the very long run, but relatively larger role for trade over shorter horizons.

Table 2. **Cross-sectional Studies of the Impact of Institutions on Development Outcomes** (continued)

Author(s)/Year	Measures of institutions	Dependent variable	Scope of the analysis	Findings
Rodrik *et al*. (2002)	Rating of institutional quality with respect to enforcement of property rights and the strength of the rule of law	GDP per capita on a PPP basis	Systematical estimation of a series of regressions in which incomes are related to measures of geography, integration into the trade system, and institutions, with the latter 2 instruments.	1. The quality of institutions trumps everything else, i.e. geography and trade. 2. Institutional quality has a positive and significant effect on integration.
Easterly (2001)	Institutional quality index	"Outcome" of ethnic conflicts	Analysing the link between quality of institutions and ethnic diversity and its outcome on ethnic conflicts.	1. Institutional factors interact with ethnic diversity as they affect whether ethnic conflict is destructive or is contained by the rules of the game. 2. Ethnic diversity has a more adverse effect on economic policy and growth when institutions are poor. 3. Good institutions lower the risk of wars and genocides.
Aron (2000)	Quality of public and private economic institutions	GDP growth	Literature review. Classification of the components of indicators of institutional measures in 5 categories: quality of formal institutions; measures of social capital; measures of social characteristics; characteristics of political institutions; measures of political instability.	1. Variables that capture the performance or quality of formal and informal institution are the appropriate institutional variables to include in investment and growth regressions 2. The quality of institutions has a robust and significant indirect relationship to growth via its effects on the volume of investment 3. The promotion of social capital strengthening informal institutions may positively influence growth both directly and indirectly. 4. Most of the studies fail on 2 accounts: they ignore simultaneity issues and often deal inadequately with endogenous institutional measures.
Gaviria *et al*. (2000)	Conflict management institutions.	Growth	Use Rodrik's (1999) two institutional dimensions as indices to measure the quality of conflict management institutions and test Rodrik's assumption that institutions for conflict management are associated with the ability to react to economic shocks.	1. The indices used in the paper solve the endogeneity and subjectivity biases the affect Rodrik's measure of institutional quality. 2. Paper finds strong support for the idea that high levels of political constraints and intermediate levels of political particularism are associated with a quick recovery from economic shocks.

Table 2. **Cross-sectional Studies of the Impact of Institutions on Development Outcomes** (continued)

Author(s)/Year	Measures of institutions	Dependent variable	Scope of the analysis	Findings
Campos & Nugent (1998)	Composite and comparative index of institutional development (CIID)[b]	Growth	19 Latin American countries for the years 1960 to 1986. Incorporate the CIID measure into an otherwise standard Solow growth model, and then use that model to explain variations in growth rates.	1. The index is shown to contribute significantly to the explanation of the variations in growth rates of per capita income across countries and over time. 2. The central and common characteristic of relevant institutions is that they give agents a voice, a stake in the system. By doing so, they increase the appropriability of benefits or, conversely, reduce the amount of rent-seeking. 3. The results emphasise a nexus between institutional development and per capita income growth through human capital formation.
La Porta *et al*. (1998)	Institutions measured as security of property rights, quality of the bureaucracy, successful provision of essential public goods, effective spending, and democracy.	Government performance	1. Data set of measures of government performance and their potential determinants in (up to) 152 countries. Most data is from the 1990s. 2. Instruments of measurements are compiled for: government intervention, government efficiency, output of public goods, size of the public sector, democracy.	1. Data shows that using these measures of performance, the quality of governments varies systematically across countries. 2. Data shows that Government performance is surely in part determined by economic development, but it is also shaped by systematic variation in the histories of individual countries. 3. The results are difficult to interpret as supporting a particular version of political or cultural theories of institutions. Taken as a whole, however, results support the political results support the political theories of institutions, since ethnolinguistic heterogeneity and legal origin remain extremely important factors shaping government performance, even controlling for religion. 4. Identifying big government with bad government can be highly misleading.
Knack & Keefer (1995)	Two indices (ICRG, BERI)[a] measuring institutional quality services.	Investment and economic growth	The study compares more direct measures of the institutional environment (ICRG and BERI indices) with both the instability proxies used by Barro (1991) and the Gastil indices.	1. Political violence and the Gastil political and civil liberties indicators are insufficient proxies for the quality of the institutions. 2. ICRG and BERI indices are both able to properly account for the influence of institutions. 3. Institutions that protect rights are crucial to economic growth and to investment. 4. When institutions are controlled for, stronger evidence emerges for conditional convergence.

Notes:

a. The International Country Risk Guide (ICRG) variables used are expropriation risk, rule of law, repudiation of contracts by the government, corruption in government and quality of bureaucracy. The measures used from the Business Environmental Risk Intelligence (BERI) index are contract enforceability, infrastructure quality, nationalisation potential and bureaucratic delays.

b. The CIID is made up of the 8 following variables: competitiveness of manner of generation of the executive authorities, openness of executive generation, constraints on chief executive, competitiveness of participation, regulation of participation, legislative effectiveness, legislative selection and scope of government actions.

Our review of cross sectional studies with respect to the impact of institutions on development outcomes leads to the following conclusions:

— a wide similarity in defining institutions;

— stress on the importance of institutions for growth and development;

— disagreement on the relative importance of the various institutions;

— concerns about causalities, methods and channels of influence.

First, nearly all the quoted studies use as a proxy for "institutions" proxy variables and variables that measure the quality and performance of institutions rather than the institution itself. The "strength of the rule of law", "risk of expropriation" and the "security of property rights" are mainly the outcome of the institutional set-up of the country. In the recent literature there is a tendency to prefer this kind of variable in growth regressions over variables that instead describe attributes of political institutions and society or measure political instability (Aron, 2000).

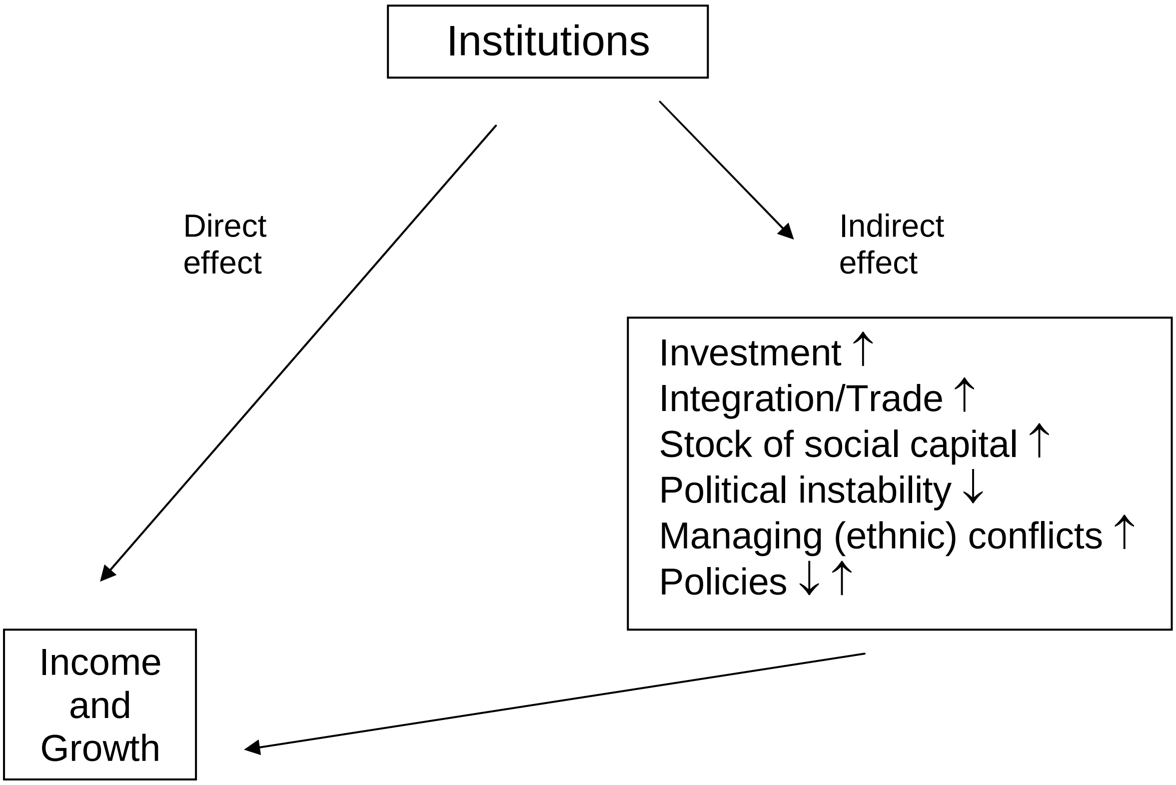
Second, there is an overall acknowledgement that institutions matter and have a direct impact on growth. For example, Rodrik *et al.* (2002) found in a recent study that the "estimated direct effect of institutions on incomes is positive and large" (p. 11). Besides an observed direct impact, most studies also acknowledge an indirect impact on growth and economic development (Figure 2). Institutions can lead to an increase in investment, to a better management of ethnic diversity and conflicts, to better policies and to an increase in the social capital stock of a community. All these factors have a recognised positive influence on growth. Therefore, most of the studies suggest a strong and robust relationship between institutional quality and growth and development outcomes.

Third, there is a disagreement and a continuous debate on the relative importance of institution in particular vis-à-vis trade and geography. There is an ongoing debate between a group of researchers headed by Dani Rodrik (Rodrik, 1999; Rodrik *et al.*, 2002) and another centred around Jeffery Sachs (Sachs, 2003). Whereas the former stresses the dominant importance of institutions ("trumps everything else"), the latter puts "geography" as the most important factor explaining differences in growth rates (see Table 2 for details). Finally, Dollar and Kray (2002) put most emphasis on the role of being integrated into the trade system. Beside the dispute about the relative importance of institutions, the channels of influence are also controversially debated. The simultaneous relationship between growth, investment and institutions makes it difficult to find out the relative importance of the indirect and direct effect shown in Figure 2.

Finally, most authors acknowledge the existing deficits of cross-sectional studies. The identified weaknesses relate to problems of definition, causalities and the proper interpretation of findings. In a very careful literature survey, Aron (2000, p. 100) reaches the conclusion that "interpreting the evidence on growth using institutional measures is not a straightforward matter".

In the following section the problems regarding cross-sectional studies are addressed in more detail.

Figure 2. **How Institutions Affect Growth**



III.2. Limitations and Deficits of Cross-country Studies

The following three main difficulties in analysing the impact of institution in a cross-country setting can be singled out:

i) indicators and channels of influence;

ii) data and methodology;

iii) interpretation and policy conclusion.

Problems with Indicators and Channels of Influence

Most of the reviewed studies use as an independent variable an indicator for high quality institutions that consist of several different variables. There are three main problems related to this: First, there is no consensus what kind of variables ought to be included or left out. High quality institutions could entail the protection of property rights, low risk of expropriation, a well functioning judiciary system, political stability, a high stock of social capital, etc. or any mixture of these indicators. Hence, the aggregation of the indicator presents a problem as every element might influence income in a different manner. Secondly, there is the risk that the analysis becomes tautological when institutions are *per definition* of a “high quality”. The point here is that it is quite reasonable to expect that political stability positively contributes to growth, however the more interesting question is what kind of institutional arrangement lead to political stability. Third, institutional quality is often measured in terms of the perception and views of foreign investors and experts. These data are regularly collected and updated in the International Risk Country Guide (ICRG) and the Business Environmental Risk Index (BERI). This approach is probably very valuable for developed countries but not necessarily for developing countries as these evaluations focus mainly on aspects of formal institutions, whereas in most low-income countries informal institutions are of critical importance. One can have doubts on whether non-resident experts and “investors” have sufficient information to make a sound judgement on this subject[4].

Data and Methodological Problems

Estimating the effect of institutions on growth in a cross country setting is plagued by several problems related to the availability and quality of data, measurement errors, possible omission of variables and reverse causality problems between regressors (Aron, 2000)[5]. This last problem is of particular importance. It relates to the discussion on whether institutions are exogenous or endogenous to the development process and on which way causalities run. Is “growth” and “development” the outcome of high quality institutions or are formal, modern and effective institutions the outcome of a prospering economy? In other words: Are improvements in property rights, contract enforceability, corruption, and political instability reduction, independent determinants of income or are they the result of higher incomes. Most of the experts on this subject agree: institutions are not exogenous to the development process. This has serious consequences for any estimation strategy. The difficult task that has to be tackled is that of finding a valid instrument for measuring institutional quality that is highly correlated with the usual measures but has no influence on our outcome variable, i.e. growth.

In recent years, progress has been made in tackling the problems described. In this respect, an interesting paper is the study by Acemoglu *et al.* (2001), who exploit differences in European settler mortality rates to estimate the effect on institutions. They hypothesise that settler mortality was a driving force to explain actual settlements and the setting up of different kind of institutions. In areas where settler mortality rates were low, settlers tried to replicate European institutions with checks and balances, protected property rights, and the rule of law. Once these institutions had been set up they persisted even after independence. Countries such as Australia, New Zealand, Canada and the United States are examples of this. On the other hand, in countries with high mortality rates, the colonisation policy was different. The policy here was designed as to extract as much resources as possible without introducing the European institutional setting. The authors argue that also after independence there was a path dependency of this institutional set-up explaining the low quality and performance of today’s institutions in poor countries.

Problems Related to Interpretation and Policy Conclusions

The existing studies have provided important insights concerning what actually explains differences in growth rates between countries. These findings are also very valuable for policy makers and provide general guidelines on how to change policies in order to achieve higher growth rates. The problem, however, is that the interpretation of findings often remains very vague, fairly general and difficult to interpret. If investors have confidence in the strength of the rule of law and in the protection of property rights in a country, then this may prove to be helpful for growth and the development process. But the far more pertinent question is: what concrete lessons can be drawn for policy makers from these types of analyses. Is it absolutely necessary that private property rights be enacted?[6] Have rules got to be formally written down or can strong informal codes of conduct be sufficient? Is more participation of civil society in the political process always desirable, and if so, what are the conditions to achieve it? How can informal institutions be formalised? These and related questions are of core interest to the policy maker.

Referring to these problems, Rodrik *et al.* (2002) stated that “desirable institutional arrangements have a large element of context specificity, arising from differences in historical trajectories, geography and political economy or other initial conditions…” (p.24). They conclude that “consequently, there is much to be learned still about what improving institutional quality means on the ground” (p. 25).

Following this line of argument, the International Monetary Fund (2003) admits that there is still little understanding of what specific institutional setting will work best in a specific local context. An indication that there is no blue print of an institutional design is the fact that countries with a similar level of income can have very different institutional settings.

To sum up, cross-sectional analysis can give important insights on how institutions impact on development outcomes and vice-versa abstracting from the individual country case. However, there are of little value when it comes to specifying a reform agenda for any particular country. This is one of the lessons learned in the transformation process, where the value of legal institutions for economic success has long been valued, but the implementation of the “right” laws has proved to be very difficult[7].

III.3. Country Case Studies

Studies analysing the impact of institutions in a developing country setting are grouped under three different topics: natural resource management, market development and conflict management (Table 3, 4 and 5).

The following three points summarize the major findings of the review of the studies:

— definition of institution as the “rules of the game”, i.e. in the North sense;

— stress on the importance of informal institutions;

— desirability of linking formal with informal institutions.

Table 3. **Selected Studies on Institutions and Their Impact on Natural Resource Management**

Author	Type of institution considered	Involved actor(s)	Location	Resource covered	Impact of institution (+): positive (-): negative
Becker (2003)	Community system of self-governance: local institution representing the community, and collective tradition of decision-making	Non-profit-organisations; local stakeholders in forest conservation	Ecuador	Community-owned protected forest	(+) rapid establishment of a community-owned protected forest due to the existence of local institutions (+) collective decision making process leads to consensus and support for a forest reserve (+) strong system of self-governance and communal tenure of land determined successful outcome
Lanjouw and Levy (2002)	Formal property rights; informal rights in access to other resources	Urban households; community organiser	Ecuador	Access to land	(+) formal property rights can improve security and reduce transaction costs, (but depend on various conditions, e.g. access to other sources of ownership defined by informal rights)
Nemarunde and Kozanayi (2002)	Informal rules; social networks; kinship ties	Water users; well owners; dam chairman	Zimbabwe	Water management	(+) define access to and use of water (+) establish and enforce rules for conflict resolution
Heltberg (2001)	Access and conservation rules	State and local government; landlords; farmers	India	Biodiversity conservation	(+) promote private biomass production (+) reduce biomass dependency on the commons (+) improve forest outcomes (-) insufficient to safeguard forest and commons from continued degradation
Mazzucato and Niemeijer (2000)	Social networks	Government; farmers	Burkina Faso	Soil and water conservation	(+) networks provide the flexibility to choose from a repertoire of technologies with a positive effect on conservation
Cramb and Willis (1990)	Informal land tenure institutions; formal institutions set up by the state	Government; Iban ethnic group	Malaysia	Land tenure	(+) adapt successfully to environmental changes (+) available at low cost; (+) flexible (-) divergence between tenure institutions imposed by the State and informal institutions as a building block

Table 4. **Selected Studies on Institutions and Their Impact on Market Development**

Author	Type of institution considered	Involved actor(s)	Location	Good under consideration (dependent variable)	Impact of institution + promotes development - hampers development
Lohlein *et al*. (2003)	Informal institutions in risk sharing	Staff in the health care sector	Rural Russia	Access to health care	(+) minimum access to health care for everybody guaranteed (-) crowds out modernisation activities
Atieno (2001)	Formal and informal institution's lending policies	Lending institutions; small-scale entreprises	Kenya	Credit	(-) Limited access to credit due to supply-side constraints (-) strong market segmenation (-) creation of a credit gap
Jones *et al.* (2000)	Informal credit and saving arrangements	Saving groups	Ghana	Credit	(?) linkage between formal and informal schemes desirable
Pamuk (2000)	Informal institutions influencing access to services and co-operation	Local communities	Trinidad	Credit, land markets and basic infrastructure delivery	(+) allow markets to function (+) reduce transaction costs (+) contribute to risk reduction (-) risk of social exclusion
Brautigam (1998)	Informal institutions based on the family/clan	Nnewi entrepreneurs, Asian business partners	Nigeria	Industrial development	(+) close, ethnic-based networks reduce transaction costs, leading to highly successful distribution systems
Chauduri (1996)	Labour market institutions	Labour force; unions; political parties	India	Formal labour laws and procedural norms	(-) prevent flexibility (-) hinder growth of labour intensive industrialisation
Johnson (1994)	Social security arrangements	Rural population; government	China	Fertility	(+) rural social security networks has reduced fertility (-) the social security network is limited primarily to the higher-income rural communities and is not generally available in the rural areas
Assaad (1993)	Informal and formal institutions with an effect on urban labour markets	Workers (in the construction sector)	Egypt	Labour supply	(+) importance of informal institutions (-) no perfectly competitive labour market

Table 5. **Selected Studies on the Impact of Institutions on Conflict Management**

Author	Type of institution considered	Involved actor(s)	Location	Good under Consideration	Impact of institution + promotes development - hampers development
Khadiagala (2001)	Popular justice	Local councils	Uganda	Access to justice	(-) protection failure of women's customary property rights through use of informal community based institutions. (-) elites use informal institutions for social control.
Gow *et al*. (2000)	Self-enforcing agreements	Sugar processing company; sugar supplying farms	Slovakia	Contract enforcement	(+) private enforcement arrangements may substitute for missing public enforcement rules; the introduction of contractual arrangements between farms and a sugar processing company has led to an increase in market exchange and investments with potential spill-over effects in other sectors.
McMillan and Woodruff (1999)	Contracts to prevent disputes in business	Employee and employer	Vietnam	Contract agreements	(+) use of social network for screening trading partners that makes relational contracts on informal basis possible. (-) ineffective formal laws. (-) legal reform should support existing institutions and legitimise current business practises. Otherwise risk of crowding out effects and welfare losses.

First, and in contrast to cross-sectional studies, institutions are more precisely defined and the term is mainly used in the North sense[8]. The types of institutions that the studies deal with ranges from informal access and conservation rules, to more formalised community systems and formal labour laws. Most of the reviewed studies look at a particular institution and its particular impact on development outcomes.

Second, informal local institutions are not only explicitly taken into account but are found to be a key element in understanding the management of natural resources, market development and conflict management. In the area of natural resource management, informal institutions define the access to common goods and the rights of use. Most of the studies come to the conclusion that they are available at low cost and are quite flexible though one study pointed out that the rules of access and use defined by informal institutions might not prevent a continuing degradation of resources[9].

Interestingly, a similar finding can be reported in the studies looking at the development of credit markets. Here as well, informal institutions are of outstanding importance and in most cases have a positive effect on market development. They do so by contributing to lowering transaction costs and reducing risks, thereby making market transaction possible at all in an environment characterised by huge information asymmetries. However, the studies also point out that informal institutions and organisations can lead to social exclusion. This could be the case when local organisations are very homogenous and their membership is based on ethnic, gender, or religious attributes.

Regarding conflict management, a study by Khadiagala (2001) found that contrary to the views of some scholars that local, informal, institutions are better adapted to provide justice to the poor and powerless, the author advocates a more realistic view of the laws enforced by the community. Referring to a case study of popular justice in Uganda, the author comes to the conclusion that popular justice has failed to protect the customary rights of women. The main reason for this failure is the elites' ability to use traditional informal institutions for purpose of social control. In the surveyed area, characterised by land insecurity caused by male unemployment and high alcohol consumption, a prominent feature is the persistence of the reluctance among men to associate women with the notion of individual rights. This frequently leads to an abuse of power by the local councils. As a result, Khadiagala (2001) proposes to reconsider the relationship between legality and locality. She concludes that the national judiciary has some utility in local areas.

A study by McMillan and Woodruff (2001) comes to a quite different conclusion regarding the role and impact of informal arrangements. They refer to a case study in Vietnam where the authors analyse how disputes are prevented or settled in a business sphere. In an institutional environment where potential trading partners can not resort to courts — since formal laws are non-existent or not applied — disputes are prevented by the threat of loss of future business. Furthermore, firms screen potential trading partners by relying on the information provided by their social networks. To ensure that agreements are kept, firms rely on several devices, including community sanctions, to supplement repeated-game incentives. In the case of a breach of a contract the non-complying firm bears the risk of being blacklisted, thereby seriously threatening its ability to find new trading partners. The authors also point to the strain informal arrangements face during the process of market development, and to the raising demand for more formal procedures and institutions. A legal reform should nonetheless support existing institutions and legitimise current business practises. Otherwise, the risk exists that the formal institutions crowd out the still efficient informal ones, potentially causing welfare losses through diminishing the capacity to adapt rapidly to a changing economic environment and to technical change.

Third, it is commonly accepted that formal and informal institutions should be seen as complementary. A case study on Nigeria demonstrates that the introduction of formal land property rights without taking into account the informal systems of rights attribution can bring negative results. The conclusion of this study clearly suggests that policy makers should make use of the informal institutions as a "building block" for introducing formal rules. In the process of a changing environment and external pressure on natural resources, formal institutions can help to enforce property rights. To combine the flexibility and low cost characteristics of the informal arrangements with the enforcement capacity of an external authority such as the state seems quite promising.

In his book on "Institutions, Social Norms and Development", Jean-Philippe Platteau (2002) comes to similar conclusions. Using the example of land tenure systems in Africa, he stresses the role of informal institutions and procedures. Whereas state intervention in land issues — such as comprehensive land titling — has proved to be fairly costly and often neglects distributional aspects, informal arrangements have three important advantages. First, they have lower transaction costs and are thereby relatively cheap and flexible compared to formal rules implemented by the state. Second, a fairly equal distribution, as a result of sticking to informal arrangements for land access, is an element of social security for the villagers in a generally insecure economic environment. Third, informal institutions in the area of resource management are widely recognised and accepted.

III. 4. Limitations and Deficits of Country Case Studies

In reviewing the studies, three major deficits in country case studies became apparent.

First, although the term institution is in general more precisely defined than in cross-sectional studies in that it excludes, for example, organisational entities as part of the institutional framework, the particular focus of the analysis is not always clear. Analysing the impact of "local institutions" on natural resource conservation for instance could mean looking at local social networks, the community governance structure or at communal property rights. Studies sometimes lack at the outset a precise definition of institution as it is used in the researched context.

A second observed deficit relates to the often missing conceptual framework. It is important to conduct an empirical analysis on the impact of institutions within an analytical framework that spells out which other variables influence the outcome and how they are postulated to interact with the variable institutions. Most of the studies lack or do not clearly spell out the kind of setting on which the analysis is based. This is a pity insofar as it undermines the credibility of the policy conclusions drawn by the authors. If a particular inefficiency in an institutional framework is identified by ignoring the local setting or the actor perspective, then a proposed change in the institutions might bring about no change in analysed outcome.

Third and finally, most of the studies lack the perspective of how to bring about institutional change. This is especially true of the studies that find a negative impact of the institution under consideration. Whereas the question why an obviously inefficient system is maintained is addressed, ways to overcome it are seldom evoked.

IV. WHAT MAKES THE DIFFERENCE?

The review and analysis of the literature discussing the impact of institutions on development outcomes has shown that the institutional environment can either promote development outcomes or be an obstacle to it. It also emerges that this depends not only on the "quality" of the institutional setting in itself but also on factors like the local setting or the interests and behaviour of the actors involved. It will be the task of future research to more thoroughly investigate the impact of institutions in a well defined setting and to address the question of institutional change.

Beside this important task, the question remains of what actually makes the difference between "high quality" and "successful" institutions and those institutional arrangements that hamper development. The literature is still surprisingly silent on this issue.

A few ideas on this are spelled out in the following. But deeper analysis is required in future research.

Within a given institutional environment, outputs can be varying differently according to:

Pressure on the Existing Institutional Set-up

A change in the overall environment can turn former efficient institutions into costly and highly inefficient institutions. An example of this is the diminishing ability of informal institutions to regulate the access and use of commons under increasing outside pressure. Whereas informal institutions seem, to a certain extent, well-adapted to deal with the various problems of managing common property resources, in times of increasing market transactions, environmental hazards and population pressure, these institutions might no longer be able to avoid the overuse of the resource. A higher external enforcement agency is needed.

A related example can be found in the area of risk management in rural areas of low income countries. A review of the literature by Jütting (2003) finds that informal risk sharing institutions based on reciprocity are often second best solutions in an environment characterised by uncertainty, high risks and high transaction costs. However, in cases of major shocks like widespread droughts, floods, epidemics, and macro-economic disturbances, i.e. when insurance is most needed, these systems tend to break down. Furthermore, profound changes in the mid- to long-run such as a changing demographic structure of the household, migration, and in general the modernisation of village life, can also have an impact on the institutional setting. Social ties and networks become generally weaker as economic exchanges become more commercial and impersonal (Morduch, 1999).

The "Matching" of Informal and Formal Institutions

In the development process, the demand for formal institutions increases due to an increasing complexity in transactions that can hardly be efficiently handled by informal institutions. However, this does not mean that informal institutions are becoming useless or losing importance. On the contrary, it is important that any change in the institutional environment takes into account, or even better is build or embedded in, the existing local institutions. This will help to reduce the creation of a parallel system that is usually highly ineffective and involves high costs. A recent study by Lohlein *et al*. (2003) on institutional change in the transformation process of rural Russia is enlightening in this respect. Strong informal institutions such as certain social norms and customs promote forms of reciprocity to the extent that health care workers stressed that they could not introduce informal charges as this would result in social stigmatisation and exclusion from social networks. The existence of these institutional arrangements has both positive and negative effects. On the one hand it guarantees a minimum access to health care for everyone, regardless of income. On the other hand, it crowds out initiatives to modernise and improve the quality of the health care system because it effectively sanctions the introduction of new forms of risk-sharing based on the principles of insurance. This leads to a situation in which, for cases of serious illness, people must go to better equipped hospitals in town, where money matters. Given these findings, the authors conclude that the challenge for policy makers will be to introduce or build a formal social insurance system that both reaches to the rural population and is compatible with the informal institutions providing social insurance.

Jones *et al*. (2000) come to a broadly similar conclusion in their study of linkages between formal and informal financial intermediaries in Ghana. While informal financial institutions play an important role in giving the rural population access to credit and savings, their capacity is limited. By linking existing informal savings and credit arrangements with formal intermediaries, the latter can substantially increase the volume of small loans available to rural people in ways which are accessible, provide high repayment rates and are profitable.

Degree of Path Dependency and Ability to Change

According to North (1990), institutional change depends on changes in both relative prices and preferences. He also stresses the fact that "once a development path is set on a particular course, the network externalities, the learning process of organisations, and the historically derived subjective modelling of the issues reinforce the course" (North, 1990, p. 99). In other words, the high degree of path-dependency of a given institutional framework is an important factor in explaining persistent low growth rates in developing countries. He argues that "an initial set of institutions that provide disincentives to productive activity will create organisations and interest groups with a stake in the existing constraints".

A study by Mazzucato and Niemeijer (2002) on the role of local informal institutions in mediating over time the relationship between people and the environment finds that contrary to usual expectations, population growth has not led to a degradation of land resources. Based on a field study in the Sahelian and Sudano-Sahelian zones of Africa, the authors find a continuous process of institutional change caused by a multiplicity of factors. This change was mainly driven by market integration and, to a lesser extent, by population growth. Institutions have been changed to adjust to the changing external environment in four main domains: Reorganisation of the spatial production including a facilitation of land-borrowing agreements; extension and facilitation of access to labour; changing role of women; and diversification of livelihoods. According to the authors, these changes "have allowed people to adapt to a changing context within which agriculture is practised, while not degrading their environment… and that there can be processes of adjustment taking place through local institutions that positively affect the environment" (p. 191).

V. A FRAMEWORK FOR ANALYSING THE IMPACT OF INSTITUTIONS

Institutions and development outcomes are closely inter-linked and an increasing number of studies seek to understand this complex relationship. In most of the reviewed studies, the analysis concentrates on the linkage between “institutional outcomes” and “development outcomes”. In these types of studies, the specific local setting, the behaviour of human actors, and the endogeneity of an institution is not carefully taken into account, if at all.

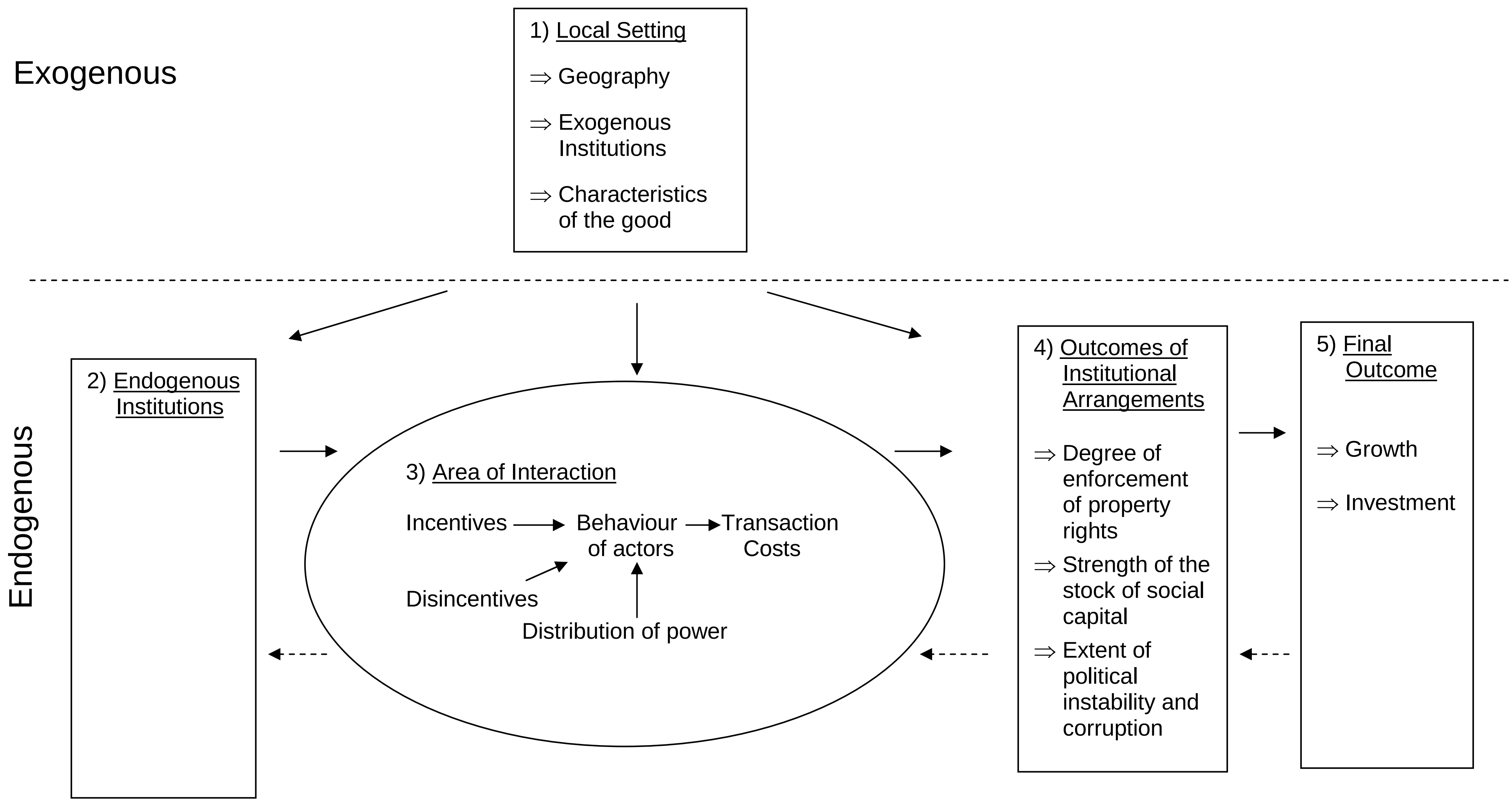
A framework that differentiates between exogenous and endogenous factors of influence is proposed for the analysis of the impact of an institution on development outcomes. It consists of five variables, one of them being exogenous, the rest endogenous (Figure 3).

The first question to be answered is whether or not the institution of interest can be treated as exogenous or endogenous to the development outcome. As described earlier, most of the institutions at level 1 can be regarded as exogenous to the systems, i.e. they are independent from changes in the development outcome. If however, the institution is endogenous to the system, i.e. the outcome of interest can have an influence on the institutions under consideration, then this has serious implications for the estimation and analysis of a potential impact.

Having clarified whether or not a particular institution should be regarded as endogenous or exogenous, the next step is to differentiate between the variable of interest — a particular institution or institutional arrangement — and other variables influencing the outcome. The local setting, e.g. geography (climate, soil conditions, illness incidence), can exert a direct influence on development outcomes as well as an indirect one vis-à-vis the endogenous institutional arrangements. An additional factor to be looked at is the specific economic, physical and technological characteristics of the good under consideration/outcome variable. The same institution might for instance have a different effect on a public good than on a private good. The specific characteristics have to be clarified in the analysis. Besides the local setting, the “area of interaction” has to be taken into account too. The institutional framework sends out incentives and disincentives for specific actions by human actors. Depending on the distribution of power and interest, actors undertake activities that determine the outcome.

The framework presented stresses the idea that institutions do not stand alone but are embedded in a local setting influenced by historical trajectories and culture. It could be taken as a guideline for case studies dealing with the impact of institutions and institutional change.

Figure 3: **A Framework for Analysing the Impact of Institutions on Development Outcomes**



The following points should be taken into account in studies analysing the impact of institutions on particular outcomes:

— need to differentiate between exogenous and endogenous institutions;

— existence of different levels of institutions with different time horizons of change;

— importance of the local setting;

— the specific characteristics (i.e. economic, technological and physical) of the good under consideration matter;

— need to seriously take into account the actor perspective. Human actors act as agents of institutional change or persistence.

VI. CONCLUSIONS AND RESEARCH NEEDS

This study has reviewed the existing evidence on the link between institutions and development outcomes. In particular, it has addressed the question of the impact of institutions on selected outcome variables such as growth, natural resource conservation and market development. While there is an emerging amount of cross-sectional and country studies addressing these issues, the review identifies three important lacunae.

First, in several of the reviewed studies, a clear concept of what institutions mean in this specific context is missing. The applied definition ranges from the narrow perspective of rules and norms to a far broader definition including aspects such as the political systems and organisations. Second, studies addressing the impact of institutions in a country case study setting often lack an analytical framework. This study proposes an analytical framework that differentiates between exogenous and endogenous variables and takes into account other variables also determining the outcome. Third, one finds in the existing literature a lack of studies offering precise policy recommendations. In particular, policy recommendations in cross-country growth studies are often rather blurred.

With respect to future research needs, there is a remarkable gap in the literature related to questions of institutional change and of possibilities of policies inducing institutional innovations. The following three research areas are particularly promising to fill this identified gap:

i) relationship and linkages between different levels of institutions;

ii) determinants of change of traditional institutions;

iii) policy options to improve the link between formal institutions and the indigenous social structure.

Whilst this literature review has shown that there is a substantial amount of evidence on the effect of institutions on development outcomes, there is only weak evidence of the relationship between different levels of institutions. A potentially interesting aspect is the question of crowding in and crowding out, i.e. if, and under what kind of circumstances, long lasting norms and traditions can crowd out a modernisation of the institutional framework. In addition, there is a need to evaluate the social and private costs and benefits of informal institutions. An interesting area to be looked at in a developing country context could be the possibilities of transforming informal risk sharing arrangements based on reciprocity into more formalised insurance schemes that would facilitate riskier but also more profitable investments.

Secondly, although the question of institutional change is becoming increasingly popular[10], it is still under researched. The persistence of exogenous institutions in a radically changing environment is not clear. Past experience in transition countries is a very pertinent example of how difficult it is to change institutions that have existed for centuries. To identify what factors drive institutional change is an emerging and challenging research question.

Finally, it will be of great importance to formulate policies that help to better link formal and informal institutions. Given the fact that it might be very difficult, impossible, or not desirable to change the indigenous social structure, there is an urgent need to know more on under which conditions the different levels of institutions mapped out in Table 1 can be better linked. This could be important for various fields: the governance structure of a country, ways of participation in political decision making processes, ways of fighting social exclusion, etc.

The challenge researchers will need to address is the trade-off between the need to zoom down to a specific case study scenario where one has the possibility of identifying otherwise neglected links and the wish to generalise findings beyond the particular context. To learn from "successful examples" requires a bench mark and reference points that guide the application of potential changes in different environments.

In order to deal with this ambiguity, a comparative case study approach could be useful. Applying the above framework to two or more case studies could help derive policy conclusions that would go beyond the individual case study whilst remaining precise enough to formulate precise policy recommendations.

NOTES

1. Examples of recent articles on institutions and development can be found in Bardhan (2000); Rodrik *et al*. (2002); Pejovich (1999); Isham and Kähkönen (2002); Grootaert and Narayan (2001).
2. Other studies like Bonaglia *et al.* (2001) look at the impact of policy outcomes like "openness" on the quality of domestic institutions.
3. An illustrative example is the impact of central bank independence of inflation. While research has shown convincingly that the bank independence is negatively correlated with inflation rates in developed countries, this is not the case for developing countries. Fukasaku and Hellvin (1999) relate this finding to a larger divergence between theory and actual practice in implementing rules and regulations between developed and developing countries.
4. An exception of this rule is the study by Knack and Keefer (1995) that examines the role of informal institutions using measures of trust and civic norms drawn from the World Value Surveys.
5. For a survey see Temple (1999).
6. The different experiences of China and Russia are interesting in this respect. Despite the fact that Russia has a formal legal system that is quite in line with European norms, which is not the case of China, Russia gets much lower rankings regarding its institutional quality for investment. On the contrary, China has retained its socialist legal systems without hindering the entrepreneurs' feeling of security permitting large scale investments (Rodrik *et al*., 2002). Brunetti *et al.* (1997) explain differences in economic performance of transition countries with institutional indicators.
7. Black *et al*., 1999 show that the idea of picking the right laws and thereby enhancing corporate governance has essentially failed in Russia.
8. The quality of the institutions is not a priori defined as in most of the cross sectional studies.
9. With her pathbreaking study on "Governing the Commons", Ostrom (1990) has mapped out a theoretical approach explaining institutional choice in natural resource management.
10. The next conference of the International Society for New Institutional Economics (ISNIE) in September 2003 will be exclusively devoted to this topic.

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