

Unclassified

DEV/DOC(2006)02



Organisation de Coopération et de Développement Economiques
Organisation for Economic Co-operation and Development

17-Mar-2006

English text only

DEVELOPMENT CENTRE

DEV/DOC(2006)02
Unclassified

WORKING PAPER No. 248
INSTITUTIONAL BOTTLENECKS FOR AGRICULTURAL DEVELOPMENT

A STOCK-TAKING EXERCISE BASED ON EVIDENCE FROM SUB-SAHARAN AFRICA

By Juan R. de Laiglesia

JT03205894

Document complet disponible sur OLIS dans son format d'origine
Complete document available on OLIS in its original format

English text only

DEVELOPMENT CENTRE WORKING PAPERS

This series of working papers is intended to disseminate the Development Centre's research findings rapidly among specialists in the field concerned. These papers are generally available in the original English or French, with a summary in the other language.

Comments on this paper would be welcome and should be sent to the OECD Development Centre, 2, rue André Pascal, 75775 PARIS CEDEX 16, France; or to dev.contact@oecd.org. Documents may be downloaded from: <http://www.oecd.org/dev/wp> or obtained via e-mail (dev.contact@oecd.org).



THE OPINIONS EXPRESSED AND ARGUMENTS EMPLOYED IN THIS DOCUMENT ARE THE SOLE RESPONSIBILITY OF THE AUTHOR AND DO NOT NECESSARILY REFLECT THOSE OF THE OECD OR OF THE GOVERNMENTS OF ITS MEMBER COUNTRIES

CENTRE DE DÉVELOPPEMENT DOCUMENTS DE TRAVAIL

Cette série de documents de travail a pour but de diffuser rapidement auprès des spécialistes dans les domaines concernés les résultats des travaux de recherche du Centre de développement. Ces documents ne sont disponibles que dans leur langue originale, anglais ou français ; un résumé du document est rédigé dans l'autre langue.

Tout commentaire relatif à ce document peut être adressé au Centre de développement de l'OCDE, 2, rue André Pascal, 75775 PARIS CEDEX 16, France; ou à dev.contact@oecd.org. Les documents peuvent être téléchargés à partir de: <http://www.oecd.org/dev/wp> ou obtenus via le mél (dev.contact@oecd.org).



LES IDÉES EXPRIMÉES ET LES ARGUMENTS AVANCÉS DANS CE DOCUMENT SONT CEUX DE L'AUTEUR ET NE REFLÈTENT PAS NÉCESSAIREMENT CEUX DE L'OCDE OU DES GOUVERNEMENTS DE SES PAYS MEMBRES

Applications for permission to reproduce or translate all or part of this material should be made to:
Head of Publications Service, OECD
2, rue André-Pascal, 75775 PARIS CEDEX 16, France

© OECD 2006

TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	4
PREFACE	5
RÉSUMÉ.....	6
SUMMARY	7
I. INTRODUCTION	8
II. INSTITUTIONS AND AFRICAN AGRICULTURAL DEVELOPMENT: A FRAMEWORK FOR ANALYSIS.....	10
III. SLOW-MOVING INSTITUTIONS	17
IV. FAST-MOVING INSTITUTIONS	33
V. AGRICULTURAL DEVELOPMENT IN A CHANGING INSTITUTIONAL ENVIRONMENT	47
VI. CONCLUSIONS.....	56
BIBLIOGRAPHY	59
OTHER TITLES IN THE SERIES/ AUTRES TITRES DANS LA SÉRIE.....	66

ACKNOWLEDGEMENTS

The Development Centre would like to thank the French Authorities for the financial support given to the project which gave rise to this study.

The author would like to thank Johannes Jütting and Charles Oman whose comments and suggestions have led to substantial improvements in this paper. All remaining errors and omissions are, of course, the author's sole responsibility.

PREFACE

High quality institutions lower transaction costs, encourage trust, reinforce property rights and avoid the exclusion of sections of the population. Overcoming institutional bottlenecks that constrain entrepreneurial activities and the development of the private sector is a prerequisite for achieving pro-poor growth, in particular in Africa. As part of the Development Centre's Work Programme 2005/2006 on institutional requirements for advancing peace and development in sub-Saharan-Africa, this explorative study sets the stage for forthcoming in-depth case studies in Ghana and Cameroon.

By reviewing an impressive amount of studies, this stocktaking exercise fulfils two objectives:

First, it reviews the literature in order to identify what is already known and to detect gaps in the literature where further work is necessary. The author clearly shows that there is now a wide consensus on the importance of egalitarian social norms for institutional and economic outcomes, in particular in sub-Saharan Africa. The impact of these norms on outcomes can in principle be positive or negative: On the one hand they allow farmers to manage risk and to operate in a difficult environment characterised by widespread market failures. On the other hand, however, they also work against agricultural development by for instance taxing successful entrepreneurs and favouring exclusionary practices. Whereas a lot of work has been done on the general impact of institutions on agricultural development, the treatment of single, specific institutions in the literature remains fragmented and lacks an overarching conceptual framework. Opening the big black box that comprises "institutions" is however of utmost importance if one wants to come up with meaningful and practical policy conclusions.

Secondly, this paper offers a conceptual framework that is applicable beyond sub-Saharan Africa. In fact, highlighting the various channels running from "institutions" to "institutional outcomes" and then via the "interaction and decision area" to "economic outcomes" is a very useful tool to clarify concepts and terms and a first step in systematising the analysis of institutional bottlenecks. The framework presented in this paper also shows the various and complex interactions that policy analysts and policy makers have to take into account for informed decision making.

This paper is a necessary starting point for achieving the overall objective of this Work Programme activity that is to draw lessons of how institutional constraints can best be remedied. In the context of increasing competition and frequent inter-cultural exchanges, adapting institutions to make development possible and inclusive is an important pre-requisite for achieving poverty-reducing growth and the attaining the Millennium Development Goals.

Louka T. Katseli
Director
OECD Development Centre
March 2006

RÉSUMÉ

La médiocre performance de l'agriculture africaine est à mettre au compte non seulement d'une donnée naturelle difficile et d'une histoire de politiques extractives, mais aussi de goulots d'étranglement institutionnels fondamentaux. Ce document de travail présente un cadre pour l'analyse des goulots d'étranglement empêchant le développement agricole en Afrique sub-Saharienne. Il passe en revue la littérature au sujet des institutions et du développement agricole afin d'identifier les principaux obstacles institutionnels auxquels l'agriculture africaine fait face.

Les institutions évoluant lentement, telles les institutions sociales ou la culture, touchent et affectent la plupart des transactions économiques, introduisent parfois des distorsions dans les incitations des agents et contraignent souvent leurs choix possibles. Le manque de dynamisme de beaucoup de marchés agricoles a aussi des causes institutionnelles, plus particulièrement l'échec du système formel d'exécution de contrats et des structures de gouvernance.

La prévalence de goulots d'étranglement institutionnels crée deux défis pour la formulation de politiques. Premièrement, de concevoir des politiques qui puissent tirer parti de l'environnement institutionnel existant tout en évitant les écueils qu'il présente. Deuxièmement, d'entreprendre des réformes institutionnelles qui créent des institutions non seulement efficaces mais aussi adaptées à l'environnement institutionnel d'ensemble.

SUMMARY

The poor performance of African agriculture can be attributed not only to a difficult natural endowment and a history of extractive policies, but also to fundamental institutional bottlenecks. This paper presents a framework to analyse institutional bottlenecks for agricultural development in sub-Saharan Africa. It goes on to review the existing literature on institutions and agricultural development in order to identify the main institutional obstacles for African agriculture.

Slow-moving institutions, such as social institutions or culture permeate and influence most economic transactions, sometimes distorting incentives and often constraining the choice set of individuals. The lack of dynamism of many agricultural markets can be traced to institutional causes, especially the failure of the formal contract enforcement edifice and of governance structures.

The prevalence of institutional bottlenecks presents two challenges for policy making. First, to design policy that can take advantage of the existing institutional environment to achieve its aims while avoiding the identified pitfalls. Second, to undertake institutional reform that not only creates effective institutions but also institutions that are a good fit to the overall environment.

I. INTRODUCTION

Since the early 1980s, African economic performance has been markedly worse than that of other regions. Per capita GDP declined by 1.3 per cent p.a. during the 1980s, and by 1.8 per cent p.a. between 1990 and 1994. In the last decade, sub-Saharan Africa's aggregate performance has been better but, at 0.8 per cent growth on average, it is hardly encouraging.

Accounting for about 20 per cent of GDP in the region (World Bank, 2005a), two thirds of livelihoods and 40 per cent of exports, agriculture dominates the economies of many countries in the region (World Bank, 2000). Despite the importance of the agricultural sector, its performance over the last 30 years has been disappointing: agricultural and food production per capita have stagnated in the last ten years (FAO, 2005), cereal yields are less than half those of other developing regions. Moreover, a large fraction (at least 60 per cent) of what agricultural growth Africa did achieve in the last ten years came about via increases in the area under cereals. This is a different pattern to that found in other regions and one that poses questions about the sustainability of such growth. If Africa is to feed itself, lift its people out of poverty and attain a satisfactory level of sustainable growth, the poor performance of its agricultural sector must be redressed.

Africa's agricultural performance has been explained in the literature in turn by geography, demography and policy. Its difficult natural endowment – landlockedness (Collier and Gunning, 1999a), poor land quality (Voortman *et al.*, 2000), endemic livestock and human disease as well as low population density – while crucial, is not a sufficient explanation for performance, indeed it fails to explain many intra-regional differences in agricultural development. It is also true that African agriculture has been subjected to centuries of extraction and taxation policies. However, it is important to concentrate on what has determined those policies, as well as the response (of lack thereof) of private agents to such policies. It is the view of this paper that institutional explanations are fundamental in fostering our understanding of the state of sub-Saharan Africa's agricultural performance and in formulating adequate policy.

This paper takes the view that there exist fundamental bottlenecks created by the institutions that govern or impact upon sub-Saharan Africa's agricultural development. It reviews the literature in order to identify those institutional characteristics that impede agricultural development in sub-Saharan Africa. Recent years have seen an explosion of the economic literature on the effects of institutional arrangements or institutional quality on various growth and development outcomes as well as widespread recognition that institutional characteristics matter for the process of economic development – see (Jütting, 2003) for a review. This paper is an attempt to frame that literature in the specific case of agricultural sector development and identify priority areas for research and policy action.

While bearing in mind the physical, political and geographical heterogeneity of sub-Saharan Africa, this paper takes the view that due to the difficulty in measuring institutional characteristics and quality, much richer information is contained in microeconomic analyses of institutions. Hence it draws heavily on examples from microeconomic case studies. It will become apparent, that despite great variation, sizeable sets of countries often share a number of institutional characteristics and are faced with similar challenges.

The approach taken is macro-systemic, that is to say institutions, their outcomes and their impact on agents' choices are considered within the overall institutional environment, that includes social, legal and customary norms.

The remainder of the paper is organised as follows: section II clarifies what is meant by "institutions" and specifies the set of outcomes of interest, and goes on to suggest a framework for the analysis of the interaction of various types of institutions in generating agricultural development based on a classification of institution according to the speed and source of change, section III focuses on slow-moving institutions, specifically social institutions, property rights and the legal infrastructure, section IV studies fast-moving institutions such as contract and property rights enforcement, political institutions and institutional market infrastructure, section V looks in more detail at those policies such as regional integration and structural reform that are bent on institutional change and have wide ranging impact, section VI summarises and concludes.

II. INSTITUTIONS AND AFRICAN AGRICULTURAL DEVELOPMENT: A FRAMEWORK FOR ANALYSIS

Definitions of Key Concepts

This paper carries out an analysis of the institutional determinants of agricultural development. Agricultural development is defined as the process that creates the conditions for the fulfilment of agricultural potential. Those conditions include the accumulation of knowledge and availability of technology as well as the allocation of inputs and output.

Such a complex and multi-faceted process has many different outcomes of interest. In terms of outcomes, it is useful to distinguish three broad categories of indicators: output production, output composition and technology use. As a first approximation, and bearing in mind the gravity of food security issues in Sub-Sahara Africa, crop production per capita can be used as a crude indicator of agricultural development. However, not only is it the case that agricultural output growth in Africa has lagged behind population growth in the last two decades, but a large fraction of output growth has been the consequence of increased cereal cultivation area rather than increases in productivity. This raises concerns with regards to the sustainability of the current growth rate, hence the necessity to take into account the intensity of cultivation and the technology used. A further distinction between final outcomes and intermediate outcomes is useful, especially in cases where final outcomes are difficult to measure (such as sustainability) or require normative assumptions to be assessed (such as distributional issues).

The final outcomes of interest are: *i*) the level and composition of production (food vs. cash crops); *ii*) the sustainability of production processes and agricultural growth; and *iii*) the efficiency of the allocation of agricultural products. Many of the studies reviewed focus instead on intermediate outcomes such as technology adoption and development, input use, output composition at the farm level or output marketing channels and practices. This paper will follow the literature in this respect but it bears in mind that how final outcomes depend on such intermediate outcomes can include institutional factors, especially in terms of output distribution and allocation.

Following North (1990), institutions are defined as “the humanly devised constraints that shape human interaction”. These constraints include formal and informal rules and norms that determine what activities individuals are permitted to undertake and how. Hence, institutions constitute the framework where human interaction takes place. From a choice theoretical perspective, they determine, along with scarcity and technology, the opportunity set of an

individual or an organisation as well as the incentives they face. The study of the functioning of specific organisations – which are groups of individuals acting on pursuit of a common goal – is beyond the remit of this definition, and of the analysis undertaken by this paper. However, the rules and constraints that determine the governance of organisations, be they public or private, do constitute an integral part of the set of rules and norms that are analysed in this paper¹.

Slow- and Fast-moving Institutions

The process of development can be seen as the result of the interaction between institutional change and technological progress. In understanding not only what institutional characteristics impede or contribute to agricultural growth but also what policy can do to alleviate these problems, it is useful to place the discussion in a framework that allows for institutional change. Roland (2004) suggests classifying institutions according to the speed at which they change. “Slow-moving” institutions comprise culture and social norms, while “fast-moving” institutions encompass legal and political systems.

A key element of this distinction is whether institutional transformation can be achieved by *fiat* (that is by authoritative decision), which is crucial for deriving policy implications. Hence, fast-moving institutions are more likely to be the subject of policy than slow-moving institutions. To name but one example that will be treated at length below, the definition of land property rights typically embeds notions of belonging and citizenship that have strong cultural components and cannot be changed by just changing the definition of citizenship in a country’s constitution. However, what is of crucial importance for economic incentives is the degree of effective property rights: the set of rights that an individual perceives to be his and the degree to which they are likely to be enforced by the police or courts. While the government can do little to change underlying customary rights, it can legislate or otherwise determine how courts or the police apply the law and hence substantially more quickly alter the institutional outcome (effective property rights).

In this framework, fast-moving institutions are seen as constructed given a set of slow-moving institutions. This framework draws on Williamson’s (2000) hierarchical classification of institutions into four distinct levels of economic analysis – social theory, property rights economics, transactions costs economics and neoclassical economics – but acknowledges that tensions exist between the two levels of institutions and postulates that these tensions are the source of institutional change while Williamson’s (2000) classification focuses on feedback effects between different levels without specifying the form they may take or how they lead to institutional change². Hence, for example, legal rules do not limit themselves to specifying what

-
1. North distinguishes between the institutional environment – at the economy level – and the institutions of governance – at the firm level – and is primarily concerned with the former. Williamson (2000), among others, has analysed the latter in detail.
 2. As noted by Roland (2000, p. 117) the classification of institutions between slow- and fast-moving also parallels Marx’s theory of institutional change with the differences that “the Marxian scheme classified all institutions as part of the superstructure” and that technology (which is not an institution) is the main component of Marx’s “productive forces”.

is to happen in cases where social norms are silent, but complement (and sometimes contradict) those social norms. We will include among slow-moving institutions what Williamson refers to as “embedded” institutions, which include religion and identity or citizenship rules.

While many slow-moving institutions, especially those rooted in cultural beliefs, fall in the remit of informal institutions and many fast-moving institutions are formal institutions, the two classifications do not exactly overlap. Firstly, if one considers institutions as common equilibrium strategy (see, for example, Greif, 1994) then it is apparent that the degree to which those strategies are enshrined in law or other written statutes does not determine how quickly they can evolve. In other cases, the formalisation of an institution, such as the family or ownership can lead to substantial changes in the underlying rules.

Such a systemic approach has the advantage of incorporating a certain degree of complementarity or substitutability between institutions. In particular, more slowly evolving social norms can be relied on to provide an outside option when the corresponding fast-moving institution fail or do not exist. For example, mutual aid norms can help an individual in time of need or illness when formal insurance markets are unavailable. They can also provide outside options that can be used as “threat points” and hence determine the outcome of a relationship governed seemingly by a fast-moving institution.

Specific institutions can impede development in three different ways. Firstly, institutions that are ineffective in generating a specific outcome will result in negative institutional outcomes that can lead to adverse incentives or reduced opportunity sets. Secondly, institutions that are not adapted to the overall institutional framework can fail to generate the desired outcome. For example regulations or laws that go against social norms may not be accepted by the population and thereby not only fail to be enforced but also decrease the confidence of the population in the regulatory or legal body. Finally, some institutions can prevent the emergence of potentially more efficient arrangements when institutional change requires collective action to be carried out effectively. This includes situations where norms create specific vested interests but also situations where externalities or the concentration of power make collective action more difficult by decreasing its perceived benefits or by increasing its perceived costs respectively.

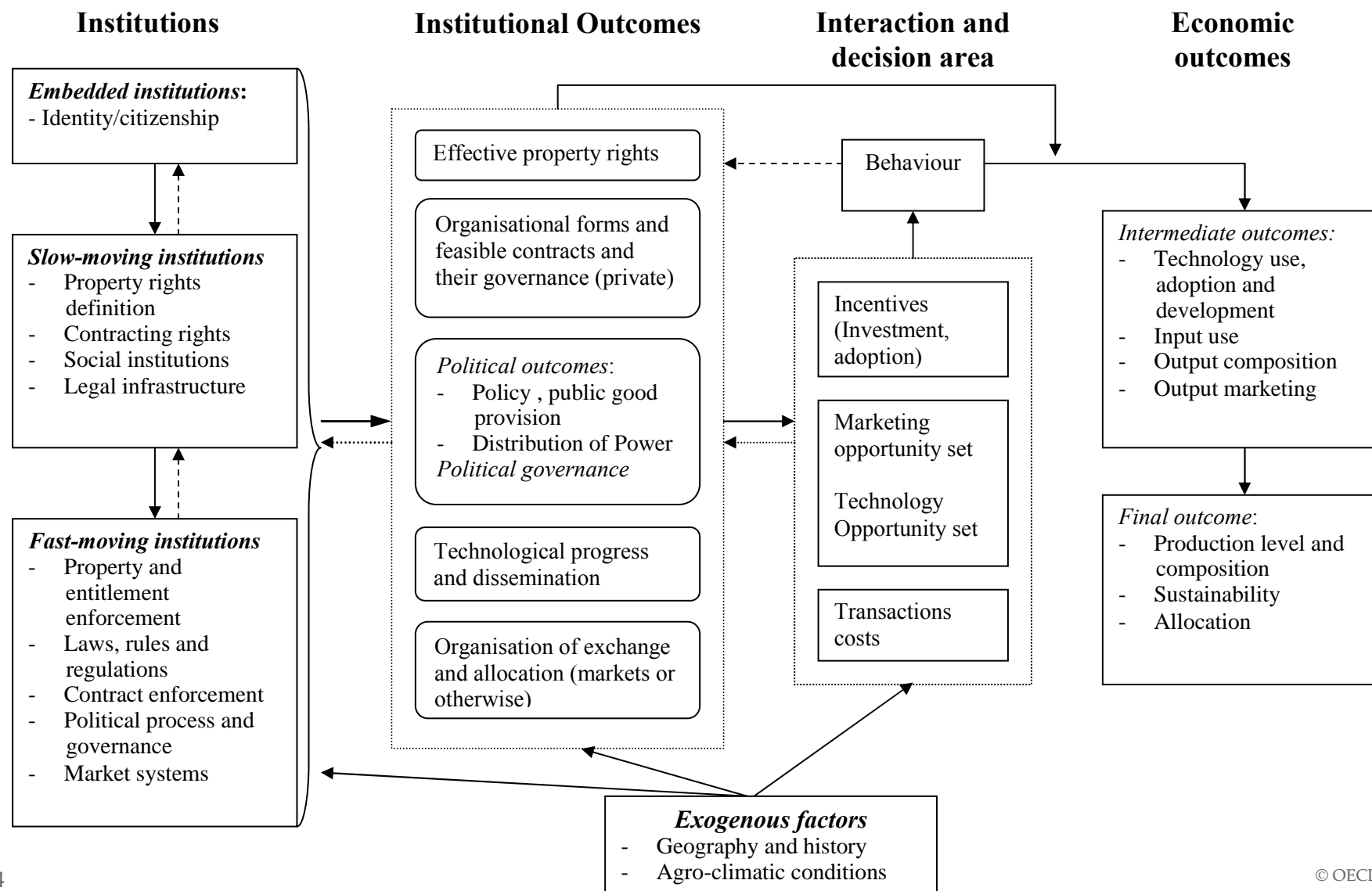
While the emphasis in (Roland, 2004) is on institutional change, the objective of this paper is slightly different. In what follows, the focus will be on drawing a picture of institutional characteristics and outcomes in order to determine which institutions act as bottlenecks in the process of agricultural development in sub-Saharan Africa today. The slow/fast framework is however useful on two accounts: it allows the identification of bottlenecks in fast-moving institutions, which are more likely to be the subject of policy and it allows the identification of norms that impede the development of other institutions.

Application to Agricultural Development

The proposed framework can be applied to agricultural development by focusing on the institutional outcomes of interest, namely effective property rights, the organisation and contractual governance of production, the accumulation and dissemination of technological knowledge and the organisation of exchange and allocation of output. To these we will add

political outcomes such as the provision of public goods which are of crucial importance for agriculture (extension, infrastructure). Figure 1 presents a summary view of the interactions considered. We separate the domains of analysis into four categories: institutions, institutional outcomes, decision-making and economic outcomes. The outcomes of interest are re-stated in Figure 1, classified as per the discussion above into intermediate and final outcomes.

Figure 1. A Framework for the Analysis of Institutional Bottlenecks in Agricultural Development



Underlying the institutions that constitute the focal point of this paper are factors that can be taken as exogenous. These include most importantly geography and agro-climatic conditions, as well as history. In the African context, the diversity of external factors is a major source of heterogeneity not only in agricultural outcomes but also in institutional characteristics and institutional outcomes. As presented, among others, by Platteau (2000), different geographical and agro-climatic factors can lead to the construction of very different social structures and institutions and hence to very different institutional outcomes.

Going right-to-left in Figure 1, outcomes are considered to be the result of the behaviour of individuals within an institutional, technological and natural context. Hence, individual decisions are made subject to: *i*) an opportunity set which consists of the available technology and marketing or contracting opportunities; *ii*) the set of transaction costs associated with each opportunity; and *iii*) the incentives generated by the institutional framework.

This paper focuses on the interactions of institutions with the constraints on decision that lead to agricultural outcomes. It is not straightforward to attribute a particular constraint on the individual farmer to either fast- or slow-moving institutions. It is easier to see how a specific institutional outcome impacts on the opportunity set, constraints or incentives faced by a decision maker.

Hence the approach will be to determine the set of institutions within a class (slow- or fast-moving) that determine a set of institutional outcomes, describe the relevant institutions and to some extent their interactions and then go on to present evidence on how such institutional characteristics impact on the decision set of individual economic agents and/or on the outcomes of interest.

Effective property and contracting rights determine the opportunity set of the individual in terms of access to inputs – land, finance and knowledge. Property and contracting rights form the bundle of actions available to each individual, such as the right to plant trees or to sell in forward markets. The definition of those rights is fundamentally the result of a set of slow-moving institutions, including social use and transfer rights allocation rules, as well as the formal legal property definition and administration edifice. However, their effective enforcement relies on legal and judicial rules over which governments are expected to have authoritative power. Absent formal rule of law, enforcement happens via social coercion or social pressure –exerted by the clan or kin group, but also via business or trade networks.

Contractual and organisational governance determine the distribution of decision power in economic relations. Hence, they alter individual incentives for producers, politicians and bureaucrats. This paper follows Williamson (2000) in proposing a framework in which an underlying assumption is that contracts and norms are incomplete and hence governance structures are necessary to allocate decision power when such accepted rules are silent. Specifically, governance determines the means farmers have of accessing both markets and public organisations, including for example extension services. It also determines their participation and weight in political processes that determine agricultural policy and the availability of key public good inputs, such as infrastructure and research. The framework distinguishes between the private and public spheres in terms of organisation and governance as they are typically observed separately and governed by different sets of

institutions and in particular different legal bodies. It should be recognised, however, that there is much overlap between corporate and political governance institutions and that there is much interaction between political and corporate governance outcomes.

The final two institutional outcomes of interest are more self-explanatory. Technological progress and dissemination determine the available technology and the amount of information the farmer has about each method of production. They are the result of various institutions that allow communication, including organised research and extension systems. Finally, the prevalent organisation of exchange and allocation of goods determines marketing opportunities and prices or terms of trade faced by farmers. It is a crucial element of his opportunity set.

In order to identify crucial institutional features for agricultural development, it is useful to determine what the relevant economic characteristics of agriculture are. First and foremost, because of its use of land, agriculture will be greatly affected by geography and agro-climatic conditions. Moreover, as land ownership and use play an important role in the construction of collective identity; both “embedded” institutions such as those defining collective identity, belonging to a group or citizenship, as well as other social institutions often govern land use and ownership.

Secondly, the nature of agricultural activity makes agricultural production a risky activity through its dependence on climatic and natural conditions, as well as one where investment and return are separated in time, hence the importance of risk-sharing and income- and consumption-smoothing practices, including credit and insurance. For this reason, the set of feasible and enforceable contracts is of utmost importance. Public contract enforcement, which relies on courts and the law, is a relatively fast-moving institution but contract enforcement is also the result of social networks and interactions and the rules that govern them. As explored in depth below, in rural Africa a number of social and otherwise informal institutions act to fulfil roles which are in the realm of formal institutions in industrialized countries.

Finally, markets and the institutions that support them will receive special attention as the expansion of the marketing opportunity set is a key precondition to the evolution of agricultural practices beyond subsistence agriculture to the extent that the market is the predominant form of exchange.

For each institution or institutional outcome analyzed below, the main question to be asked is not only whether it is effective, but also whether the institution creates a bottleneck for agricultural development by providing adverse incentives or unduly restricting opportunity sets. As suggested above, this can happen because an institution is inherently ineffective as some parts of formal law are or inefficient such as discriminatory practices, but it can also happen when a set of norms provides adverse incentives towards specific actions, especially investment and capital accumulation, or when it unduly restricts the opportunity set by casting technologies or actions as not acceptable, or when it impedes the evolution or emergence of other, potentially more efficient, arrangements.

III. SLOW-MOVING INSTITUTIONS

This section examines three types of slow-moving institutions, namely social institutions, property rights and the legal infrastructure. While a short description of the concerned institutional characteristics is pertinent, the accent is on whether and how those institutions can create bottlenecks for agricultural development.

III.1. Social Institutions

The pervasive role of social institutions on economic performance has been recognised both in the macroeconomic literature, often in the form of measured “social capital” or trust (Knack and Keefer, 1997), and in the microeconomic literature. However a key difference is that social capital tends to measure the intensity of interaction (by measuring participation in associations, for example) rather than the context in which it takes place. Measures of trust, however, can capture to some degree the outcomes of social norms. In this light, claims that sub-Saharan Africa’s lack of social capital causes bad economic performance (Collier and Gunning, 1999a) need to be considered with the caveat that measures of interaction are outcome measures themselves.

Social institutions play an important role in any economic environment that is characterised by information asymmetry, enforcement problems and repeated interaction. This is because through the repeated (social) interaction that is the locus of social norms, agents gain an informational advantage. Moreover, the fact that various types of exchange take place allows implicitly (or, less frequently, explicitly) interlocked transactions, which can benefit from complementarities. Finally, repeated interaction serves to build trust, hence giving the relationship itself value³.

There are two main reasons why social institutions may be of particular importance in the context of African agriculture. Firstly, the lack of state capacity means that norms, regulations and organisations that are of the domain of the law in industrialized countries (property rights enforcement, social security) remain informal and social in nature. Secondly, in a rural setting characterized by low population density, a sparse infrastructure network and tribal societies, characteristics of much of sub-Saharan Africa, social norms are likely to be more resilient to changes in the economic environment.

In what follows, it will become apparent that there are two distinct but related principles guiding the formation of social institutions in sub-Saharan Africa, especially those formed in the context of a tribal society: survival and equality. Norms to ensure the survival of a community or its members can manifest themselves in the form of risk management mechanisms, in particular risk-sharing mechanisms. The pursuit of an egalitarian principle

3. See Fafchamps (1992) for an exposition of social institutions in the context of repeated game theory.

takes many different specific forms, which are often consistent with risk sharing mechanisms but can often have far reaching consequences in domains other than risk sharing.

Why can social institutions create bottlenecks for development? As noted by Platteau and Hayami (1998), “while community norms are generally geared for reducing subsistence risk, they may either promote or obstruct efficient utilisation of resources depending on the nature of historically determined norms as well as current environmental and social conditions”. Indeed, risk-sharing and especially egalitarian norms, by taxing the successful, can provide adverse incentives for the accumulation of assets and wealth and ultimately, for productive investment.

Moreover, keeping social norms can require a substantial investment in itself, be it in monetary terms (such as mutual gift exchange) or in terms of time. Striving to enforce or evade social norms can distort investment incentives away from the financially optimal strategy⁴.

Finally, many social norms apply only to a subset of the population or otherwise discriminate against certain groups, such as *purdah* limitations on women’s movement or kinship requirements for owning land. Such exclusionary practices not only have an adverse distributional effect, but by keeping some categories of the population from fulfilling their potential, also constitute bottlenecks for development.

Risk Sharing

What role does risk play in agricultural development? When faced with risks, households will modify their behaviour to better cope with it, which will alter their saving, investment and production patterns. For example, exposure to risk has been blamed for the resistance of the poor towards the adoption of new technology because of risk aversion (Sandmo [1971] cited in Fafchamps [1999]), because of fear of bankruptcy (Fafchamps, 1999), or due to the uncertainty inherent in the novelty of the technology. Fafchamps (1999) postulates that risk aversion is not likely to result on its own on non-adoption – although it might if there are indivisibilities in adoption – but is a good explanation for partial adoption as a form of diversification. Households will also accumulate more liquid assets when faced with risks in order to smooth consumption when they are hit by shocks.

Social mechanisms that provide insurance play a key role in reducing the exposure to risk of farmers or, to the degree that such insurance is elective, in enabling them to better cope with risks. Indeed, insured individuals can act as risk neutral individuals would and hence choose the option that maximises expected value. From this perspective, and given the lack of formal insurance and the feebleness of state social security, social risk sharing mechanisms have the potential to foster investment and growth.

There is ample evidence that rural households in the developing world face risks that are to a large degree idiosyncratic (Morduch, 1999; Udry, 1990; Deaton, 1997). Up to three quarters of the variation in income is household specific. There is also evidence that households do not bear the full extent of these risks. There is also ample evidence of risk pooling within households (Dercon and Krishnan, 2000), villages (Deaton, 1997;

4. It should be noted that the view that such investments are wasteful or otherwise suboptimal is far from unanimous (see, for example, Mazzucato and Niemeijer, 2000).

Townsend 1994) or tribes (Grimard, 1997). While the evidence points to risk being pooled, it should be noted that typically these consumption based tests⁵ cannot distinguish between explicit social risk sharing and other risk coping mechanisms, such as precautionary saving or income smoothing.

Many social institutions have been studied from the point of view of risk sharing due to the embedded character of risk sharing arrangements within them. The household is an important locus of risk-sharing norms. Such customs as common meals and care for the young, the elderly and the sick are examples of household-based safety nets. Often, practices marking the belonging to larger kin or geographic groups such as the clan or the village also contain an embedded risk-sharing component. In the wider setting of the village or the community, risk sharing can also be shaped by specific mechanisms such as mutual gift exchange, usually at recognisable milestones (such as weddings), or mechanisms to ensure access to inputs, be it labour – Sahelian farmers often form groups of three or four individuals to pool labour resources and jointly cultivate each others' fields (Fafchamps, 1999) – or land (see below, and Platteau [2004]). It is also the source of specific organisations and practices such as funeral savings groups and remittances (Morduch, 1999).

Indeed, a general risk-sharing norm seems to permeate most economic transactions in village economies. Udry (1994) finds that credit repayment is contingent on the lender having received adverse shocks; such informal contractual provision clearly exhibits a risk sharing element. While explicit social insurance is the exception rather than the norm, risk sharing occurs in a variety of ways, often altering the way economic exchange functions, especially credit transactions, agricultural contracting (interlinking and patronage) and asset allocation.

The existence of social risk-sharing institutions can limit the value of formal insurance for rural African households. However, the local character of social norms and their limitations in terms of the category of risks that are indeed pooled (Goldstein *et al.*, 2004) leaves ample room for intervention (Morduch, 1999). A more serious problem is that such risk-sharing norms are often implicit and embedded into other transactions. This creates a pitfall in the form of distorting the efficiency of the markets or other allocation mechanisms used to provide risk insurance. For example, labour markets are typically shallow in rural sub-Saharan Africa. The existence of norms that allow village chiefs to dispose of their citizen's labour, while unlikely to be the only cause, limits the scope for a dynamic labour market.

A final criticism of social risk-sharing arrangements is that they can hinder saving incentives as there is less need for precautionary saving. One would indeed expect the availability of "free" risk management services to decrease the amount of precautionary savings. However, as pointed out by Fafchamps (1999), precautionary savings must still be held, as local groups cannot insure against aggregate shocks. Moreover, given the low level of financial intermediation in rural societies in sub-Saharan Africa, the holding of liquid, non-intermediated savings is unlikely to be investment and growth enhancing.

The evidence presented shows that social risk-sharing mechanisms play an important role in insuring farmers in the presence of risk and given the lack of formal insurance.

5. These tests are based on regressing individual consumption on aggregate consumption and idiosyncratic shocks (Fafchamps, 1999).

However, such insurance is often incomplete and implicit, and therefore works by distorting other economic transactions, especially exchange and asset allocation. Risk sharing institutions can be thought of as having emerged spontaneously due to the especially risky environment agriculturalists evolve in. However, they can also be thought of as the by-product of a cultural preference for equality (Platteau 2000, Chapter 5). Attention is now turned to the pervasiveness of the egalitarian norms that underlie such risk-sharing practices and the potential effects they may have on agricultural development.

Beyond Risk Sharing: Egalitarian Norms and Agricultural Development

When individuals do not have the choice to opt out of the insurance mechanism or when the risk-sharing institutions are in fact founded on an embedded set of egalitarian norms, these can act as a major obstacle for growth and development (Fafchamps, 1999; Platteau, 2000, Chapter 5). The elective character of insurance is here crucial. Success in one project or accumulation of assets will be taxed by the collective in order to fund the social risk-sharing mechanism. Electiveness and hence, embeddedness, is crucial because an investor could otherwise decide only to partly insure or to fully insure and then accumulate any surplus⁶. However, egalitarian norms may well negate the benefits of effort and investment. As pointed out by Platteau, “it is often the case that the economic success of an individual breeds parasitic behaviour, which is especially vicious when it does not stop until the rich individual is ruined and brought back to the fold” (Platteau, 2000; p. 208).

Egalitarian norms can be seen as a form of *social* defence of the established social order. Fafchamps (1999) notes that “unchecked accumulation of factors of production in societies with a lot of risk can totally modify the social structure and rapidly lead to a highly differentiated and highly conflictual society” (p. 89). Platteau (2000) points to risk management in a context of long-term relationships and given the difficulty to coerce the successful to remain as part of the group as the origin of egalitarian norms.

Strong egalitarian norms can lead to various institutional characteristics from widely acknowledged abstract principles of conduct to specific institutional arrangements. For example, the opposition, in the Gambia, of the concepts of *badingya*, which represents harmony, cooperation and shared progress, and *fadingya*, representing selfish ambitions and competitiveness (Platteau, 2000), articulate other institutions. More specific arrangements include rituals that periodically waste all wealth (Fafchamps, 1999) or the use of accusations of witchery on the part of successful (*lucky*) members of the community as a means to coerce distribution (Platteau, 2000; Chapter 5). Such forms of redistribution can very well outweigh the many benefits provided by the social group and clearly generate adverse incentives for asset accumulation, and therefore, for saving and investment.

Individuals can, to some degree, circumvent egalitarian norms by hiding assets from the public eye (holding cash, dispersing cattle, eating meals outside of the group home) but these strategies imply actions that are sub-optimal from the point of view of pure economic returns (Platteau, 2000). Faced with extreme egalitarian norms, (potentially) successful individuals may opt to forego their investment opportunity or migrate, thereby removing wealth and insurance opportunities from the rest of the community.

6. There is otherwise little difference between “luck” and “success”, so that having the collective tax one and not the other is unlikely.

Egalitarian norms can also severely limit the scope for financial transactions by actually making them *riskier*. Platteau blames those egalitarian norms for thwarting the development of informal credit markets. In sub-Saharan Africa, many informal loans are small, of short maturity and are used for consumption purposes. The fact that borrowers do not feel morally obliged to repay richer members of the community acts as a disincentive to lend. In this way “egalitarian norms hamper the diffusion of economic progress” (Platteau, 2000; p. 211).

To summarise, there is evidence that social risk sharing institutions go some way towards reducing the risk exposure of farmers and thereby potentially enhance investment in risky projects. The span of such arrangements as well as their coverage is however limited: not all types of risk are shared, even within idiosyncratic risks, and not all members of the community share their risk. On the other hand, the strong egalitarian norms that permeate social institutions in much of sub-Saharan Africa can be inimical to agricultural development by limiting returns from investment and risk-taking (Platteau, 2000). By restricting incentives to invest, such norms can constitute bottlenecks for investment and asset accumulation.

Information Sharing, Social Learning and Informal Finance

Repeated social interaction, whether on or off the fields, also leads to information sharing between members of the same social network. There are at least two major implications of information transmission between members of a social group of interest in agricultural development, technology adoption and financial transactions.

There is a growing literature investigating the importance of social learning in technology diffusion in agriculture (Foster and Rosenzweig, 1995) whether studying the adoption of a new crop (Bandiera and Rasul, 2002) or the diffusion of knowledge about a new crop (Conley and Udry, 2001, 2005). While the exact process of diffusion of technological knowledge is not yet fully understood⁷, these results lead to the conclusion that agricultural skill formation is not only a technological but also a social process. Strong social networks can go some way towards improving the rate of technology diffusion. However, it is apparent that the diffusion of new technologies through social channels can be slower or narrower than is socially optimal because information sharing is limited in span and because some information loss happens, especially when learning is achieved by observation.

Another role for information transmission is facilitating financial transactions. Financial intermediation in rural agricultural settings is rendered difficult by the degree of asymmetric information. The repeated character of social interactions and the stability of such social institutions as the household or the clan can go some way towards alleviating these information asymmetries. Hence kin or neighbours may have an advantage in providing credit or insurance to individuals. Nevertheless, these credit relationships will be tainted by such slow-moving social norms as equality preferences, hence the common observation of “quasi-credit” (Fafchamps, 1999). Quasi-credit typically contains some elements of insurance: debts can be forgiven, repayments postponed and actual repayment

7. Some results remain unexplained, for example Duflo et al. (2004) do not find evidence that networks favour the use of fertilizer in Western Kenya and Conley and Udry's (2005) results only apply to new crops (pineapple) but not to learning for established crops (maize/cassava).

typically depends on borrower and lender shocks at the time of repayment (Udry, 1994). Hence, “the resemblance between such consumption credit and market transactions is [...] largely superficial” (Fafchamps, 1999, p. 54)⁸.

However, there are a number of theoretical channels through which information sharing within the community can prevent the development of more formal financial intermediaries especially if they come from outside the community: *i*) because agents can take advantage of their privileged information about each other via side-contracts⁹; *ii*) because of resistance to new institutions due to being “locked-in” other (customary) arrangements, or collective resistance to outsiders or resistance on the part of the powerful within the community (Conning and Kevane, 2004). Moreover, the geographic limitation of informal information gathering seriously limits the degree of possible financial intermediation that can be achieved with that basis.

Hence information sharing within communities, while it can improve over the autarky solution, may achieve neither the socially optimal speed of technological diffusion and adoption nor a desirable level of financial intermediation. However, such mechanisms can and should be recognised by agents bent on institutional change, be it private entrants in extension services, NGOs, government agencies or lawmakers. Failure to do so might not only create tensions between two competing sets of institutions, but also result in a crowding out effect and hence a bottleneck for institutional change. On the other hand, an approach that acknowledges the amount and richness of information channelled via social interaction holds great promise for institutional innovation and development. A number of successful institutional innovations, such as microfinance, rely in effect on the enhanced access community members have to information and social sanctions

Exclusion and Discrimination in Social Institutions

Social institutions can often be either exclusionary or discriminatory. There is mounting evidence that social institutions operate through networks rather than fixed and exogenously defined social groups. While village, kin and geographical proximity are important determinants of how those networks are formed (De Weerd, 2004), the relevant risk sharing and information networks do not coincide exactly with those reference groups.

Belonging to those networks and thereby access to the services provided (risk pooling, information, etc.) can depend on social status. Indeed, De Weerd (2004) finds that, for villages in the Kagera region of Tanzania, rich people have denser networks than the poor. Evidence suggests that access to assistance depends on social standing (Goldstein *et al.*, 2004) and income (Morduch, 1999). In a parallel fashion, information transmission works better between individuals of the same gender, clan and age (Conley and Udry, 2005) or

-
8. Such transactions are, of course, not limited to tribal, agricultural societies. Indeed, it is the existence of a relationship value that permits enforcement. Hence, such transactions can be observed also in relationships between manufacturing firms in urban centres. This paper interprets this not as proof that the same governance arrangement can arise in other cultural context but rather as indicative of the resilience of social norms.
 9. This point needs to be nuanced (and Conning and Kevane (2004) do): if the intermediary can anticipate such interaction, it is possible for her to take advantage of it and crowd-in more access to financial services.

happens within certain networks (friends and family) but not others (religious) (Bandiera and Rasul, 2002). To the extent that individuals are excluded from networks for reasons that are independent of their returns from knowledge or their willingness to participate in risk-sharing arrangements, the distributional effects of exclusion can have important productivity consequences, by limiting access to technology and insurance to the elite.

Discrimination rooted in social norms generates further constraints for ethnic minorities¹⁰, foreigners and women. For example, provision of care within the household is often the result of gender casting, by which women typically have the responsibility of providing care for the young and the elderly. While some form of specialisation within the household can be efficient, predetermined gendered roles are clearly inefficient and inequitable as they constrain the economic opportunities of women (and of the household as a whole). Such is the case of many other social institutions (see Morrisson and Jütting, 2004). Traditional gender roles are likely to be very resilient. Indeed, not only do the general difficulties in enforcing contracts (see section IV below) imply that enforcing legally required mutual obligations such as those included in the civil code for families, is extremely hard, but also laws granting more rights to wives or widows can take a long time to have an effect as evidence from family law shows¹¹. The difficulties of the law to change customary family practices have also been documented in cases such as the payment of dowries or bride-prices¹².

Such discriminatory and exclusionary practices do not only reside in the personal sphere. Evidence shows that they permeate all areas of the economy and the law whether acknowledged in the law or in the form of customs and traditions. Not only do such cultural traits have adverse and pervasive distributional effects, but by limiting the potential of part of the population, they are also limiting the potential for efficient allocation of factors and hence, the potential for growth.

Summarizing, two questions are posed with regard to social risk- and information-sharing institutions. The first is how well social institutions achieve risk and information sharing. The second is whether they do so in a way that is conducive to economic development and efficiency.

The answer to the first question is clear. Social institutions play an important role in enabling individuals to cope with risk; they are limited however in how much risk they insure, both because of their local character and because of the forms such social insurance typically takes. Hence, there is ample room for policy intervention (Morduch, 1999).

The second question does not have a consensus view in the literature. To the extent that egalitarianism permeates all other social institutions, this can be inimical to factor accumulation and growth. However, specific organisational forms that incorporate elements of risk-sharing can harness the potential of social norms to act as coordination and

10. Romani (2003) finds that ethnic minorities in villages in Cote d'Ivoire are less likely to participate in extension groups.

11. Quisumbing et al. (2001), in their study of Western Ghana, find that the "common interpretation of the ISL" (Intestate Succession Law) is somewhat different from the letter of the law.

12. Although these legal reforms do not explicitly challenge gender casting, by changing the outside option of women and limiting the level of counterpart they receive for specializing in care duties, they could have a deep impact on intra-household roles and power sharing rules.

information transmission mechanisms while providing risk sharing, credit or information. Roscas (Rotating Savings and Credit Associations), micro-finance borrowing groups, funeral groups are examples of such forms.

Finally, there is mounting evidence (Platteau, 2004; Mazzucato and Niemeijer, 2000) that social institutions that act as risk-sharing arrangements, and in particular those that do so by limiting or intervening in the allocation of otherwise marketable commodities, are diminishing in importance in the context of a changing economic, technological and ecological environment. The dynamics of social institutions are beyond the scope of this paper but it should be recognised that their evolution and the response of both communities and governments to the erosion of such social institutions will go a long way towards shaping the incentives of rural farmers in the long run. While the allocation of traded goods among members of the community can be expected to become more efficient, the erosion of the social safety net also calls for the establishment of other forms of social protection to limit the risk faced by the most vulnerable members of society.

Property Rights

Most African farmers hold – *de jure* or *de facto* – their land under indigenous, customary or communal land systems – regardless of whether cultivation is communal or not – and such rules also dictate their access to other agricultural inputs, particularly water and labour. Externalities are pervasive in agricultural activity, due to the common use of natural resources such as water or common grazing grounds. Property rights institutions govern the security of land tenure as well as the transferability of assets and the access to communal assets and natural resources. Institutional outcomes in the form of effective property rights are therefore not only crucial for the efficient use of productive assets but also for the dynamic efficiency of their allocation. Given the extensive literature devoted to the topic, this paper focuses on land property rights while noting that property rights over moveable assets and natural resources are also of great importance.

Land Property Rights and Productive Investment

Indigenous land tenure systems have received much attention in the literature¹³, especially in relation to investment incentives. Theory unambiguously predicts that “better” or “more” land property rights enhance investment incentives. The view that customary tenure systems gave insufficient security prompted a number of interventions in land tenure in the form of titling and registration. These interventions can be classified in terms of our framework as enforcement rules and therefore discussion of them is deferred until section IV. Attention now turns to the premise that customary tenure provides insufficient property rights.

The theoretical arguments stating the link between property rights and investment are threefold (Besley, 1995): greater security of tenure means that the farmer is more likely to farm the same land in the future and reap the benefits of any investment (the *security* effect),

13. The original interest came from the view that customary forms of land ownership, and especially communal ownership was not desirable (World Bank, 1975). It was later found that such generalisations were not warranted by the evidence available, see for example Migot-Adholla *et al.* (1991) and Bruce and Migot-Adholla (1994)

the right to alienate the land gives the farmer the possibility to realise returns that would occur in the future and makes more gains from trade gains possible (the *realizability* or gains-from-trade effect), finally the ability to mortgage the land allows the landowner to access credit (the credit supply effect). Hence more secure and complete property rights make farmers more willing *and* more able to invest and should lead to higher investment in land.

Land use and allocation are governed in many rural African societies by the village or the kin group (lineage). A stereotypical example of such allocation rules is where land is distributed among members of the lineage based on need, often with the additional existence of a commons that either contains indivisible resources or is used as an element of the social security edifice in the village. While it is beyond the scope of this paper to analyse the different governance structures for common ownership that exist, it should be noted that the degree of individualisation of the underlying property rights varies greatly. In areas where population density is low and that face higher climatic risk, lineage rights are stronger than in areas where land is scarcer such as parts of the East African highlands (Collier and Gunning, 1999a; Platteau, 2000).

The bases for traditional rights are usage and kin, as underlying ownership rests with the lineage or village authority. The continuous threat of redistribution of unused land implies that use of land itself can strengthen property rights. Some land improvements, and particularly the planting of trees, are recognised method of enhancing tenure security by holders of temporary or fragile land rights (see Bruce, 1988; Besley 1995). Hence the expectation that tenure security should be positively associated with productive investment, whether the link reflects a causal relationship or not.

However, empirical analyses of the association between property rights and investment for sub-Saharan Africa tend to go the other way and find small effects of tenure security on investment, if any, even without controlling for the potential endogeneity of rights (see (Besley, 1998) for a review). Studies that do control for the endogeneity of rights find a mixed picture (Besley 1995 for Ghana) or no significant effect (Brasselle *et al.* 2002 for Burkina Faso).

There is no consensus explanation in the literature for these findings. Before assessing the merits of various explanations, it is enlightening to turn to other outcomes of property rights institutions, namely the use of water and soil conservation techniques.

Customary Land Rights, Ecology and Sustainability

The inherent link between land rights and rights to natural resources and the concern that customary tenure does not provide sufficient security also prompts concerns about the incentives individual farmers have to conserve soil fertility and water sources. Indeed most of Africa's soils have a highly fragile structure, which means that they are in danger of being depleted or eroded. Moreover, natural resource conservation has potentially large local externalities. For this reason, one would expect social institutions to be particularly relevant for land conservation investments.

Again, the empirical evidence is mixed. Gebremedhin and Swinton (2003) study soil conservation in the form of erosion barriers (stone terraces and soil bunds) in Ethiopia and find that land tenure proxied by mode of access matters for the decision on whether to

invest¹⁴. Gavian and Fafchamps (1996) find that, for Niger, the expected length of tenure matters for manure application (land held permanently is more likely to receive manure applications than borrowed land) but find no effect of whether land is held under customary systems or owned under a private regime. Finally, Mazzucato and Niemeijer (2000) study the links between social institutions and soil and water conservation in Easter Burkina Faso and find that while on appearance, mechanical conservation means are hardly used and agronomic and biological measures are only used to a limited extent, there is no evidence of land degradation as measured by NKP contents in the soil. They interpret this as evidence that land management techniques such as fallowing and crop switching are used. Evidence on other investments by farmers suggests that the reason for this choice is the better fit of such measures with the importance of social networks and norms.

The picture is therefore very similar as to that drawn for the case of productive investment on land. There is no strong evidence for claims that customary tenure harms incentives to invest in water and soil conservation *per se*, however there is evidence that social norms that create those incentives also lead to distortions in the composition of the investment portfolio so that the form of investment chosen will depend on the tenure regime. Moreover, although the evidence is more mixed regarding the importance of security of tenure, it is indicative that security does matter – although it does not strongly support the hypothesis that indigenous forms of tenure are not secure.

Do Customary Property Rights Constrain Development?

What can account for the weakness of the empirical evidence? One view is that our measures of property rights are inadequate. Besley (1995) finds that in one of the regions studied (Wassa), instrumenting rights actually increases their estimated effect on investment, which is not indicative of endogeneity but rather of attenuation bias due to measurement error. The difficulty in measuring rights in this sense is not only a technical issue, but rather the reflection of our imperfect grasp of the degree of land tenure security experienced by farmers (Brasselle *et al.*, 2002) as well as the separation between tenure security and perceived transferability (Deininger *et al.*, 2003). Indeed land use rights can be stable and inheritable in some customary systems even if ownership rests elsewhere. According to Brasselle *et al.* (2002) “sufficient investment incentives tend to be provided by basic rights of use that, under normal circumstances, are guaranteed to many villagers (including migrants) by the local informal order” (p. 402). The evidence cited does not strongly support the statement that customary institutions fail to provide the necessary security of tenure for productive or conservation investment.

This is not to say that reliance on customary property norms does not create bottlenecks for development. Firstly, even if customary land tenure achieves sufficient security, it does so potentially at the cost of a number of distortions. Indeed, investments that enhance land rights may not be the most economically profitable. Deininger *et al.* (2003), in their study of Ethiopia, find that insecurity prompts highly visible investments such as tree planting, while perceived security encourages less visible but more profitable investment such as terraces.

14. They do not find an effect of their tenure security variables on the amount of investment realised, but that is not entirely surprising given the measure of security used.

Secondly, customary land tenure systems, as other social institutions, typically constrain the rights of certain groups, especially women and foreigners. They typically leave what property rights the household has in the hands of the man in the couple, while the woman enjoys use rights over her husband's or her family's land. This is common even in matrilineal societies. The impact of the current slow but generalised process of individualisation of land rights on women's rights is uncertain¹⁵.

Finally, the effects of such restrictions are not only distributional. By reserving the allocation of property rights for the kin group, the family or the village, customary tenure typically places restrictions on the possible allocation of land, and especially on land transfers. Such restrictions on land transfers, coupled with missing or malfunctioning labour markets, mean that land allocation will typically be inefficient¹⁶ not only between but even within households¹⁷. Land rental markets have the potential to correct such inefficiencies in the allocation of land ownership, but require the separation of use and ownership and hence customary rights "are probably less suited to evolution to rental rights" (Collier and Gunning, 1999, p. 80). The *de facto* separation of who holds ownership and use rights under customary tenure does not necessarily solve this problem, given that transactions in ownership are often prohibited and even use rights can have limits on who can hold them.

Moreover, the transfer of land ownership or control to more productive farmers is a necessary step in a process of agrarian transformation towards a more productive and market-oriented agricultural sector. The allocation of land rights, by creating losers from agrarian transformation can prevent the process altogether or lead to violent conflict (Pons-Vignon and Solignac Lecomte, 2004).

Hence, land tenure and land transactions need to be understood in the context of a long-term relationship between two parties or between a farmer and the kin group. Moreover, it is essential to recognise that the importance of land property rights in the African setting stems not only from the importance of agriculture but also from the intimate link that land rights have with notions of belonging and citizenship (Berry, 1997; Platteau, 2000). Little support has been found for the claims that customary tenure creates bottlenecks by being insufficiently secure. It does seem, however, that limits on alienability of rights can seriously undermine the efficiency of land allocation given the failures of other markets (especially labour). The available evidence also highlights our relatively limited understanding of how customary rights evolve and what organisational innovations could foster development within the customary framework.

The Erosion of Customary Land Tenure

Finally, as suggested by Platteau (2000) in the context of the "evolutionary theory of land rights"¹⁸, the increase in land scarcity will lead to greater demand for more tenure

15. See Lastarria-Cornhiel (1997) for a detailed account of gender issues in the individualization of property rights in Africa, Deininger (2003) for a general overview of land rights and the risks to vulnerable populations of the process of individualization, and Quisumbing *et al.* (2001) for the description of market-based counter-acting mechanisms.

16. See Gavian and Fafchamps (1996) for empirical evidence.

17. In the sense that input productivity differs between plots owned by the same household

18. See also (Platteau, 1996) for a detailed exposition of the Evolutionary Theory of Land Rights as applied to Africa.

security and the emergence of individual property rights evolving towards greater individualisation and formalisation. The degree of effective land scarcity in sub-Saharan Africa is debatable¹⁹ and is very unequal between countries. However, there is ample evidence of the erosion of communal ownership and collective governance of land in sub-Saharan Africa. Processes of individualisation of rights and increasing marketability of land are more conspicuous in the Great Lakes region countries (Uganda, Rwanda) where land pressure is greater. But evidence of greater individual power within customary tenure systems also exists for other areas, such as Ghana (Quisumbing *et al.*, 2001) and other West African countries; moreover these have been found above and beyond effects due to policy interventions (Kenya).

This individualisation process has two important consequences. Firstly, it lowers the ability of the community to act as an insurer (Platteau, 2004). Secondly, it leaves land allocation to be decided by transactions increasingly resembling market transactions. The efficiency of the resulting allocation then depends on the degree to which land markets (as well as other input markets, especially labour) function efficiently and are supported by other institutions such as the judiciary and land administration institutions.

Legal Infrastructure and Contract Enforcement

The legal underpinnings (formal or informal) of contract enforcement are of utmost importance for conflict resolution. This is not only true in the courtroom. The horizon of just and speedy conflict resolution, by making renegeation payoffs lower and more certain, enhances incentives to contract and hence realise gains from transactions other than cash-in-hand, simultaneous transactions.

The World Development Report 2002 states that “adjudication of a dispute by a court of law offers an alternative, one where facts are carefully assayed and self-defence and other considerations that may excuse or explain the conduct are reviewed. In short, courts are a way to resolve disputes justly” (World Bank, 2002; p. 117). This section is not concerned with the role of courts as much as it is with the legal structure and legal “culture” in sub-Saharan Africa. The underlying question is whether we can assert that the rule of law prevails and what that law body is. Indeed, while the state can act to alter procedures and the body of law in specific areas, the legal culture can hardly be changed in such an authoritative fashion.

Legal Culture and Property Rights

While not always recognised by the law and often explicitly contested by it, customary tenure cohabits with legal forms of tenure in most of Africa. While a dual system in which customary land tenure arrangements²⁰, often recognised by formal law, cohabit with freehold ownership exists in most of West Africa (or state leasehold in Congo, Burkina Faso and Zaire in 1996), the legal status of customary arrangements was much eroded in

19. Even areas where high-potential agricultural land is relatively hard to come by may not exhibit pressure for private land ownership if transport links make subsistence agriculture the main activity and high mortality prevents large increases in population density (Platteau and Hayami, 1998)

20. In several African countries, Islamic law also forms an important part of the local legal culture, especially in customary law.

those countries of East Africa that lived through serious attempts at collectivisation (Tanzania and Ethiopia) and in those areas of Southern Africa where significant white settlement led to large land redistributions since independence (Bruce, 1998).

Studies of the economic impact of the legal culture are few, and the differences in formal law should make us reluctant to generalisation in this context. One fundamental element is that where the law recognises customary tenure, the legal culture is associated with customary norms and can drift much apart from a conflict resolution paradigm. Evidence from Malawi (van Donge, 1999) and Western Ghana (Berry, 1997) shows that procedure for land conflict resolution is deeply marked by the lineage structure of society. More significantly, land conflict resolution is often achieved via conciliation rather than by determining which party is in the right. This prevents open conflict but can hinder the security of certain categories, such as recent migrants. Indeed, legal rights enforcement often hinges upon the (re-)construction of family history used to prove belonging and hence entitlement to ownership, especially land ownership.

The existence of local legal cultures does not necessarily mean that the introduction of formal state law is the answer. Von Benda-Beckmann (1989) states that the results of empirical studies about land and law have “repeatedly shown that (a) the large-scale introduction of so-called western law has led to deteriorating social and economic conditions of the majority of the rural population rather than development; while (b) local law can be sufficiently flexible in its adaptation to social and economic changes” (von Benda-Beckmann (1989) cited in van Donge (1999)). Moreover, the introduction of formal law may be ineffective if it fails to accommodate or recognise the existence of local legal practices.

The property rights of women are a case in point. Most African constitutions and civil law declare that men and women have equal rights, including the right to own property and to inherit. However, the recognition of customary law either explicitly or implicitly (as part of the legal culture) effectively denies women of many of their rights²¹. Moreover, even when statutory law does recognise women’s rights, “when cultural norms and practices are in conflict with these laws [...] women’s legal rights are often ignored” (Lastarria-Cornhiel, 1997). The embeddedness of discriminatory practices in customary law and hence in the legal culture, not only denies women the same property rights that men enjoy, but also renders such practices all the more resilient. Critically, it makes women’s property rights enforcement dependent on family law – be it customary or statutory.

With the caveat of the local specificity of the studies cited, we can note that the existence of a two-tiered legal culture, with one tier rooted in customary law and another in western-style formal law, can lead to increased insecurity. Indeed, customary law is applied by traditional authorities and hence does not offer the protection of higher court appeals²². Such a two-tiered system can also limit recognition of local law and impede contracts or property transfers across cultural lines even within countries.

21. For example, the Zimbabwean Customary Law and Primary Courts Act of 1981, by recognizing customary inheritance law, practically denies black African women of their statutory inheritance rights.

22. van Donge (1999) cites one case where, after escalating to the head traditional authority, the case was settled by the governing party’s representative in the area rather than by a higher court.

It is apparent from the empirical literature on property rights that *de facto* rights are more important for economic outcomes than *de jure* rights although the role of statutory rights in shaping effective rights should not be understated. The difference is often placed in the existence and accessibility of enforcement mechanisms. However, the existence of local legal cultures which are not recognised by formal law places the difference at a much more fundamental level: in how the law is interpreted, not only how it is applied. Indeed one where the appropriate direction for state intervention is far from obvious. To the extent that such cultures serve to enforce discriminatory practices – for example against women or outsiders – they are not only inequitable but, by hindering the reallocation of ownership rights and thereby access to land, also constitute a bottleneck for the development of efficient mechanisms of asset distribution.

Local Legal Cultures and Contract Enforcement

The existing literature finds African legal institutions to be largely inefficient. This is due not only to the specific arrangements and procedures within the judiciary, but also to the public having little knowledge and confidence in the legal system (Fafchamps, 2004). Hard evidence on both the use of legal institutions and the effects of malfunctioning legal and judicial institutions is largely missing, with the notable exception of recent work by Fafchamps (2004).

In his study of agricultural traders in Malawi, Benin and Madagascar, Fafchamps (2004) finds that recourse to legal institutions is uncommon and that traders have low exposure to contractual breach by their marketing practices: they operate in a cash-based society, inspect personally the quality of deliveries and are reluctant to hire employees due to lack of trust.

Moreover, the absence of instances of recourse to formal judiciary in cases of contractual breach is in marked contrast with the recourse to the police in cases of theft. Hence it is not only a matter of distrust or lack of capacity of the state. Fafchamps's (2004, Chapter 6) interprets that "contractual obligations are largely seen as outside the purview of the law – with the possible exception of non-payment." Similarly to van Donge's (1999) findings on local legal cultures, the judiciary is seen as too antagonistic an institution and recourse to courts would harm or destroy the relationship, the possibility of which is seen as too costly.

In the face of failing or otherwise irrelevant formal contract enforcement mechanisms, agents limit their exposure to contract risk. They also seek other forms of contract enforcement especially repeated interaction – or "relationship contracting" – via social networks (see Fafchamps and Minten, 2001)²³. They alternatively can rely on traditional authority to resolve contract disputes. Such approaches have the major drawback of offering very unequal levels of protection to different sectors of society, especially women and non-"indigenous" people (Francis, 2002), hence limiting their access to contract-based livelihood strategies (such as contract farming). More importantly, they limit the size of the potential pool of trading partners, hence limiting the scope for specialisation and the realisation of economies of scale.

23. Social networks also play other roles in agricultural markets such as information sharing and diffusion, and interlinking – see above and (Fafchamps 2004; Section 10) for details.

Local legal cultures embed a number of institutions from the wider social setting. While reliance on customary forms of law or relationship forms of contracting can be attributed in part to the inefficiency of the formal judiciary, the evidence suggests rather that recourse to other forms of law is also motivated by a legal culture that is to some degree at odds with formal law. Legal culture, being informed by social norms as well as customary and formal law, is unlikely to evolve quickly and should be taken into account when formulating policy. Failure to acknowledge the role of legal culture can lead to policy not being implemented and hence be rendered ineffective.

Slow-moving institutions set the stage for fast-moving institutions and in particular for those institutions (law, regulation, political rules) over which the state has direct control. It has been shown how slow-moving institutions, and especially social norms widely permeate economic activities including both market or non-market interaction. They also play a major role in the definition of property rights as well as in creating a legal culture that can be very resilient and which policy should take into account if it is to succeed in shaping institutional outcomes.

Table 1. Summary of Bottlenecks Identified in Slow-moving Institutions

INSTITUTIONAL OUTCOME	INSTITUTIONAL SOURCE	EFFECT
Transactions conditional on shocks (credit)	<ul style="list-style-type: none"> • Informal risk-sharing institutions 	<ul style="list-style-type: none"> • Misallocation of capital and other goods
Uninsured risk	<ul style="list-style-type: none"> • Locality of risk sharing institutions • Discrimination within social institutions 	<ul style="list-style-type: none"> • Vulnerability • Failure to adopt new technology if risky or requiring large fixed costs
Compulsory redistribution	<ul style="list-style-type: none"> • Egalitarian norms 	<ul style="list-style-type: none"> • Reduced return on investment • Actions to hide returns
Transactions conditional on social status	<ul style="list-style-type: none"> • Egalitarian norms 	<ul style="list-style-type: none"> • Disincentive to lend to poorer people as they risk not repaying
Insufficient technology diffusion	<ul style="list-style-type: none"> • Network-based information sharing 	<ul style="list-style-type: none"> • Agricultural technology diffusion insufficient and biased towards the well-connected.
Lack of penetration of formal financial intermediaries	<ul style="list-style-type: none"> • Side contracting through social norms • Resistance due to social lock-in (by community or the powerful within) 	<ul style="list-style-type: none"> • Shallow financial markets
Exclusion and discrimination	<ul style="list-style-type: none"> • Various social norms: gender casting, belonging and citizenship rules 	<ul style="list-style-type: none"> • Distributional distortion • Conflict • Inefficient distribution of productive assets
Specific investment needed to enhance tenure security	<ul style="list-style-type: none"> • Redistribution of land less likely if visible investment present (trees) 	<ul style="list-style-type: none"> • Distortion of investment incentives
Threat of expropriation of assets by village chief	<ul style="list-style-type: none"> • Local property rights over assets 	<ul style="list-style-type: none"> • Disincentive to accumulate assets
Restrictions on land ownership and alienation	<ul style="list-style-type: none"> • Land property vested on village/kin 	<ul style="list-style-type: none"> • Misallocation of land between owners and relative to other assets (especially labour)
Prevalence of customary law regardless of statutory law	<ul style="list-style-type: none"> • Local legal culture 	<ul style="list-style-type: none"> • Imperfect contract enforcement • Legal insecurity, especially for socially disregarded groups • Reduction in the effectiveness of policy
Disregard of formal contract enforcement	<ul style="list-style-type: none"> • Preference for conciliatory conflict resolution • Distrust? Ineffectiveness of courts? 	<ul style="list-style-type: none"> • Legal insecurity for some segments of the population • Reliance on costly relationship-based contracting

IV. FAST-MOVING INSTITUTIONS

This section studies in detail the sets of fast-moving institutions associated with four outcomes of interest: the enforcement of property rights and entitlement, contract enforcement, political governance and market institutions.

There are two very distinct ways in which fast-moving institutions may not only fail to deliver desirable outcomes but create bottlenecks for development. Some institutional characteristics are, by design, harmful to development, such as widespread corruption, lack of accountability, lack of law enforcement.

Other institutions and norms may not be inherently harmful but are not adapted to the rest of the institutional environment, including the set of slow-moving institutions analyzed above. Conflicting sets of rules of behaviour force institutional change, which can be in the right direction (by making for example, social norms more adapted to economic conditions) but can also result in the collapse of one of the institutional arrangements (such as lack of trust and use of courts due to conflict between statutory and customary law).

The Enforcement of Property Rights: Land Administration and Formal Property Law

While customary tenure remains important and is not expected to evolve quickly, the state plays a fundamental role in defining, enforcing and policing property rights, through formal property law and land administration institutions on the one hand, and the judiciary and police systems on the other.

The hypothesis that customary land rights are insufficient, derived from the observation of increased land conflict in some areas, led to the establishment of a number of titling and registration programmes throughout Sub-Saharan Africa. Communal tenure systems, regardless of the security they provide, typically constrain land transactions and hence severely constrain allocative efficiency and limit investment incentives. Therefore, even if we take for granted that customary tenure provides sufficient security, there is a case for land titling and registration even though there is limited evidence of a positive impact on tenure security.

However, the empirical evidence for Africa does not support the establishment of formal titling programmes as a one-size-fits-all policy solution. Evidence from Kenya, which has had a programme of individualised systematic titling since the fifties does not show that agricultural investment or land yields have responded to this programme (Bruce and Migot-Adholla, 1994). Carter *et al.* (1994) find that titling is systematically linked to farm size and mode of access to land and therefore associated with better outcomes, however once farm characteristics are accounted for, they find no effect of land titles. Somewhat more positive evidence comes from countries where titling or registration are optional such as Somalia or Uganda but potential endogeneity in the decision to register land rights casts some doubts on the strength of those results (Besley, 1998). Overall, the evidence does not strongly

support investment or productivity effects of land titling in Africa. This contrasts with the evidence elsewhere, whether in Latin America or Asia (Deininger, 2003). There are three potential causes of the lack of effectiveness of land management reform in Africa: failure of related institutions, especially credit markets, lack of capacity of land management institutions and legal uncertainty created by conflicts between formal and customary law.

The absence of organised credit markets and the restrictions often imposed on foreclosure in many African settings mean that one possible explanation for the empirical evidence is the absence of a credit effect – which has been identified as the main channel in Thailand (Feder *et al.*, 1988) and Paraguay (Carter and Olinto, 2003). Difficulties in foreclosing due to either lack of legal provisions, conflicts between customary and formal law, corruption or malfunctioning courts not only reduce credit supply but substantially impede the development of formal credit markets (Platteau, 2000).

An alternative reason for the lack of effect of land titling and registration programmes in Africa is the lack of capacity of the relevant public organisations, namely registries, cadastres and courts. Registration plays a key role in asserting rights when they are contested by a third party, and allows to short-cut the process of recreation of history that takes place in customary conflict-resolution processes. Cadastres, if duly associated with registration, provide authoritative boundaries that can help prevent otherwise common boundary disputes. The failure of such organisations – be it due to lack of administrative capacity, lack of trust from farmers or the difficulty in recording customary rights (when recognised) in land administration systems, can well lead to their operational incapacity.

The case of property law is a clear case of conflict between slow and fast-moving sets of institutions. The resilience of social norms makes legal property law (and family law) reform often ineffective and slow. The 1960 Civil Code in Ethiopia granted rights to women which are comparable to those of industrialised countries but maintained personal settlement with the help of arbitrators in case of conflict. The lack of familiarity or sympathy of arbitrators to new laws ensured that customary law was applied *de facto* (Quisumbing, 2003; p. 140). Similar examples are cited for Niger and Mozambique by Lastarria-Cornhiel (1997). Such resilience can also take place within the administrative rather than the juridical sphere, with local officials interpreting laws and regulations and discriminating against women²⁴ on the basis of their customary rather than statutory rights, for example by requiring the presence of a male for administrative acts or by systematically registering property in the name of a male.

This is not to say that legal reform is powerless or impossible. Quisumbing *et al.* (2001) find that the Intestate Succession Law in Ghana, which limits the applicability of customary inheritance to about a third of the estate of the deceased, has been effective in allowing individuals to bequest property to their wives (and offspring) in Akan matrilineal households²⁵. However, they also find that the use of practices to ensure that property would fall in the hands of wives and offspring – in the form of *inter-vivos* gifts – *predated* the law. Hence such a legal reform facilitated the evolution of cultural norms rather than forcing or initiating it.

24. Lastarria-Cornhiel 1997; p. 1327

25. Inheritance in matrilineal households typically goes from uncle to nephew on the mother's side.

The creation of explicit tensions between customary and formal property law is a risky development strategy. According to Fafchamps (2004), “contradiction between formal law and local practices is most visible in patrimonial issues”. Such contradictions can increase legal insecurity and limit trust in enforcement agents, hence limiting enforcement capacity. On the other hand, vested interests can prevent the legal recognition of evolution in customary practices in the field, acting as bottlenecks in the evolution of land rights, and hence impede a more efficient allocation of land. Overall, the recognition of the existence of customary law while adopting certain provisions to protect groups perceived as vulnerable can have relevant and beneficial effects in orientating the evolution of property rights.

Whether tenure reform chooses to recognise or substitute for customary land tenure, it should be recognised that either by enshrining the current state of land relations or by fundamentally altering it, land tenure reform creates winners and losers, at least in the short run. If undertaken as a mere technical reform, it runs the risk of exacerbating tensions and possibly planting the seeds of conflict (Pons-Vignon and Solignac Lecomte, 2004)

Finally, while the positive evidence for land titling in Africa²⁶ is scant, it is suggestive (see for example, Platteau, 2000; World Bank 2002) of the fact that titling is likely to be beneficial in areas where customary rights are weak, have been disrupted or do not exist. These include resettlement, peri-urban and colonisation or agricultural frontier areas.

Although the above discussion has focused on land rights due to their importance and to the ample literature that has treated the aforementioned problems, property rights over other assets, including mobile assets, face similar problems. The ability to register and transfer ownership of mobile assets or inventories and to use them as collateral is crucial in securing loans and raising capital (World Bank, 2005b) and therefore in giving formal credit markets the opportunity to mobilise savings.

Policies to foster institutional change in the direction of greater individualisation and formalisation of land property rights are not supported by the evidence as a panacea. However, the evolution of property rights institutions due to both social and market pressures briefly discussed in the previous section can in turn lead to demand for such a change. What the evidence does suggest is that policy reversals (see Deininger *et al.*, 2003), political interference and corruption (Platteau, 2000) are harmful to tenure security and hinder the credibility of the land administration system.

Contract Enforcement: Courts and Alternative Enforcement Mechanisms

Organisational structures constitute efforts to limit the extent of transactions costs. Contract uncertainty generates major transactions costs. Therefore, contract enforcement institutions are crucial in determining the organisational and governance structures that emerge in an economy. This sub-section looks at the available evidence of how courts function and how (and whether) they are used. It then goes on to examine alternative contract enforcement mechanisms. In order to ascertain how the contract enforcement environment can alter the organisation of agricultural markets, it then turns to the example of contract farming in the African context.

26. Evidence is much more supportive of positive effects of land titling in Asia and Latin America. See Deininger (2003) and Besley (1998) for references.

Judicial Infrastructure, Transparency and Access

As noted in the previous section, the available evidence (Fafchamps, 2004) signals that courts and formal law do not act as contract enforcement mechanisms. There could be several explanations for this fact: the one proposed by Fafchamps (2004) is that courts are seen as a confrontational mechanism. The contradiction of this perception with prevailing social norms can lead to their being ineffectual. Other explanations include the perception that courts are not transparent, because they are subject to political interference or corrupt practices, and yet another explanation could be that litigation is seen as too expensive²⁷.

Lack of access to courts and contract enforcement is not only a problem for poor rural farmers but potentially also for foreign firms. Given social risk- and income-sharing norms, local authorities may be more reluctant to enforce contracts at the expense of its citizens after shocks have happened.

While cost of access may be at play, the findings that courts and police are used in cases of theft while they are not in cases of breach of contract suggest that social norms may be more important than previously thought.

Further research is necessary on this topic, to the extent that culture is driving the lack of use of courts, the use of mediation and arbitration mechanisms can foster confidence in the formal system. This is of course only relevant when such mechanisms are not available privately. Nevertheless, alternative dispute resolution institutions will have the potential to function better when they are backed by a judiciary that is perceived as just and impartial.

Contractual Governance and Enforcement

In the absence of formal contractual dispute resolution, contract governance is ensured by the use of business networks and long-term relationships. These may or may not correspond to ethnic and kin lines. Indeed, Fafchamps (2003) finds ethnicity and religion not to be significant determinants of the size of network effects amongst agricultural traders. Hence, although similar in many ways, relationship contracting is not to be boxed with kin- or family-based social institutions.

The resort to relational contracting has the major drawback of making firms and traders less likely to trade in the anonymous market, thereby limiting potential gains from trade. It also makes information transmission more crucial than in an anonymous market where contracts are enforced by courts (World Bank, 2005).

Enforcing contract through relationship generates important transactions costs. First of all, it limits the size of contracts, especially in an initial phase while the relationship is being built up and information is collected. Secondly, it can limit the type of contracts that are signed, favouring mutual exchange over forward contracts for example. Similarly to social networks, once the relationship has been built up and has acquired value for the parties, enforcement via termination may not be credible and contracts are *de facto*

27. Note that data on actual cases filed or taken to court only partially reflects this problem. A system perceived as providing few benefits (due to imprevisible or slow decisions) or too high costs (due to costs of litigation as well as other opportunity costs generated by judicial procedure) is unlikely to be a credible threat and therefore to act as a deterrent of opportunistic behaviour.

renegotiable. This gives rise to greater contract flexibility, which, while desirable in a high-risk environment, also reduces what can be contracted upon.

Finally, over and above inadequate property rights definition and enforcement, insufficient contract enforcement severely limits the scope for financial services to be taken on by private actors (Kherallah *et al.*, 2002). Indeed, the contractual characteristics that emerge from our analysis – social enforcement, spot markets, relatively limited information transmission, do not appear to be conducive to financial intermediation.

Contract enforcement reform need not aim at perfect contract enforcement and must recognise that, whatever the state of the judiciary and the law, many firms will continue contracting on a relationship basis. We follow Fafchamps (2004) in suggesting that the objective of policy is to add “new” – or previously unused – enforcement mechanisms in order to allow farmers, traders and firms to interact with agents of whom they have no prior knowledge.

A second policy option is to encourage information transmission, via referral or credit bureaus for example, when private agents do not engage in such arrangements. There is a clear public good component to such institutions that warrants intervention, thereby extending trade and business networks beyond their social origin.

Contractual Form – The Example of Contract Farming

While specific contractual forms are not the main object of this paper, it is useful to flesh out the implications of enforcement as well as other market failures on the form contracts can potentially take, as well as their governance. This section illustrates how the failure of the contracting framework to support specific contractual forms can create bottlenecks for agricultural development.

We take the example of contract farming as a case in point. Contract farming, whereby a firm provides seeds, supplies inputs (including eventually credit either explicitly or in form of subsidies on agricultural inputs) and technical knowledge and agrees to buy output at a specified price, offers great promise in an environment plagued by market failures and where the shrinking of the role of the state has often caused output and – especially – input markets to wear thin and unreliable.

Studies have found that despite these advantages, the track record of contract farming both in African and other contexts is mixed. The literature does find “substantial income increases” to result from contract farming at least for participants (Glover, 1994). There is wide variation in the terms of contracts, which makes generalisation on benefits risky. Evidence does point to positive spillover effects in the form of employment opportunities when labour-intensive products are contracted out and to the transfer of management skills (Glover, 1994). The effects of technology transfer are more ambiguous, mainly due to the lack of transferability of some of the techniques learned in outgrower schemes.

Observation indicates that contract farming also creates risks both for farmers and firms (Eaton and Shepherd, 2001). Three fundamental institutional characteristics lead to and exacerbate those risks: competition in commodity markets, the prevalence of social norms and imperfect contract enforcement.

The main criticism of contract farming is that it is by design an asymmetric contracting environment, in which the purchasing firm typically has much more bargaining power due to its size and potentially its clout in public instances. Competition in contract provision can reduce this, moreover, competition in output markets or the ability of farmers to sell the output in local spot markets forces the contracting firm to agree to higher – not only more secure – prices. However, such competition also creates a risk for the agribusiness contracting party, as it increases manifold the possibility that output will be sold elsewhere and creates incentives for the farmer's failing to honour the contract.

Such "leakage" is intimately linked to the other two institutional characteristics: it is possible due to lack of contract enforcement on farmers and it is exacerbated on the input side by social norms, especially where only some farmers are on a contract or out-grower scheme (Fafchamps, 2004), as farmers may feel compelled to share inputs with other members of the community. Moreover, such a selection of admittedly more competent, skilled or better-endowed farmers can have implications when social institutions are considered as it can debilitate social sharing norms by granting more income to richer individuals. While the interaction of contract farming and social institutions is admittedly complex, recognizing its existence is a road to successful contracting. A study of a specific contract farming programme in Senegal (Warning and Key, 2002) found that a decentralised programme can achieve good outcomes from farmers while using local information to choose "honest" farmers²⁸.

The potential risk of non-compliance on part of the farmer means that agribusiness will find it optimal to screen farmers, hence incurring a fixed cost – there may already be fixed costs due to technological reasons if new modes of production are introduced –. This means that medium- or long-term contracts are preferable but also that contracting costs are greater and therefore that farmer selection is more likely to pay off.

While contract farming holds promise for technology diffusion and the deepening of input markets, it is severely constrained by the existing contracting environment. More generally, Fafchamps (2004) considers the "inability or unwillingness to enforce contracts [...] a major hindrance to the development of input markets and interlinked input-output contracts", which otherwise would be an answer to the degree of market uncertainty in African agriculture.

The available evidence points not only to little use of courts by smaller agricultural traders but also, more surprisingly, to the fact that due to cultural norms, courts are seldom used even as a threat to avoid opportunistic behaviour. This leaves contracts to be enforced via social or business networks through long-term relationships. As pointed out in section III, such mechanisms are effective, but may not be efficient, especially in the absence of sufficient information transmission, because they limit the set of potential trading partners, incur significant transactions costs and create hold-up situations. The difficulties in implementing contract farming and other forms of interlinked input-output contracts show

28. Similar solutions are discussed by Coulter et al. (1999) (cited in Kirsten and Sartorius, 2002) including group lending, close communication and monitoring, extending range and quality of service offered, repayment incentives, strict management of defaulters and cooperation between buyers.

how the lack of formal contract enforcement creates a bottleneck for the advancement of agricultural practices beyond the subsistence model.

Political Processes, Political Governance and Political Failures

Political institutions and public sector institutions are a crucial determinant of the institutional and policy environment farmers and agricultural traders evolve in. Political processes and institutions determine policies both in the agricultural sector and other related sectors. The governance of political and public sector institutions is also an important determinant of the capacity of the state to deliver the necessary public goods in a way that is efficient and responsive to the needs of farmers.

Political Institutions and the Political Voice of Farmers

The current state of the agricultural sector in Africa should be viewed in a historical perspective. Along with the belief that rapid industrialisation was the way to rapid growth, the existence of predatory regimes and the generalised lack of political voice of farmers led to industrialisation being undertaken at the expense of farmers and the agricultural sector at large. This was true with the exception of countries such as South Africa, Zimbabwe and Kenya, where large-scale commercial farmers with political clout succeed in making the case for agriculture (Eicher, 1999).

Indeed, at independence, many sub-Saharan African countries continued using the colonial marketing boards and hence taxing certain categories of farmers; powerful commercial farmer groups received preferential treatment in the form of tax benefits or a dual marketing system.

Hence, African governments behaved in ways “damaging to the long-term interests of the majority of their populations because they served narrow constituencies” (Collier and Gunning, 1999). The geographical dispersion and lack of political organisation of farmers is partly to blame for their lack of political voice. Efforts to strengthen farmer’s groups have proved fruitful. The emergence of cotton grower groups in Mali and their organised protest “against dishonest cotton grading and weighing practices led to authorities transferring responsibility for cotton grading and weighing” as well as other typically publicly managed activities to village groups (Bingen, 1998, cited in Eicher, 1999). Two positive lessons can be drawn from this experience: the reaction of the Malian authorities shows responsiveness and accountability, the key forms of political voice which democracy is expected to generate; and the willingness of farmers to take on decentralised responsibilities. However, the political impact of farmers groups and other agricultural sector agents does not only depend on their ability to organise themselves but also on the institutional design of political institutions themselves.

For all the merits of analyses stressing the role of interest groups in cheap food or “urban bias” policies, they made the important omission of political institutions themselves (Bates, 1993). Recent attempts at incorporating political system variables in the analysis of agricultural policy show political systems – and in particular among the available evidence, the introduction of democracy – to matter. Beghin and Kherallah (1994) find that across countries, democratic regimes (whether pluralistic or with a dominant party) are associated with agricultural protection measures. In a regression at the crop-country level, dominant party and pluralistic democratic regimes are associated with increases in protection

measures equivalent to price support of the order of 40 per cent. While these findings are indicative of the importance of institutions, the cross-country nature of these results needs to be considered carefully, as they can hardly differentiate between the effects of political institutions and other institutional characteristics that could be correlated across countries. Moreover, determining the relevance of those results for Sub-Saharan Africa requires further analysis, as there are only four countries in the sample from sub-Saharan Africa. Taken at face value, they indicate that political institutions matter over and above the economic weight of the agricultural sector.

Political Governance

Not only do political institutions matter, but also their governance structures – namely the process by which authority is attributed and utilised – can have significant effects on performance and participation. Major failures in political governance in the form of corruption (see Mauro, 1995) and extreme political fiscal cycles are associated with negative macroeconomic outcomes that harm agricultural development, as well as with poor macroeconomic management that exacerbates the risky environment faced by farmers and limits their options for trade.

State institutions inherited at independence were the product of colonial heritage and the high aspirations of independence but deteriorated in the following decades in what has been labelled a “neopatrimonial downward spiral” (Levy, 2004). Subsequent reforms, especially structural adjustment have aimed at reducing the scope of state intervention. A second wave of reforms has tried to improve state capacity with mixed results, in particular in corruption control, which is a good proxy for overall quality of political institutions (Levy, 2004; p. 9).

Lack of capacity in state institutions leads first and foremost to poor service delivery. Not only is this true for those agencies that are directly linked to agriculture, such as land management, research and extension, but also for powers of the state that shape the overall frame conditions for agricultural development such as security, the rule of law, political stability and policy formulation. Recent experience highlights the importance of matching the scope of state intervention with the capacities of the state (World Bank, 2002). That lack of capacity is a major issue is shown by recurring fiscal discipline issues in budget formulation, execution and reporting. (Levy, 2004)

A narrow approach would therefore emphasise technical and managerial failures in the bureaucracy. But lack of capacity in political institutions goes beyond service delivery. Indeed, its essence is the inability of political institutions to provide the incentives for political or economic interests to be channelled through them into the policy process. As such, the failure of political institutions – especially those meant to oversee the executive by providing checks and balances – leads political (and economic) interests in society to bypass political institutions altogether and to capture the bureaucracy or otherwise influence it. Such behaviour breeds clientelistic relationships and reduces both the accountability of government and the potential for less well-connected citizens to influence policy or its execution.

Lack of technical and managerial capacity is not the only weakness of public administration. Public administrations are “embedded in a complex, interdependent system” that includes political and social institutions as well as economic, social and political interests

(Levy, 2004). The societal context clearly influences the shape of African political institutions in many forms. It imposes the organisation of politics around the representation of geographically specific communities and stresses delivery and redistribution among them. Social pressures maintain a system of clientelist politics, curtail opportunities for consultation and dialog by using ethnicity as the basis of political mobilisation (Barkan, 2004).

The literature has paid relatively little attention to the specific governance issues confronting agricultural institutions, especially from an integral perspective that embeds those agencies in the overall institutional setting. Lessons from public sector management reforms are, however, applicable to agriculture-specific agencies. In all cases, removing obstacles to development hinges on reshaping the state institutional arrangements so that political leaders “respond to a broad array of civic pressures for performance and not simply to the elites” (Levy, 2004). This involves making central government more accountable to citizens – increasing “horizontal accountability” – for example by strengthening national parliaments or by involving civic society in anti-corruption campaigns. Deepening democracy by creating focal points for civic society to contest and monitor the actions of central government can in turn increase the “downward” accountability of central government. One option is empowering local governments and shifting responsibilities from central government to other sub-national actors, although the scope for downward accountability stretches beyond decentralisation (Levy, 2004).

Political institutions are vital in generating the policy environment faced by farmers. While an analysis highlighting the relative power of interest groups or of the city versus the countryside can shed some light on the mechanisms leading to policy, it is now recognised that the playing field where different interests interact is of crucial importance for political (and thereby economic) outcomes. More research is needed to identify and classify the specific ways in which details of the political institutional setting affect agricultural outcomes. This is a difficult enterprise to the extent that variation in political institutions is likely to be correlated on the one hand with other institutional outcomes that are central for agriculture (property rights and contracting) and on the other hand with fundamentals in population density and relative power that are likely to be related to the agrarian structure of countries (Binswanger *et al.*, 1995).

Market System Failures

A diagnostic of agricultural markets in sub-Saharan Africa today needs to recognise the process of market reform that has been ongoing since the early 1980s. Market institutions and performance need to be studied today in the light of the progressive withdrawal of the state from intervention in agricultural markets²⁹. Studies of market reforms do not draw a coherent picture of the effects, maybe due to the fact that reforms were only partially implemented in some cases and probably also due to the fact that the starting points for the countries in the region differed greatly in the degree of intervention and the degree to which that intervention taxed agriculture (see Jayne *et al.*, 2002, for a discussion).

29. There is wide variation in the degree to which reforms have been carried out, hence the difficulty in drawing a representative picture for the region in this respect.

The declining role of the state leaves the field open for entry by private agents. Studies suggest that private traders have responded to increased market opportunities and private traders have entered the market. Their behaviour in the institutional setting described so far explains many of the outcomes that can be observed. This sub-section deals in more detail with market infrastructure, a detailed discussion of structural reforms is deferred until the next section³⁰.

Market Behaviour and Imperfect Contract Enforcement

The lack of contract enforcement and the intensity of relationship lending lead to cash-in-hand exchanges that reduce incentives to invest in specialised production (Jayne *et al.*, 1997). The uncertainty about contract compliance also leads to limited vertical coordination. In a context where input and credit supply formerly carried out by the state has disappeared or is being taken up by private traders, the lack of security given by thin markets and the possibility of opportunistic behaviour limits the amount of coordination that can be achieved through contracts.

Such vertical links, however, were created for export crops in those areas where export crop markets were reformed. International buyers of those commodities have built a process by which they finance domestic exporters, who in turn finance private processors, who finance traders.

In areas where the degree of liberalisation of export crop markets was smaller – Francophone West Africa especially – the state still plays an important role in input (especially credit) delivery.

Market Integration, Information Transmission and Volatility

The integration of markets is an important determinant of the success of market reforms. Market integration not only increases gains from trade, but in increasing volumes traded, has the potential to greatly decrease the variability of market prices. In this way, market prices can act as risk-limiting factors, where insurance beyond the village or kin is not feasible (Fafchamps, 1999).

Market integration can be seriously hampered by institutional factors. If, as a response to contract uncertainty, traders rely on personalised networks, this limits the scope of the market and therefore prevents further integration. Transactions costs are a crucial obstacle for market integration. They arise not only from the cost of transporting goods but also from the difficulty to collect information. Hence, market integration can be made very difficult due to the lack of adequate physical infrastructure. High transport costs not only increase the price of goods, but also otherwise increase transactions costs in information collection and transmission. The increased transaction costs and the difficulty in obtaining timely and accurate information make arbitrage difficult or impossible. This problem is compounded with the prevalence of traditional crops which are bulky (such as tubers) and can therefore be thought of as non-tradable given transport costs.

What evidence is there of market integration? First it should be noted that evidence on spatial integration typically relies on tests of price correlation (or co-integration) between markets. Because it measures effective integration, such evidence of market integration

30. This section draws particularly on Kherallah *et al.*(2002).

cannot distinguish between information, transport and contracting issues. Hence evidence of market integration would show that information transmission is relatively good. Nevertheless, Jayne *et al.* (1997) point to the absence of public market information systems in Africa. It is not a special case: public market information systems are not ubiquitous and are often “barely functional” (World Bank, 2002). Indeed what information transmission happens, takes place through channels other than publicly provided market information systems.

In fact, markets seem to be spatially segmented to some degree, although there is evidence that information flows are relatively good. Moreover, spatial integration is believed to have improved and marketing and processing costs to have dropped since liberalisation (Kherallah, 2002, p. 110).

Markets are, however, very volatile. The atomistic nature of trade, with many unspecialised traders with little capital, makes it hard to engage in temporal arbitrage – Fafchamps (2004) reports that most working capital is held as grain and that traders seldom own transport equipment, let alone have large storage capacity. If we add to that the difficulty in writing insurance or future contracts, food markets in particular are very risky indeed.

Hence, market integration has progressed but markets remain segmented. However, the available evidence does not allow us to attribute the lack of further integration to any of the potential culprits, among which contract risk, transport costs and the failure of information transmission mechanisms stand out. Whether because of the lack of further integration or because of the atomistic nature of trade and hence the failure to realise economies of scale in storage, markets remain very volatile.

Competition

A tenet of market liberalisation is that it must generate a competitive market if the benefits are to be distributed and if both sides of the market (producers and traders) are to perceive opportunities leading to investment and increased productivity.

The degree of competition in agricultural markets in sub-Saharan Africa again varies greatly between markets and countries. Liberalised food markets exhibit many small traders and evidence shows a decline in marketing and processing costs consistent with a substantial degree of competition³¹.

There is however, widespread evidence (Kherallah *et al.*, 2002) of consolidation in export crop markets, which has increased the market power of market-makers – usually towards the end of the commodity chain – in the export crop markets. While the relatively small output of some African countries may be a cause of this process, difficulties in contracting, lack of banking finance and other institutional obstacles in accessing international markets mean that companies with international links are at a major advantage. Hence, the lack of competition is a consequence of the overall institutional environment which prevents entry.

31. There are, however, cases where lack of competition in one part of the marketing chain – grain mills in Zimbabwe – led to high prices which resulted in the reintroduction of food price controls (in 1998).

Market Infrastructure

Recent work on market behaviour by agricultural traders by Fafchamps (2004) points to the importance of market infrastructure for market efficiency and development. This includes physical infrastructure, such as roads, but also communications. Indeed, the absence of market information systems pales in the face of the fact that traders need to travel to supply markets in order to be informed of prices. The spread of mobile phones and initiatives such as the requirement of rural coverage for mobile phone companies in Ghana may boost the exchange of market information.

Further limits to the profitability of agriculture – and especially small-holder agriculture – are inadequate provisions of storage and processing facilities. The progressive withdrawal of the state from agricultural marketing, storage and processing has opened the door to the development of the private sector in this area. Section V presents in more detail the institutional changes carried out as part of structural adjustment. African traders typically carry out little inter-seasonal storage of coarse grains. Indeed the opportunity costs of storage in Africa are multiplied by the scarcity of capital. Moreover, storage in sub-Saharan Africa is complicated by a number of factors; some of them have historic and cultural roots, such as crop systems based on tubers. Others are more recent developments, including community displacement, shortage of materials, spread of new pests and introduction of new varieties, can make traditional storage systems not adequate (FAO, 1994). There are obvious returns to scale in storage provision, but large overheads mean that storage provision needs to be linked to other services (trading, collateral management, trade, and brokerage) to be profitable. As discussed above, the lack of contract enforcement mechanisms renders such contracts less frequent than desirable. In the absence of private provision, there is a collective action problem in the provision of such services; the emergence of farmer associations could go some way towards solving this problem. Whether due to the historical role played by parastatals or to the existence of other local political or customary authority, farmers' organisations remain weak in many parts of sub-Saharan Africa, especially in Central Africa, and building their capacity is the object of significant effort by donors.

A final important institutional element in market infrastructure that is notoriously lacking is a set of recognised grades, standards and measures. Current relational practices and the lack of contract enforcement mean that traders typically verify quality visually in person. However, were more complex forms of contract available, grades may be crucial in permitting the enforceability of such contracts. Even in the current situation, grades and standardised measures would allow better access by farmers to export markets, without the necessity of linked transactions with major exporters. Determining grades and standards is a major collective action problem as poorer or more isolated farmers may face greater difficulties in adapting to very strict or very fine classifications, hence it is far from obvious that, say, European grades and standards can be transplanted.

Agricultural markets are therefore plagued by the same problems that hinder agricultural investment, with the addition of poor market infrastructure and the potential for state intervention but also for collective action on the part of farmers. Moreover, some key markets, especially land, remain very inefficient and shallow in areas of sub-Saharan Africa due to the current definition and enforcement of property rights.

This section has explored the functioning of fast-moving institutions for agriculture in sub-Saharan Africa with the accent on institutional outcomes related to property rights, contract enforcement, political failure and market failures. Both lack of capacity and contradictory laws lead to uncertainties and failures in property rights enforcement, which potentially limit investment incentives. However, the evidence does not support formal titling as a final solution to this problem. One of the reasons for the lack of effectiveness of formal titling is ineffective courts, which also undermine formal contract enforcement. Not only are courts functionally inefficient, but also there is the possibility that they are seen as contrary to social institutions at least in some contexts and therefore are not used by agents to enforce obligations upon each other. Reliance solely on social norms can alleviate problems to some degree but hardly constitutes the sole avenue for development. There is also indicative evidence that the lack of representation of agricultural interests in the polity is responsible for the lack of progress both in terms of institutions and policies directed to farmers. However, the role of specific political institutions that channel such representation as well as the challenges posed by the governance of specific agricultural sector state agencies deserves further study. The above adverse institutional outcomes severely limit the scope for private sector development in a competitive market setting and are the source of major market failures and limitations.

Table 2. Summary of Bottlenecks Identified in Fast-moving Institutions

INSTITUTIONAL OUTCOME	INSTITUTIONAL SOURCE	EFFECT
Difficulty to foreclose	<ul style="list-style-type: none"> Multiple: conflict between formal and customary law, corruption, malfunctioning courts. 	<ul style="list-style-type: none"> Shallow financial sector Lack of credit supply for landowners
Lack of capacity in land administration	<ul style="list-style-type: none"> Multiple 	<ul style="list-style-type: none"> Malfunctioning land administration system due to lack of trust/use Insecurity of legal tenure
Contradiction between customary and statutory law	<ul style="list-style-type: none"> Reform 	<ul style="list-style-type: none"> Legal uncertainty, vulnerability to capture
Courts seldom used for contract enforcement	<ul style="list-style-type: none"> Quality of courts? Corruption? Cost of access to courts? 	<ul style="list-style-type: none"> Reliance on costly relationship-based contracting Unequal access to courts?
Small role of private sector in finance	<ul style="list-style-type: none"> Lack of suitable contract enforcement mechanisms 	<ul style="list-style-type: none"> Shallow and politically vulnerable financial system
Prevalence of relationship contracting	<ul style="list-style-type: none"> <i>As above</i> 	<ul style="list-style-type: none"> Shallow markets Transactions costs
Agriculturalists lack political voice	<ul style="list-style-type: none"> Political patronage Design of political institutions Lack of capacity of farmers' organisations 	<ul style="list-style-type: none"> Political bias towards urban population
State withdrawal or failure to provide relevant service	<ul style="list-style-type: none"> Lack of state capacity Capture by political or economic interests 	<ul style="list-style-type: none"> Bias in service provision and policy
Withdrawal of the state from agricultural markets	<ul style="list-style-type: none"> Structural adjustment 	<ul style="list-style-type: none"> Shallow markets Necessity of vertical coordination mechanisms
Segmented and volatile markets	<ul style="list-style-type: none"> Lack of infrastructure (high transport costs) Prevalence of bulky crops Lack of market information systems 	<ul style="list-style-type: none"> Shallow markets Increased producer risk Decreased producer price
Lack of competition in export markets	<ul style="list-style-type: none"> Prevalence of the state or parastatal bodies Consolidation due to difficulties in contracting and lack of bank finance. 	<ul style="list-style-type: none"> Low small producer market power Costly market access for cash crops
Shallow market for storage and other market services	<ul style="list-style-type: none"> Contractual insecurity? 	<ul style="list-style-type: none"> Fewer opportunities for farmers Volatility in prices over time
Absence of established grades and standards	<ul style="list-style-type: none"> Contractual insecurity renders grades less useful Collective action difficulty? 	<ul style="list-style-type: none"> Costly access to international markets Higher transactions costs

V. AGRICULTURAL DEVELOPMENT IN A CHANGING INSTITUTIONAL ENVIRONMENT

Policies for institutional change are neither easy to implement nor easily analyzed. This is mainly because of the complex interactions between different levels of institutions: while some fast-moving institutions can, by definition, be changed by fiat, that is not the case of most slow-moving institutions, whose roots are in the culture (be it social or legal) of the people or society at large. As discussed above, sets of institutions may fail to deliver when they are mismatched or contradictory.

The last two decades have seen major changes in the institutional settings of countries. The worldwide process of liberalisation of international trade and financial flows as well as changes in aid policies in developed countries place African countries in a very different playing field than that of the late 1980s. African countries themselves have undertaken major institutional reforms in the form of structural adjustment and, to varying degrees, decentralisation or administrative reform.

While often not specifically geared at resolving the problems faced by the agricultural sector, these overarching programmes of institutional change have had a deep impact in the agricultural sector and the institutions that shape the incentives and opportunity sets of agents therein. The objective of this section is to give an account of those changes from an institutional perspective. The remainder of this section looks in turn at the roles played by policies in the external sector (especially the move towards regional integration in Africa but including also the role of international organisations and donors), by structural adjustment policies, with special emphasis on agricultural market reform, and finally examines the role of the state as a public good provider after structural reform.

The External Sector: Regional Integration, International Trade and Aid Policies

Many sub-Saharan African countries are small, not only in terms of size but also in terms of population and in terms of the size of their economies. The small size of domestic agricultural product demand has been given as a potential culprit in the failure to achieve sustainable and rapid agricultural growth and hence the loss of competitiveness in the global marketplace. With average agricultural tariffs of the order of 18 per cent and average import- and export-to-GDP ratios of 29 and 34 per cent, sub-Saharan African economies remain relatively closed to world trade. However, their reliance on agricultural commodities makes them suffer disproportionately the impact of agricultural policy in industrialised countries, including tariffs on agricultural imports.

The Promises of Regional Integration

Regional trade integration has been suggested as a means to overcome the lack of domestic demand and expand trading opportunities to achieve economies of scale. Yeats's (1999) analysis of African trade patterns makes a call to caution in the optimism generated by

intra-African trade. He examines both known patterns of intra-African trade as well as the patterns of international trade of African countries with the external sector. Findings are not encouraging: exports are dominated by a few countries (Cote d'Ivoire, Nigeria, Kenya plus South Africa), and there is little intra-African trade, especially between East and West Africa. The imbalance in trade patterns means that tariff revenue falls in case of a major trade agreement are likely to be very unequal, which not only poses a distributional problem, but in turn reduces incentives to subscribe and adhere to such agreements.

More importantly, the patterns of trade with other continents are similar among African countries and there are no strong complementarities. Moreover most intra-African trade takes place across borders. There is no strong case for wider Regional Trade Agreements. Yeats does find that foods constitute a large share of intra-African trade, however, that is not the case for agricultural inputs that have capital intensive production processes and which form an important part of agricultural sector inputs. Indeed, Yeats's (1999) main result is that exports of African countries do not match other African countries' imports, nor do they match the set of goods where other African countries have competitive advantage.

Regional integration can take other forms which hold more promise, in particular the development of regional ports, construction of infrastructure to facilitate trade across national borders, the use of joint tenders in international markets and cooperation on monetary or fiscal matters³². Such large enterprises are however difficult because of their political economy. For example, Goldstein (2001) shows that the difficulty of establishing a unified and competitive market in civil aviation does not only come from hurdles inherent to the trade (small domestic markets, lack of competition) but also from the political difficulties in closing down a national airline to benefit from economies of scale.

Within the agricultural sector, there is also a role for regional integration in the form of policy harmonisation, implementation of early warning systems for pest, disease and extreme climatic conditions, development of regional markets and joint research and capacity building. So far, the accent has been on tariff policies, but intra-Africa agricultural trade has not taken off. There is also cooperation in agricultural research although not always as part of the regional trade agreements. Early warning systems for famine, food security and vulnerability (East and Southern Africa) and drought (West African Sahel) are also being implemented although some doubts remain about their effectiveness. (ECA, 2004)

Given the small size of many sub-Saharan African domestic markets, regional integration promises a deepening of markets that could reduce transactions costs (by decreasing the risk of lock-in and hence contractual risk), stabilise prices and reduce producer risk. Moreover, there is unrealised scope for cooperation both within the agricultural sector (research, food security and climate monitoring, policy harmonisation) as well as outside (trade, infrastructure).

32. For a first analysis of the particularities of monetary union in an African context, see (Debrun *et al.*, 2002).

The Role of Donors and International Organisations

International donors play a major role in African economics and policy. This paper will focus here on two points with respect to donors and international organisations: the method of delivery and their role in support of reform.

When donors are faced with the difficulty of working with or through governments, due to lack of capacity or bad governance, they can bypass governments altogether and work instead directly with farmers via local groups or Non-Governmental Organisations. While in theory, such approaches can foster the institutional change that the political or economic establishment is reluctant to accept, there are also risks that need to be recognised, especially whether such intervention really has potential for institution building and the danger of exclusionary practices. This point is elaborated on in the context of public good provision below. Moreover, bypassing government altogether foregoes the opportunity to build government capacity for analysis and policy design, hence fostering donor dependence.

A final relevant point with regard to institutional reform is that of the role of international organisations, including donors as well as membership organisations such as WTO and regional or sub-regional organisations. It has been noted that commitment to reform processes is crucial in their success, not only because of managerial or administrative incentives but also because the threat of policy reversal can defuse incentives in the private sector³³. To this end, commitment to outside institutions, such as trade regulations in the WTO can provide governments with commitment devices (World Bank, 2002) that can help: *i*) create certainty about the process of reform; and *ii*) reduce incentives for internal opportunistic demands for policy reversal. Jayne *et al.* (2002) indeed point to patronage relationships between government and interest groups as a reason for policy reversal or capture in Kenya and Zimbabwe's food marketing reform processes and in Ethiopia's fertiliser delivery system. Commitment devices can increase the cost of policy reversal for governments, hence reducing the chance of policy reversal.

However, for international organisations and donors to enable governments to achieve political support for reform, it is necessary to go beyond conditionality, whose track record has been found to be poor for the most part. Jayne *et al.* (2002) suggest that rewarding good policies ex-post could be a better strategy than requiring them ex-ante or on a quid-pro-quo basis, not only due to moral hazard but also to enable governments to take ownership of reform. Donors also need to coordinate better. The focus on institution building and microeconomic policy that is currently the norm can make more likely situations such as that described by Kherallah *et al.* (2002) where USAID was pushing for fertiliser market reform while the EU and the World Bank were giving fertiliser and hybrid seed starter packs.

For all the merits of regional integration, it has been showed that the potential benefits of enhanced intra-African trade may have spurred unwarranted optimism in the international community. However, much can be achieved by integration in other arenas, both within and outside the agricultural sector. Such forms of integration often raise questions of national sovereignty and policy independence, which may test the political strength and will of governments and thus present difficult collective action problems.

33. see Deininger *et al.* (2003b) for an example in land policy; Kherallah *et al.* (2002) for an analysis of Southern Africa's failure to reform food markets along these lines.

International organisations, trade partners and donors must also acknowledge their role in reinforcing bottlenecks for development when their actions sap the political credibility of local governments by being seen as imposing policies or reforms, or contradict one another. By creating credible commitment platforms, international agreements have the potential of fostering commitment towards necessary reforms. Utilizing this potential is not only the responsibility of sub-Saharan Africa's governments but also that of their partners and counterparts.

Reforming the Market: Structural Adjustment in the Agricultural Sector

The consensus view in the literature is that agricultural performance since the beginning of structural adjustment has been disappointing – in line with overall economic performance (Kherallah, 2002; Dorward *et al.*, 1998).

Early structural adjustment policies focused on macroeconomic policy and were therefore expected to affect agriculture through prices. Even those policies, experience teaches us, needed to be carefully timed to avoid periods of instability: devaluation without the accompanying market liberalisation of export markets led to resource shifts away from agriculture and into other sectors (such as away from the cotton sector in Mali, Eicher, 1999); macroeconomic instability with liberalised markets and export sector deregulation led to chaotic markets (as when the cocoa market in Nigeria became suddenly one of the few unregulated sources of foreign exchange). Overall, however, the reduction of real exchange rates in the late 1980s and early 1990s, accompanied by favourable international market prices, led to important (though variable across countries) increases in real producer prices for export crops.

Reform of agricultural markets through privatisation (withdrawal of state and parastatal agencies from pricing and marketing) and liberalisation (relaxation of the regulatory environment for private marketing), became a leitmotiv of aid conditionality after the "Berg Report" (World Bank, 1981).

The academic literature disagrees on the effects of market reform (see Jayne *et al.*, 2002). Part of this disagreement can be traced to the fact that in many instances, only partial reform has taken place. Concern for food security (and potentially political meddling) has led to the re-imposition of price controls in south-eastern Africa. While food markets were to a large extent liberalised, the presence of state agencies remains relevant in export crop markets also in West Africa. Hence, part of the disagreement is due to disagreement on whether reform actually has taken place.

Jayne *et al.* (2002) note that another problem in generalising from case studies is that "market institutions evolve more gradually than stroke-of-the-pen policy changes" (p. 1969). This remark is particularly fitting in the context of our analytical framework. They conclude that it is necessary to ask "which institutions must be in place before reform should be attempted and which institutions cannot be expected to develop until reform has had sufficient time to enable a critical mass of traders to develop new institutions over time". It may be added to that the need to ask which policy levers can be used to foster the creation of those institutions, a problem which is very much connected to the policy sequencing problem.

The institutional obstacles for market efficiency were discussed previously. In terms of outcomes, two main effects would be expected from structural reform: a fall in marketing costs due to private traders overcoming the inefficiency of parastatal marketing boards and a supply response to increase producer prices. The results are mixed: marketing margins do appear to have gone down but the supply response was much stronger in export markets and was very limited in food markets. The lack of supply response does not necessarily imply major falls in urban consumers' welfare (the assumed beneficiary of state marketing practices). Indeed, as shown by Jayne and Jones (1997), private markets can produce a greater variety of products, including lower cost alternatives that were not available under the state system. However, the failure of food markets to exhibit a supply response is disappointing and indicates the lack of perceived opportunities on the part of farmers. Detailed analysis of agriculturalist households' income portfolio and exposure to risk would be necessary to determine if the lack of supply response pertains to perceived low returns of increasing supply or to the increase in risk. Indeed increased supply generates increased risk on the one hand through price volatility and on the other hand because the household increases the concentration of its income generating activities.

In terms of productivity, the withdrawal of state provision of input has led to increases in fertiliser price – exacerbated by macroeconomic policy – and the disappearance of sources of agricultural credit. Given such changes in input availability, it is not surprising that productivity only increased in those countries where the private sector had previously been particularly repressed (Ethiopia, Mali, and Burkina Faso, among others) but stagnated elsewhere. The slow growth of fertiliser use per hectare reflects this trend (only by 5 per cent in the period 1996-2000; Crawford *et al.*, 2003). Indeed growth in fertiliser use is mainly attributable to increases in cultivated area. Despite sharp drops in fertiliser use at the time of reform, total fertiliser use has recovered in some countries where subsidies were very high before reform (Ghana, Cameroon). Such evolution hides great heterogeneity within the region and within countries: some areas with favourable agro-ecological conditions have seen significant growth of input use, indicative of intensification, while the expansion of the cotton sector in West Africa has also led to increases in input use.

The relative size of the effects of macroeconomic and structural microeconomic policy changes may partly explain the fact that export markets – which, given the low level of input use in general and in food crops in particular, are much more affected by international price movements – reacted in a much more visible (and positive) way than food markets.

Overall, the record of structural reform in agricultural markets is mixed and so in several accounts. The supply response in cash crop markets has been visible and positive; at the same time, in those markets the state has often been slower to withdraw. The supply response in food markets has been disappointing as shown both by input and output data. Overall, there is some indication of intensification in specific areas, but it is hardly encouraging at this stage. Explanations of this include the time lag for private sector entry as well as for adaptation by farmers to the new setting, which may lead substantial shifts in the geographic distribution of agricultural production. Other explanations point to remaining bottlenecks in terms of adverse institutional outcomes in the availability and effectiveness of contract enforcement mechanisms, policy reversals or the risk thereof and insufficient market infrastructure and generally speaking, public good provision.

The State and Public Good Provision: Research and Extension, Infrastructure.

Whether as part of structural adjustment programmes or within a wider agenda for reforming the role of the State in the economy, state infrastructure and service provision has seen many changes in the last decade. Such reforms hold promise for improving the quality and relevance of public good provision and delivery for African agriculture, but need to be considered within the wider institutional context if they are to avoid the same institutional bottlenecks that have weighed down previous reform attempts.

Research, Extension and Service Delivery

It is widely recognised that sub-Saharan Africa was essentially bypassed by the Green Revolution. Putting aside other institutional factors that made the Green Revolution possible in South-East Asia and Southern Asia and that have been discussed before – land tenure, population density, social norms – the technological challenge of creating a Green Revolution for sub-Saharan Africa should not be underestimated.

A major hurdle in re-creating the Green Revolution in Africa is the great variety that it exhibits in terms of institutions, agro-climatic zones and cultural heritage and therefore, in terms of staple crops. Peter Timmer (cited in Eicher, 1999) remembers in his first visit to Kenya “driving up one hill and down the next and seeing 12 different agroclimatic zones and 12 different cropping patterns, and 50 different crops”. This is in marked contrast to South and South East Asian agricultural practices.

Such diversity means that the local knowledge base needs to be large. Indeed technical knowledge at the local level may not be sufficient and it is necessary to build knowledge networks (what Eicher calls “agricultural knowledge triangles”): research, extension and agricultural higher education. Of these, according to Eicher (1999), fragmented and underfunded universities appear to be the weakest link and one that has not received the attention it merits from donor organisations.

An important new element is the role of biotechnology companies in international agricultural markets. This has a double implication for African farmers. Firstly, such corporations are likely to concentrate resources on problems faced by large number of commercial farmers; to the degree that their problems are different, poor farmers’ priorities may not receive attention. Secondly, multinational corporations have potentially important resources for research and their involvement could free up resources in donor organisations; however, this amplifies the problems posed by the inadequate contract enforcement and public governance environment. And still, the implication of farmers in biotechnology design and extension is crucial in order to enhance the recognisability and acceptance of biotechnology and prevent a “technological treadmill” mirroring the “pesticide treadmill”.³⁴ Hence, underfunded knowledge creation is a major problem and one where the role of the state or other coordination mechanisms is crucial, but it is not the only one.

Extension delivery systems have also been criticised. The T&V (Training and Visit) model came under fire as an imported model that had not been adapted to local conditions (Eicher, 1999). While T&V is not longer the staple extension model favoured by donors such

34. The pesticide treadmill refers to the process by which overuse or misuse of pesticides leads to a reduction in the number of predators or to resistant pests, hence requiring more or new pesticides.

as the World Bank and the FAO, the process of institutional transplantation shows that farmers' local knowledge and priorities were not taken into account. Recent experiences in decentralizing extension have received praise for resolving such problems; however, if extension delivery remains public, it is not clear that local governments have the capacity and the financial means of delivering what is needed (World Bank, 2002, 2005). The conditions under which such schemes can succeed merit further scrutiny.

Accessing the knowledge and social capital embedded in social institutions is a possible answer to the problems of extension; however farmer's organisations need to be constituted in such a way as to allow them to interact directly with private actors. Government can provide the means and the security to such an interaction or act as an intermediary or a facilitator when such groups are not formalised enough.

Bypassing governments altogether in service delivery in general and in delivery of agricultural technological knowledge has flourished in the donor community as an option to strengthen local institutions and short-circuit the problems posed by bad governance. However technology delivery by NGOs has a mixed track record (White and Eicher, 1999). At a more fundamental level, while recognising the theoretical appeal of NGO intervention and service provision by NGOs, White and Eicher (1999) underline the fact that hard evidence supportive of the potential or actual benefits of such provision is notoriously lacking. This is due partly to the difficulty in measuring outcomes, but also to the fact that many NGOs essentially replicate former governmental approaches and that the beneficial effects of participatory approaches remain unproven. Indeed, knowledge of what forms of delivery effectively promote participation and of the costs and benefits of participatory approaches is incomplete. Moreover, such delivery approaches, by typically constituting local groups as a means of organising farmers with the objective of institutional strengthening at the local level, can – if they reproduce traditional power structures – lead to exclusion patterns which are very similar to those noted in social institutions by excluding the poorest, especially in the case of women's groups (Weinberger and Jütting, 2001) or ethnic minorities (Romani, 2003).

Decentralising state service delivery and especially extension, is an alternative to NGO provision in trying to elicit local information and enhance participation while retaining public management (although not necessarily public delivery) of extension services. Local governments are expected to be more responsive to feedback from their constituency, especially if they are democratically elected. By transferring delivery responsibility to local governments (district or county), decentralisation aims at improving accountability. In turn, this is expected to improve extension agents' incentives and coordination with other (also decentralised) public agencies. Moreover, decentralisation can overcome the bottleneck created by farmers' lack of political voice, as they are more likely to constitute a sizeable community at the local level in rural areas.

Although still understudied, the track record of decentralisation in extension services (the cases of Colombia, and Ghana have received particular attention) already points to two main problems: decentralisation leads to a significant increase in the number of staff and thus in costs (Anderson and Feder, 2004) and decentralisation can lead to inefficiencies due to the lack of managerial or technical capacity at the local level (Rivera and Alex, 2004). Hence, effective decentralisation requires the government to make funds available to the

local decision-maker³⁵. A further possibility, pursued by some West African countries, such as Guinea with success (Anderson and Feder, 2004) is the devolution of extension provision functions to associations of farmers. However, there is anecdotal evidence of cases where such associations or their capacity fail to materialise (such is the case of Ghana; Rivera and Alex, 2004). The importance of local capacity should not, however, be viewed as an obstacle to decentralisation but rather as a reminder of the importance of sequencing, that is to say, the order in which elements of a wide programme of reform are implemented.

Infrastructure Provision

Infrastructure provision, and in particular rural road density and quality, is a fundamental structural obstacle for agricultural market integration and development. Beyond the observation that the density of rural road networks (at 55 km per square km compared to 800 km/sq. km in India; Collier and Gunning, 1999a) is vastly insufficient and that their quality is also below par, there is little macroeconomic or microeconomic evidence and measurement of the effects of little and bad infrastructure provision.

One exception is Obare *et al.*'s (2003) study of Nakuru District in Kenya. They find, via the calculation of cost functions for smallholder agriculturalists, that not only does inadequate infrastructure increase farm-gate input prices and decrease farm-gate output prices, but that this has productivity implications via the substitution of market inputs by labour and therefore the choice of subsistence-oriented production techniques. Positive evidence of the role of rural roads has also been found for Uganda (World Bank, 2005b)

There are undoubtedly physical and geographical reasons that explain the low density of infrastructure in rural Africa, especially low population density and a large share of rural population. However, political economy processes are also at play. Collier and Gunning (1999a) classify poor infrastructure among the "sins of omission" committed by governments serving limited (urban) constituencies and there is indication that developing countries spend too little in maintenance compared to their expenditure on capital formation, a pattern where donor strategies have also their share of blame. Moreover, poor accountability and lack of transparency can worsen matters; indeed higher levels of corruption are associated with larger expenditures in public investment but lower expenditures on maintenance (World Bank, 2005b, p. 135).

Transport infrastructure is a major bottleneck for the development of integrated markets and hence the generation of incentives conducive to agricultural development, as pointed out by Platteau and Hayami (1998), market forces or regional specialisation can make "the bottleneck of communication and transportation [...] more visible to local people and this is likely to induce rural communities to undertake collective action aimed at building and maintaining rural roads by themselves, or at exercising lobbying pressure on the government to provide this infrastructure". However, the ability to achieve agreed collective action agreement whether on the political (as pressure groups) or the economic arena (by private collective provision) is far from warranted given unresponsive political institutions.

35. This is not to imply that decentralisation of provision necessitates fiscal decentralisation, only that a decentralised system requires the political support and the necessary funds to function.

Other infrastructure outcomes also leave ample room for improvement, while some share the problems of roads and ports in terms of large fixed investments and a public good nature, others leave more room potentially for private agents and competition mechanisms, such as telecommunications and (to a lesser degree) electricity generation. In these areas, the creation of markets that exhibit a sufficient degree of competition remains a challenge (World Bank, 2005).

The increased intensity of international exchange, intervention by donors, structural and state reforms have fundamentally altered the functioning of many institutions of importance for agricultural development in sub-Saharan Africa. The role of the state has apparently become less prominent today. However, it has been showed how the state must still pro-actively create the conditions for development and the elimination of bottlenecks that hold down agricultural development. Many of the hurdles for development that were noted in the static analysis of sections III and IV also limit the efficacy of reform policies, especially limitations on contract enforcement and property rights protection which limit the extent of private sector involvement, as well as political instability or the lack of political commitment. Innovative forms of service delivery that rely on local institutions also face those fundamental institutional failures noted in the description of social institutions above, namely the risk of exclusion and the limitations due to the local character and the ensuing collective action problem. However, states are far from the sole players in the field, and the responsibility or at the very least, the role of trade partners, donors, local organisations and the private sector in strengthening or alleviating bottlenecks must be recognised.

VI. CONCLUSIONS

What We Know and What We Don't Know

The central role of institutions and institutional change in the process of development is now recognised by development economists. The specific circumstances of sub-Saharan African agriculture make social norms particularly binding. Indeed, social norms and organisational forms based therein provide fundamental services to farmers that cannot access them otherwise, including risk sharing mechanisms, information – including market information – access to inputs and access to output markets.

Suggestions that such social norms, and especially their foundation on egalitarian social norms among kin groups and villages prevent factor accumulation and hurt investment incentives have irrefutable theoretical foundations. Empirical evidence of inadequate market functioning suggests that that is indeed the case, but effects of social norms per se are difficult to isolate by their pervasive nature. Social networks have been shown to fulfil a number of functions in the absence of alternative sources of insurance, information and contract enforcement.

A mounting body of recent evidence has increased our knowledge of how social norms affect institutional and economic outcomes. Firstly, they are used by networks, which may or may not be kin-based in nature. Hence, market incentives can lead to the use of social norms for economic efficiency-enhancing institution building. Social norms and customary arrangements provide essential services in the absence of other sources; however they can also impede development.

Certain characteristics of social norms can work against agricultural development: egalitarian norms that act as a tax on successful enterprises slow down enterprising behaviour, investment and capital accumulation, and thus tend to keep agricultural communities in near-subsistence farming. Moreover, such egalitarianism and thereby access to the services provided by social networks, often incorporates exclusionary practices with respect to women, ethnic minorities and “foreigners”. Such limitations curtail the realisation of the economic potential of large fractions of the population.

There is increasing evidence of the erosion of social norms in certain areas of activity; in particular, as predicted by the evolutionary theory of land rights, land ownership tends to become more individualised as land becomes more scarce and valuable, hence diminishing the social role of land allocation. Whether this corresponds – or leads – to a general decline in the role of social norms is an open question.

Social norms evolve due to exposure to markets, and the increased scarcity and value of land and social capital. At the same time, they can be very resilient when confronted in the legal arena and lead to legal uncertainty, typically harming the same vulnerable groups that

risk exclusion from social networks. The specific effects of the law on institutional outcomes that are heavily influenced by social norms deserve more study.

However, the response of social norms to market circumstances is indicative of the importance of policies and institutional change that expose farmer communities to markets. Infrastructure appears as a critical hurdle in providing access to markets and services, and the present insufficiency of infrastructure needs to be studied not only from a geographic perspective, but also one that incorporates political economy considerations within the set of political institutions present.

A recurrent theme in the literature is the failure of the system of formal contract and property entitlement enforcement to secure the rights of all citizens. The failure to use courts not only explicitly for dispute settlement but also as threats to prevent opportunistic behaviour can be explained at least in part by the divergence between the institutions of formal law enforcement and social norms, above and beyond the lack of capacity of the judicial system itself. However, our understanding of the origins and implications of informal contract enforcement remains very incomplete.

It has also been seen that insufficient provision of infrastructure and other public goods generates major transactions costs and hence limits the benefits of reform policies as well as the extent of their effects. Market infrastructure, in the form of grades and standards, the availability of market information and communication infrastructure tends to segment markets and reduce their allocative efficiency. Such problems can, to some degree, be addressed by farmers themselves, but typically present collective action problems that are difficult to solve in the absence of established institutions, especially political institutions, whether local or national.

Finally, this paper has discussed how reform policies that attempt to change a wide set of institutional characteristics are faced with many of the same problems highlighted in the description of institutional outcomes: resistance to reform due to embedded social norms, lack of political responsiveness, lack of formal contract enforcement and property protection all prevent private sector response to the withdrawal of the state.

Areas for Further Research

Further research is needed in determining the impact of specific political and legal institutional characteristics on development and, more specifically, agricultural outcomes. While this is not an easy task in view of the codetermination of these and other institutional factors, recent waves of reform and the increasing use of contract farming may give some indication as to how private agents assess those institutions and the degree to which their failure can be circumvented by other means, as well as the cost of such forms of contracting.

Specific forms of interaction of slow- and fast-moving institutions also merit further theoretical and empirical work. Indeed, anecdotal evidence does not present a clear picture of how institutional conflict leads to institutional failure or to positive institutional change.

Given the recurrence of the theme of contract enforcement, it would be beneficial to study African courts and conflict resolution mechanisms in detail: what forms of justice delivery are more effective? Which tend to be over-used or under-used? And is it mainly an issue of access (supply) or trust (demand)?

The extent of experimentation in methods of service delivery, especially participatory approaches, decentralisation and NGO intervention has not quite been matched by the level of analysis in terms of specific institutional and agricultural outcomes. This requires substantial work to formulate a framework to determine how to measure outcomes, as well as careful empirical analysis of the various forms of service delivery.

Concluding Remarks

By using a framework that attempts to explain institutional change via the exploration of the interaction of various institutional outcomes and characteristics, one could be tempted to fall into an “institutional determinism” or “institutional pessimism” trap, by which immutable social, political and economic institutions condemn sub-Saharan Africa to agricultural backwardness. However, a number of observations from Africa and elsewhere suggest that there is ample room for institutional innovation and change, and margin for policy to affect the process of development.

The observation that social norms are not always inimical to growth and can be, and indeed often are, used to supplement and even support market institutions makes us optimistic in relation to the possibility of institutional innovations that harness social capital in innovative ways: microcredit and group lending are examples of such mechanisms, evidence on their performance in other areas, such as extension services, contract enforcement, market information transmission would enhance our understanding of the locus of social norms.

The two sources of institutional failure, namely failure by design and failure due to improper adaptation to the wider institutional environment suggest two avenues for policy action: firstly to create fast-moving institutions (a formal body of law and norms for enforcement, service delivery systems and other market supporting institutions, courts and political institutions) that are in accord with the reality on the field; secondly to improve the functioning of institutions themselves. The interplay of these two policy options can be complex: indeed it is unlikely that agents will choose to use, trust and therefore grant legitimacy to a formal system that offers little certainty on outcomes. Hence attempts at formalisation or reform need to be based on institutions that offer better “service” than customary alternatives. If customary alternatives generate good outcomes for individuals, they will require even better formal institutional performance if they are to use such formal institutions. Good policy requires not only good intentions, but also a deep understanding of the rules of the game, both written and unwritten, to be successful in generating development.

BIBLIOGRAPHY

- ANDERSON, J.R. and G. FEDER (2004), "Agricultural Extension: Good Intentions and Hard Realities", *World Bank Research Observer*, 19(1), pp. 41-60.
- ANDRE, C. and J.-P. PLATTEAU (1998), "Land Relations under Unbearable Stress: Rwanda Caught in the Malthusian Trap", *Journal of Economic Behavior and Organization*, 34(1), pp.1-47.
- BANDIERA, O. and I. RASUL (2002), "Social Networks and Technology Adoption in Northern Mozambique" Suntory and Toyota International Centres for Economics and Related Disciplines, Development Discussion Paper Series, No. 35.
- BARKAN, J.D. (2004), "Reflections" in *Building State Capacity in Africa: New Approaches, Emerging Lessons*, LEVY B. and S. KPUNDEH (eds.), World Bank, Washington D.C.
- BATES, R.H. (1993), "'Urban Bias': A Fresh Look", *Journal of Development Studies* 29, pp. 219-28.
- BEGHIN, J.C. and M. KHERALLAH (1994), "Political Institutions and International Patterns of Agricultural Protection", *The Review of Economics and Statistics*, 76(3), pp. 482-489.
- BENDA-BECKMANN, F. VON, (1989), "Scapegoat and Magic Charm: Law in Development Theory and Practice", *Journal of Legal Pluralism*, 28.
- BERRY, S. (1997), "Tomatoes, Land and Hearsay: Property and History in Asante in the Time of Structural Adjustment", *World Development*, 25(8), pp. 1225-41.
- BESLEY, T. (1995), "Property Rights and Investment Incentives: Theory and Evidence from Ghana", *Journal of Political Economy*, 103(5), pp.903-37.
- BESLEY, T. (1998), "Investment Incentives and Property rights" in *The New Palgrave Dictionary of Economics and the Law*. Newman, P. (ed.) Macmillan Reference Ltd., London.
- BINGEN, R.J. (1989), "Cotton, Democracy and Development in Mali", *Journal of Modern African Studies* 36(2), pp. 265-285.
- BINSWANGER, H., K. DEININGER and G. FEDER (1995), "Power, Distortions, Revolt and Reform in Agricultural Land Relations" in *Handbook of Development Economics*, Vol. III, BEHRMAN, J. and T. SRINIVASAN (eds.).
- BRASSELE, A.-S., F. GASPART and J.-P. PLATTEAU (2002), "Land Tenure Security and Investment Incentives: Puzzling Evidence from Burkina Faso", *Journal of Development Economics* 67(2), pp. 373-418.
- BRUCE, J.W. (1988), "A Perspective on Indigenous Land Tenure Systems and Land Concentration" in *Land and Society in Contemporary Africa*, DOWNS, R.E. and S.P. REYNA (eds.), New England University Press, Hannover.
- BRUCE, J.W. (1998), "Country Profiles of Land Tenure: Africa, 1996" No. 130, Land Tenure Center, University of Wisconsin-Madison.

- BRUCE, J.W. and S.E. MIGOT-ADHOLLA (eds.), (1994), *Searching for Land Tenure Security in Africa*. Kendall/Hunt, Dubuque, Iowa.
- CARTER, M. and P. OLINTO (2003), "Getting Institutions 'Right' for Whom? Credit Constraints and the Impact of Property Rights on the Quantity and Composition of Investment", *American Journal of Agricultural Economics*, 85(1), pp. 173-86.
- CARTER, M., K.D. WIEBE and B. BLAREL (1994), "Tenure Security for Whom? Differential effects of Land Policy in Kenya", in *Searching for Land Tenure Security in Africa*, BRUCE, J.W. and S.E. MIGOT-ADHOLLA, (eds.) Kendall/Hunt, Dubuque, Iowa, pp. 141-168.
- COLLIER, P. and J.W. GUNNING (1999a), "Explaining African Economic Performance", *Journal of Economic Literature*, 37(1), pp. 64-111.
- COLLIER, P. and J.W. GUNNING (1999b), "Why Has Africa Grown Slowly?" *Journal of Economic Perspectives* 13(3), pp.3-22.
- CONLEY, T. and C. UDRY (2001), "Social Learning through Networks: The Adoption of New Agricultural Technologies in Ghana", *American Journal of Agricultural Economics*, 83(3), pp.668-73.
- CONLEY, T. and C. UDRY (2005), "Learning About a New Technology: Pineapple in Ghana" manuscript, University of Chicago and Yale University.
- CONNING, J. and M. KEVANE (2004), "Why isn't there more Financial Intermediation in Developing Countries?" in DERCON, S., (ed.), *Insurance against Poverty*, Oxford University Press, Oxford.
- COULTER, J., A. GOODLAND and A. TALLONTIRE (1999), "Marrying Farmer Cooperation and Contract Farming: Provision in a Liberalising Sub-Saharan Africa", Overseas Development Institute, London.
- CRAWFORD, E., V. KELLY, T.S. JAYNE and J. HOWARD (2003), "Input Use and Market Development in Sub-Saharan Africa: An Overview", *Food Policy*, 28(4), pp.277-92.
- DE WEERDT, J. (2004), "Risk-Sharing and Endogenous Network Formation" in DERCON, S. (ed.), *Insurance Against Poverty*, Oxford University Press, Oxford.
- DEATON, A. (1997), *The Analysis of Household Surveys: A Microeconomic Approach to Development Policy*, Johns Hopkins University Press for the World Bank, Baltimore and London.
- DEBRUN, X., P.R. MASSON and C.A. PATTILLO (2002), "Monetary Union in West Africa: Who Might Gain, Who Might Lose, and Why?" *IMF Working Papers* 02/226, International Monetary Fund, Washington, D.C.
- DEININGER, K. (2003), "Land Policies for Growth and Poverty Reduction", *World Bank Policy Research Report series*, World Bank, Washington, D.C., Oxford University Press, Oxford and New York.
- DEININGER, K., S. JIN, B. ADENE, W. S. GEBRE-SELASSIE and M. DEMEKE (2003), "Market and Nonmarket Transfers of Land in Ethiopia: Implications for Efficiency, Equity, and Nonfarm Development", *World Bank Policy Research Working Paper Series* No. 2992.
- DEININGER, K., S. JIN, B. ADENE, S. GEBRE-SELASSIE and B. NEGA (2003), "Tenure Security and Land-Related Investment: Evidence from Ethiopia", *World Bank Policy Research Working Paper Series*, No. 2991.
- DERCON, S. (ed.) (2004), *Insurance Against Poverty*, Studies in Development Economics, Oxford University Press for the World Institute for Development Economics Research of the United Nations University, Oxford.

- DERCON, S. and P. KRISHNAN (2000), "In Sickness and in Health: Risk Sharing within Households in Rural Ethiopia", *Journal of Political Economy*, 108(4), pp.688-727.
- DONGE, J.K. VAN (1999), "Law and Order as a Development Issue: Land Conflicts and the Creation of Social Order in Southern Malawi", *Journal of Development Studies*, 36(2), pp.48-70.
- DORWARD, A., J. KYDD, J. MORRISON and I. UREY (2004), "A Policy Agenda for Pro-poor Agricultural Growth", *World Development*, 32(1), pp.73-89.
- DUFLO, E., M. KREMER and J. ROBINSON (2004), "Understanding Technology: Fertilizer in Western Kenya. Preliminary Results from Field Experiments" manuscript, MIT, Harvard University and Princeton University.
- EASTERLY, W. and R. LEVINE (1997), "Africa's Growth Tragedy: Policies and Ethnic Divisions", *Quarterly Journal of Economics*, 112(4), pp.1203-50.
- EATON, C. and A.W. SHEPHERD (2001), "Contract Farming: Partnerships for Growth", *Agricultural Services Bulletin* No. 145, Food and Agriculture Organization, Rome.
- ECONOMIC COMMISSION FOR AFRICA (2004), "Assessing Regional Integration in Africa", *ECA Policy Research Report*, Economic Commission for Africa of the United Nations, Addis Ababa.
- EICHER, C.K. (1999), "Institutions and the African Farmer" *Issues in Agriculture* 14.
- FAFCHAMPS, M. (1992), "Solidarity Networks in Preindustrial Societies: Rational Peasants with a Moral Economy", *Economic Development and Cultural Change* 41(1), pp. 147-74.
- FAFCHAMPS, M. (1999), "Rural Poverty, Risk and Development", *FAO Economic and Social Development Paper* 144, FAO, Rome.
- FAFCHAMPS, M. (2003), "Ethnicity and Networks in African Trade", *Contributions to Economic Analysis and Policy* 2(1).
- FAFCHAMPS, M. (2004), *Market Institutions in Sub-Saharan Africa: Theory and Evidence*, MIT Press, Cambridge, Mass.
- FAFCHAMPS, M. and B. MINTEN (2001), "Social Capital and Agricultural Trade", *American Journal of Agricultural Economics*, 83(3), pp.680-85.
- FAFCHAMPS, M., F. TEAL and J. TOYE (2001), "Towards a Growth Strategy for Africa" REP/2001-06. Centre for the Study of African Economies, Oxford.
- FAO (1994), "Grain Storage Techniques: Evolution and Trends in Developing Countries" *FAO Agricultural Services Bulletin* no. 109, FAO, Rome.
- FAO (2004), "The State of Food and Agriculture 2003-2004", FAO, Rome.
- FAO (2005), FAOSTAT Statistics database, FAO, Rome.
- FEDER, G., T. ONCHAN, Y. CHALAMWONG and C. HONGLADAROM (1988), *Land Policies and Farm Productivity in Thailand*, Johns Hopkins University Press for the World Bank, Baltimore and London.
- FOSTER, A.D. and M.R. ROSENZWEIG (1995), "Learning by Doing and Learning from Others: Human Capital and Technical Change in Agriculture", *Journal of Political Economy*, 103(6), pp. 1176-1209.
- FRANCIS, E. (2002), "Rural Livelihoods, Institutions and Vulnerability in North West Province, South Africa", *Journal of Southern African Studies*, 28(3).

- FULGINITI, L.E., R.K. PERRIN and B. YU (2004), "Institutions and Agricultural Productivity in Sub-Saharan Africa", *Agricultural Economics*, 31(2-3), pp. 169-80.
- GAVIAN, S. and M. FAFCHAMPS (1996), "Land Tenure and Allocative Efficiency in Niger", *American Journal of Agricultural Economics*, 78(2), pp. 460-71.
- GBREMEDHIN, B. and S. M. SWINTON (2003), "Investment in Soil Conservation in Northern Ethiopia: The Role of Land Tenure Security and Public Programs", *Agricultural Economics* 29(1), pp. 69-84.
- GLOVER, D. (1994), "Contract Farming and Commercialization of Agriculture in Developing Countries" in VON BRAUN, J. and E. KENNEDY, E. (eds.) *Agricultural Commercialization, Economic Development, and Nutrition*, Johns Hopkins University Press for the International Food Policy Research Institute. Baltimore and London.
- GOLDSTEIN, A.E. (2001), "Infrastructure Development and Regulatory Reform in Sub-Saharan Africa: The Case of Air Transport", *World Economy*, 24(2), pp. 221-48.
- GOLDSTEIN, M., E. SADOULET and A. DE JANVRY (2004), "Is a Friend in Need a Friend Indeed? Inclusion and Exclusion in Mutual Insurance Networks in Southern Ghana" in DERCON, S., *Insurance Against Poverty*. (ed.), Oxford University Press, Oxford.
- GREIF, A. (1994), "Cultural Beliefs and the Organization of Society: A Historical and Theoretical Reflection on Collectivist and Individualist Societies", *Journal of Political Economy*, 102(5), pp. 912-950.
- GRIMARD, F. (1997), "Household Consumption Smoothing through Ethnic Ties: Evidence from Cote D'Ivoire", *Journal of Development Economics*, 53(2), pp. 391-422.
- HADDAD, L., J. HODDINOTT and H.E. ALDERMAN (1997), *Intrahousehold Resource Allocation in Developing Countries: Models, Methods, and Policy*, Johns Hopkins University Press for the International Food Policy Research Institute, Baltimore and London.
- JANVRY, A. DE, G. GORDILLO, J.-P. PLATTEAU and E. SADOULET (eds.) (2001), *Access to Land, Rural Poverty, and Public Action*, Oxford University Press for World Institute for Development Economics Research of the United Nations University, New York, NY.
- JAYNE, T. S., J. GOVEREH, A. MWANAUMO, J.K. NYORO and A. CHAPOTO (2002), "False Promise or False Premise? The Experience of Food and Input Market Reform in Eastern and Southern Africa", *World Development* 30(11), pp.1967-85.
- JAYNE, T.S. and S. JONES (1997), "Food Marketing and Pricing Policy in Eastern and Southern Africa: A Survey", *World Development* 25(9), pp. 1505-1527.
- JAYNE, T.S., J.D. SHAFFER, J.M. STAATZ and T. REARDON (1997), "Improving the Impact of Market Reform on Agricultural Productivity in Africa: How Institutional Design Makes a Difference", *MSU International Development Working Papers* No. 66, Michigan State University.
- JÜTTING, J. (2003) "Institutions and Development: A Critical Review", *OECD Development Centre Working Paper*, No 210, OECD, Paris.
- KHERALLAH, M., C. DELGADO, E. GABRE-MADHIN, N. MINOT and M. JOHNSON (2002), *Reforming Agricultural Markets in Africa*, Johns Hopkins University Press for the International Food Policy Research Institute. Baltimore and London.
- KIRSTEN, J. and K. SARTORIUS (2002), "Linking Agribusiness and Small-Scale Farmers in Developing Countries: Is There a New Role for Contract Farming?" *Development Southern Africa*, 19(4), pp. 503-29.

- KNACK, S. and P. KEEFER (1997), "Does Social Capital Have an Economic Payoff? A Cross-Country Investigation", *Quarterly Journal of Economics*, 112(4), pp.1251-88.
- KYDD, J., A. DORWARD, J. MORRISON and G. CADISH (2004), "Agricultural Development and Pro-poor Economic Growth in Sub-Saharan Africa: Potential and Policy", *Oxford Development Studies*, 32(1), pp. 37-57.
- LASTARRIA-CORNHIEL, S. (1997), "Impact of Privatization on Gender and Property Rights in Africa", *World Development* 25(8), pp. 1317-33.
- LEVY, B. (2004) "Governance and Economic Development in Africa: Meeting the Challenge of Capacity Building" in LEVY, B. and S. KPUNDEH, (eds.) *Building State Capacity in Africa: New Approaches, Emerging Lessons*, World Bank Institute Development Studies, World Bank, Washington D.C.
- LEVY, B. and S. KPUNDEH (eds.) (2004) *Building State Capacity in Africa: New Approaches, Emerging Lessons*, World Bank Institute Development Studies, World Bank, Washington, D.C.
- MAURO, P. (1995), "Corruption and Growth", *Quarterly Journal of Economics*, 106(2), pp. 681-711.
- MAZZUCATO, V. and D. NIEMEIJER (2000), "The Cultural Economy of Soil and Water Conservation: Market Principles and Social Networks in Eastern Burkina Faso", *Development and Change* 31(4), pp. 831-55.
- MIGOT-ADHOLLA, S., P. HAZELL, B. BLAREL and F. PLACE (1991) "Indigenous Land Rights Systems in Sub-Saharan Africa: A Constraint on Productivity?" *World Bank Economic Review* 5(1), pp. 155-75
- MORDUCH, J. (1999), "Between the State and the Market: Can Informal Insurance Patch the Safety Net?" *World Bank Research Observer* 14(2), pp. 187-207.
- MORRISON, C. and J. JÜTTING (2004), "The Impact of Social Institutions on the Economic Role of Women in Developing Countries", *OECD Development Centre Working Paper*, No. 234, OECD, Paris.
- NORTH, D.C. (1990), *Institutions, Institutional Change and Economic Performance*, Cambridge University Press, Cambridge.
- OBARE, G.A., S.W. OMAMO and J.C. WILLIAMS (2003), "Smallholder Production Structure and Rural Roads in Africa: The Case of Nakuru District, Kenya", *Agricultural Economics* 28(3), pp.245-54.
- PICKETT, J. (1993), "Agriculture, Liberalisation and Economic Growth in Ghana and Cote d'Ivoire" in GOLDIN, I. (ed.) *Economic Reform, Trade and Agricultural Development*.
- PLATTEAU, J.-P. (1996), "The Evolutionary Theory of Land Rights As Applied to Sub-Saharan Africa: A Critical Assessment", *Development and Change* 27(1), pp.29-86.
- PLATTEAU, J.-P. (2000), "Institutions, Social Norms, and Economic Development", *Fundamentals of Development Economics*, Vol. 1, Harwood Academic, Reading, U.K.
- PLATTEAU, J.-P. (2004), "The Gradual Erosion of the Social Security Function of Customary Land Tenure Arrangements in Lineage-based Societies" in DERCON, S. (ed.), *Insurance Against Poverty*.
- PLATTEAU, J.-P. and Y. HAYAMI (1998), "Resource Endowments and Agricultural Development: Africa versus Asia" in HAYAMI, Y. and M.E. AOKI (eds.), *The Institutional Foundations of East Asian Economic Development: Proceedings of the IEA Conference held in Tokyo, Japan*.
- POWELSON, J.P. (1998), "The State and the Peasant: Agricultural Policy on Trial" in DORN, J.A., S.H. HANKE and A.A. WALTERS (eds.), *The Revolution in Development Economics*.

- QUISUMBING, A.R., (ed.) (2003), *Household Decisions, Gender, and Development: A Synthesis of Recent Research* International Food Policy Research Institute, Washington, D.C., Johns Hopkins University Press, Baltimore
- QUISUMBING, A.R., E. PAYONGAYONG, J.B. AIDOO and K. OTSUKA (2001), "Women's Land Rights in the Transition to Individualized Ownership: Implications for Tree-Resource Management in Western Ghana", *Economic Development and Cultural Change*, 50(1), pp.157-81.
- PONS-VIGNON, N. and H.-B. SOLIGNAC LECOMTE. (2004) "Land, Violent Conflict and Development", *OECD Development Centre Working Paper*, No. 233, OECD, Paris.
- RIVERA, W. and G. ALEX (eds.) (2004), "Decentralized Systems: Case Studies of International Initiatives", *Agriculture and Rural Development Discussion Paper*, No. 8, *Extension Reform for Rural Development*, World Bank, Washington, D.C.
- ROLAND, G. (2004), "Understanding Institutional Change: Fast-Moving and Slow-Moving Institutions", *Studies in Comparative International Development* 28(4), pp. 109-131.
- ROMANI, M. (2003), "Love Thy Neighbour? Evidence from Ethnic Discrimination in Information Sharing within Villages in Cote d'Ivoire", *Journal of African Economies* 12(4), pp. 533-63.
- SANDMO, A. (1971), "On the Theory of the Competitive Firm under Price Uncertainty", *American Economic Review*, 61(1), pp. 65-73.
- SOLUDO, C.S. (2000), "Comparative Institutional Development: Lessons from Rural Land Markets in Africa", *Background Paper for the World Development Report 2002*, manuscript,
- STONE, G.D. (2004), "Social Constraints on Crop Biotechnology in Developing Countries", *AgBioForum* 7(1-2), pp.76-79.
- TOWNSEND, R.M. (1994), "Risk and Insurance in Village India", *Econometrica* 62(3), pp.539-91.
- UDRY, C. (1990), "Credit Markets in Northern Nigeria: Credit as Insurance in a Rural Economy", *World Bank Economic Review*, 4(3), pp. 251-69.
- UDRY, C. (1994), "Risk and Insurance in a Rural Credit Market: An Empirical Investigation in Northern Nigeria", *Review of Economic Studies* 61(3), pp.495-526.
- VOORTMAN, R.L., B.G.J.S. SONNEVELD and M.A. KEYZER (2000), "African Land Ecology: Opportunities and Constraints for Agricultural Development", Center for International Development at Harvard University, CID.
- WARNING, M. and N. KEY (2002), "The Social Performance and Distributional Consequences of Contract Farming: An Equilibrium Analysis of the Arachide de Bouche Program in Senegal", *World Development* 30(2), pp. 255-63.
- WEINBERGER, K. and J.P. JÜTTING (2001), "Women's Participation in Local Organizations: Conditions and Constraints", *World Development* 29(8), pp.1391-1404.
- WHITE, R. and C.K. EICHER (1999), "NGOs and the African Farmer: A Skeptical Perspective", Staff Paper No. 99-01, Department of Agricultural Economics, Michigan State University.
- WILLIAMSON, O.E. (2000), "The New Institutional Economics: Taking Stock, Looking Ahead", *Journal of Economic Literature* 38(3), pp. 595-613.
- WORLD BANK (1975), "Land Reform". Sector Policy Paper, World Bank, Washington D.C.

- WORLD BANK (1981), "Accelerating African Agricultural Development", World Bank, Washington, D.C.
- WORLD BANK (2000), *Can Africa Claim the Twenty-first Century?* World Bank, Washington, D.C.
- WORLD BANK (2002), *World Development Report 2002: Building Institutions for Markets*, Oxford University Press for the World Bank, Oxford and New York, NY.
- WORLD BANK (2005a), *World Development Indicators Online*, World Bank, <http://devdata.worldbank.org/dataonline/>.
- WORLD BANK (2005b), *World Development Report 2005: A Better Investment Climate for Everyone*, World Bank Washington, D.C., Oxford University Press, Oxford and New York, NY.
- YEATS, A.J. (1999), "What Can Be Expected from African Regional Trade Arrangements?: Some Empirical Evidence", *World Bank Policy Research Working Paper Series: 2004*, World Bank, Washington, D.C.

OTHER TITLES IN THE SERIES/ AUTRES TITRES DANS LA SÉRIE

The former series known as “Technical Papers” and “Webdocs” merged in November 2003 into “Development Centre Working Papers”. In the new series, former Webdocs 1-17 follow former Technical Papers 1-212 as Working Papers 213-229.

All these documents may be downloaded from:

<http://www.oecd.org/dev/wp> or obtained via e-mail (dev.contact@oecd.org).

Working Paper No.1, *Macroeconomic Adjustment and Income Distribution: A Macro-Micro Simulation Model*, by François Bourguignon, William H. Branson and Jaime de Melo, March 1989.

Working Paper No. 2, *International Interactions in Food and Agricultural Policies: The Effect of Alternative Policies*, by Joachim Zietz and Alberto Valdés, April, 1989.

Working Paper No. 3, *The Impact of Budget Retrenchment on Income Distribution in Indonesia: A Social Accounting Matrix Application*, by Steven Keuning and Erik Thorbecke, June 1989.

Working Paper No. 3a, *Statistical Annex: The Impact of Budget Retrenchment*, June 1989.

Document de travail No. 4, *Le Rééquilibrage entre le secteur public et le secteur privé : le cas du Mexique*, par C.-A. Michalet, juin 1989.

Working Paper No. 5, *Rebalancing the Public and Private Sectors: The Case of Malaysia*, by R. Leeds, July 1989.

Working Paper No. 6, *Efficiency, Welfare Effects, and Political Feasibility of Alternative Antipoverty and Adjustment Programs*, by Alain de Janvry and Elisabeth Sadoulet, December 1989.

Document de travail No. 7, *Ajustement et distribution des revenus : application d'un modèle macro-micro au Maroc*, par Christian Morrisson, avec la collaboration de Sylvie Lambert et Akiko Suwa, décembre 1989.

Working Paper No. 8, *Emerging Maize Biotechnologies and their Potential Impact*, by W. Burt Sundquist, December 1989.

Document de travail No. 9, *Analyse des variables socio-culturelles et de l'ajustement en Côte d'Ivoire*, par W. Weekes-Vagliani, janvier 1990.

Working Paper No. 10, *A Financial Computable General Equilibrium Model for the Analysis of Ecuador's Stabilization Programs*, by André Fargeix and Elisabeth Sadoulet, February 1990.

Working Paper No. 11, *Macroeconomic Aspects, Foreign Flows and Domestic Savings Performance in Developing Countries: A "State of The Art" Report*, by Anand Chandavarkar, February 1990.

Working Paper No. 12, *Tax Revenue Implications of the Real Exchange Rate: Econometric Evidence from Korea and Mexico*, by Virginia Fierro and Helmut Reisen, February 1990.

Working Paper No. 13, *Agricultural Growth and Economic Development: The Case of Pakistan*, by Naved Hamid and Wouter Tims, April 1990.

Working Paper No. 14, *Rebalancing the Public and Private Sectors in Developing Countries: The Case of Ghana*, by H. Akuoko-Frimpong, June 1990.

Working Paper No. 15, *Agriculture and the Economic Cycle: An Economic and Econometric Analysis with Special Reference to Brazil*, by Florence Contré and Ian Goldin, June 1990.

Working Paper No. 16, *Comparative Advantage: Theory and Application to Developing Country Agriculture*, by Ian Goldin, June 1990.

Working Paper No. 17, *Biotechnology and Developing Country Agriculture: Maize in Brazil*, by Bernardo Sorj and John Wilkinson, June 1990.

Working Paper No. 18, *Economic Policies and Sectoral Growth: Argentina 1913-1984*, by Yair Mundlak, Domingo Cavallo, Roberto Domenech, June 1990.

Working Paper No. 19, *Biotechnology and Developing Country Agriculture: Maize In Mexico*, by Jaime A. Matus Gardea, Arturo Puente Gonzalez and Cristina Lopez Peralta, June 1990.

Working Paper No. 20, *Biotechnology and Developing Country Agriculture: Maize in Thailand*, by Suthad Setboonsarng, July 1990.

- Working Paper No. 21, *International Comparisons of Efficiency in Agricultural Production*, by Guillermo Flichmann, July 1990.
- Working Paper No. 22, *Unemployment in Developing Countries: New Light on an Old Problem*, by David Turnham and Denizhan Eröcal, July 1990.
- Working Paper No. 23, *Optimal Currency Composition of Foreign Debt: the Case of Five Developing Countries*, by Pier Giorgio Gawronski, August 1990.
- Working Paper No. 24, *From Globalization to Regionalization: the Mexican Case*, by Wilson Peres Núñez, August 1990.
- Working Paper No. 25, *Electronics and Development in Venezuela: A User-Oriented Strategy and its Policy Implications*, by Carlota Perez, October 1990.
- Working Paper No. 26, *The Legal Protection of Software: Implications for Latecomer Strategies in Newly Industrialising Economies (NIEs) and Middle-Income Economies (MIEs)*, by Carlos Maria Correa, October 1990.
- Working Paper No. 27, *Specialization, Technical Change and Competitiveness in the Brazilian Electronics Industry*, by Claudio R. Frischtak, October 1990.
- Working Paper No. 28, *Internationalization Strategies of Japanese Electronics Companies: Implications for Asian Newly Industrializing Economies (NIEs)*, by Bundo Yamada, October 1990.
- Working Paper No. 29, *The Status and an Evaluation of the Electronics Industry in Taiwan*, by Gee San, October 1990.
- Working Paper No. 30, *The Indian Electronics Industry: Current Status, Perspectives and Policy Options*, by Ghayur Alam, October 1990.
- Working Paper No. 31, *Comparative Advantage in Agriculture in Ghana*, by James Pickett and E. Shaeldin, October 1990.
- Working Paper No. 32, *Debt Overhang, Liquidity Constraints and Adjustment Incentives*, by Bert Hofman and Helmut Reisen, October 1990.
- Working Paper No. 34, *Biotechnology and Developing Country Agriculture: Maize in Indonesia*, by Hidjat Nataatmadja *et al.*, January 1991.
- Working Paper No. 35, *Changing Comparative Advantage in Thai Agriculture*, by Ammar Siamwalla, Suthad Setboonsarng and Prasong Werakarnjanapongs, March 1991.
- Working Paper No. 36, *Capital Flows and the External Financing of Turkey's Imports*, by Ziya Önis and Süleyman Özmucur, July 1991.
- Working Paper No. 37, *The External Financing of Indonesia's Imports*, by Glenn P. Jenkins and Henry B.F. Lim, July 1991.
- Working Paper No. 38, *Long-term Capital Reflow under Macroeconomic Stabilization in Latin America*, by Beatriz Armendariz de Aghion, July 1991.
- Working Paper No. 39, *Buybacks of LDC Debt and the Scope for Forgiveness*, by Beatriz Armendariz de Aghion, July 1991.
- Working Paper No. 40, *Measuring and Modelling Non-Tariff Distortions with Special Reference to Trade in Agricultural Commodities*, by Peter J. Lloyd, July 1991.
- Working Paper No. 41, *The Changing Nature of IMF Conditionality*, by Jacques J. Polak, August 1991.
- Working Paper No. 42, *Time-Varying Estimates on the Openness of the Capital Account in Korea and Taiwan*, by Helmut Reisen and Héléne Yèches, August 1991.
- Working Paper No. 43, *Toward a Concept of Development Agreements*, by F. Gerard Adams, August 1991.
- Document de travail No. 44, *Le Partage du fardeau entre les créanciers de pays débiteurs défaillants*, par Jean-Claude Berthélemy et Ann Vourc'h, septembre 1991.
- Working Paper No. 45, *The External Financing of Thailand's Imports*, by Supote Chunanunthathum, October 1991.
- Working Paper No. 46, *The External Financing of Brazilian Imports*, by Enrico Colombatto, with Elisa Luciano, Luca Gargiulo, Pietro Garibaldi and Giuseppe Russo, October 1991.
- Working Paper No. 47, *Scenarios for the World Trading System and their Implications for Developing Countries*, by Robert Z. Lawrence, November 1991.
- Working Paper No. 48, *Trade Policies in a Global Context: Technical Specifications of the Rural/Urban-North/South (RUNS) Applied General Equilibrium Model*, by Jean-Marc Burniaux and Dominique van der Mensbrugge, November 1991.
- Working Paper No. 49, *Macro-Micro Linkages: Structural Adjustment and Fertilizer Policy in Sub-Saharan Africa*, by Jean-Marc Fontaine with the collaboration of Alice Sindzingre, December 1991.
- Working Paper No. 50, *Aggregation by Industry in General Equilibrium Models with International Trade*, by Peter J. Lloyd, December 1991.
- Working Paper No. 51, *Policy and Entrepreneurial Responses to the Montreal Protocol: Some Evidence from the Dynamic Asian Economies*, by David C. O'Connor, December 1991.
- Working Paper No. 52, *On the Pricing of LDC Debt: an Analysis Based on Historical Evidence from Latin America*, by Beatriz Armendariz de Aghion, February 1992.
- Working Paper No. 53, *Economic Regionalisation and Intra-Industry Trade: Pacific-Asian Perspectives*, by Kiichiro Fukasaku, February 1992.
- Working Paper No. 54, *Debt Conversions in Yugoslavia*, by Mojmir Mrak, February 1992.
- Working Paper No. 55, *Evaluation of Nigeria's Debt-Relief Experience (1985-1990)*, by N.E. Ogbé, March 1992.
- Document de travail No. 56, *L'Expérience de l'allègement de la dette du Mali*, par Jean-Claude Berthélemy, février 1992.
- Working Paper No. 57, *Conflict or Indifference: US Multinationals in a World of Regional Trading Blocs*, by Louis T. Wells, Jr., March 1992.
- Working Paper No. 58, *Japan's Rapidly Emerging Strategy Toward Asia*, by Edward J. Lincoln, April 1992.
- Working Paper No. 59, *The Political Economy of Stabilization Programmes in Developing Countries*, by Bruno S. Frey and Reiner Eichenberger, April 1992.

- Working Paper No. 60, *Some Implications of Europe 1992 for Developing Countries*, by Sheila Page, April 1992.
- Working Paper No. 61, *Taiwanese Corporations in Globalisation and Regionalisation*, by Gee San, April 1992.
- Working Paper No. 62, *Lessons from the Family Planning Experience for Community-Based Environmental Education*, by Winifred Weekes-Vagliani, April 1992.
- Working Paper No. 63, *Mexican Agriculture in the Free Trade Agreement: Transition Problems in Economic Reform*, by Santiago Levy and Sweder van Wijnbergen, May 1992.
- Working Paper No. 64, *Offensive and Defensive Responses by European Multinationals to a World of Trade Blocs*, by John M. Stopford, May 1992.
- Working Paper No. 65, *Economic Integration in the Pacific Region*, by Richard Drobnick, May 1992.
- Working Paper No. 66, *Latin America in a Changing Global Environment*, by Winston Fritsch, May 1992.
- Working Paper No. 67, *An Assessment of the Brady Plan Agreements*, by Jean-Claude Berthélemy and Robert Lensink, May 1992.
- Working Paper No. 68, *The Impact of Economic Reform on the Performance of the Seed Sector in Eastern and Southern Africa*, by Elizabeth Cromwell, June 1992.
- Working Paper No. 69, *Impact of Structural Adjustment and Adoption of Technology on Competitiveness of Major Cocoa Producing Countries*, by Emily M. Bloomfield and R. Antony Lass, June 1992.
- Working Paper No. 70, *Structural Adjustment and Moroccan Agriculture: an Assessment of the Reforms in the Sugar and Cereal Sectors*, by Jonathan Kydd and Sophie Thoyer, June 1992.
- Document de travail No. 71, *L'Allègement de la dette au Club de Paris : les évolutions récentes en perspective*, par Ann Vourc'h, juin 1992.
- Working Paper No. 72, *Biotechnology and the Changing Public/Private Sector Balance: Developments in Rice and Cocoa*, by Carliene Brenner, July 1992.
- Working Paper No. 73, *Namibian Agriculture: Policies and Prospects*, by Walter Elkan, Peter Amutenya, Jochbeth Andima, Robin Sherbourne and Eline van der Linden, July 1992.
- Working Paper No. 74, *Agriculture and the Policy Environment: Zambia and Zimbabwe*, by Doris J. Jansen and Andrew Rukovo, July 1992.
- Working Paper No. 75, *Agricultural Productivity and Economic Policies: Concepts and Measurements*, by Yair Mundlak, August 1992.
- Working Paper No. 76, *Structural Adjustment and the Institutional Dimensions of Agricultural Research and Development in Brazil: Soybeans, Wheat and Sugar Cane*, by John Wilkinson and Bernardo Sorj, August 1992.
- Working Paper No. 77, *The Impact of Laws and Regulations on Micro and Small Enterprises in Niger and Swaziland*, by Isabelle Joumard, Carl Liedholm and Donald Mead, September 1992.
- Working Paper No. 78, *Co-Financing Transactions between Multilateral Institutions and International Banks*, by Michel Bouchet and Amit Ghose, October 1992.
- Document de travail No. 79, *Allègement de la dette et croissance : le cas mexicain*, par Jean-Claude Berthélemy et Ann Vourc'h, octobre 1992.
- Document de travail No. 80, *Le Secteur informel en Tunisie : cadre réglementaire et pratique courante*, par Abderrahman Ben Zakour et Farouk Kria, novembre 1992.
- Working Paper No. 81, *Small-Scale Industries and Institutional Framework in Thailand*, by Naruemol Bunjongjit and Xavier Oudin, November 1992.
- Working Paper No. 81a, *Statistical Annex: Small-Scale Industries and Institutional Framework in Thailand*, by Naruemol Bunjongjit and Xavier Oudin, November 1992.
- Document de travail No. 82, *L'Expérience de l'allègement de la dette du Niger*, par Ann Vourc'h et Maina Boukar Moussa, novembre 1992.
- Working Paper No. 83, *Stabilization and Structural Adjustment in Indonesia: an Intertemporal General Equilibrium Analysis*, by David Roland-Holst, November 1992.
- Working Paper No. 84, *Striving for International Competitiveness: Lessons from Electronics for Developing Countries*, by Jan Maarten de Vet, March 1993.
- Document de travail No. 85, *Micro-entreprises et cadre institutionnel en Algérie*, par Hocine Benissad, mars 1993.
- Working Paper No. 86, *Informal Sector and Regulations in Ecuador and Jamaica*, by Emilio Klein and Victor E. Tokman, August 1993.
- Working Paper No. 87, *Alternative Explanations of the Trade-Output Correlation in the East Asian Economies*, by Colin I. Bradford Jr. and Naomi Chakwin, August 1993.
- Document de travail No. 88, *La Faisabilité politique de l'ajustement dans les pays africains*, par Christian Morrisson, Jean-Dominique Lafay et Sébastien Dessus, novembre 1993.
- Working Paper No. 89, *China as a Leading Pacific Economy*, by Kiichiro Fukasaku and Mingyuan Wu, November 1993.
- Working Paper No. 90, *A Detailed Input-Output Table for Morocco, 1990*, by Maurizio Bussolo and David Roland-Holst, November 1993.
- Working Paper No. 91, *International Trade and the Transfer of Environmental Costs and Benefits*, by Hiro Lee and David Roland-Holst, December 1993.
- Working Paper No. 92, *Economic Instruments in Environmental Policy: Lessons from the OECD Experience and their Relevance to Developing Economies*, by Jean-Philippe Barde, January 1994.
- Working Paper No. 93, *What Can Developing Countries Learn from OECD Labour Market Programmes and Policies?*, by Åsa Sohlman with David Turnham, January 1994.

- Working Paper No. 94, *Trade Liberalization and Employment Linkages in the Pacific Basin*, by Hiro Lee and David Roland-Holst, February 1994.
- Working Paper No. 95, *Participatory Development and Gender: Articulating Concepts and Cases*, by Winifred Weekes-Vagliani, February 1994.
- Document de travail No. 96, *Promouvoir la maîtrise locale et régionale du développement : une démarche participative à Madagascar*, par Philippe de Rham et Bernard Lecomte, juin 1994.
- Working Paper No. 97, *The OECD Green Model: an Updated Overview*, by Hiro Lee, Joaquim Oliveira-Martins and Dominique van der Mensbrugghe, August 1994.
- Working Paper No. 98, *Pension Funds, Capital Controls and Macroeconomic Stability*, by Helmut Reisen and John Williamson, August 1994.
- Working Paper No. 99, *Trade and Pollution Linkages: Piecemeal Reform and Optimal Intervention*, by John Beghin, David Roland-Holst and Dominique van der Mensbrugghe, October 1994.
- Working Paper No. 100, *International Initiatives in Biotechnology for Developing Country Agriculture: Promises and Problems*, by Carliene Brenner and John Komen, October 1994.
- Working Paper No. 101, *Input-based Pollution Estimates for Environmental Assessment in Developing Countries*, by Sébastien Dessus, David Roland-Holst and Dominique van der Mensbrugghe, October 1994.
- Working Paper No. 102, *Transitional Problems from Reform to Growth: Safety Nets and Financial Efficiency in the Adjusting Egyptian Economy*, by Mahmoud Abdel-Fadil, December 1994.
- Working Paper No. 103, *Biotechnology and Sustainable Agriculture: Lessons from India*, by Ghayur Alam, December 1994.
- Working Paper No. 104, *Crop Biotechnology and Sustainability: a Case Study of Colombia*, by Luis R. Sanint, January 1995.
- Working Paper No. 105, *Biotechnology and Sustainable Agriculture: the Case of Mexico*, by José Luis Solleiro Rebolledo, January 1995.
- Working Paper No. 106, *Empirical Specifications for a General Equilibrium Analysis of Labor Market Policies and Adjustments*, by Andréa Maechler and David Roland-Holst, May 1995.
- Document de travail No. 107, *Les Migrants, partenaires de la coopération internationale : le cas des Maliens de France*, par Christophe Daum, juillet 1995.
- Document de travail No. 108, *Ouverture et croissance industrielle en Chine : étude empirique sur un échantillon de villes*, par Sylvie Démurger, septembre 1995.
- Working Paper No. 109, *Biotechnology and Sustainable Crop Production in Zimbabwe*, by John J. Woodend, December 1995.
- Document de travail No. 110, *Politiques de l'environnement et libéralisation des échanges au Costa Rica : une vue d'ensemble*, par Sébastien Dessus et Maurizio Bussolo, février 1996.
- Working Paper No. 111, *Grow Now/Clean Later, or the Pursuit of Sustainable Development?*, by David O'Connor, March 1996.
- Working Paper No. 112, *Economic Transition and Trade-Policy Reform: Lessons from China*, by Kiichiro Fukasaku and Henri-Bernard Solignac Lecomte, July 1996.
- Working Paper No. 113, *Chinese Outward Investment in Hong Kong: Trends, Prospects and Policy Implications*, by Yun-Wing Sung, July 1996.
- Working Paper No. 114, *Vertical Intra-industry Trade between China and OECD Countries*, by Lisbeth Hellvin, July 1996.
- Document de travail No. 115, *Le Rôle du capital public dans la croissance des pays en développement au cours des années 80*, par Sébastien Dessus et Rémy Herrera, juillet 1996.
- Working Paper No. 116, *General Equilibrium Modelling of Trade and the Environment*, by John Beghin, Sébastien Dessus, David Roland-Holst and Dominique van der Mensbrugghe, September 1996.
- Working Paper No. 117, *Labour Market Aspects of State Enterprise Reform in Viet Nam*, by David O'Connor, September 1996.
- Document de travail No. 118, *Croissance et compétitivité de l'industrie manufacturière au Sénégal*, par Thierry Latreille et Aristomène Varoudakis, octobre 1996.
- Working Paper No. 119, *Evidence on Trade and Wages in the Developing World*, by Donald J. Robbins, December 1996.
- Working Paper No. 120, *Liberalising Foreign Investments by Pension Funds: Positive and Normative Aspects*, by Helmut Reisen, January 1997.
- Document de travail No. 121, *Capital Humain, ouverture extérieure et croissance : estimation sur données de panel d'un modèle à coefficients variables*, par Jean-Claude Berthélemy, Sébastien Dessus et Aristomène Varoudakis, janvier 1997.
- Working Paper No. 122, *Corruption: The Issues*, by Andrew W. Goudie and David Stasavage, January 1997.
- Working Paper No. 123, *Outflows of Capital from China*, by David Wall, March 1997.
- Working Paper No. 124, *Emerging Market Risk and Sovereign Credit Ratings*, by Guillermo Larraín, Helmut Reisen and Julia von Maltzan, April 1997.
- Working Paper No. 125, *Urban Credit Co-operatives in China*, by Eric Girardin and Xie Ping, August 1997.
- Working Paper No. 126, *Fiscal Alternatives of Moving from Unfunded to Funded Pensions*, by Robert Holzmann, August 1997.
- Working Paper No. 127, *Trade Strategies for the Southern Mediterranean*, by Peter A. Petri, December 1997.
- Working Paper No. 128, *The Case of Missing Foreign Investment in the Southern Mediterranean*, by Peter A. Petri, December 1997.
- Working Paper No. 129, *Economic Reform in Egypt in a Changing Global Economy*, by Joseph Licari, December 1997.

Working Paper No. 130, *Do Funded Pensions Contribute to Higher Aggregate Savings? A Cross-Country Analysis*, by Jeanine Bailliu and Helmut Reisen, December 1997.

Working Paper No. 131, *Long-run Growth Trends and Convergence Across Indian States*, by Rayaprolu Nagaraj, Aristomène Varoudakis and Marie-Ange Véganzonès, January 1998.

Working Paper No. 132, *Sustainable and Excessive Current Account Deficits*, by Helmut Reisen, February 1998.

Working Paper No. 133, *Intellectual Property Rights and Technology Transfer in Developing Country Agriculture: Rhetoric and Reality*, by Carliene Brenner, March 1998.

Working Paper No. 134, *Exchange-rate Management and Manufactured Exports in Sub-Saharan Africa*, by Khalid Sekkat and Aristomène Varoudakis, March 1998.

Working Paper No. 135, *Trade Integration with Europe, Export Diversification and Economic Growth in Egypt*, by Sébastien Dessus and Akiko Suwa-Eisenmann, June 1998.

Working Paper No. 136, *Domestic Causes of Currency Crises: Policy Lessons for Crisis Avoidance*, by Helmut Reisen, June 1998.

Working Paper No. 137, *A Simulation Model of Global Pension Investment*, by Landis MacKellar and Helmut Reisen, August 1998.

Working Paper No. 138, *Determinants of Customs Fraud and Corruption: Evidence from Two African Countries*, by David Stasavage and Cécile Daubrée, August 1998.

Working Paper No. 139, *State Infrastructure and Productive Performance in Indian Manufacturing*, by Arup Mitra, Aristomène Varoudakis and Marie-Ange Véganzonès, August 1998.

Working Paper No. 140, *Rural Industrial Development in Viet Nam and China: A Study in Contrasts*, by David O'Connor, September 1998.

Working Paper No. 141, *Labour Market Aspects of State Enterprise Reform in China*, by Fan Gang, Maria Rosa Lunati and David O'Connor, October 1998.

Working Paper No. 142, *Fighting Extreme Poverty in Brazil: The Influence of Citizens' Action on Government Policies*, by Fernanda Lopes de Carvalho, November 1998.

Working Paper No. 143, *How Bad Governance Impedes Poverty Alleviation in Bangladesh*, by Rehman Sobhan, November 1998.

Document de travail No. 144, *La libéralisation de l'agriculture tunisienne et l'Union européenne: une vue prospective*, par Mohamed Abdelbasset Chemingui et Sébastien Dessus, février 1999.

Working Paper No. 145, *Economic Policy Reform and Growth Prospects in Emerging African Economies*, by Patrick Guillaumont, Sylviane Guillaumont Jeanneney and Aristomène Varoudakis, March 1999.

Working Paper No. 146, *Structural Policies for International Competitiveness in Manufacturing: The Case of Cameroon*, by Ludvig Söderling, March 1999.

Working Paper No. 147, *China's Unfinished Open-Economy Reforms: Liberalisation of Services*, by Kiichiro Fukasaku, Yu Ma and Qiumei Yang, April 1999.

Working Paper No. 148, *Boom and Bust and Sovereign Ratings*, by Helmut Reisen and Julia von Maltzan, June 1999.

Working Paper No. 149, *Economic Opening and the Demand for Skills in Developing Countries: A Review of Theory and Evidence*, by David O'Connor and Maria Rosa Lunati, June 1999.

Working Paper No. 150, *The Role of Capital Accumulation, Adjustment and Structural Change for Economic Take-off: Empirical Evidence from African Growth Episodes*, by Jean-Claude Berthélemy and Ludvig Söderling, July 1999.

Working Paper No. 151, *Gender, Human Capital and Growth: Evidence from Six Latin American Countries*, by Donald J. Robbins, September 1999.

Working Paper No. 152, *The Politics and Economics of Transition to an Open Market Economy in Viet Nam*, by James Riedel and William S. Turley, September 1999.

Working Paper No. 153, *The Economics and Politics of Transition to an Open Market Economy: China*, by Wing Thye Woo, October 1999.

Working Paper No. 154, *Infrastructure Development and Regulatory Reform in Sub-Saharan Africa: The Case of Air Transport*, by Andrea E. Goldstein, October 1999.

Working Paper No. 155, *The Economics and Politics of Transition to an Open Market Economy: India*, by Ashok V. Desai, October 1999.

Working Paper No. 156, *Climate Policy Without Tears: CGE-Based Ancillary Benefits Estimates for Chile*, by Sébastien Dessus and David O'Connor, November 1999.

Document de travail No. 157, *Dépenses d'éducation, qualité de l'éducation et pauvreté : l'exemple de cinq pays d'Afrique francophone*, par Katharina Michaelowa, avril 2000.

Document de travail No. 158, *Une estimation de la pauvreté en Afrique subsaharienne d'après les données anthropométriques*, par Christian Morisson, Hélène Guilmeau et Charles Linskens, mai 2000.

Working Paper No. 159, *Converging European Transitions*, by Jorge Braga de Macedo, July 2000.

Working Paper No. 160, *Capital Flows and Growth in Developing Countries: Recent Empirical Evidence*, by Marcelo Soto, July 2000.

Working Paper No. 161, *Global Capital Flows and the Environment in the 21st Century*, by David O'Connor, July 2000.

Working Paper No. 162, *Financial Crises and International Architecture: A "Eurocentric" Perspective*, by Jorge Braga de Macedo, August 2000.

Document de travail No. 163, *Résoudre le problème de la dette : de l'initiative PPTE à Cologne*, par Anne Joseph, août 2000.

- Working Paper No. 164, *E-Commerce for Development: Prospects and Policy Issues*, by Andrea Goldstein and David O'Connor, September 2000.
- Working Paper No. 165, *Negative Alchemy? Corruption and Composition of Capital Flows*, by Shang-Jin Wei, October 2000.
- Working Paper No. 166, *The HIPC Initiative: True and False Promises*, by Daniel Cohen, October 2000.
- Document de travail No. 167, *Les facteurs explicatifs de la malnutrition en Afrique subsaharienne*, par Christian Morrisson et Charles Linskens, octobre 2000.
- Working Paper No. 168, *Human Capital and Growth: A Synthesis Report*, by Christopher A. Pissarides, November 2000.
- Working Paper No. 169, *Obstacles to Expanding Intra-African Trade*, by Roberto Longo and Khalid Sekkat, March 2001.
- Working Paper No. 170, *Regional Integration In West Africa*, by Ernest Aryeetey, March 2001.
- Working Paper No. 171, *Regional Integration Experience in the Eastern African Region*, by Andrea Goldstein and Njuguna S. Ndung'u, March 2001.
- Working Paper No. 172, *Integration and Co-operation in Southern Africa*, by Carolyn Jenkins, March 2001.
- Working Paper No. 173, *FDI in Sub-Saharan Africa*, by Ludger Odenthal, March 2001
- Document de travail No. 174, *La réforme des télécommunications en Afrique subsaharienne*, par Patrick Plane, mars 2001.
- Working Paper No. 175, *Fighting Corruption in Customs Administration: What Can We Learn from Recent Experiences?*, by Irène Hors; April 2001.
- Working Paper No. 176, *Globalisation and Transformation: Illusions and Reality*, by Grzegorz W. Kolodko, May 2001.
- Working Paper No. 177, *External Solvency, Dollarisation and Investment Grade: Towards a Virtuous Circle?*, by Martin Grandes, June 2001.
- Document de travail No. 178, *Congo 1965-1999: Les espoirs déçus du « Brésil africain »*, par Joseph Maton avec Henri-Bernard Solignac Lecomte, septembre 2001.
- Working Paper No. 179, *Growth and Human Capital: Good Data, Good Results*, by Daniel Cohen and Marcelo Soto, September 2001.
- Working Paper No. 180, *Corporate Governance and National Development*, by Charles P. Oman, October 2001.
- Working Paper No. 181, *How Globalisation Improves Governance*, by Federico Bonaglia, Jorge Braga de Macedo and Maurizio Bussolo, November 2001.
- Working Paper No. 182, *Clearing the Air in India: The Economics of Climate Policy with Ancillary Benefits*, by Maurizio Bussolo and David O'Connor, November 2001.
- Working Paper No. 183, *Globalisation, Poverty and Inequality in sub-Saharan Africa: A Political Economy Appraisal*, by Yvonne M. Tsikata, December 2001.
- Working Paper No. 184, *Distribution and Growth in Latin America in an Era of Structural Reform: The Impact of Globalisation*, by Samuel A. Morley, December 2001.
- Working Paper No. 185, *Globalisation, Liberalisation, Poverty and Income Inequality in Southeast Asia*, by K.S. Jomo, December 2001.
- Working Paper No. 186, *Globalisation, Growth and Income Inequality: The African Experience*, by Steve Kayizzi-Mugerwa, December 2001.
- Working Paper No. 187, *The Social Impact of Globalisation in Southeast Asia*, by Mari Pangestu, December 2001.
- Working Paper No. 188, *Where Does Inequality Come From? Ideas and Implications for Latin America*, by James A. Robinson, December 2001.
- Working Paper No. 189, *Policies and Institutions for E-Commerce Readiness: What Can Developing Countries Learn from OECD Experience?*, by Paulo Bastos Tigre and David O'Connor, April 2002.
- Document de travail No. 190, *La réforme du secteur financier en Afrique*, par Anne Joseph, juillet 2002.
- Working Paper No. 191, *Virtuous Circles? Human Capital Formation, Economic Development and the Multinational Enterprise*, by Ethan B. Kapstein, August 2002.
- Working Paper No. 192, *Skill Upgrading in Developing Countries: Has Inward Foreign Direct Investment Played a Role?*, by Matthew J. Slaughter, August 2002.
- Working Paper No. 193, *Government Policies for Inward Foreign Direct Investment in Developing Countries: Implications for Human Capital Formation and Income Inequality*, by Dirk Willem te Velde, August 2002.
- Working Paper No. 194, *Foreign Direct Investment and Intellectual Capital Formation in Southeast Asia*, by Bryan K. Ritchie, August 2002.
- Working Paper No. 195, *FDI and Human Capital: A Research Agenda*, by Magnus Blomström and Ari Kokko, August 2002.
- Working Paper No. 196, *Knowledge Diffusion from Multinational Enterprises: The Role of Domestic and Foreign Knowledge-Enhancing Activities*, by Yasuyuki Todo and Koji Miyamoto, August 2002.
- Working Paper No. 197, *Why Are Some Countries So Poor? Another Look at the Evidence and a Message of Hope*, by Daniel Cohen and Marcelo Soto, October 2002.
- Working Paper No. 198, *Choice of an Exchange-Rate Arrangement, Institutional Setting and Inflation: Empirical Evidence from Latin America*, by Andreas Freytag, October 2002.
- Working Paper No. 199, *Will Basel II Affect International Capital Flows to Emerging Markets?*, by Beatrice Weder and Michael Wedow, October 2002.
- Working Paper No. 200, *Convergence and Divergence of Sovereign Bond Spreads: Lessons from Latin America*, by Martin Grandes, October 2002.
- Working Paper No. 201, *Prospects for Emerging-Market Flows amid Investor Concerns about Corporate Governance*, by Helmut Reisen, November 2002.

- Working Paper No. 202, *Rediscovering Education in Growth Regressions*, by Marcelo Soto, November 2002.
- Working Paper No. 203, *Incentive Bidding for Mobile Investment: Economic Consequences and Potential Responses*, by Andrew Charlton, January 2003.
- Working Paper No. 204, *Health Insurance for the Poor? Determinants of participation Community-Based Health Insurance Schemes in Rural Senegal*, by Johannes Jütting, January 2003.
- Working Paper No. 205, *China's Software Industry and its Implications for India*, by Ted Tschang, February 2003.
- Working Paper No. 206, *Agricultural and Human Health Impacts of Climate Policy in China: A General Equilibrium Analysis with Special Reference to Guangdong*, by David O'Connor, Fan Zhai, Kristin Aunan, Terje Berntsen and Haakon Vennemo, March 2003.
- Working Paper No. 207, *India's Information Technology Sector: What Contribution to Broader Economic Development?*, by Nirvikar Singh, March 2003.
- Working Paper No. 208, *Public Procurement: Lessons from Kenya, Tanzania and Uganda*, by Walter Odhiambo and Paul Kamau, March 2003.
- Working Paper No. 209, *Export Diversification in Low-Income Countries: An International Challenge after Doha*, by Federico Bonaglia and Kiichiro Fukasaku, June 2003.
- Working Paper No. 210, *Institutions and Development: A Critical Review*, by Johannes Jütting, July 2003.
- Working Paper No. 211, *Human Capital Formation and Foreign Direct Investment in Developing Countries*, by Koji Miyamoto, July 2003.
- Working Paper No. 212, *Central Asia since 1991: The Experience of the New Independent States*, by Richard Pomfret, July 2003.
- Working Paper No. 213, *A Multi-Region Social Accounting Matrix (1995) and Regional Environmental General Equilibrium Model for India (REGEMI)*, by Maurizio Bussolo, Mohamed Chemingui and David O'Connor, November 2003.
- Working Paper No. 214, *Ratings Since the Asian Crisis*, by Helmut Reisen, November 2003.
- Working Paper No. 215, *Development Redux: Reflections for a New Paradigm*, by Jorge Braga de Macedo, November 2003.
- Working Paper No. 216, *The Political Economy of Regulatory Reform: Telecoms in the Southern Mediterranean*, by Andrea Goldstein, November 2003.
- Working Paper No. 217, *The Impact of Education on Fertility and Child Mortality: Do Fathers Really Matter Less than Mothers?*, by Lucia Breierova and Esther Duflo, November 2003.
- Working Paper No. 218, *Float in Order to Fix? Lessons from Emerging Markets for EU Accession Countries*, by Jorge Braga de Macedo and Helmut Reisen, November 2003.
- Working Paper No. 219, *Globalisation in Developing Countries: The Role of Transaction Costs in Explaining Economic Performance in India*, by Maurizio Bussolo and John Whalley, November 2003.
- Working Paper No. 220, *Poverty Reduction Strategies in a Budget-Constrained Economy: The Case of Ghana*, by Maurizio Bussolo and Jeffery I. Round, November 2003.
- Working Paper No. 221, *Public-Private Partnerships in Development: Three Applications in Timor Leste*, by José Braz, November 2003.
- Working Paper No. 222, *Public Opinion Research, Global Education and Development Co-operation Reform: In Search of a Virtuous Circle*, by Ida Mc Donnell, Henri-Bernard Solignac Lecomte and Liam Wegimont, November 2003.
- Working Paper No. 223, *Building Capacity to Trade: What Are the Priorities?*, by Henry-Bernard Solignac Lecomte, November 2003.
- Working Paper No. 224, *Of Flying Geeks and O-Rings: Locating Software and IT Services in India's Economic Development*, by David O'Connor, November 2003.
- Document de travail No. 225, *Cap Vert: Gouvernance et Développement*, par Jaime Lourenço and Colm Foy, novembre 2003.
- Working Paper No. 226, *Globalisation and Poverty Changes in Colombia*, by Maurizio Bussolo and Jann Lay, November 2003.
- Working Paper No. 227, *The Composite Indicator of Economic Activity in Mozambique (ICAE): Filling in the Knowledge Gaps to Enhance Public-Private Partnership (PPP)*, by Roberto J. Tibana, November 2003.
- Working Paper No. 228, *Economic-Reconstruction in Post-Conflict Transitions: Lessons for the Democratic Republic of Congo (DRC)*, by Graciana del Castillo, November 2003.
- Working Paper No. 229, *Providing Low-Cost Information Technology Access to Rural Communities In Developing Countries: What Works? What Pays?* by Georg Caspary and David O'Connor, November 2003.
- Working Paper No. 230, *The Currency Premium and Local-Currency Denominated Debt Costs in South Africa*, by Martin Grandes, Marcel Peter and Nicolas Pinaud, December 2003.
- Working Paper No. 231, *Macroeconomic Convergence in Southern Africa: The Rand Zone Experience*, by Martin Grandes, December 2003.
- Working Paper No. 232, *Financing Global and Regional Public Goods through ODA: Analysis and Evidence from the OECD Creditor Reporting System*, by Helmut Reisen, Marcelo Soto and Thomas Weithöner, January 2004.
- Working Paper No. 233, *Land, Violent Conflict and Development*, by Nicolas Pons-Vignon and Henri-Bernard Solignac Lecomte, February 2004.
- Working Paper No. 234, *The Impact of Social Institutions on the Economic Role of Women in Developing Countries*, by Christian Morrisson and Johannes Jütting, May 2004.
- Document de travail No. 235, *La condition des femmes en Inde, Kenya, Soudan et Tunisie*, par Christian Morrisson, août 2004.
- Working Paper No. 236, *Decentralisation and Poverty in Developing Countries: Exploring the Impact*, by Johannes Jütting, Céline Kauffmann, Ida Mc Donnell, Holger Osterrieder, Nicolas Pinaud and Lucia Wegner, August 2004.
- Working Paper No. 237, *Natural Disasters and Adaptive Capacity*, by Jeff Dayton-Johnson, August 2004.

Working Paper No. 238, *Public Opinion Polling and the Millennium Development Goals*, by Jude Fransman, Alphonse L. MacDonnald, Ida Mc Donnell and Nicolas Pons-Vignon, October 2004.

Working Paper No. 239, *Overcoming Barriers to Competitiveness*, by Orsetta Causa and Daniel Cohen, December 2004.

Working Paper No. 240, *Extending Insurance? Funeral Associations in Ethiopia and Tanzania*, by Stefan Dercon, Tessa Bold, Joachim De Weerd and Alula Pankhurst, December 2004.

Working Paper No. 241, *Macroeconomic Policies: New Issues of Interdependence*, by Helmut Reisen, Martin Grandes and Nicolas Pinaud, January 2005.

Working Paper No. 242, *Institutional Change and its Impact on the Poor and Excluded: The Indian Decentralisation Experience*, by D. Narayana, January 2005.

Working Paper No. 243, *Impact of Changes in Social Institutions on Income Inequality in China*, by Hiroko Uchimura, May 2005.

Working Paper No. 244, *Priorities in Global Assistance for Health, AIDS and Population (HAP)*, by Landis MacKellar, June 2005.

Working Paper No. 245, *Trade and Structural Adjustment Policies in Selected Developing Countries*, by Jens Andersson, Federico Bonaglia, Kiichiro Fukasaku and Caroline Lesser, July 2005.

Working Paper No. 246, *Economic Growth and Poverty Reduction: Measurement and Policy Issues*, by Stephan Klasen, (September 2005).

Working Paper No. 247, *Measuring Gender (In)Equality: Introducing the Gender, Institutions and Development Data Base (GID)*, by Johannes P. Jütting, Christian Morriison, Jeff Dayton-Johnson and Denis Drechsler (March 2006).