REFLECTING ON ECONOMIC QUESTIONS

PAPERS PRESENTED AT THE INAUGURAL CONFERENCE
OF THE INSTITUTE FOR SOCIAL AND ECONOMIC STUDIES

EDITED BY
Luís de Brito . *Carlos Castel-Branco* . *SérgioChichava* . *António Francisco*

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Introduction

This volume includes some of the papers presented at the Inaugural Conference of the Institute for Social and Economic Studies (IESE), which took place on 19 September, 2007, in Maputo. The articles contained in this volume were selected from two Conference panels, on "Macroeconomic themes" and "Social and economic development and poverty". The topics of the Conference, on "Challenges for social and economic research in Mozambique", and of the panels were broad and dependent on papers submitted. Hence, the current selection of papers does not address a common problematic nor follow a common approach. The only common element in all papers is that they all deal with economic issues, although following different methodologies and approaches.

The sequence of the articles in this collection does not reflect any hierarchy, although Carlos Pimenta's article, the first, sets the tone of the debate with an epistemological discussion about the nature of inter-disciplinarity and heterodoxy in social and economic analysis, with an application to the analysis of globalization and development in Africa. The remaining six articles discuss different macroeconomic issues and the final article is the only one, in this collection, that is specifically focused on one sector, transport. Not all the articles are about Mozambique, nor are those that discuss Mozambique exclusively applicable to this country. But all of them are relevant for the development debate in Mozambique.

The first article, "*Heterodox reflections about development and globalization in Africa*", by Carlos Pimenta, begins by drawing attention to the importance of heterodoxy and of inter-disciplinarity in economic analysis. It then analyzes and

deconstructs current orthodox theory. After some statistical references to Africa, it focuses on globalization. Making a distinction between "globalization" and "internationalization", the analysis of the former concentrates on the importance of financial markets and fictitious capital. It then highlights the existence of an indissoluble relationship between globalization and the underground economy, between the former and the intensification of socio-economic inequalities. This is the context for an analysis of the false dichotomy of "co-operation and development", integral parts of imperialism's strategy, ways of rent seeking by the dominant economies and of further displacing the periphery. Pointing out that there is no relationship between cooperation and development, as the former can be the denial of the latter, it presents an alternative view of development based on the characteristics of under-developed economies, not international comparisons. It concludes with some critical observations on the fashion for "rent seeking economics/economies".

The second article, "*Discretion and Heterogeneity in Mozambican Rural Labour Markets*", is authored by Carlos Oya, Chris Cramer and John Sender. This paper presents some results from the largest rural labour market survey yet conducted in Mozambique. Evidence from three provinces shows that labour markets have a significant impact on the lives of a large number of poor people and that employers exercise considerable discretion in setting wages and conditions of casual, seasonal and permanent wage employment. The evidence presented comes from a combination of a quantitative survey based on purposive sampling with other techniques, including interviews with large farmers. The findings contrast with ideas that rural labour markets are irrelevant to poverty reduction policy formulation in Africa and the paper concludes with methodological, analytical and policy recommendations. The paper addresses major shortcomings of many rural household surveys and it also addresses the lack of empirical understanding of labour markets in developing countries, a gap that development economists and agencies have increasingly acknowledged.

The third article, by Aldo Caliari, is entitled "*Is a good investment climate relevant to the African development experience?*". The past few years have seen investment climate reform take center stage in the World Bank Group operations, and other donor-led initiatives. While the drive to reform the investment climate is not new, the new approach places emphasis on tools for diagnostic, measurement and policy advice (such as the Doing Business indicators), rather than policy-based lending. This article describes the latest World Bank efforts and unpacks what it means by "good" investment

climate. It argues that the analytical and diagnostic work relies on assumptions that are far from sound, based on a critique of the process and content of the analysis. Due to its biases, and its suspicious attitude towards any form of state intervention, the Bank's investment climate reform agenda may undermine the very capabilities that states in Africa need to nurture in order to embed, as they craft their optimal investment climate, responses to confront the specific market failures they face.

The fourth article, co-authored by Aurélio Bucuane and Peter Mulder, discusses another key topic related to current challenges for development in Mozambique, "*Expanding the Exploitation of Natural Resources in Mozambique: will it be a blessing or a curse?*" Mozambique has considerable natural resources, the greater part of which have yet to be exploited. The Government of Mozambique is determined to extract and export its natural resource potential as fast as possible, supposing that this will positively contribute to economic growth and poverty reduction. However, many resource rich countries are among the poorest nations in the world, in spite of decades-long exploitation of their natural wealth. This so-called 'paradox of plenty' or 'resource curse' raises the question of whether the foreseen exploitation of natural resources in Mozambique will pose a threat rather than a blessing to its economic development. In this paper, we first estimate the potential resource wealth of Mozambique in comparison to other countries. Next, we briefly review the growing body of literature on the existence and determinants of a natural resource curse. Then we evaluate the risk of a resource curse occurring in Mozambique in the (near) future. Finally, we try to come up with suggestions to avert a Mozambican resource curse.

The fifth article, "*Budget Reforms in Mozambique: Towards a Political Economy Approach*", by Paolo de Renzio, looks at the progress achieved by Public Finance Management reforms in Mozambique in the period 2001-7, using consolidated data from HIPC and PEFA assessments. The results show that there have been improvements, especially with regard to budget coverage and transparency, and to the role played by the Administrative Tribunal and by Parliament. Important weaknesses persist, however, in the area of internal controls, despite recent improvements. Traditionally, capacity constraints and a generally conceived 'lack of political will' have been blamed for slow and uneven reform efforts. Taking politics seriously, however, implies a much more careful approach to the political economy dynamics shaping reform initiatives and efforts, including the role of donors. Some basic questions and hypotheses have been put forward to outline what a political economy approach could look like.

"*Exchange Rate and Consumer Prices in Mozambique: A Cointegration Approach*" is the sixth article, authored by Carlos Vicente. Using monthly data from 2001:M1 to 2006:M12, this paper applies the cointegration approach and the associated error correction model to study the importance of money, exchange rate and South African prices in explaining consumer price changes in Mozambique, focusing on the estimation of the long-run pass-through coefficient. Consistent with previous research, the paper finds that money, the exchange rate and inflation are important determinants of inflation in Mozambique. In particular, one per cent exchange rate depreciation leads to 0.15 per cent increase in the price level. In addition, money and South African prices are the most important variables in explaining the variation in prices. Compared with the exchange rate, money explains a relatively larger variation in prices.

The last article, by Pauline Dibben, "*Transport, Trade and Economic Development in Mozambique: An Agenda for Change*", is the only one that focuses on one specific sector of social and economic activity. This chapter assesses whether transport infrastructure and provision in Mozambique adequately addresses the country's need for trade and employment, poverty reduction and broader economic development. Transport is conceptualised within the political and economic context, reflecting the country's internal dynamics, and its close linkages with South Africa. Mozambique is seeking to recover from a history that has been marked by colonial rule, war, and a heavy reliance on international institutions. Moreover, structural adjustment and privatisation have been followed by the leasing of transport infrastructure, which has had mixed results. It is also heavily reliant on inward investment from countries such as South Africa, and although contributing to high levels of GDP, investors have tended to receive very favourable taxation concessions. Changes to the tax regime and institutionalised linkages with local firms might yield greater long term benefits for the country as a whole. There appears to have been some growth in small scale development, agriculture and tourism. However, the lack of rural roads, and low maintenance of roads in both the North and even the South of the country is likely to inhibit further development. An agenda for future research on transport for trade in Mozambique might include: the historical process of the leasing of transport infrastructure; a longitudinal study of foreign direct investment in transport and evaluation of new taxation regimes; and a comprehensive mapping of railways, waterways and roads in both urban and rural Mozambique.

In brief, the seven articles that form part of this volume deal with many different aspects of social and economic development that are relevant for Mozambique, applying different methods and approaches. Although they do not form a coherent whole, they illustrate two fundamental points. First, the challenges of social and economic research for Mozambique that involve the debate of method and approach, the choices of topics, seeking the use of research done in other contexts and countries but that is relevant for Mozambique and the implications of all of these differences for policy debate. Second, as the Mozambican economy and development process can be analyzed and discussed in many different ways, policy debate needs to be well located in history and context, and well informed, to be of any relevance.

In short the seven articles in this volume deal with a variety of aspects of the Mozambican economy, using a range of theoretical method and approaches.

Luis de Brito, Carlos Castel-Branco,
Sérgio Chichava e António Francisco

1. HETERODOX REFLECTIONS ABOUT DEVELOPMENT AND GLOBALIZATION IN AFRICA

Carlos Pimenta

Opening note

I shall begin by addressing the methodology underlying the Institute for Social Studies and Economics (IESE). "The key objective (...) is to promote research with an inter-disciplinary and heterodox perspective". Inter-disciplinarity and heterodoxy , two components of a different type of practice, two ways, certainly difficult, but that can open marvellous conceptual landscapes. While recognizing that the scientific and institutional weight of intellectual work today is still eminently disciplinary, with growing specialisation, it must be constantly restated that an attempt to understand and transform any portion of social reality, including African reality, without an inter-disciplinary vision – irrespective of the precise meaning of this term – is absurd.

It must also be stated that some orthodoxies are particularly ridiculous, especially when analyzing Sub Saharan Africa. Neoclassical economics is one such case.

We shall begin by commenting on some aspects of inter-disciplinarity and heterodoxy and then, but only then, we shall tackle the core of our problem.

Inter-disciplinarity

Ever since the middle of the last century we have seen increasing efforts towards inter-disciplinarity, albeit by a minority. And in order to clarify any doubts as to the polysemy of this word and the many different terms for the same reality, inter-disciplinarity is any kind of more or less intense contamination (conceptual, problematic or methodological) between areas of epistemological or organizationally different knowledge.

Today it is well known that breaking down the whole into parts and studying each part in detail, as proposed by Descartes as the appropriate rules for the philosopher and the scientist, is not the way to find the simplest or the first procedure for a subsequent better understanding of the whole. The simple cannot be found because each individualisation awakens new totalities (when society becomes the individual do we find a "reality" that is easier to study?). It is not the most appropriate form because the whole is more than just the sum of the parts. It is also the relationship, involving similarity and difference, between the parts and the entire non-linearity and irreversibility of the process. The Cartesian error may be justified by the scientific practices of the day, and by the cognitive limits of man tempered by a civilisation with Greco-Latin and Judaeo-Christian origins, where certain meanings and a certain filtering of information predominates, but it is certainly not justified in Africa. If the Negritude movement and studies on Bantu culture are to be believed, tact is of particular importance and requires the continuity of the "parts" rather than their separation. It is even less justified in Mozambique, with one of the most important scientific communities that for many years has shown the world that even the "purest" strongholds of the human machine are an integral part of usage and customs, that must be identified, protected, awoken, and the potential of its endogenous knowledge realised. We are referring to Ethno-mathematics.

Today it is well known that some issues that require an answer for purely scientific reasons or due to the demands of policy and intervention on the ground, need contributions by various different scientific areas, the establishment of working groups involving different specialists. We also know that some of these problems are of crucial importance for the future of mankind. We might recall for a moment what can be termed ecology or the neuro-sciences.

Today it is acknowledged that an aware and interventionist citizenship in a society undergoing very rapid transformation – such that the world that we have in our heads

is not the same as the one we have under our feet (paraphrasing a conference in Geneva on the eve of the millennium) – requires an education that leads to command of the whole, rather than demanding memorisation of the parts. This frequently leads schools and teachers to demand of their pupils a capacity for conceptual inter-relations that they themselves do not have.

If these findings are applicable to all scientific fields they are also applicable to the sciences of the human reality in which we all work. History, Geography, Economics, Sociology, Psychology, Anthropology, Archaeology, Politics, Demographics, Linguistics, Semiology, Law, with their very strong internal specialization, are some of the "pure" sciences that only select part of the entirety of "man in society". To this end they use a particular "focus angle" and a specific methodology. Management, Education sciences, Cognitive Sciences, Information and Communication Sciences, International Relations Sciences and many others that we can find in the prospectus of any university are other sciences of the human reality that are still trying to unify their object of study, as indicated by the name of some of them. Biology, Physiology, Neurosciences, Ethnology, and many other sciences help us to understand "man in society", even though they constitute another kind of science. Mathematics, too, is almost always present, implicitly or expressly. Socio-Economics, Psycho-Sociology, Economic Anthropology, Socio-Linguistics are some examples in an enormous list of manifestations of inter-disciplinarity that attempt to understand better, with scientific rigour, who we are.

Despite this "evidence", despite growing institutional recognition of the amount of inter-disciplinarity, it continues to be a counter tendency. It is not yet the tendency.

This subordinate position is the result of two types of reasoning: science is also power; inter-disciplinarity is difficult.

In these considerations we ignore erroneous understandings of what constitutes inter-disciplinarity (the most common being that a group of specialists from various sciences together generate inter-disciplinarity by osmosis, or that a succession of discourses based on various disciplines provide inter-disciplinarity by contamination).

We shall not make any substantive reference to the first reason (science is power). We all know that science gives political and social power; we all know that the scientist enjoys a certain degree of influence, a certain social status, a certain recognition of his own space and time. We all know that scientists like to conceal their power in "invisible colleges". And all these aspects are primarily due to the division of labour, the creation

of scholars who are ignorant and of the ignorant who are scholars. All these aspects correspond to rigid institutionalization that hampers the encounter, that conceals the arrogance of each one.

The second reason (that inter-disciplinarity is difficult) requires more attention. The epistemology of inter-disciplinarity has been more skilful at extracting major laws than at understanding the virtues and defects of interdisciplinary practices, even though this is where success and failure are forged.

The first major difficulty arises from the fact that we all perceive reality through interpretative models that are familiar to us. We go from models to reality, not from reality to models. This is the result of many years of specialist learning where observation, experimentation, simulation and error are replaced by the academic institution of ready made, "turnkey" knowledge. It is true that the perception arises spontaneously; obviously it is not "a blank sheet". It is true – at least this is what we admit despite controversy on the subject – that the constant reconstruction of "own things", of "reality in itself" would castrate scientific progress, but education could reduce these constraints.

Associated with this is the fact that each discipline has its own lexicon. To those who do not work in this science it is often a hermetically sealed lexicon, either because it contains unknown words or because it contains every day words known to everyone or to other sciences but with a completely different meaning, or indeed because it uses its own forms of language (mathematics or logic, for example).

Some studies have tried to quantify the gap in knowledge between members of an inter-disciplinary team with consolidated practices, with common acquired habits, with similar concerns. They found that what a given specialist in a team knows about the disciplines of the others is at least five years behind and could even reach 10 years. Each specialist only knows the other disciplines slightly better than the level of scientific dissemination. It is easy to understand this based on my experience of my own discipline – speaking as an economist. Detailed knowledge of all areas of economics is physically impossible given the scientific output and its proliferation throughout the world. At best we can try to gain a "tendency towards full knowledge" in a limited group of sub-branches of economics. Even so, this is influenced by geographical location, acquired habits and linguistic knowledge. If it is not possible to be a "full bodied" economist how is it possible to also be a sociologist, anthropologist and much more?

And as if these difficulties were not enough, there are two more: one of a functional and institutional nature, and the other epistemological.

The first arises from the fact that interdisciplinary research is a process where the final result is open ended or, at least, much more uncertain than the result of disciplinary work.

The second concerns the fact that inter-disciplinarity cannot be disassociated from two other aspects: inter-culturality – and this aspect is particularly important when we are studying Africa – and inter-paradigmicity. This latter aspect is particularly important in sciences of human reality because there are various different readings of the same reality. For this reason IESE defines heterodoxy as its first level of paradigmicity.

Does this mean that all these difficulties constitute an insurmountable obstacle or require cyclopean work? Not at all. Nothing can replace the joy of discovery and difficulties can be overcome without much effort, as long as there is a clear understanding of what inter-disciplinarity is about and the various forms it can take, as long as specialists from various scientific areas come together with intellectual modesty about knowing what they don't know and demonstrate to others what they do know and how much more they do not know, as long as we do not succumb to routine and take on the undertaking/work as a project. And as stated by a specialist in these fields, as long as the director of this project has legitimacy and an accepted status and, having already fulfilled his professional career, has nothing to lose as a result of distrust from others or the difficulties encountered.

When dealing with these matters we usually say that one should not use the name inter-disciplinarity in vain. We are certain that it will not happen in this situation. So, congratulations.

Heterodoxy

Heterodoxy is the opposite of orthodoxy. In economic terms – it would be extremely difficult for me to speak of this issue in other human reality sciences and even more so in inter-disciplinarity terms – orthodoxy is the predominant economic thinking. Politically we know that its maximum expression is the International Monetary Fund. Perhaps we no longer know how to classify it clearly among the currents of economic thought, if indeed that is possible. Are they neo-classisists of the utilitarian or marginalist persuasion, who claim to be the descendants of Smith and Ricardo, or are they continuing the "synthesis" of the above mentioned marginalists

with Keynesianism, the euphemism to subordinate Keynesianism to the currents it fought against? Are they liberals who defend less State intervention in the economy, or the neo-liberals who defend the annihilation of the State itself, as a public enemy?

Probably the classification of a model, a theory or a paradigm entails responding to a range of economic, epistemological and sociological issues and in order to characterise orthodoxy we must understand its responses to these issues: (1) its concept of truth has nothing to do with whether or not it reflects reality; this is guaranteed by its internal coherence and acceptability by the scientific community; (2) The relationship of causality is muddled with simultaneity and correlation, in a typically positivist position; (3) its logic is classical and thus bivalent, rejecting contradiction; (4) its preferred inter-disciplinarity is with individual psychology, because the individual is its fundamental reference for studying man, albeit mythological; (5) the relationship between men is replaced by the relationship between man and the object; (6) economics is considered the decision-making science when there are alternative ends and scarce resources for achieving these objectives, and they can have nothing to do with production, distribution and trade; (7) its basic key concept is marginal utility of the last unit; (8) the micro-economy is the sacred stronghold of scientific construction, or at least of economic scientific construction; (9) the position on the State is one of liberalism or neo-liberalism.

Permit me to insist on orthodoxy's concept of truth, because it has important political relevance. The concept of truth lies outside the confrontation between models and reality. It is placed on the altar of the scientific community where it is known from the very beginning that there is majority for validation. So if there is disparity between reality and the model, then either the model can be adapted to reality or reality can be adapted to the model. As the model "is true", "is right", then it is reality that must be adapted to the model, coercively, of course. Isn't this the most striking feature of current economic policy? Wasn't this the prime directive for the ill-fated and dramatic structural adjustment plans?

Before moving on to a description of heterodoxy lets us focus on one point: the transfer to these subjects of the language accepted by current knowledge. Orthodoxy is not only a science. It is a doctrine. It is the truth. So heterodoxy is heresy. In other words, orthodoxy does not accept other positions as being true, as having a different concept of truth. Orthodoxy does not accept plurality in interpretations of reality; it rejects theoretical pluralism. Orthodoxy is dogmatic and dictatorial.

Heterodoxy is the acceptance of plurality in reading and interpreting "economic" events. It is the defence of theoretical pluralism as an epistemological, cultural, pedagogic and citizenship advantage. **Heterodoxy is democratic** and respects the other, the difference. There is, however, a wide diversity of heterodoxies. It too has a vast scientific community that is obliged to struggle for inclusion in the global scientific community, and the heterodoxy of today can frequently be the orthodoxy of tomorrow. For this reason **heterodoxy is a permanent scientific, social and political reconstruction**.

Orthodoxy claims to be scientific and, after "turning away from" the doctrinaire, in effect it is (in these marginal comments we will refrain from going into the concept of science itself). Heterodoxies are also scientific. So we can say that economics (or it can be called economic science or political economy, interchangeably) is a science with internal conflictuality due to the co-existence of different paradigms. This situation raises some questions that we should analyze, especially as heterodoxists. We cannot fool ourselves with "first proof"; we must reflect on our own existence.

How are these diverse readings of reality possible, all of them using scientific methods that can be confirmed by others, if science is based on facts, and economics in particular involves quantification? The facts "are there" and continue to be the foundation for scientific construction, but the selection, relationship and establishment of hierarchies of facts is dependent on their theoretical relevance, the "possible conscientiousness" of economists. Moreover, for many people, doing science means describing, and for many others science requires interpretation and the same set of facts can produce different interpretations.

Can it be that theoretical pluralism confirms that economics is still not "a mature science" and that the affirmation of heterodoxy itself strengthens this lower status of economics? Despite an old inferiority complex about economics when compared to physics – expressed by the disgust of many because economic laws are more probabilistic than determinist in the search for the fundamentals of a "social physics" that appears in authors as different as Marx and Menger, in the over-valuation of mathematics as a criterion of veracity – we can reply that this question has completely different validity when applied to sciences of the human reality or the sciences of the physical reality. These two groups of sciences have specific characteristics that differentiate them. There are social reasons for internal conflict, for affirming theoretical pluralism.

Affirming heterodoxy is an epistemological valuation of economics. Heterodoxy is particularly valuable in peripheral countries. Firstly, because orthodoxy is

inappropriate for peripheral realities (because it is essentially built in the "centre", reflecting the reality of that same centre!) and, as a result, it is imperative that economists in these peripheral countries have the ability to provide an interpretive model that is more appropriate to their reality. Secondly, because the worldwide scientific battle was fought in both the act of researching and also in the balance of forces within the scientific community. This reflects the balance of political and social forces but has relative autonomy. The affirmation of economic thought in the peripheries on a world scale is an effort to fight marginalisation, an effort for inclusion, an effort to change the balance of forces.

We shall speak of heterodoxies, in the plural. **There are two different ways of building heterodoxy**.

The first is by criticizing orthodoxy. Detecting the failings in its internal coherence (implicit hypotheses that come up against explicit hypotheses, concepts without a rigorous and precise meaning that take on different contents throughout the theory, mistakes in the articulation of the model's variables etc.) or finding discrepancies between theory and reality leading to conclusions on the falsifiability of the former (this external criticism is frequently inconclusive because it criticizes laws *ceteris paribus*, hypothetical-deductive laws based on sets of unrealistic hypotheses) can make it possible to construct alternative models, different theories. It is a heterodoxy that is the result of negating orthodoxy, it is an ortho-negation. The more this disaggregating criticism of orthodoxy focuses on fundamental hypotheses, concepts and models for the theoretical edifice of economics, the more powerful it becomes. It separates itself from its origin. The more radical the resulting breakdown and the more substantiated the resulting alternatives, the more powerful this heterodoxy becomes by differentiating itself from a mere divergent voice within orthodoxy itself. For example, as "equilibrium" is a basic concept in economic science, radical criticism of this concept has extremely significant impacts. For example, as orthodoxy professes to be positivist, proof that a large number of its models are normative shakes its very foundations.

Heterodoxies can also be the result of economics using issues, realities, concepts, methodologies ignored by orthodoxy. This is how an alternative paradigm is built, resulting in the affirmation of certain aspects of social or scientific reality. It is the construction of heterodoxy through affirmation, by affirming the difference, by hetero-affirmation. And affirming the difference can be the result of either setting human rationality based on neuro sciences against Olympian rationality, or affirming

complexity, focusing attention on differences in the behaviour of "economic agents", on non-linearity, on the irreversibility of time.

So there are many different paths to heterodoxy and there are various alternative heterodox paradigms. Some will have some advantages, others will have others. For example, ortho-negation has a much stronger impact on the scientific community than positions arising from the alternative path. This is natural because it is more easily understood by this dominant scientific community because, to some extent, it represents a continuation of their positions, being based on some common methodologies, and because they often come from economists with a highly visible political role. One person paradigmatic of this situation is Stiglitz. Hetero-affirmation frequently deals with methodologies, issues and references that can have a bigger impact on scientific construction in the future. However, the fact of moving away from/being based on paraconsistencies or infinitovalent logic, of being based on chaos theory or something similar, makes it difficult for the dominant scientific community to comprehend it.

In some cases, heterodoxy arises from the combination of two paths. Marx is an example. Affirming himself as "Ricardian" and rebuilding the theory of value with the "possible consciousness" of the working class, Marx adopted ortho-negation. But it was hetero-affirmation when Marx transferred Hegel's dialectical logic (that today we would probably call paraconsistent) to political economy with "its feet on the ground",

In effect, it is important for all of us, workers in economic science anywhere in the world, that the IESE take a heterodox position. Thank you. We shall be watching. I will be available, always continuing with heterodoxy.

Globalisation and Development in Africa

If I wanted to summarize this paper I could do so very succinctly. What one should understand as development is very different to what actually exists. It has nothing to do with the current concept of cooperation, which is, itself, ambiguous. Nevertheless there must be a change in direction within a different international economic and political framework that is incompatible with globalization.

We do not have a strategy for building an alternative relationship between men. At best we have the capacity to say no, we know why we are saying no, we have objective knowledge, we know some of the tactics and paths, but we still do not have the map for the journey. We cannot be confident that we shall find the path by walking along it. It is a maze.

> The acquisition of theoretical citizenship does not mean the establishment of alternative paradigms, but merely the outline of a theoretical point of reference capable of maintaining, with concrete analysis of concrete situations, the necessary dialectic between the theoretical object and the real object, a task that the primacy of the vulgata interrupted. (Figueiredo e Costa 1982:49)

Pragmatism generates traps as part of the system. For this reason we reject it.

The subjects addressed below are the result of research over various years up to today. Every day we reformulate some positions, we add "empirical findings", we get to know the positions of new authors, we discover new problems, we imagine possibilities, we come across findings that we did not expect.

Our view of the orthodox position

"Internationalization" or "globalization" is an inevitable process. With its pillars of private initiative and freedom to carry out transactions on a world scale; the economy benefits from the full operation of markets. The rationality of economic agents and the tendency for equilibrium guarantee general well-being.

Because there can be gaps in rationality, structural imbalances that need to be resolved in advance so that markets can function, devastating tendencies that obstruct this automatic operation, and other accidents along the way, the International Monetary Fund, the World Bank and the World Trade Organization keep watch, control, intervene.

There are still serious problems to be resolved, ranging from poverty and disease to environmental degradation, but by mobilising the international community and international cooperation they can overcome these difficulties. International comparisons show that the standard of living in many countries has improved.

It is true that in Africa difficulty in overcoming poverty, AIDS and other diseases has encountered some additional resistance. This is due to their poor economic rationality, structural dis-adjustments (which led the Bretton Woods institutions to advise structural adjustment and poverty reduction programmes that are already producing their beneficial fruits), military conflicts, forms of rent distribution that distort markets, create clientilism and promote corruption.

Based on a healthy, automatic economy running towards equilibrium, democracy is the expected prospect for all peoples. Because in some situations there can be obstacles, as we have mentioned in relation to Africa, once again the Bretton Woods institutions have pedagogic and surveillance function with regard to good governance.

We can be optimistic about the future, even in Africa. We have the Millennium Development Goals, we have NEPAD and the collaboration of many governments. Some growth dynamics in this XXI century also allow us to be optimistic.

A more realistic reading

Let's break down this interpretation globally.

a) As regards Africa, we cannot be optimistic

For those who are faced daily with the population's living conditions or have a profession that entails dealing with statistics on economic and social reality, no major statistical explanations are needed. We shall merely cite the following:

- Taking the 2004 Human Development Index (published by UNDP in its 2006 report) the highest ranking large African country, Libya, is in 64th place. In Sub Saharan Africa the best country is Cape Verde occupying the 106th position and Equatorial Guinea in the 120th position. Almost all countries below this position are African, including the last in the table. Niger is in the last place with an index of 0.311 that is, 32% of the index of the country in the top position. The HDI of the "developing countries" in Sub Sahara Africa is 0.472.

- The situation of Africa would be even worse if we considered per capita income, a growth indicator that is under-valued in the HDI. While Luxembourg, the USA and Ireland have $69.961, $39.676 and $38.827 a year (PPP), Sub Saharan Africa has an average per capita income of $1.946. The lowest country in Africa and, simultaneously, in the world is Sierra Leone with $561.

In a long term analysis, from 1960 until today, we also cannot be satisfied with the situation now.

- Between 1960 and 2004 there was an initial period when living standards improved, but this was followed by a reversal. The per capita income in 2004 was lower than that in 1982 and life expectancy at birth had fallen by 3.5 years compared to the maximum achieved in 1987.

- From an economic point of view we can consider various sub-periods, with structural adjustment programs one of the most dramatic experiences: more rapid growth between 1960 and 1974; a second phase between 1974 and 1981 with much more moderate growth; the third phase between 1981 and 1993, the crisis phase of structural adjustment, and the fourth phase that is still uncertain.

In recent years, the evolution of the international price of raw materials, the end of some military conflicts and maybe a new kind of investment and international intervention in Africa due to the growing Chinese influence, mean that data on the recent conjuncture are encouraging. But we are not seeing any structural transformations and the series is not long enough to draw any conclusions.

Obviously, to speak of Sub-Saharan Africa is to speak of its enormous variety of situations. In addition to these average data we need data on diversity, although for our purposes here global figures will suffice.

The Millennium Development Goals have little or no operational effectiveness in Africa and it is becoming increasingly clear, as UNDP and other bodies have already stated, that the 2015 goals will not be achieved; there will be a major shortfall.

We also fear that nothing different can be said about NEPAD despite its pretty declarations about growth and development. One only has to read its principles to be immediately drowned in terminology, in ideology, in the logic of globalization: "good governance", "encouraging ownership", "regional integration", "competitive", "new international partnership", " Millennium Development Goals", etc.

Yet what the OECD terms the unrecorded economy is very high in Africa (according to Schneider's estimates around 29.5% of GDP in South Africa and 63.2% in Zimbabwe.). There are three different situations: the existence of many "traditionally informal" activities linked to sustaining families, the growing weight of informal activities in these countries commanded by international capitalist groups and, finally, a rise in the illegal economy commanded by international networks based in developed countries, with Africans more victims than beneficiaries of this situation. The few and

imprecise indicators seem to indicate a deteriorating situation, as throughout the world, for reasons that we shall analyze with regard to globalization.

b) Globalization is not what it seems

In more detail this means that the globalization that is presented to us is the story told by the winners. It is not what it seems and the market is simultaneously a social reality and a myth. Characterized by the dominance of financial capitalism over all economic activities (or financialisation of the economy), it inevitably leads to a rise in the underground economy. Let us see why it is not what it seems.

Let us break down this analysis in two different aspects. Let us clarify the meaning of concepts that are used so generally/widely.

To start with, the many different meanings given to globalization require us to be precise about the meaning of concepts.

In Portuguese we have the advantage of using either the term "*mundialização* = internationalization" or "*globalização* = globalisation". We can do this as long as we clarify the meaning we assign to each of these words, similar or different.

By **internationalization** we mean a process that brings together people who, in their daily lives, occupy different geographic spaces. This bringing together can take many different forms, from the viability of personal contact to written communication; from the exchange of goods produced by some or others to the exchange of information, to mention just some examples. Consequently, as is frequently asserted, we can say that internationalization is a process that began in the early days of humankind, with progress and setbacks, but tending to grow – unequally – in the various regions of the world. If we measure internationalization by the frequency and speed of relations between any two citizens (or institutions) located in different geographical (and social) spaces we shall easily confirm this assertion.

However, is this what we are talking about when we discuss internationalization, when we try to measure the pros and cons, when we reflect on our standard of living, on the economic and social policies that benefit or harm us? Of course not. The object of study that corresponds to the concerns of all of us, citizens of this so-called "global village", is society today, with dynamics that are strongly affected by the economic. **It is a certain phase of internationalization** that has extended up to today. A phase with some specific characteristics. This is the phase that we call **globalization**.

Only after describing the characteristics of this phase can we divide it into periods. Identifying when it began is not an initial hypothesis, but rather a finding at the end of the research process. Studies show that it began during the 80s of the last century. We feel that this reference is consistent with two particularly relevant aspects of that decade: on the one hand, the advent of micro-computerisation, the integration of different forms of information and telecommunications networks, and on the other hand the end of socialism in Europe and the USSR and the trend towards the hegemony of capitalism on a world scale. Two different phenomena but which can be closely associated with each other.

We think that this difference between internationalization and globalization (we can name them in this manner or use other terms such as "internationalization"/"recent phase of internationalization; "millenary globalization"/"recent imperialist globalization" etc.) is essential. Firstly, because it fixes the object of study. Secondly, because it makes a clear distinction between centuries-old dynamics, determined primarily by the evolution of technology, of productive forces, from dynamics that have only existed for decades and determined primarily by economic-socio-political relations, by relations of production. **Thirdly, because we can say categorically that internationalization is inevitable and globalization is avoidable or rather, it is not inevitable. It is not so in terms of both its existence and the form it takes.**

And the fact that globalization is not being condemned frees social energy, political will, intellectual lucidity. It is in these terms that we shall speak of globalization.

It is important to recall that **globalization is capitalism** – and frequently a capitalism that acts in a brutal manner, otherwise capital would not be lord of the world again, without the need for the compromise which were imposed by the existence of socialism. **Globalization is a phase of imperialism**, inflating some of its characteristics while others remain as they have always been. It is also important to recognize that globalization takes place within the framework of some specific characteristics: linkages between markets have increased, the very significance of the market concept has changed, the strategic sectors for capitalist accumulation are different, "monopolies" have statutes, forms of organization and operation that are adapted to current technologies and markets, national bases have expanded into economic communities, capital "exports" have a less precise geographic dimension, other aspects of the workings of the economy, such as information and knowledge, have become more important. After a phase when its political and economic strength was strongly influenced by the existence of socialism

and by the national liberation struggle of peoples subject to colonialism and neocolonialism, today imperialism has an almost hegemonic position. Imperialism in the globalization phase has an offensive position and its ideology, liberalism, or neoliberalism, is an active instrument for changing and reproducing the system.

We should not let ourselves be swayed by the word market and its common usage, as it serves to describe many things. Even as social reality it is always an institution – and hence an integral part of the social whole, bearing its usages and customs – and, as such, in some situations it will always be "democratic" and in many others "despotic", condemning many to permanent hunger and degradation.

We feel it is important to distinguish four different meanings: market as social reality; market as an interpretative model; market as a symbol and market as argument.

The market is a social reality. It is such as a perfectly located space where a group of (potential) sellers and (potential) buyers establish among themselves a set of relations. Through its intermediation they maintain relations with many other stakeholders in the production, distribution, circulation and consumption processes. It is such at a higher level of abstraction, as the totality of these relationships in a geographically imprecise space that at the same time encompasses all the above-mentioned concrete spaces. The market has a structure that is determined, historically, by the social division of labour and, conjuncturally, given the form it takes, by the correlation of economic and political forces, by its place in the legal framework, by information. It is a space containing citizens and institutions, labelled as "agents", with usages and customs that are part of a broader context. The market is a complex reality, very probably sensitive to infinitesimal variations in some of the factors involved and with multiple interactions. It predates capitalism and will very likely also survive its demise, as it is essentially a relationship between men through institutions.

The market as an interpretative model is always a simplified version. We must be aware that we are dealing with a simplification and as such we cannot transfer the dynamics of the model to concrete reality. So its transfer must always be located in time and in space. In model terms it is positive, preferably sufficiently general and comprehensive, as long as it is not excessively reductionist. What is profoundly negative and ideological is our presentation of reality as an image of the model (for example, making economic policy on the assumption that there is symmetry in information, or that this is reversible, that men "disappear" behind supply, demand and equilibrium), to the extent that differences between reality and the model are due to "errors of reality", as already mentioned.

The market as a symbol is often an extension of the previous distorted reading. Distorted sometimes by the expressed desire of some "to serve the owner". Or because an "ivory tower" university education, the silence of offices and the distance from reality, weak critical reflection and very little imagination, "vaccination against values" and insensitivity to the social, all combine to mean that they do not know anything other than models. The model itself is built on the myth of Olympian rationality, on maximizing behaviour. For all these reasons it becomes a symbol: "the market is always right". For this very reason, those who argue in this way are not right.

Finally, the **market as mere argument**. We are often so intoxicated by the use of the term market in the last two senses that we tend to "subjugate our neurons" to "the market God" by believing that if we state this enough times it will become true.

In addition to these considerations, we should recall that some markets are **structurally distorted** (Marx recalls this when he deals with the "labour market") and others are **politically distorted** (Stiglitz reminds us that "free markets" are imposed on peripheral countries by countries at the centre, yet the latter are often the first not to comply with the free market rules).

Knowing that the worldwide "freedom" on which the orthodox concept of internationalization is based is a myth (all the more so because the economic freedom of some can be the absence of economic freedom for others) we must try to characterize other aspects of globalization (the recent phase of internationalization, if this terminology is preferred).

Let us make this journey of reflection together.

The point of arrival of our published research is what we assume here to be the point of departure: **globalization is characterized essentially by strengthening neo-liberal ideology, by the rise of fictitious capital to unprecedented levels, in a context of articulation and the accelerated internationalization of financial markets and by the adoption of national and international economic policies that strengthen the role of multinationals, commercialize the world economy and hamper the resistance of peoples.**

Let us look at this in more detail.

Commercial freedom is one of the great premises of liberalization. For this very reason it would be reasonable to expect a qualitative change in the quantity and quality of exports and imports. But this does not happen. There is undoubtedly a structural tendency to increase the relative importance of countries' foreign trade,

but this is a phenomenon typical of internationalization, and is not specific to globalization. Neither in the 80s nor before or after, were there quantitative or qualitative changes that allow us to conclude that globalization brought something new in this field. The relative positions of those who benefit and those who lose with this commercial freedom are also maintained: in high income countries years when exports exceed imports alternate with years with negative balances. But there is a tendency for the export of goods and services to increase in value. Precisely the reverse happens in low income countries, where there is an almost systematic deficit in the trade balance.

In the case of direct foreign investment, during the period under analysis **it has risen worldwide**, although here too it has been concentrated in the more developed countries – meaning, obviously, a more unfavourable structural and conjunctural position for lower income countries. Moreover, there are important qualitative modifications in the ways that this direct foreign investment occurs: the intensification of partnerships and of relations between companies internationally; and widespread mergers-acquisitions, are just some of them. Simultaneously **multinational companies continue to strengthen their importance on a world scale** – less than thirty countries, and only one African country, are able to have national products larger than the distributed income of the largest world companies, many of them multinationals – and they **change their political strategy**: there is less and less need for them to influence the policies of states. They act above states, based on international economic freedom and their many alternative locations.

Migratory movements, that are virtually all movements of labour, are more sensitive to conjuncture than to any long-term structural dynamics. However, conjunctures are almost systematically unfavourable and build poverty dramatically in vast regions of the world. And to a large extent this situation is the work of globalization. It is also possible that this intensifies economic integration that always leads to increased migration within the integrated space. If these aspects of migration show signs of being linked to globalization, probably the most evident aspect in this period is more **intensive illegal movements of manpower**, a large-scale (XXI century) return to slavery.

The growing importance of financial markets, the close links between these markets, and the great diversity of bonds and operations, namely in futures, is the main feature of globalisation.

Every day over one and a half trillion dollars are negotiated on the world market. In many OECD countries the financial assets managed by institutional investors are higher than the Gross Domestic Product of these countries and they are growing at much, much higher rates than the product. The average value of daily transactions in world markets is about twice the annual world Gross Domestic Product.

The history of globalization is the history of this quantitative and qualitative change in financialisation, where many operations involve **fictitious capital**, that is, buying and selling bonds and foreign exchange without any kind of connection, direct or indirect, with productive processes.

This absolute and relative importance of financial markets, the weight of fictitious capital, its growth at rates much higher than the product of countries, mean that financial markets operate as a maelstrom of monetary resources from all sectors of economic activity, such that they can create obstacles to the world-wide growth of added value.

The peripheries are of interest as suppliers of financial resources not as markets for goods and services. Men are "dispensable" in the reproduction of the system.

Financial activities are obviously economic activities, but of an unproductive kind.

If they are an economic activity they are useful, but this does not mean that they are productive i.e. that they create added value, that they create new value. There are economic activities that produce value. There are economic activities that use value (income) for processes involving the exchange of goods, including bonds or foreign exchange. There are economic activities that distribute values (income) among citizens, whether as the result of the ownership by each person, of their functions, of redistributional economic policies, or as an act of charity or any other desire by whoever owns the income. There are activities that use the goods acquired for personal or productive consumption (e.g. using equipment, using energy, using raw materials).

Let us continue with our scrutiny. **The financial activities that characterize globalization are not productive. This means that they use wealth (stock) or value added (flows) created in productive sectors.** Even taking into account the great speed in the circulation of financial market transactions, many of them based on "credit" and compensation processes, the scale of financial transactions shows the high value of capturing resources from other sectors of activity. Financial crises, and the speed with which situations involving a "breakdown in the circularity of credit" have been overtaken, show not only that there are important sources supplying added value but also that there are "reserves" that can be used when necessary.

"Where and how is value created to feed the yields of financial markets?" "How does the transfer take place?" These are crucial questions. There are traditional processes and modern processes.

The former include, firstly, the use of value added created in productive sectors, using surplus value that results from work, that results from variable capital. Secondly, there is the transfer of resources from underdeveloped economies. The latter includes the extra surplus value resulting from a system of enterprise management on a world scale, private ownership of the profitable social security sectors and also all the fiscal advantages (rewarded through disadvantages for others) and support for large companies.

We shall not cover the well-known forms of creating surplus value as they are indeed well-known, but we must be on the lookout for new forms: (a) technological developments, notably in information and communications technology, have resulted in the de-qualification of many professional sectors, which have become mere basic and unqualified operations, incapable of adapting to new working conditions. (b) These technological innovations have created conditions for the intensification of work, thereby reducing, in some cases drastically, the porosity, that is, reducing "dead time". (c) The increased productivity per (chronological) hour has made it possible to reduce the merchandise that comprise the value of the labor force. (d) high levels of long-term unemployment, the substantial rotation of workers in the work place, facilitate greater "labor discipline" and acceptance by workers of conditions that in no way dignify human beings. This tendency is strengthened by the weakened revolutionary struggle of workers and by the political-ideological crisis among forces that desire the progressive transformation of society. (e) The international management of companies and the labor force provide geographical-social space where competition between workers is more favorable to capital which also tries to take advantage of the more propitious frameworks for social responsibilities and the "low salary/qualified labor" ratio. (f) The use of clandestine circuits to mobilize the labor force leads to the formation of an unprotected "new proletariat".

As regards the transfer of underdeveloped economies, in addition to traditional procedures and the importance assigned to monetary and financial systems, there are also some processes that are typical of the current internationalization, of globalization: (a) The geographical-social expansion of the influence of major capital and the stronger role of multi-national companies (or metanational, if you prefer) in many unde developed economies. (b) The World Bank and the International Monetary Fund have increased

their influence and have been accompanied by the World Trade Organization, the successor to GATT. With this institution, trends towards "free trade" were intensified.

Stieglitz's position on these aspects is interesting:

Changes in mandate and objectives may have been discrete but they were not subtle – the IMF stopped serving world *economic* interests in order to serve world *financial* interests. Liberalization of the capital market may not have contributed to global economic stability, but it opened up vast new markets to Wall Street (2004: 263).

As regards modern processes for appropriating resources only for financial markets, other possible mechanisms should be noted, including special attention to the major importance of adopting a reform system based on capitalisation and private management. This permits the accumulation of considerable monetary resources obtained from citizens in general, immobilized over many years and that can be used readily and easily in stock exchanges. Only a few State and legislative controls, when they exist, can hamper these processes.

It is our working hypothesis that these sources of income for financial markets are not sufficient to sustain the current volumes of financial transactions, their growth and rapid recovery in crisis situations. **There is another source: the unrecorded economy** in the technocratic terminology of the OECD, or the **underground economy** as we prefer to call it. Part of it will be the result of tax evasion, another part will appear as informal activity (the borders of which are difficult to identify) and yet another will be due to illegal activities.

Although there are "no statistics" to measure this reality directly, there are models, econometric techniques and procedures that can produce a pretty accurate estimate of its existence and value. All this information confirms that it has intensified since the 1980s (the beginning of globalization) and that today it accounts for roughly 25% of world GDP. In other words, the world's annual product is 1.25 times the official figure, and we are all "surrounded on all sides by the underground economy". It is not an addition to the system, a marginal part of it, but an integral part of the entire economic fabric, and no one is unaffected by it: It averages 25%, fluctuating between 5% and 70% using rounded figures and depending on the country. The relative importance of its various components also varies.

Still with regard to the underground economy: (a) many of its activities are productive; (b) the fact that money has become a symbol of power and happiness, the

ultimate purpose in life for growing sections of the population, weakens moral behavior and creates favorable conditions for the expansion of this kind of economy; (c) the free circulation of capital, weak intervention by the state, the fluidity of markets and anonymity are fundamental pillars for "money laundering", more precisely, for enabling capital-money from illegal activities to move into to legal ones and vice versa.

Offshore territories, frequently known as tax havens, anonymous locations for financial operations, territories located in "large well behaved countries", are particularly appropriate structures for all these processes involving the use of the underground economy's resources in financial markets. **The existence and strengthening of the underground economy are fundamental components in the existence and reproduction of globalization.**

Given all the aspects mentioned above, we can state that this internationalization affects all corners of society, but manifests itself unequally, depending on the moment and the location, on one occasion involving capitalist accumulation and on another disarticulating integrated/marginalized societies. The peripheral regions are either involved in or removed from specific globalization processes, depending on the interests of big international capital. The labor market continues to be a fragmented and segmented market. **Social inequalities increase.**

Statistics prove unequivocally that from 1983 onwards inequality between the various countries in the world has intensified. As Amin points out, the structural tendency is for inequalities to worsen, with "greater polarization" (2000:246/7).

There is not enough statistical information to reach a conclusion on the evolution of the unequal division of income among the citizens in one country or, even less so, on a world scale. Despite this precaution and the fact that the situation certainly differs from region to region, from country to country, there are many indications of growing inequalities among citizens. In this respect, information provided by UNDP cannot fail to shock us:

> "The 500 richest people in the world have a joint income that is greater than 416 million of the world's poorest people".

c) Underdevelopment does not mean being backward. Development does not mean bringing the rich together

Three aspects support this statement.

The issues of underdevelopment (using this or any other name) and development are historically recent.

Using studies to reconstruct economic series covering centuries, we can easily conclude that the main differences in terms of the development of countries, and the appearance of a tendency for them to get worse, are closely associated with the industrial revolution.

Underdevelopment, including for obvious reasons Africa, is not an inevitable, "natural", phenomenon but a product of capitalism, with primitive accumulation included in this generic term. A result that was not generated by the societies that are today underdeveloped, but rather imposed from outside – although internal complicity at various historical moments requires analysis – by slavery, by colonization, by the imposition of certain kinds of economic, social or political relations of domination, or by neocolonialism. We can add development assistance and the imposition of globalization as being responsible more recently.

We must never forget that the very process of "developing" the poorest areas is an integral part of globalization. It is a way of strengthening the centre's control and power on the peripheries, a way of maintaining the *status quo* inherited from neocolonialism.

Development policy has been configured juridically-institutionally as an intervention by the developed over the underdeveloped.

At the end of the Second World War, the USA assumed hegemony of the capitalist world. The USSR emerged stronger. National liberation movements, expressing people's desire to decide their own fates, were stronger. A huge, lengthy reconstruction effort was required. This was the context when US President Truman, in his speech in January 1949, dedicated some of his proposals to "underdevelopment" and "development". This was the fight against "misery", "hunger", "a primitive and stagnant economic life", "poverty". There was the belief that scientific development, "economic cooperation", "private capital", "agriculture" and "labor" were able to resolve this underdevelopment. It appeared as something that exists "naturally", without a cause, with the intention of forgetting the responsibility of colonialism.

But what is of particular interest to us in this analysis is Truman's understanding as to what the development process is all about: it appears as an action by a (developed) agent on another (underdeveloped) agent. It is not just a rhetorical reference but something that corresponds to the hard core of ethnocentric thinking about "the most backward". It is the continuation, in another historical age, of what was stated in the

Versailles Treaty after the First World War: the existence of peoples who do not know how to look after themselves with the imperialist powers taking on the responsibility of managing them. It is the continuation of colonialist thinking that persists up to today. Even more important is the fact that this concept of "development" became the official position to be followed. From that time on, different forms of "cooperation" have multiplied: international and national bodies "for development", political decisions, many thousands of specialists on cooperation, development and other specialist fields and NGOs. Development assistance has become a veritable industry with headquarters in countries in the center and their agencies and representatives in the counties of the periphery. An industry for the reproduction of neocolonialism. And if in many situations there are good intentions, we recall the popular saying: "the road to hell is paved with good intentions".

Finally, to complete our voyage of joint reflection, we should study in more detail an alternative reading of this institutionally consecrated position: **underdevelopment is a unique characteristic of a country or group of countries, not the absence of something that exists in developed countries.**

Terminology changes and expressions that are often used as synonyms can have many different meanings. A few decades ago we talked about "underdeveloped" countries but today the term "developing" has been adopted. Both terms have advantages and disadvantages and the way we use one or the other is irrelevant as long as we are careful about what they mean and do not allow ourselves to be lulled by the sound of the words. In one or another situation the basis of a classification will be a comparison with others, with those who, using Rostow's model, have already passed through this phase: the underdeveloped is still not developed, and this is proved by the visible difference between one and the other provided by statistical information.

This approach to the problem reflects that

> It is through one of the "developed" countries whose dynamics conceal the specific characteristics of "underdeveloped" countries that underdevelopment gains the status of an autonomous problem. (Figueiredo & Costa, 1982:21)

It reflects the fact that the commonplace reading of underdevelopment and of development is ethnocentric. Indeed, as emphasized by a Masters student in African

Studies in Mindelo, Cabo Verde, from the historical viewpoint statistical comparisons between developed and underdeveloped economies have no meaning. Speaking of "capitalist development", the history of Europe began with the industrial revolution and the history of Africa began with the independence processes, or perhaps with the national liberation struggles.

As the above-mentioned authors emphasize,

> An unbiased concept of underdevelopment must include recognition of the conditions that make it possible for social agents in "undeveloped countries" to evaluate their own reality. (29)

In other words, **the characterization of underdevelopment must arise from the structure of these economies and not by comparing them with others.**

The clue that we leave here, as economists and in line with structuralist theses about Latin America, is that underdevelopment is another face of disarticulation, of the breakdown and conflict between different "strata" of society. It is possible to establish a positive correlation between the frequency and intensity of these disarticulations and the level of indicators often used as proxies for underdevelopment-development. This disarticulated segmentation is expressed, in addition to other ways, though the low density of the inter-sector matrix.

In other, less technical, words, underdevelopment manifests itself by the absence of production chains, by the absence of articulation between the different sectors of activity in a given space: in a country almost always, in a community of countries sometimes.

So this interpretation of underdevelopment, and thus of development, requires us to be very careful with the synonyms we attribute to them. Two examples. Modernization of the economy or of society might not mean development and can even lead to the opposite. Cooperation may not mean development and might even lead to the opposite. In one or other situation all that is required is not to change the "density" of the inter-sectoral matrix or even reduce it. And we should not be surprised that this happens because it is probably the most common situation when this modernization or this cooperation is determined essentially by the interests of societies in the centre, the leaders of globalization and when there is true altruism and the will to help the most needy this often happens.

Development only takes place when there are structural changes that make the inter-sectoral matrix more dense, reducing the "disarticulated/segmented dualism" (or the disarticulated segmentation).

However, this position must not be mistaken for self-sufficiency or lack of integration in the world economy; in all circumstances, and particularly today, this would be absurd. Development leads to many aspects of peoples' lives "coming closer to the rich", but this approximation is not development.

d) Cooperation can harm development

How can cooperation, which in the Portuguese dictionary has as synonyms "collaboration" and "solidarity", be harmful? In a Europe that inherited a Judeo-Christian culture, doesn't the idea of cooperation immediately bring the balm of harmony, the prime condition for a better future? We must not allow ourselves to be lulled by meanings of current knowledge that are completely maladjusted to international customary law, political practices and economic significance.

In order to materialize these precautions we insist on two points.

That which is frequently termed "development cooperation" involves many different forms of funding and intervention, as highlighted by international agreements and treaties, by manuals on these subjects; "public flows", that range from technical cooperation to budget support, from food aid to loans; "NGO grants", which may be closer to the above mentioned "solidarity", despite the great diversity of non-governmental organizations; "private flows" that are a vast panoply, including direct investment or bank loans. **What was previously termed "entrepreneurial business" in many situations today is called "cooperation"**, but this is not how profits are miraculously transformed into income for the local populations.

If development is understood as the action of the developed agent on the underdeveloped agent – a concept that we have already rejected – then cooperation is the institutional figure that permits this action, that permits the linkage between the developed and the underdeveloped. Consequently, **cooperation is an integral part of the development concept that is an extension of colonialism. It is a new aspect of neocolonialism.**

It must also be said that very often cooperation is a cover-up for international political hypocrisy. A war is launched and then is followed by "aid for the displaced" or "humanitarian aid".

In a very interesting recent study, all the more so given that its positions arise from an interpretation of documents of the Bretton Woods organizations that would never accept its conclusions, Milando dissects the concept of "cooperation".

> There is a difference between three distinct, different dimensions of "development". Firstly, there is the "development-process", i.e. a set of ongoing social practices and dynamics, whose main mentors are the "development operators". They include policies, organizations, institutions, professionals and practices that exist and reproduce themselves around the notion of development. These elements configure social dynamics that can be easily identified by the methodologies that they produce and constantly try to put into practice. Another dimension of the development phenomenon is called "development – result" and refers to the real results produced by the first dimension. Finally, in third place, there is "development-utopia". (2005:37)

Starting out from a given development idea (utopia), development operators take actions (process) that lead to certain results in the destination countries (result). The conclusion reached is that the results are ridiculous compared to the scale of the process and the utopian intentions. As the saying goes, "the mountain gave birth to a mouse", and one that moreover can behave disastrously.

Even though we may agree with the diagnosis of the results, we disagree with its causes. The author identifies the cause of the failure as inefficiency in the development-process. For us, the heart of the problem lies in the view that development is a process of this kind, in the idea that there are countries and peoples that, for whatever reason, are unable to take responsibility for their destiny.

Is what is currently called cooperation necessarily harmful to development? Probably not. Moreover, one cannot move from the current concept of cooperation and development to another that is totally different without "repairing" the damage caused by many past historical events.

What we are saying is that "cooperation" can aggravate the de-structuring of inter-industrial relations and, in these cases, we are faced with "development cooperation" actions that aggravate underdevelopment. Unfortunately many cooperation actions are of this kind.

Cooperation generates development dynamics, but in countries that are already developed. It gives rise to expansion of the "cooperation industry and services".

Hypocritical references

Theories follow theories, missions of the cooperation industry get agitated, consensus is forged in the shade of political fragilities in the periphery, and under the hope of financial generosity, poverty in its most extreme forms continues.

Hope must be maintained, as marketing, as the conciliator, as the intellectual satisfaction of some. New theories arise, become fashionable. All are welcome as long as they entail the underdeveloped being responsible for their underdevelopment, as long as there is no rummaging in the past where decisive responsibilities of the centre economies might be found, as long as they confirm the dominant neo-liberal theses.

At the moment the justification that Africa's backwardness is because they are "rent seeking" economies" is fashionable. So fashionable that misinformed analysts feel the need to use this terminology when they wander through unknown lands, through African worlds, that of course they were never interested in understanding.

For this reason I would like to leave a few brief notes on the explanations of the "rent seeking economies" that rapidly become "rent seeking states".

- Firstly, these theories require us to analyse very carefully what is called rent and how this is an integral part of economic, social and political organization. Concentrating on the notion of rent as "income higher than expected" immediately gives a negative tone to the concept of rent. The expected is the normal, that is, it corresponds to the remuneration of factors – profit as a social category with its own characteristics does not exist; its nature is equivalent to salary and interest, remuneration that is appropriate for the respective productivities of the factors – and to the spontaneous workings of the market moving towards equilibrium. So rent impedes the free working of markets, and hence is objectionable. And because instead of a rent society there is a tendency to speak of a rent state, once again the state appears as an obstacle to development.

- It is true that in many African societies rent is extremely relevant to GDP. This situation is of no value in itself, but as an indicator of economies that for historical reasons are heavily dependent on mining and oil, and the agricultural sector. It is true that the state is frequently one of the most important owners of property or important rights over exploration and exports, and that it holds an important

percentage of rent. However, these situations are neither good nor bad in themselves. They are bad when they are the expression of a productive structure that is geared to overseas and not articulated. Moreover, during the independence processes there were few alternatives as either the new states maintained the structure and ownership of property as before – meaning that many of the essential aspects of colonialism continued into independence – or they had to take full or partial control. A careful reading of these situations relates to a history that they wanted to be forgotten and shifts the issue to the productive structure.

- The existence of income based on property is an impediment to the growth of the capitalist economy – this problem was often addressed by Marx in a different historic period and for different societies, but retains all its relevance and generality. In an age of strong international competitiveness, the "immobility" of ownership comes into conflict with the strong "mobility" of the flexible productive organization that can easily be transformed. To this extent, and because the great importance of rent is associated with commercial dependence on overseas and on the disarticulated "duality" we have spoken about, the "economy heavily dependent on rent" is in a worse condition to participate in international competitiveness.

- Case studies on rent economies show that their existence and distribution does not have only negative aspects. In many situations they also have positive aspects, namely, permitting primitive accumulation that underdeveloped countries have been unable to do. It is true that in many situations the way rent is distributed includes clientelism, corruption and various kinds of fraud. The existence of rent can facilitate or expand these situations, but the problem does not lie in rent but in the "political elites", in the state.

- While concentrating attention on underdeveloped economies, these models forget to say that developed economies also have large swathes of dependency on rent, as we saw with regard to the purpose of the financialisation of the economy in the globalization period.

In conclusion, we must use these fashionable notions with great care, subjecting them to the critical eye of science.

Final note

Much more could be said here, as a summary of what was said earlier or as the starting point for other work, but we prefer to conclude as we did in the paper presented to the IX Luso-Afro-Brazilian Social Science Congress (Luanda, November 2006).

We have no doubt that the current situation must the radically changed. This will only occur through struggle: for clarification, for a change in the correlation of forces in the "invisible colleges", of change in social practices. Spontaneously the correlation of forces is favorable for continued globalization and for this "development". We also know that the future is a collective construction and that initially there will be no new reference paradigm. Hence the importance of transcribing what we presented at the beginning of this point.

Improving the quality of life of Africans has got to be essentially the work of Africans in the context of the internationalised economy. Nevertheless, we must be careful with these overly generic formulations: in "improving the quality of life of Africans (a1) must be the work of Africans a2" we are using the same term with two different meanings. By a1 we mean all citizens living on the African continent; by a2 we are implying a sub-set of it, where those holding power and elites (to use a fashionable expression) have a vital function. Many elements of this second subset will be more associated with the *status quo* and further away from the quality of life of the first set than many citizens in highly developed countries.

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2. DISCRETION AND HETEROGENEITY IN MOZAMBICAN RURAL LABOUR MARKETS[1]

Carlos Oya, Christopher Cramer and John Sender

Introduction

This paper presents some results from the largest rural labour market survey yet conducted in Mozambique. The survey shows that these labour markets in the Mozambican countryside play significant roles on the lives of a large number of poor people. Although some of the poorest Mozambicans are captured in this survey, not all of the men and women engaged in rural waged work (temporary or permanent) live in similarly deprived rural households – their levels of education, wages and experiences of poverty are very diverse. The data show a range of labour market opportunities, characterised by great variations in barriers to entry, levels of pay, contractual terms, and conditions of work. These findings are difficult to explain in terms of conventional economic theory, including theoretical variants of labour market dualism or segmented labour markets. More importantly, the findings lead to the conclusion that it is necessary to pay careful attention to the heterogeneity and dynamic features of rural labour markets when analysing trends in poverty and the impact of policy interventions in Africa.

The paper also responds to a shortage of knowledge on sub-Saharan African labour markets. For Mozambique, Tschirley and Benfica (2001) acknowledge the lack of information about labour markets in rural Mozambique. Similarly, the Commission for Africa acknowledges the urgent need to build up more labour market information

(2005, p.242); but their report has hardly any discussion at all of rural waged employment.[1] This omission is a striking feature of the Commission's section on agriculture and rural development, as well as its section on "participating in growth". NEPAD also fails to mention *rural* waged employment in its "Comprehensive Africa Agriculture Development Programme" (2003). Meanwhile, at an even more general level, the World Bank has, belatedly, recognized the limitations of previous research and analysis: 'Making the rural labor market a more effective pathway out of poverty is …a major policy challenge that remains poorly understood and sorely neglected in policy making' (World Bank 2007: 287).

Further discussion of the rationale for and the methodology used in the Mozambique Rural Labour Market Survey (MRLS) is provided in the first section of this paper. The following sections focus on presenting the survey evidence covering both types and levels of payment for both agricultural and non-agricultural rural workers.

The heterogeneous characteristics of the workers participating in rural waged labour markets and the impact of employment on some simple measures of household welfare are also discussed. The evidence shows clearly that many Mozambicans, who would by any criteria be considered among the very poorest in the country, have been pitched into waged work. However, the evidence also shows important gradations in the severity of poverty among the rural wage labour force, as well as suggesting the potential for more decent jobs to transform the living standards of even the poorest rural women. The conclusion discusses the significance of the survey findings and suggests that the research results imply a need for innovative policy design.

Survey Rationale and Methodology

Since the end of the war, new processes of economic and social change have begun to have substantial effects on rural inequality and on the demand for wage labour.[2] These changes have included: the rehabilitation of transport infrastructure; the influx of new foreign investment in agriculture, the immigration of farmers from both Zimbabwe and South Africa (concentrated especially in Manica Province); the revival of tea plantations in Zambezia Province; the privatization of other state-owned plantations; and the rapid integration of small- and middle-scale farmers into international commodity markets (especially the markets for tobacco and cotton).[3]

Unfortunately, the data collected in recent household surveys designed to provide poverty indicators are not useful for analysing the impact of these uneven developments on the market for wage labour. The usefulness of these household surveys is limited because they adopt international statistical conventions for measuring labour market participation that are ill-suited to the complex reality of labour transactions in poor rural areas.[4] Where new instruments have been developed to overcome the problems evident in conventional household survey data, they clearly demonstrate the large amount of labour market activity missed in the types of national surveys conducted in Mozambique (Lund 2004; Adato et al 2004: 17).

Two recent household surveys in Mozambique, the *Inquérito dos Agregados Familiares* (IAF, 2002-3) and the *Questionário de Indicadores Básicos de Bem-Estar* (QUIBB, 2000-1), yield surprisingly different measures of the relative significance of wage labour, depending on the specific questions asked in each of these surveys and their interpretation. In particular, conventional questions in both of these surveys about rural respondents' "main" job suggest that wage labour is rare – only about 7.3 percent of household members in the QUIBB survey, or 4.7 percent in IAF, claimed to have been paid a wage or salary in their main job.[5] In contrast, almost 21 percent of rural households in IAF, but only 17.4 percent in QUIBB, claimed that a household member had been *employed as an agricultural labourer in the most recent agricultural season*.

The Mozambique Rural Labour Market Survey (MRLS) was designed to overcome some of the limitations of household surveys. During 2002-3, fieldwork was completed in three provinces in the centre and north of the country: Manica, Nampula and Zambezia, where 2,638 wage-employed respondents (slightly less than half of them women) answered a lengthy questionnaire and provided information not only about themselves but also about other household members. As a result, the survey collected data on some 16,000 individuals in these provinces. The respondents were employed by a wide range of different types of establishment (around 900 separate employers), varying from very small farms, bars, and market stalls to large plantations employing thousands of temporary workers. The wide range of types of employment/establishment covered in the MRLS allows an analysis that is much more disaggregated than is usual in the literature discussing the main sources of income for poor and rich rural households.

The sampling was purposive rather than random and drew on a range of sources to construct its own sampling frames from existing agricultural censuses, recent household survey lists and visits to all the relevant provinces and districts.[6] This preliminary provided

some assurance that the MRLS would not miss either the most significant rural employers, or those enumeration areas where wage employment was particularly important in each of the provinces. The principle used in the purposive sampling was that of ensuring 'maximum variation', so that the final sample size was a function of the extent to which 'saturation points' had been reached for several key strata of jobs (agricultural, non-agricultural, small-scale vs. large-scale employers, local and foreign investors, and so on). The combination of care taken to build appropriate sampling frames, the large sample size, and the principle of maximum variation provide grounds to believe that the MRLS is a fair representation of the wide range of different types of rural wage workers in the provinces selected, and of the various categories of employers

Moreover, the sample included a relatively large number of small and middle-scale farmers. The most successful of these farmers, who account for much of the demand for agricultural wage labour, are *non-randomly* distributed in rural Mozambique and there is, therefore, no guarantee that their wage workers would be included in conventional, randomised sample surveys.

Comparisons between this research and the results of the nationally representative IAF survey establish two important points. First, the purposive sampling of people working for wages in the MRLS succeeded in capturing many respondents who would certainly be classified by IAF as among the *poorest* Mozambicans. Thus, the bottom third of the MRLS sample is at least as poor or poorer than the bottom quintile of households surveyed by IAF in the same provinces, both in terms of their ownership of key assets and in terms of the level of education achieved by household members.[7] For example, educational status is known to be closely associated with other measures of poverty in Mozambique (Simler et al. 2004); and it is noteworthy that 80 percent or more of the poorest households in both MRLS and IAF (with the surprising exception of IAF respondents in Manica) failed to complete primary school.[8]

Second, the MRLS shows that rural inequality is very significant. This result too cannot be used to suggest that the MRLS sample is atypical. Nationally representative surveys have also found similarly high levels of inequality within rural Mozambique (Elbers et al., 2003).

This paper also reports findings from 120 respondents to a different questionnaire administered to a sample of small and medium-scale agricultural employers. In addition, the researchers conducted semi-structured interviews with 33 large-scale employers, all employing more than 50 workers at the peak of the agricultural year, and collected life histories from 15 women wage workers.[9]

Variations in Methods of Pay: Monthly, Daily, and Piecework Pay

Payment arrangements in rural labour markets are extremely complex. They are difficult to investigate and summarise (Hatlebakk, 2004; Rogaly, 2005; Newman and Jarvis 2000; Rubin and Perloff 1993; Rogaly, 2005; Wells, 1996; Bardhan and Rudra 1986; Ortiz 1999). In Mozambique, forms and levels of payment vary within provinces from one rural area to another; they appear to be influenced by cropping patterns as well as by the strategies adopted by individual employers, making any general statement about prevailing methods on Mozambican farms questionable.

The main payment methods in rural Mozambique include daily wages, monthly salaries, and piece- and task-based cash payments. The MRLS found little evidence of payment systems based on negotiations with labour brokers, i.e. contracts for the supply of gangs of labourers by intermediaries. Table 1 shows the distribution of the main methods of payment, based on classifying workers' responses to both coded and open-ended questions. However, in many of these responses the distinction between (unwritten) contracts to purchase labour *time* and contracts to complete a specific *task* was unclear, so the classifications in Table 1 should be regarded as 'best estimates', rather than definitive. The remuneration of workers with food, prepared meals and other non-cash benefits is discussed later (Tables 5 and 10).

TABLE 1: Wage Payment Methods for Agricultural and Non-Agricultural Workers, by Type of Employer

(Data in %)	Agricultural labour (2152)	Non Agricultural labour (468)	National company plantation (268)	Foreign company/ privado (227)	Local farmer privado (1657)	Total (2620)
Daily wage	20	4	36	9	18	17
Weekly wage	2	0	0	2	2	1
Monthly wage	30	86	44	81	21	40
Based on specific contract/ work	2	5	2	1	2	2
Piece/task rate	47	4	17	7	57	39
Other	0	2	0	0	0	0
Total	100	100	100	100	100	100

Notes: [a] Number in brackets shows the total number of observations for each category. [b] Includes non- agricultural labour.

Source: MRLS, 2002/03

In the whole sample, roughly 40 percent of respondents received a monthly wage, while more than two thirds of respondents employed as agricultural labourers were *not* paid on a monthly basis. An even larger proportion (almost 80 per cent) of the agricultural workers

employed by local farmers (small Mozambican farmers or medium-scale private farmers known as *privados*), were paid either by task or on a daily basis. In contrast, over 80 percent of agricultural workers employed on foreign-owned firms were paid monthly wages.[10]

Payment methods on larger farms, particularly on 'foreign' or 'national corporations', were more clearly defined than on other types of farm where the variation in payment methods and rates was particularly large. Table 2 shows that larger farming enterprises are more likely to employ monthly paid workers than smaller farmers. However, many of the large employers recorded as paying a monthly wage to temporary workers were, in fact, applying a daily rate, although the number of days of work required per month was specified at the discretion of individual employers.[11]

TABLE 2: Wage Payment Methods by size of Establishment (Agricultural Workers)

	Category of employer by no. of workers at peak			Total
	Small employer[a] (723)	Middle employer[b] (754)	Large employer[c] (694)	All employers (2171)
Daily wage (%)	14	18	28	20
Weekly wage (%)	1	2	2	2
Monthly wage (%)	15	33	42	30
Based on specific contract/work (%)	3	1	1	2
Piece/task rate (%)	67	46	26	47
Total	100	100	100	100

Notes: [a] 1-10 workers; [b] 11-50 workers; [c] 50+ workers **Source:** MRLS, 2002/03

Larger farms also need to employ many temporary workers for one to three months to meet seasonal labour peaks. These workers are usually required to complete the task set by their employers before they receive a 'daily' payment. What was involved in tasks varied, as did the judgement of what could be done in a day. On some farms a stable daily wage was paid for seasonal tasks, but these tasks would vary in intensity. Yet on other farms the daily wage varied according to the task. Table 3 below gives some idea of the latitude for setting differing wage rates for weeding in one province. Meanwhile, some of the farmers interviewed in the sample of large farmers pointed out that, if an individual worker could not finish the proposed task within a day, he or she would either return the next day to finish the task or bring in friends or family (including children) to help complete the task.

TABLE 3: **Daily Pay for Weeding by Selected Large and Mid-Scale Employers in Nampula (Meticais)**

Employer	Daily Rate for Casual Labourers	Weeding Task per day
Tobacco mid-scale local farmer – Manica	20,000	50x20 "steps"
Sisal company – Nampula	21,577	3 "lines"
Mid-scale local farmer – Nampula	15 fishes or 2kg sugar or 2 bars soap	15-100 x 2 metres
Mid-scale cotton farmer – Nampula	20,000	6/7 lines
Large local farmer – Nampula	10 fishes	15-20 x 2 metres
Large local farmer – Nampula[a]	20,000	5 lines
Large local farmer – Nampula[b]	10,000	10 lines

Notes: [a] for tought weeding; [b] for lighter weeding **Source:** MRLS, 2002/03

Local farmers/*privados* paid some of their 'regular' workers on a monthly basis, even if they did not work every month of the year, but only 21 per cent of their workers were 'regular' in this sense. Smaller employers rely much more heavily on task-based payment systems. The tasks their workers have to perform are even less clearly defined than on larger farms and require widely varying amounts of time and effort to complete, making it extremely difficult to calculate the wage received per hour or per day.[12] Task-based payment systems allow *privados* to incorporate the labour efforts of female and child labour without having to contract (or pay) these workers directly. For example, if husbands are reluctant to allow their wives to work on other men's farms as independent wage workers, then an employer can gain access to the labour of married women by setting their male workers tasks that cannot be completed easily without the 'help' of their wives. Meanwhile, payment methods are determined not only by the size and ownership characteristics of farms, but also appear to depend on the crop and the farming operation.

Variations in Rates of Pay for Agricultural Work

How much people can earn on different types of farm enterprise also varies. The median monthly wage ranges from a low of MT250,000 for people working for local farmers or neighbours, through MT381,000 earned on the farms of *privados*, up to MT460,000 on Mozambican-owned companies and plantations and MT525,000 on foreign enterprises. The range of daily, as opposed to monthly wage payments, is more compressed, varying from a low median rate of MT10,000 per day paid by local or neighbouring farmers to a high of around MT15,000 paid by national and foreign agricultural companies. The modal as well as the median daily payment rate

(MT10,000) was equivalent to about $0.42 cents/day, at the exchange rate prevailing during the main period of fieldwork.[13]

Distinguishing employers by size (defined in terms of the number of workers employed at the peak of the agricultural year) reveals a similar pattern of variation in rates of pay, as seen in Table 4, below.[14] The widespread belief that concentrating resources on small farm agriculture and food production will reduce African poverty ignores the fact that many of the poorest rural people depend on earnings from agricultural wage labour. Small farmers in the MRLS, especially food producers, do not offer very high or regular wages to their workers.

TABLE 4: Payment Rates by Size of Agricultural Employer

Size of employer, by no. of workers at peak		Daily Wage	Monthly Wage
Small employer (1-10)	N	99	115
	Mean	13885	285257
	Median	10000	250000
Middle employer (11-50)	N	156	272
	Mean	11422	371763
	Median	10000	350000
Large employer (50+)	N	210	358
	Mean	15691	463913
	Median	15000	460000
Total	N	465	745

Source: MRLS, 2002/03

Workers engaged in the production of some crops are more highly paid than workers on other crops. Thus, for example, tobacco out-growers paid higher wages than the SME respondents growing other crops. Work on sisal and cotton growing enterprises is relatively highly paid (at a median daily rate of MT14, 000 and MT25,000, respectively), compared to work on food crops such as rice, maize, groundnuts, sesame, etc. (typically paid at the rate of MT10,000 per day). Men usually cut sisal and this work is arduous, involving risks of cuts and snake-bites. Thus, some combination of gendered job segregation and the need to provide incentives for dangerous and unpleasant work may account for relatively high payment rates on sisal plantations. However, higher payments for sisal and cotton cultivation are also probably a result of the fact that these crops are commonly grown on larger farms or plantations, usually owned and managed by *privados* or corporations.[15]

In general, cotton workers are relatively highly paid, but their rates of pay vary dramatically, even when all the workers concerned are employed within one province to carry out a very standard task such as harvesting. For example, an examination of payments made to 122 cotton pickers in Nampula, who were usually paid on either a daily or a piece rate basis, reveals a large range of levels of pay.[16] Furthermore, a small sub-sample of workers employed to harvest cashew nuts, all paid on a piece rate basis and working on the *same* farm in Nampula, also showed a surprising degree of variation in rates of payment. The evidence points to the idiosyncratic spread of payment rates and suggests the difficulties involved in using standard Mincerian equations to explain variations in these rates.[17]

It is also difficult to account for the variation in monthly wages received by another sub-group of workers, all of whom were male, semi-skilled and working on large scale farms. Some of the interviews with large farmers yielded information on the range of salaries they had decided to pay their tractor drivers. The lowest reported monthly wage for a tractor driver was MT600,000 and the highest was MT1.5 million. Most drivers were reported to earn around MT800,000, though a few were earning less and a handful were paid more than MT1 million monthly.

Wages for other related jobs – e.g. foremen, field captains, supervisors – also differed across these large-scale employers, from MT700,000 per month to MT2.5 million. In addition, interviews with large farmers revealed an astonishingly wide range of monthly payments to their most senior, skilled workers. Skilled permanent workers earned between MT800,000 and MT3,000,000 a month. On a couple of the farms in this sample, employers reported that they paid skilled permanent workers below the minimum wage but that these workers received some payment in kind and were not expected to work more than four hours a day. At the other extreme, on one farm the top rate for a skilled worker was MT8.5 million, while on another two expatriate Malawian junior agronomists were earning $650 a month plus benefits (including use of a company motorbike).

Variations in payment rates for non-agricultural work

Table 5, below, summarises survey results for monthly wages reported by 391 respondents employed by rural non-agricultural enterprises. During the survey period, the non-agricultural minimum wage was set at MT812,163 (roughly $34.26) a month.[18] So, median monthly earnings of MT150,000 ($6.33) for working on a

TABLE 5: **Monthly Wages of Non-Agricultural Rural Workers (Meticais)**

Categories of non-agricultural labour	N	Mean	Median	Std. Error of Mean
Hotel/hostel	30	488900	475000	41371
Restaurant/barraca[a]	74	379649	300000	31583
Market/banca[b]	42	231071	150000	43514
Domestic servant	159	242440	200000	14494
Transport driver	14	975000	875000	175078
Transport other (cobrador/chova)[c]	24	517167	500000	45946
Pedreiro in construction[d]	5	780000	750000	135536
Constructions others (servente)[e]	4	707500	700000	47148
Other	39	449615	350000	65702
Total (paid in monthly wages)	391	361486	280000	16184
Total none agricultural sample	458	n.a.	n.a.	n.a.

Notes: [a] An informal, "street" bar; [b] market stall; [c] Ticket collector or cart-boy; [d] Bricklayer/mason; [e] Assistent
Source: MRLS, 2002/03

market stall, or the MT200,000 that was the median amount earned by the 159 domestic servants (*empregadas*) in the survey, are not only extraordinarily low, but also illegal. Payments reported by *empregadas* were remarkably consistent, having the lowest standard error of the mean wage among the categories surveyed. By contrast, people (usually males) working in the transport and construction sectors in the same rural towns could earn substantially more, although there was a relatively large variation around the mean wage for drivers and bricklayers. The fourteen drivers interviewed had the highest median monthly wage (MT875,000).

A classification of jobs and payment methods

The analysis above has shown that rural Mozambicans experience a complex range of methods and rates of payment for wage labour. A crude dichotomy between privileged labour aristocrats and all other workers cannot capture this reality. It is nonetheless possible to develop a simply but more nuanced taxonomy of wage employment. Thus, Table 6, below, identifies five main types of employment obtained by rural Mozambicans, using a mixture of quantitative and qualitative criteria suggested by responses to the questionnaire and by more open-ended questions and interviews. This allows for an exploration of the characteristics of those workers who are relatively (un)successful in the labour market. First, though, the earnings (mean and median) and some aspects of working conditions (e.g. access to trade unions and compensation for working overtime) are tabulated for each of the five types of employment.

TABLE 6: **Better and Worse Jobs – Payment methods and rates**

Types of jobs	**Good 1** Monthly paid and regular income (770)	**Good 2** Monthly paid, regular income in agriculture (472)	**Bad 1** Performed "ganho" casual work for less than 15 days per month (708)	**Bad 2** Same as Bad 1 and obtained no seasonal contracts or non-agricultural job (591)	**Bad 3** Domestic servant + below agricultural minimum wage (145)	**Other** (Non classified)	**Total sample** (2628)
Paid monthly wages % within job type	100	100	10	1	100	57	40
Paid on piece of task rate basis % within job type	0	0	68	80	0	33	39
Median payment (daily) (number of cases in brackets)	15,400 -16	15,000 -15	10,000 -142	10,000 -96	n.a.	12,500 -328	12,000 -484
Median payment (monthly wage) (number of cases in brackets)	400,000 -761	450,000 -466	-78	300,000 -9	150,000 -145	350,000 -318	360,000 -1145
Median payment (task) (number of cases in brackets)	n.a.	n.a.	15,000 -336 SD/mean = 1.6	15,000 -333 SD/mean = 1.6		15,000 -488 SD/mean = 4.5	15,000 -824 SD/mean = 4.8
Received payment in kind % within job type	0	0	29	34	0	11	13

Notes: [a] SD = Standard devitation **Source:** MRLS, 2002/03

Table 6 shows that some (770 workers) enjoy access to 'good' jobs that guarantee a relatively decent and more or less regular flow of income. A similar number of workers (708) have only succeeded in finding casual or very low-paid ('bad') jobs. The five types of employment identified in the Table are not mutually exclusive. For example, the second is a fraction of the first. Categories '*bad1*' and '*bad2*' also partly overlap and a few workers with access to '*good*' jobs also perform some of the '*bad*' jobs on the side, reflecting occupation multiplicity in different labour market segments.

Although the median wage of all the agricultural workers with 'good' jobs is still below the statutory minimum, the *good2* category workers receive 13 percent more than *good1* category workers, and over 25 percent more than other monthly-paid unclassified workers. Moreover, these agricultural workers are more likely to have access to trade union representation than workers in any other type of job (Table 7). However, the benefits they derive from union representation are not clear. Interviews with large-scale farmers suggested that there was little or no union activity on their farms – even where formally at least some workers were members of a union. One or two of the biggest agricultural employers stated that in the past unions were combative and even

TABLE 7: **Employment tenure and other work conditions, by types of job**

Types of jobs	Good 1 Monthly paid and regular income (770)	Good 2 Monthly paid, regular income in agriculture (472)	Bad 1 Performed "ganho" casual work for less than 15 days per month (708)	Bad 2 Same as Bad 1 and obtained no seasonal contracts or non-agricultural job (591)	Bad 3 Domestic servant + below agricultural minimum wage (145)	Other (Non classified)	Total sample (2628)
Months of tenure with same job/employer (median)	12	12	5	4	9	6	7
Number of days worked as seasonal contract workers Median	208 -395	208 -118	207 -107	n.a.	n.a.	210 -291	208 -749
Number of days worked as casual ganho Median	58 -390	60 -108	20 -706	21 -591	n.a.	78 -735	45 -1508
Meals provided at work % within job class	42	19	17	16	90	22	27
Housing provided by employer % within job class	23	21	3	2	45	7	11
Loans (wage advance) provided % within job class	35	29	17	17	42	28	28
Compensation for over-time work % within job class	46	53	17	4	6	35	39
Presence of Labour Union at workplace % within job class	13	21	2	0	0	11	9

Source: MRLS, 2002/03

aggressive; of late they have only been 'helpful'. Other employers (and provincial union officials) said that union officials either never visited farms or that they did visit from time to time but would only do so if they could get a lift from the farmer – in other words, one major constraint on union officials organising on farms is the lack of transport facilities. Clearly, the disorganisation of unions – chiefly the *Sindicato Nacional de Trabalhadores Agro-Pecuários e Florestais* (SINTAF) – and the failure of both government and international donors to invest in increasing their capacity allows for the high degree of employer discretion in setting wages and their composition in terms of money wages, benefits, and payments-in-kind.

Among monthly-paid workers, the 145 domestic servants receiving less than the minimum wage are particularly disadvantaged, since half of them earned below MT150,000 per month. The median daily rates of the agricultural workers employed casually (*ganho ganho*), whether they are classified as having a *bad1* or a *bad2* job, are consistently lower than the daily rates for any other type of worker.

Moreover, workers with bad jobs were more likely to be paid in kind (usually with food) than any other worker (Table 6). The most common substitutes for money wages

reported in interviews with large farmers were dried fish, sugar, soap, maize or cassava flour, and *capulanas* (the cloth wraps worn by women). Workers might be paid MT60,000 'worth' of maize for two or three days work, or a woman worker might work for four days to earn a *capulana* 'worth' (according to the farmer) MT35,000. Obviously, precise estimates of an imputed money wage (or the employer's wage costs) are difficult when payments are made in kind. The lack of precision appears to increase employers' control over labour relations.

In all types of rural employment, job tenure appears insecure. Even for those workers who have a '*good*' job, a high proportion (50 percent) report having spent 12 months or less in their present job. Those workers combining access to 'good jobs' with some casual work are able to secure more days of casual work than those who rely on casual work alone. More than half of the workers with the worst jobs (bad jobs 1 and 2) only manage to find 20 days or less of waged work per year. An increase in the number of days per year when they can find employment would have a dramatic impact on their standards of living.[19]

Even workers selected to hold relatively 'good' jobs for more than a few months suffer from employment conditions that are below statutory minimum standards. For example, about half of them do not receive any compensation for working overtime (Table 7).[20] Nevertheless, they are more likely than workers with *bad jobs 1* and *2* to be provided with housing, meals and credit by their employers. It is also clear that small-scale employers and especially Mozambican-owned small farm enterprises are unlikely to offer *good* jobs to their workers, while almost two thirds of workers employed by foreign agricultural investors enjoy good jobs in agriculture (Table 8).

TABLE 8: Workers by employer categories and job types (% of workers within each employer category)

Types of jobs	**Good 1** Monthly paid and regular income (%)	**Good 2** Monthly paid, regular income in agriculture (%)	**Bad 1** Performed "ganho" casual work for less than 15 days per month (%)	**Bad 2** Same as Bad 1 and obtained no seasonal contracts or non-agricultural job (%)
National company/plantation	12	12	5	4
Foreign agricultural employer	-395	-118	-107	n.a.
Local agricultural employer	-390	-108	-706	-591
Small	42	19	17	16
Medium	23	21	3	2
Large	35	29	17	17

Source: MRLS, 2002/03

The amount and quality of these non-wage benefits, as revealed in interviews with large farmers and in the quantitative surveys, is variable and discretionary. Benefits can be and are withdrawn. Almost all women captured in the MRLS were denied access to the most basic non-wage benefits. Less than 4 per cent of all female wage workers were given paid holidays by employers and less than 10 per cent were given paid sick leave or medical benefits. Only about 3 per cent had paid maternity leave.

Some Characteristics of the Poorest Workers and their Labour Market Prospects

Unsurprisingly, most of the worst jobs (*bad2*) are performed by workers living in the poorest households. One third of the surveyed households lack even the most basic of those material possessions, (i.e. a paraffin lamp, a clock or watch, a radio cassette, a bed, pairs of shoes and access to some form of toilet), used to calculate the household asset score. Table 9 contrasts the experience of these extremely poor and deprived households with 'less poor' rural households achieving a much higher asset score. A far greater proportion of the *good* and a very low proportion of *bad2* jobs (only 10 percent) are done by members of the richer households. Similarly, the majority of *bad* jobs were done by workers who lived in households in which no-one had completed primary school. In contrast, most of the *good* jobs (over 80 percent) were held by respondents who had attended school.[21]

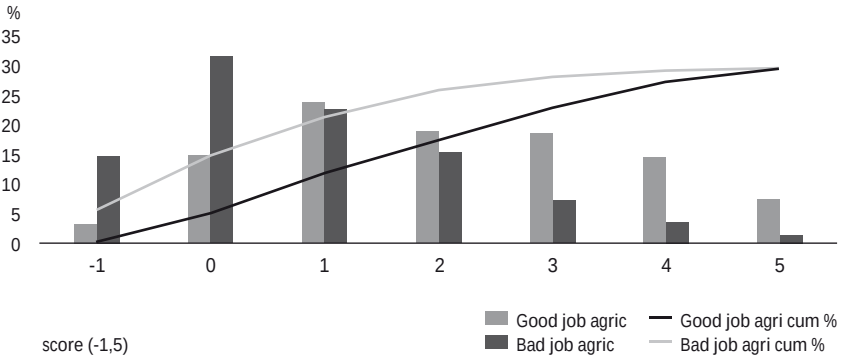
TABLE 9: The Share of Different types of Household and Worker in "Good" and "Bad" Jobs

	Types of jobs					
	Good 1 Monthly paid and regular income	**Good 2** Monthly paid, regular income in agriculture	**Bad 1** Performed ganho casual work for less than 15 days per month	**Bad 2** Same as Bad 1 and no seasonal contracts or non-agricultural job	**Bad 3** Domestic servant and below agricultural minimum wage	**Total sample**
	(770)	(472)	(708)	(591)	(145)	(2628)
Possession index group (poorest)						
% within job type	15	18	48	53	21	33
Possession index group (richest)						
% within job type	47	40	14	10	41	27
Nobody in HH ever completed primary						
% within job type	37	42	56	56	39	48
Respondent never attended school						
% within job type	15	20	36	39	15	27
Females						
% within job type	35	25	60	68	62	47
Respondent divorced/separated widow female						
% within job type	17	15	20	22	13	18

Source: MRLS, 2002/03

Table 9 suggests an association between household socio-economic status and the ability of household members to avoid employment in the worst types of rural jobs. 'Better-off' people in rural areas are likely to have very significant advantages compared to very poor people in searching and bargaining for the best available employment, because of their education, ability to move, household connections, and previous work experience.[22] At the other end of the spectrum, the strong relationship between household possession scores and participation in the worst type of insecure casual agricultural labour is illustrated in Figure 1.

FIGURE 1: FREQUENCY DISTRIBUTION AND CUMULATIVE FUNCTION



However, the direction of causality is not obvious. As Table 9 shows, by no means all of the *good* jobs are monopolised by a 'labour aristocracy' consisting of the members of richer and more educated households. Table 9 also shows that although the worst jobs are much more likely to be performed by women, a significant proportion of the better jobs on farms are filled by female workers; and even some of the women with the weakest bargaining position in the labour market, divorced/separated and widowed women, have been able to find decent work. Thus, entry barriers into *good* jobs are not insuperable for the poorest households and, when such a job is obtained, the impact in raising their standards of living can be dramatic, even in the short-term.[23]

Moreover, the policy environment can influence the prospects for the poorest labour market entrants. State interventions to increase demand and tighten rural labour markets can have a positive influence on the prospects for the poor. In India, for example, rapid growth in publicly financed employment had the direct effect of providing decent off-farm employment opportunities (in rural schools, clinics, and in

construction), although these new jobs were monopolised by relatively well-educated workers from prosperous backgrounds. Indirectly, however, much poorer (female) labour market entrants also benefited, by moving in to fill the less well-remunerated private sector agricultural jobs previously performed by members of richer rural households (Sen and Ghosh, 1993). [24]

Conclusion

Rural labour markets remain on the periphery of policy discussions for growth and poverty reduction in Sub-Saharan Africa. However, evidence from the largest rural labour market survey to be conducted in Mozambique adds to other research in showing that these labour markets have become increasingly central to the lives and prospects of large numbers of poor rural Africans. Wage labour is not only associated with large plantations, agri-businesses or kulak farmers, but is also widespread among small and medium scale farmers, though these tend to offer much lower wages and worse working conditions than larger employers. Further, rural labour markets play an important part in the lives of many people who differ in terms of household background, sex, age, education, degrees of poverty and so on. This paper has shown how and why complementary and innovative survey methodologies can shed more light on the significance of wage labour relations in rural Mozambique. The combination of quantitative survey methods with qualitative techniques has also facilitated the task of making sense of complex wage labour arrangements in poor rural areas and investigating issues surrounding the unequal bargaining power of employers and workers.[25]

The paper has methodological lessons. The types of questionnaire typically applied in large and statistically 'representative' surveys are unlikely to reveal the complex and multiple payment patterns, employment practices and working relations that have emerged from the findings of the MRLS research. Often these patterns, practices and relations are specific to individuals or particular types of employer. Thus, first, other investigative techniques are necessary to make sense of observed differences or apparent inconsistencies within quantitative datasets. Second, survey questionnaires themselves need to be designed, and enumerators trained, to capture the nuances of differences in payment methods and wage rates. They need to be able to pick up a great deal of detailed information on 'task's or piece-rates and their variation. And questionnaires

need to be redesigned to escape the artificial vision of rural society imposed by questions framed exclusively in terms of 'main activity' over the past week or month. Third, representative sampling should be complemented by purposive sampling to add information on what are likely, especially in the dynamic contexts of rural Africa, to be non-randomly distributed trends, for example in labour demand. Fourth, surveys (and complementary techniques) need to be designed also to identify the scale and characteristics of rural non-agricultural employment in small rural towns, including the employment of domestic servants.

Labour market research in rural Mozambique has other implications too. Ideas of 'fairness' are not universally shared values of a moral economy but, rather, are part of the armoury of employers who are often embroiled in social and political conflicts at local and other levels. Meanwhile, 'norms' of payment and working conditions may have developed over time and are influenced by minimum wage legislation. However, employers in practice exercise a great deal of discretion in implementing these norms. The relatively weak bargaining power of wage workers, especially agricultural workers and domestic servants, means that a large proportion of them live on pitiful and irregular wages with no protection or non-wage benefits. However, this paper has shown that some types of employer are able to offer better working conditions than others, despite enjoying similar bargaining power. Some employers offering decent jobs – typically larger employers – are also more visible and exposed to control over their employment practices in spite of the generally weak enforcement of labour laws by unions and labour inspectors.

These characteristics of rural labour markets have policy implications. Incentives (fiscal, credit, infrastructural, etc) can be devised to generate demand for labour among the types of employer most likely to offer decent working conditions, instead of being distributed to small "family farms" or to the party/bureaucratic elite.[26] Not only journalists, human rights activists, and NGOs, but also foreign donors should press governments and trade unions to implement existing legislation more effectively and should provide much more support for their ability to do so – analytically, administratively and in resource allocation. The evidence suggests that even poorly implemented minimum wage legislation does have some influence on the level around which employers exercise discretionary power. Finally, there is a strong case for significant expenditure on public information and education, for example via radio, on rural women's rights under legislation on wages and working conditions.

Notes

[1] On the inadequacy of African data on agricultural wage labour see Mwamadzingo, (2003, 31) and FAO-ILO-IUF (2005, 21).

[2] However, the formation of a rural class depending on waged employment was already deeply rooted at independence (O'Laughlin 2002: 517; Castel-Branco 1983).

[3] Similar dynamic influences on rural labour markets, in some cases even more pronounced, are a feature of many African societies. For examples see: Peters (2004); Sender (2003); Wiggins (2000); Barrett et al (2001); Gabre-Madhin and Haggblade, (2004); and Humphrey et al (2004).

[4] These limitations are discussed in detail in Sender, Cramer and Oya (2005).

[5] Most standard survey questionnaires ask questions about the "main" activity and they focus on only those activities undertaken during a very short reference period, i.e. the last seven days. Given the complexity of rural people's strategies of time management, and given the variability of economic activities across agricultural seasons, this approach tends to generate simplistic, misleading information.

[6] There was, of course, no reliable sampling frame on which to base a random sample of rural wage workers. The three central and northern provinces were selected because the importance of rural wage labour in the south is quite well recognised and documented in the literature on Mozambique (O'Laughlin 2002). These provinces also account for the bulk of labour intensive cash crop production (cotton, tobacco, sisal and tea) and Nampula and Zambezia contain a very large proportion of the Mozambican rural population.

[7] See also Massingarela, Nhate and Oya (2005) Sender, Oya and Cramer (2006) discuss asset index methodology.

[8] One demographic peculiarity of the MRLS sample was the large proportion (40 percent) of separated, divorced or widowed women among female respondents, an important finding in itself.

[9] Sender, Oya and Cramer (2006) discuss in detail the life histories of six of these women.

[10] A 'foreign company/privado' is defined as an establishment run by foreign managers and/or mostly owned by foreign investors. 'Local farmers/privados' encompass a more heterogeneous mix of national and local small and medium-scale individual farmers employing workers for wages.

[11] Most of the 33 large-scale employers interviewed by the research team claimed to use the national minimum wage of MT560,000 a month as a reference for pro rata, daily wage rates for unskilled labourers. However, some used MT565,000 or MT575,000 as a reference rate, while one used MT500,000 a month. The most common form of variation in daily payment rates reported by these employers was in the number of the days used to divide into the monthly wage reference rate.

[12] Maninha, whose life story is discussed in Sender et al (2006), was often set tasks for MT10,000 by small-scale farmers that were so strenuous that they could not be completed in a day, especially if she took a break for a meal. Maninha was often obliged to return the following day in order to complete the set task and earn the MT10, 000 quoted as the daily wage by the small farmers who employed her. In contrast, a larger farmer has paid her MT50, 000 for a task she could complete in a day.

[13] The mean exchange rate for May 2002 to the beginning of February 2003 was about $1 = MT23,700.

[14] Only 15 percent of the small-middle employer sample employ permanent (male) workers on a monthly paid basis; the wages they pay average 273,000 MT per month (median = 250,000 MT),

i.e. less than the median monthly wages paid by the larger employers and less than 50 percent of the minimum wage. Some of these relatively small employers do pay above average wages, if they are more prosperous and educated. Thus, the highest wages in the SME sample are paid by respondents with the highest asset possession score and the largest number of years of completed education.

[15] In Mozambique cotton is most often produced by SMEs on out-growing schemes but, in the MRLS, workers employed by large-scale cotton growers were also included.

[16] This evidence does not corroborate the existence of payment 'norms' and 'conventions', which have been found elsewhere. The importance of norms and conventions in poor agrarian labour markets has been discussed by Bardhan and Rudra (1986). Breman (1985) criticises the idea of norms of 'fairness' in Indian labour markets.

[17] On the inability of standard neo-classical wage functions to explain agricultural wages in terms of worker attributes, see Datt (1996:66-7).

[18] The minimum wage for industry and services was increased from MT665,707 to MT812,163 per month in May 2002; at the same time the government raised the minimum wage for agricultural labour from MT459,222 to MT560,251 per month (AIM, 2002, May 20th). Very few of the workers in the survey were aware of the minimum wage for agricultural labour and none of the provincial officials working for the trade union or the Ministry of Labour could quote the current rate accurately.

[19] This argument is supported by evidence from India, where a move from casual to more regular rural wage employment, implying higher annual real wages, has been decisive in reducing poverty (Ghose, 2004: 5112).

[20] Interviews with large farmers suggest they have considerable discretion regarding compensation payments for long hours of work. For example, some pay double time for overtime, some pay time and a half, and others do not pay for overtime.

[21] Work in the best construction, transport and other non-agricultural jobs, which fell under the good1 rubric, was largely the preserve of relatively well-educated men, living in households with high asset index scores.

[22] The MRLS data show that by far the most important channel for obtaining employment was through 'relatives and friends'.

[23] The life stories of successful women wage workers confirm the transformation in the prospects for children and in household welfare that can be achieved after their mother has obtained a decent job (Sender et al, 2006).

[24] In Brazil new export production opportunities and the historically contingent combination of successful actions by trade unions and government agencies created conditions for a significant improvement in the working conditions and bargaining power of thousands of seasonal workers. See Damiani (2003).

[25] Cramer, Oya and Sender (2008) discusses the complex power relations that shape labour market experiences in rural Mozambique.

[26] For example, subsidising improved airport and cold-chain storage facilities in Chimoio, capital of Manica could facilitate substantial investment in cut-flower production, which employs hundreds of workers enjoying some of the best work conditions (for agricultural workers) in the region. On policies to stimulate demand for labour more generally see Godfrey (2003).

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3. IS A GOOD INVESTMENT CLIMATE RELEVANT TO THE AFRICAN DEVELOPMENT EXPERIENCE?

Aldo Caliari

The past few years have seen investment climate reform take center stage in the World Bank Group operations. While the drive to reform investment climate is not new – the Bank has been engaged in reform of the investment climate since the 1980s – the new approach places emphasis on tools for diagnostic, measurement and policy advice, rather than policy-based lending. Examples are the Doing Business Indicators, the Investment Climate Assessments, and the advisory activities of the Foreign Investment Advisory Services.

African countries have introduced a good number of reforms as a response to these new instruments, and in order to obtain higher positions in investment rankings. Nonetheless, experience with foreign direct investment in developing countries gives reason for concern about these efforts, and whether they suit the development experience of Africa, including the Southern Africa region.

This paper will assess the reform agenda proposed by the World Bank's Doing Business Indicators, Investment Climate Analysis and other rankings and instruments and its implications for development prospects of Southern African countries.

The following section introduces the topic. Section I puts the World Bank's investment climate reform work into a broader context of similar efforts undertaken in other fora. Section II explains and criticizes the assumptions underlying the World Bank approach to the investment climate. Section III addresses the Doing Business Indicators project and the ways it exerts influence on policy-making. Section IV deals

with the issues raised by the Doing Business Indicators project, including a indicator-by-indicator critical assessment. Section V dwells on the Investment Climate Assessments, their influence on policy and the issues they raise. Section VI addresses the Foreign Investment Advisory Services of the Bank and provides some examples of how its products influence policy design. Finally, section VI presents some concluding remarks.

Introduction

In 2002 the World Bank adopted the Private Sector Development Strategy ("PSD Strategy"). This strategy comprised two main pillars: private sector participation in infrastructure and reform of the investment climate.

The reform of the investment climate, however, dates farther back. The Bank already was engaged in reform of the investment climate in the 1980s, when the main instrument was policy-based lending. Three quarters of the Bank's adjustment operations in 1989-1990 were aimed at "improving the business environment" (OED/IEG 2004, p. 11). "Dismantling barriers to market entry and exit were included in 60 percent of adjustment operations." (Ib.) In the late 1990s the Bank shifted from "first generation reforms" to "second generation" reforms, targeting the administrative, legal and regulatory functions of the State.

However, the past few years have seen the investment climate take center stage in the Bank's operations. This has taken place, firstly, through an emphasis on tools for diagnostic and measurement. Two of these tools that have been launched are the Doing Business Indicators and the Investment Climate Assessments. They are both based under the Private Sector Development Vice-Presidency (a joint IDA-IBRD-IFC VP that was created as a focal point for Private Sector Development (PSD) efforts and to ensure that IBRD and IDA would collaborate with IFC in the promotion of PSD). The Private Sector Vice-Presidency was created shortly after the endorsement of the PSD Strategy. In a bureaucratic organization like the Bank, the creation of such a position represents a political will to elevate the hierarchy of private sector development work. Even more importantly, the fact that this is a jointly shared Vice-Presidency for IDA-IBRD and IFC signals the attempt to strengthen cooperation via a unified command among these three World Bank Group components.

The PSD Strategy in a broader context

The move to raise the profile of Private Sector-led development in the World Bank's activities is not an isolated one in the development financing and lending community. In fact, a number of similar initiatives have sprung up in recent years.

• The G8-endorsed Investment Climate Facilities (NEPAD and OECD)

The G8 Summit at Sea Island (2004) devoted an entire declaration to spelling out an Action Plan "Applying the Power of Entrepreneurship to the Eradication of Poverty." Improving the business climate for entrepreneurs and investors is among the objectives. G8 countries pledge, inter alia, to "support coordinated, country-specific MDB [Multilateral Development Banks] action plans to address key impediments to the business environment", "incorporate these action plans into their country strategies and budgets and report annually on the progress made in conducting investment climate assessments and action plans." (Group of Eight 2004) They also pledge to work with developing countries in comprehensive reforms and programs to improve their investment climates, "working with the MDBs and other international bodies such as the OECD." (Ib.)

The G8 Declaration on Africa, on the following year (Group of Eight 2005), makes reference to two Investment Climate initiatives. One of them is the OECD/NEPAD[27] while the other is the AU/NEPAD.[28]

The distinction (one preceding NEPAD by "AU" and the other by "OECD") are not exempt of significance. Two points are worth noting about this distinction. While the first one says OECD/NEPAD, it is a OECD initiative, based around the Policy Framework for Investment ("PFI", see below). After a Roundtable meeting in November 2003 in Johannesburg with NEPAD and OECD, it was agreed that both bodies would undertake the initiative jointly. The OECD actually boasts of this, and other regional cooperation frameworks, being the vehicles by which investment principles in the PFI are influencing the policy debate in different forums. On the other hand, the AU/NEPAD Investment Climate Facility ("ICF") boasts of being a "unique private-public sector funded independent trust, in support of and supported by NEPAD and endorsed by African Heads of State." (Investment Climate Facility for Africa) It also claims to be the "only pan-African body, based in Africa, explicitly focused on improving the continent's investment climate." (Ibid.) In spite of this, there seems to be a strong influence of DFID. Second, while

only the AU/NEPAD is properly a "Facility", that does not mean that the OECD PFI does not have money attached too, through the influence it may have on the policies of OECD donors.

The AU/NEPAD Facility is, interestingly, meant to have a limited lifespan of 7 years. Its aim is to raise – from public and private sources—550 million dollars and it would fund projects that "offer the highest rate of return in terms of improving the investment climate, particularly those that have the greatest impact on the environment for small business and poverty reduction (primarily through job creation)." (Ibid) Its announced focus will be reforms on:

- property rights and contract enforcement
- business registration and licensing
- taxation and customs
- financial markets
- infrastructure facilitation
- labour markets
- competition
- corruption and crime. (Ibid.)

It is also interesting that the ICF does not necessarily adhere to a specific investment framework, besides giving general guidelines on the projects it would support.

- The Policy Framework for Investment

The PFI was endorsed at OECD Ministerial level in May 2006. The OECD claims PFI goes to great lengths to stress the "non-prescriptive" and mere "checklist" nature of the PFI, as well as the "inclusive process" (involving CSOs, business, trade unions, besides government representatives from OECD and non-OECD member countries) that was followed in its design and wide "flexibility" it allows governments to adapt the framework to their needs. (OECD 2007) However, it is impossible not to find parallels between the PFI and the MAI initiative of the late 1990s, and some analysts have suggested it is intended to creep, eventually, into a binding framework. (Stichele 2006) The adoption of the PFI was, moreover,

encouraged and welcomed by the Business and Industry Advisory Committee to the OECD, a body that represents the business community of the 30 OECD member states. (BIAC 2004)

The PFI is intended to serve as the basis for peer-review exercises about investment climate, and the OECD has already started several initiatives to build regional platforms that could use the PFI principles ("OECD/NEPAD" mentioned above is one of them). PFI is also meant to serve as a reference for donors on ODA, oriented to support investment climate reforms. In fact, the OECD has released a Guide for Using ODA to Promote Private Investment for Development" that goes in that direction. (OECD 2006)

The assumptions underpinning WB work on investment climate reform

The general premise that grounds the World Bank's work on investment climate reform is, as in other World Bank policies, crafted in positive terms and hard to disagree with. For who can be against a "good investment climate", one that achieves growth and poverty reduction? "The critical role the investment climate plays in poverty reduction can be seen in two ways. First, at the aggregate level, economic growth is closely associated with reduction in poverty… . a good investment climate enhances the lives of people directly, in their many capacities." (World Bank 2005a, p. 3) "Private firms, from farmers and microentrepreneurs to local manufacturing companies and multinational enterprises – are at the heart of the development process." (World Bank 2005a, p. 1)

There is no shortage of literature – provided by the World Bank itself – justifying these findings. In fact, the heavy use of World Bank literature is visible in the evaluation of the World Bank's work on investment climate published by the Operations Evaluation Department of the Bank (since then renamed the Independent Evaluation Group) in 2004. The evaluation totally bypassed the question of whether the theoretical framework on which reforms promoted by the Bank were based could be empirically justified. According to the terms of reference of the evaluation, it would rely on a "review of literature" to determine "the relationship between economic growth and poverty reduction", "the relationship between the quality of the investment climate and investment flows, both domestic and foreign", "aspects of the investment climate

that make the most difference to investors, both domestic and foreign", "the importance of the investment climate as a determinant of investment, relative to other factors", etc. (OED/ IEG 2004, p.58)

The evaluation, after this, became an exercise in comparing the promotion of the reforms with the implementation, without significantly questioning the assumptions underlying the chosen reforms.

This might seem uncontroversial in the light of the claim for the Bank to be a "knowledge bank", that is, a provider of high-quality, unbiased and objective research. Unfortunately, there are reasons to think that the political structure and governance of the Bank, as well as its internal incentives system, prevent it from fulfilling such a role. The quality and objectivity of the research produced by the Bank has been recently called into question by what was the first effort in the history of the Bank to externally review its research activities. An External Panel of researchers found that Bank research on areas such as globalization, aid effectiveness or growth and poverty had been "used to proselityze on behalf of Bank policy, often without taking a balanced view of the evidence, and without expressing appropriate scepticism." (Rogoff et al 2006, p.6) On globalization and growth, "much of this line of research appears to have such deep flaws that, at present, the results cannot be regarded as remotely reliable, much as one might want to believe the results… " (Ibid.: 53)

In fact, unpacking what the Bank means by a "good investment climate", several issues emerge, which we group for the purposes of the foregoing analysis, into four categories: 1) General methodological controversies surrounding the impact of foreign and domestic investment on growth, 2) The assumptions that the more FDI, the better and that FDI is always good for development, 3) The assumptions about what attracts FDI and 4) Political impact of investment climate activities on ongoing trade and investment negotiations

General methodological controversies surrounding the impact of foreign and domestic investment

The proposition that FDI leads inexorably to economic growth is not conclusively proven. Prof. Milberg, after a review of literature, suggests that the evidence points, in fact, to a reversed direction of causality "that is, economic growth is what leads to increased FDI." (1999) Dani Rodrik concludes that developing countries that

experience a significant and sustained increase in investment are most likely to see a rise in economic growth. However, whether this investment is foreign or domestic does not seem to make a real difference. (Ibid.)

The assumption underpinning the World Bank's work is that more FDI is better

One consequence of the assumptions about FDI –growth causation is the belief that more FDI is always better, which also underpins the World Bank's work. This is a very questionable premise, especially when it ignores the potential negative pressure that FDI may build on the balance of payments through profit repatriation and royalties. "In the longer run, as the investment begins to pay off, profit repatriation will only increase." (Milberg 1999, p. 100-101) On the same subject, Woodward concludes that "Clearly, it is possible or a country to attract enough new direct investment to receive an inward net transfer of resources. In principle, it is even possible to maintain inward net resource transfers for a prolonged period… However, there may be a high cost attached to attracting inward net transfers: in general, any individual inward investment will ultimately require an outward net transfer much larger than the initial capital inflow." (Woodward 2001, p. 145)

But an acritical emphasis on the quantities of FDI may be especially dangerous when it is interpreted as a need to downsize government at all costs in order to facilitate increased foreign capital inflows, ignoring the high complexity of the processes that have unleashed virtuous circles of growth and development in developing countries.

For instance, discussing the experience of the East Asian developing countries Akyuz et al argue that the success of industrialization depended on the role of government intervention in accelerating capital accumulation and growth through the animation of an "investment-profits nexus." (1996)

According to UNCTAD, policy-makers have to ask hard questions such as whether FDI raises production costs and lowers profitability for domestic firms, the likely extent of positive spillovers and linkages, and whether domestic firms are able to benefit from them, the likelihood of increased import dependence and profit repatriation, etc. and avoiding such questions "in favour of easy recipes of rapid liberalization in the hope of attracting FDI will neither achieve economic development goals nor maximize potential gains from hosting it." (UNCTAD 2005, p. 68)

A critique of the World Bank's assumption is also found in a well-researched study by Sanjaya Lall, where he argues that a healthy investment climate is not the first priority in increasing Africa's competitiveness and, in fact, liberalization of investment may have counterproductive effects. "The dominant mainstream solution to growth problems – a universal prescription to create a healthy investment climate and leave the rest to the market – is inadequate and misplaced. It neglects the capacity of African industry to respond to the challenges of competition, technical change, growing skill needs and shrinking economic distance… . The first step in revitalizing African industry is to include detailed supply-side measures." (2005)

The assumptions about what attracts FDI

The emphasis on investment climate reforms is misplaced even if measured in the Bank's own terms. Even if we were to make the assumption that more FDI is better, there is substantial evidence indicating that the role of the investment climate in bringing more FDI is not significant.

While it is true that the investment climate plays some role, this role is not critical. Mkandawire and Soludo give the example of Nigeria which, between 1970-1980 and 1991-94, was among the top 10 developing countries receiving the largest amounts of FDI (and the largest in all Africa). (Mkandawire and Soludo 1999, p. 83). During 1991-96 Nigeria and Angola were the first and second most attractive countries for flows of FDI in Africa. It would be simplistic to assume that Nigeria and Angola are the countries with the least risk for investors. (Ibid.) Research specifically focused on Southern Africa reaches similar conclusions. "A positive correlation between FDI and 'good economic behavior' doesn't appear to exist, at least concerning this study's variables. FDI seems to be primarily driven by more important factors than 'economic fundamentals', at least resource-driven investments in Southern Africa." (Dahl 2002, p.19)

Contesting the view that Africa's low level of FDI is due to "governance failures", UNCTAD says that such low levels have coincided with a period of vigorous and repeated application of adjustment policies that included reducing the role of the state and covered all aspects of monetary and exchange rate policies, financial market reform, privatisation, deregulation, and trade and FDI liberalization. "The fact that these efforts have still not attracted the expected inflows of FDI raises questions about the

role of governance reforms, at least as this has been conventionally defined and implemented in Africa." (UNCTAD 2005, p.22)

On the other hand, such perspectives may downplay the importance of market-related determinants of FDI, such as market size, GDP, GDP per capita and GDP growth, that are backed by a strong review of empirical literature. Nunnenkamp (2002) contests the view that traditional determinants of FDI are losing relevance compared with non-traditional determinants. The "ease of doing business" is, alongside "cost differences between locations", "the quality of infrastructure" and "the availability of skills", among these alleged non-traditional determinants that are gaining in relevance.[29] Nunnenkamp finds that "Traditional market-related determinants are still dominant factors shaping the distribution of FDI. If at all, the bias of foreign direct investors in favor of large host countries has become stronger, rather than weaker." (2002, p. 35) UNCTAD mentions "market size and growth, resource endowments and infrastructure development" as consistently the most significant determinants of FDI flows to Africa. (UNCTAD 2005, p.35)

A number of studies, while reaching different conclusions on what are the factors that attract FDI, agree on dismissing the investment climate as one of them. Ferrarini states: "The results from empirical studies on the determinants of FDI ... show that it is mainly economic fundamentals – such as national income – that underlie investors' preferences to invest in certain countries rather than in others. This is further sustained by clear anecdotal evidence on huge amounts of FDI flowing to notoriously non-transparent and corruption-ridden countries, such as China and Malaysia… . there is no reliable empirical evidence that suggests that transparency is as important as economic fundamentals, such as national income." (2000, p. 21) Kamaly states "Besides the fact that no study took the burden of pinpointing and weighing the relevant fundamentals affecting FDI, the recent trend in FDI casts much doubt on [the argument that FDI follows more closely countries' fundamentals rather than cyclical variables such as international interest rate]. ... First if this argument is correct then such upbeat trends in FDI should be the result of a continuous improvement in developing countries' fundamentals. However casual observation does not support this claim especially during the second half of the 1990s. Second, top recipients of FDI are not the top macroeconomic performers among developing countries, and vice versa." (2003, p. 8) Indeed, Kamaly's study finds FDI sensitive to the interest rate with higher interest rates in developed countries corresponding to less FDI to developing countries. (2003, p. 23)

Political impact of investment climate activities on ongoing trade and investment negotiations

The investment climate work falls among the World Bank activities that dovetail with ongoing negotiations on multilateral, regional and bilateral trade and investment agreements. Achieving the adoption of a multilateral agreement with minimum standards for the protection of investment that can facilitate foreign investors' access to developing countries (in the fashion of the controversial Multilateral Agreement on Investment) is a long-term goal of industrial countries, and their business sectors. The successful drive by developing countries to force the "Singapore issues" issue out of the agenda at the World Trade Organization (WTO) Ministerial in Cancun in 2003 is certainly not the end of those efforts. The agenda on investment liberalization continues to be promoted by other vehicles, regional and bilateral.

The investment climate work of the Bank is one aspect of the drive to promote basically the same concepts embedded in an investment agreement, though on a unilateral basis, and with the same end goal. The European Roundtable of Industrialists was already stating, in 2002, its hope that in the face of a continuing process of "autonomous" investment liberalization, Southern governments' opposition to a multilateral agreement would be overcome, gradually paving the ground, when the time is ripe, for the emergence of WTO rules to effectively lock in deregulation process and "protect against backsliding from the levels reached by individual countries." (Hoedeman 2002)

The Doing Business Indicators project

The Doing Business Indicators project compiles indicators about specific regulations, for all countries, year by year. In the Bank's own description, the analysis is based on assessments of laws and regulations, with input from and verification by local experts." (World Bank 2004, p. viii) [30]

The Doing Business indicators have the power to influence policy in several ways. The first is by providing an incentive for countries to introduce specific reforms taken into account by the indicators. The Bank says the indicators are intended to "motivate reforms through country benchmarking." (World Bank 2004, p. ix) So they act in a very similar fashion to the Country Policy and Institutional Assessment ("CPIA"),

which are ratings of the policies of a country used with the purpose of ranking countries as "good" or "bad" performers. The classification is used in a variety of purposes, from determination of funding allocations to measurement of the amount of debt a country can undertake without risking "debt distress." In order to give countries a ranking, the World Bank uses a set of pre-determined, "one-size-fits-all" criteria. Likewise, the Doing Business indicators are one-size-fits-all indicators that aim at the harmonization of certain regulations as part of the business environments in the referenced countries.

The Bank reported in 2004 that in 20 developing countries and 12 IDA countries the Doing Business report 2004 had influenced the introduction of reforms and some 30 countries worldwide had instituted reforms motivated by the indicators. (IMF/WB 2004: para. 19) In fact, not a small impact of the report comes through the establishment of "name and shame" rankings and the impact they are perceived to have on the perception of prospective investors.

According to Doing Business report 2007, the project had inspired so far 48 reforms around the world. The big news in that year was that, while Africa was behind all the other regions in this previous two years, this year it ranked third, behind ECA and OECD. "Two thirds of African countries made at least one reform, and Tanzania and Ghana rank among the top 10 reformers." (WB 2007, p. 2) Mauritius set itself the goal of reaching the top 10 by 2009. This was taken as a sign that "Benchmarking—via the Bank's Doing Business and Investment Climate assessments—has proven useful in focusing high level attention on the business environment." (World Bank 2007a. p. 13)

But the same Doing Business report said that 213 reforms, in 112 economies, were introduced between January 2005 and April 2006. (World Bank 2007, p. 1) In spite of the differentiating language used by the report, it is unclear whether there are any differences between reforms "inspired" and those "introduced." Worldwide, a growing number of countries are introducing changes to their investment climates, and an overwhelming majority of the changes are in the direction of liberalizing and facilitating conditions for foreign investors. (Woodward 2006) These latter may have also been "inspired" by the Doing Business Indicators.

The second way the ranking can influence policy is by influencing the conditions and criteria used by the Bank, but also by other donors, in loans and grants. It is hoped that the indicators help donors increasingly driven to make "performance-based" eligibility and allocations. For example, the Bank cites the Millennium Challenge Account (MCA). (World Bank 2004, p. x)

The World Bank reports that indicators from the Doing Business project (and from investment climate surveys) found their way into monitoring and evaluation efforts of the World Bank. In Brazil, for example, they are being used to assess progress in an adjustment loan that includes components for improving business climate regulations and reducing logistical costs. (IMF/World Bank, para. 23)

The Doing Business report 2007 explains that in 2003 IDA set targets related to Doing Business Indicators (for reducing the time and cost to start a business) as conditions for obtaining additional grant money. As a result, 16 countries reformed business entry. According to the same report, the MCA introduced, in 2004, eligibility conditions based on specific indicators from Doing Business. (World Bank 2007, p. 5). The report laments that in 2004 the conditions were replaced with soft targets, leading to a "missed opportunity" (World Bank 2007, p. 7) However, the use of these targets does not seem to be a bit less effective than actual conditions. In a 2006 review, IDA reports that at least two Doing Business indicators have been used in each of the country assistance strategies for 9 IDA borrowing countries delivered in the last fiscal year. (IDA 2006, p. 24) The use of those indicators was also reported as used in half of Implementation Status and Results Reports for IDA projects approved since 2004. (Ibid.)

The International Monetary Fund frequently includes references, in its country-based policy and surveillance reports, to "strengthening the private sector" or the "business environment", both code words for reforms that cross-reference whatever the Doing Business Indicators or other World Bank analytical work have highlighted as desirable reforms in this area.

A third way the Doing Business project influences policy is by shaping a body of policy research that fosters the adoption of reforms along the lines of what the indicators consider "good". The indicators "facilitate tests of existing theories and contribute to the empirical foundations for new theoretical work on the relation between regulation and development." (World Bank 2004, p. x) In a report on implementation, the World Bank and IMF mention a new training course on investment climate reform currently developed at IFC/ WB, for staff that helps governments support investment climate reform processes. (IMF/World Bank 2004, para. 18)

Since the year the first Doing Business report came out, the Doing Business project has grown in the number of indicators, covering a growing number of areas. The first year it covered 1) starting a business 2) hiring and firing workers, 3) enforcing contracts, 4) getting credit, 5) closing a business. The following year it added 6)

registering property, 7) dealing with government licenses and 8) protecting investors. In 2006 it added 9) paying taxes and 10) trading across borders. It is announced that it will soon add transparency of government procurement and the quality of business infrastructure. (World Bank 2007, Overview)[31]

The issues raised by the DB project

Process issues

Before entering into a critical assessment of the specific content of the Doing Business indicators, a process issue needs to be raised, which is that the indicators, in the same fashion as the Country Policy and Institutional Assessments. CPIAs criteria, as well as the ratings based on them, are developed by World Bank staff in a process that allows for no intervention of the government of the country concerned, let alone its population.

The process is run in secrecy and does not allow those affected to have a say in the matter, making for a degree of unaccountability that has fuelled intense criticisms. In fact, criticisms came not only from outsiders, but led to critiques inside the Board of the World Bank itself (For a more detailed critique of the CPIAs see Caliari, 2005)

The issues –some say tantamount to a lack of "due process"—raised regarding the CPIAs, are certainly applicable to the Doing Business indicators under analysis. Just like in the CPIA process, the Doing Business Indicators are developed on the basis of criteria that the rated countries did not play any role in shaping. Nor do the populations of the countries concerned, many of them fairly well-developed democracies, seem to have a say in the criteria according to which the policy of their government towards investment climate is evaluated.

This applies to both the design of the indicators themselves and the priorities, and to the measurement and ranking. The involvement of "experts" chosen by the Bank is of no help in allaying such concerns.

Content issues

Some general problems with the surveys that give rise to the indicators are recognized by the Doing Business Report itself and, hence, worth mentioning here. Survey questions do not always elicit meaningful responses, due to a series of reasons

such as design bias in the survey, scales of the responses, uninformed answers, lack of reference points and sample selection. (World Bank 2004, p. 12-13) Perception measures may not provide useful indicators of specific features of the business environment. (Ib.)

Under a heading "Other indicators in a crowded field" (World Bank 200, p. 7), the Bank tries to justify its efforts in the light of the existence of plenty of indicators of business climate. The best attempt to provide an answer is given in the same report (xiii) "More than a dozen organizations ... produce and periodically update indicators on country risk, economic freedom and international competitiveness. ... But few indicators focus on the poorest countries, and most of them are designed to inform foreign investors. Yet, it is local firms, which are responsible for most economic activity in developing countries, that could benefit the most from reforms." (Ibid.)

At first sight, the claim seems to disarm arguments that Doing Business Indicators are another tool at promoting changes that are to the benefit of foreign investors. In spite of the rhetorical device, this is hardly the case for at least three reasons:

First, all the changes in the business environment that are preached through the Doing Business Indicators are equally applicable to foreign and local companies, not one of them discriminating on the basis of origin. Under the cloak of reducing costs and simplifying procedures, it is clear that not a single one of the prescriptions of the Doing Business Indicators is favourable to discriminating in the treatment of foreign and domestic investors. Against the backdrop of externally-driven reforms that have pushed for lowering barriers to foreign investment in borrowing countries—and that continue to do so through concurrent tools that are also assessed in this paper, such as investment climate assessments and advisory services--, one may be forgiven for understanding the deregulation as beneficial to foreign investors. This becomes clearer if one factors in the continued process of adoption of rules that facilitate entry and operation of foreign companies in bilateral and regional instruments.

Second, the harmonization of standards for investment that the Doing Business Indicators, by definition, promote, has more benefits for companies operating on a global scale than for local small and medium enterprises. It is hard to see how these latter would benefit from practices of unclear relevance given that they have been determined through a survey aggregation process, instead of locally-designed regulations that can better capture the unique features of the environment in which they operate.

Finally, the way the Doing Business Indicators interact with both ICAs and Foreign Investment Advisory Services (instruments more clearly focused on the removal of barriers to foreign investment, as analyzed below) leaves less scope for doubt.

Another issue raised by the growing plethora of rankings and indicators is that they abound in inconsistencies of measurement. If a "good investment climate" is composed of such a clear set of policies as the Bank argues, then large differences among indexes should not be warranted. However, large differences exist. For instance, a review sheds large differences on a World Economic Forum Competitiveness Index and rankings emerging from the Doing Business Indicators 2006 with differences that, in some cases, exceed any reasonable boundary. For 26 countries, the difference exceeded 40 places, with the extreme case of Egypt – rated 63 in the WEF and rated 165 in the Doing Business Indicators. For over 45 countries the difference exceeded 20 places. Overall, the review registered 92 cases of differing rankings (see Table 1 at the end).

It is true that the two indexes use different criteria.[32] This certainly does justify their yielding different results. But this is no comfort for confused country governments who may believe in the logic of the rankings and implement the necessary reforms to climb in them, or know how well they are doing. Should they trust the World Bank criteria, based on surveys of academic experts, or should they believe the WEF, result of the vision of private sector leaders about the desirable reforms? More importantly, we would hold that the difference in rankings throws the whole idea of rankings out of the window. In fact, it demonstrates the fallacy and lack of conclusiveness of measurements of what is a good investment climate. It is not hard to imagine examples of how attempts to climb in one ranking may mean going down in the other. For instance, an extreme simplification of licensing, if applied to the educational and health services sectors, may mean higher scores with the Doing Business Indicators, but bring lower rates of education, hence lower scores in the WEF index.

A general problem that affects the content of the indicators is their standardized nature, which clearly flies in the face of article 8 of the Sao Paulo Consensus, the first North-South document consecrating the concept of "policy space."[33]

A number of mainstream economists have moved to recognize the importance of country-specific reforms in kick-starting processes of growth. "All successful cases of development in the last fifty years have been based on creative and often heterodox policy approaches. ... If we want to assist developing countries in their quest for development, the way to move forward is not through more onerous conditionality,

further international harmonization, better dissemination of 'best practices' or greater international discipline. It is through greater policy space." (Rodrik et al 2005, p. 9) It seems the Doing Business project, with its attempt to determine more and more aspects of the micro-economy goes exactly in the opposite direction of this advice.

A connected weak point, noted by the Independent Evaluation Group's evaluation on investment climate, is that "as countries and firms differ in optimal firm size and structure, estimating the time required to set up a straw firm provides comparability but at the expense of some bias against countries with heavier reliance on the informal sector." (OED/IEG 2004, p. 24)

Finally, if the empirical test is whether countries doing better in the Doing Business Indicators do, actually, grow faster, some striking anomalies emerge. For example, in 2004, countries with very poor rankings were growing very fast: Venezuela (164) at 17.9 %; Angola (156) at 11.1 %; Afghanistan (162) at 8 %; Chad (172) at an astonishing 29.5 %. And this does not even bring up China – which many would say is a special case – growing at 10.1 % while positioned in place 93 at the table.

But a critique should also be levelled one-by-one at the content of the indicators that form the body utilized in the Doing Business project.

Paying taxes: This indicator measures the number of tax payments, time it takes to prepare and file taxes and total tax payable. In all cases, to a lower number corresponds a higher ranking.

While the first two figures may not be controversial, the third one certainly is. This indicator clearly sends signal that the lower the tax rates on businesses, the better. If there is one truth common to businesses all over the world, is that they do not like paying taxes. Unfortunately, relying on this insight would entirely miss the other side of the coin which is the need to finance a state able to provide to the collective needs of its citizens (including, ironically, businesses owners and employees).

An additional problem with this indicator is that the impact of tax rates on foreign investment decisions is very debatable. A study by McKinzey Global Institute actually found that direct incentives to FDI did not have a major impact on FDI flows. The incentives, on the contrary, came "with significant costs, including a negative impact on productivity and 'race-to-the-bottom' dynamics." (McKinsey 2003, p. 25)

Tax rates are, indeed, an important mechanism for governments to raise revenue, especially when they affect foreign investors operating in the country. Tax holidays

and incentives, which would contribute to raise a country's ranking, have been shown to carry important costs as they erode the tax base. (Morisset et al 2001, p. 94)

In a study on Indonesia, tax holidays and incentives were shown not to influence the decisions of foreign investors. (Ibid, 41) Still, the same study cautions that tax holidays influence the decisions of "some investors some of the time." (Ibid.) Then, the issue is to determine in which sectors investments are likely to come, even in the absence of incentives, rather than the total quantity of taxes charged. In assessing the costs of lower taxes one has to consider whether the investors would have come anyway, regardless of the tax holiday or incentive, a calculation for which this standard indicator is not suitable.

The misleading nature of the indicator could be seen by taking it to the extreme. Tax rates that are too low, when they lead to the depletion of treasury resources, may affect the macroeconomic situation, widely accepted to be a more important factor than any microeconomic factor in attracting foreign investment! Curiously enough, the Doing Business Report 2006 recognizes that "businesses care about what they get for their taxes." To this effect the report compares the few complaints about the tax burden in Finland, which has relatively high taxes, and the many complaints about the tax burden in Mexico, with relatively lower taxes. Unfortunately, even this insight coming from the business community itself is lost in the World Bank's mechanical assessment.

This indicator should also be criticized on the basis that it favours the application of regressive tax systems. A OECD study states that the behaviour of corporations which try to avoid taxes by moving parts of their businesses to countries with favourable tax regimes "may hamper the application of progressive tax rates and the achievement of redistributive goals." (OECD 1998) The cut in business taxes might have to be made up with indirect taxes, which are more regressive. Among "successful" reformers the Bank mentions countries such as Serbia and Montenegro and Afghanistan for having introduced VAT or cut corporate taxes from 25 to 20 percent. (World Bank 2006, p. 47) In the specific case of Ghana, the Bank praises the government for cutting corporate tax rates while raising VAT by 2.5 percentage points to offset the losses. (World Bank 2006, p. 48)

Hiring and firing workers: This indicator measures the difficulty in hiring new workers, rigidity of hours, difficulty in firing, hiring cost and firing costs (both as a percentage of the worker's salary). The rigidity of employment index is also included and is an average of the first three variables. The highest scores are for countries that have the lowest number in all of these variables.

The indicators provide incentives for governments to roll back entire systems of worker protection that were the hard won accomplishment of struggle by the labour movement. A good investment climate is here equated with the removal of principles such as minimum daily rest, maximum number of hours in a normal workweek, premium for overtime work, restrictions on the weekly holiday, mandatory payments for nonworking days, minimum wage legislation, grounds for dismissal, notice period, severance payments. Constitutional principles on the protection against dismissal and minimum conditions of employment are targeted by this indicator. (World Bank 2004, p. 108)

Understandably, the indicator has come under fire from workers' representatives all over the world. The measures that would be recommended in following this indicator try to standardize sensitive elements of social contracts and delicate balances in enterprise-labour relations that are specific to each society.

This does not seem to scare the World Bank, which in the latest Doing Business Indicators report recommends specific reforms such as raising the retirement age in countries with an aging population and making the retirement ages for men and women equal. (World Bank 2007, p. 24) Very confidently, in its 2004 edition it states "the fact that employment regulation arose in response to market failures does not mean that today's regulations are optimal." (World Bank 2004, p. 35) Ignoring that, in fact, employment regulations were obtained usually by hard social struggles, not because of an abstract recognition that there were failures in the market that required solving. "What was appropriate in, say, 1933, when Portugal adopted its constitutional protections of workers, may not be appropriate today" (Ibid, p. 35)

Trading across borders: This indicator measures number of documents, time and cost of the procedures required for exporting and importing goods. The lowest numbers in all these categories are assumed to mean better investment climate conditions.

This indicator makes the rather simplistic assumption that greater time and cost of procedures for importing goods is a problem. But, in a situation where countries are increasingly required to lower tariff barriers, the use of other barriers, some of them of an administrative nature, is not always negative and might offer the only mechanism for protection of local producers and industries. Ha-Joon Chang (2002) explains how today's developed countries, in order to develop, relied, at a time when communications and transport were not as advanced as today, on natural barriers. And, without going to the past, the use of technical barriers to trade, imposing

significant costs on Third World producers, continues to be an important element of protection for industries in industrialized countries.

Dealing with government licenses: This indicator measures number of days, procedures and the cost of obtaining a license. The assumption is that the lowest these numbers are, the highest the ranking for the country.

Again, Doing Business Indicators seek to provide a standardized and simplified solution to a very delicate question that requires careful country-by-country and society-by-society balance. Licenses are an aspect of regulation that has to be followed almost in any industry in any country. Usually they allow for a government control of standards that are implemented to ensure the protection of socially-desirable goals such as avoiding consumer abuse, safety, public health, environment, equity, etc. Against this background, equating shorter and less costly procedures to a good investment climate seems rather short-sighted. In fact, the total elimination of licenses might place a country in a very high ranking, but the indicator does not incorporate the concerns about the other side of the equation (consumers, users, citizens, etc) that the licensing procedures are meant to address in the first place.

The removal of licensing requirements would also be consistent with the trends in the General Agreement on Trade in Services (GATS) and other agreements on trade in services at the regional or bilateral levels, and prejudge matters that are under discussion in the World Trade Organization negotiations, with regards to domestic rules. In fact, one sticking point in WTO negotiations is the further definition of Art. VI.4 (on domestic regulation) of GATS, which provides for disciplines to be developed to ensure that measures relating to qualification requirements and procedures, technical standards and licensing requirements do not constitute unnecessary barriers to trade in services. The disciplines "shall aim to ensure that such requirements are based on objective and transparent criteria, not more burdensome than necessary, to ensure the quality of the service and (in the case of licensing procedures) not in themselves a restriction on the supply of the service." While industrial countries have been pressing for an approach that requires a "necessity" test, one that evaluates whether a regulatory measure goes beyond what is "necessary" to achieve the member's policy objective, developing countries have repeatedly opposed the use of this test, arguing for members' rights to regulate the provision of services to accomplish national policy objectives.

The indicator in question is clearly biased towards the former approach, one of many possible approaches to evaluate regulation. It has been said that submission to

the principles in GATS entails the risk of stifling government regulatory activity, by placing the onus on the government of showing that the method used to regulate an activity is the least burdensome.

Among the controversial practices advocated by the 2006 Doing Business report are cost-benefit analysis of any licensing legislation (it praises Poland in this regard), automatic expiration of licensing requirements not renewed after a certain period of time, and a so-called "guillotine" approach to licensing, that is, the massive cancellation of licensing requirements. (World Bank 2006, p. 16)

Another factor to keep in mind, in line with Prof. Robert Wade's reflection on the experience of Taiwan, is how the licensing power of the government can be used as a positive leverage on foreign companies in order to have them transfer specific technologies, skills or other know-how to the host country.

Registering property: This indicator measures the number of procedures, time and cost involved in transferring property title from the seller to the buyer, where lowest numbers are assumed to mean better investment conditions.

The 2006 Doing Business report, under the heading "Why reform?" claims that these reforms strengthen property rights. It follows property rights are considered important in the investment climate. The conception that stronger property rights bring economic development and enhance wealth creation, says Ha-Joon Chang, is widely believed in orthodox economic discourse today. However, the role of property rights is much more complex. He quotes examples in history where preservation of property rights has been harmful to economic development and, conversely, the violation of certain existing property rights beneficial to it. (Chang 2002, p. 83). Hence, he concludes, what matters is which property rights are protected under which conditions. "If there are groups who are able to utilize certain existing properties better than their current owners, it may be better for the society not to protect existing property rights, but to create new ones that transfer the properties concerned to the former groups." (Chang 2002, p. 83) Obviously, this sort of judgment is lost on the breadth of the indicator as it is measured by the Doing Business project.

Closing a business: This indicator captures the time and cost of a bankruptcy process, as well as the recovery rate of foreclosure or bankruptcy procedures. Lower times and cost, and higher recovery rates, are associated to higher rankings.

Bankruptcy law seems hardly an element of generalized importance in the process of jumpstarting growth and development. Like the elements addressed by other

indicators, bankruptcy laws are very specific to the social contracts in each country, with the balance of rights between creditor and debtor being a very sensitive one. Nowhere is this better illustrated than in the words of economist and Economics Nobel Prize-winner, Stiglitz, when he says:

"... there is no single, 'right' approach to bankruptcy. Indeed, the design of bankruptcy law has been among the most contentious topics within the American political scene. To think that one can rely on some international technocrats for the solution to what is a quintessentially political issue is not just nonsense but dangerous, for those seeming technocrats may well reflect particular interest groups. But bankruptcy law reflects more than just the balance between creditor and debtor interests; it says something about a society's views of social justice." (Stiglitz 2006, p. 232)

In fact, on top of the sin of trying to find a uniform prescription for all countries, there are elements to say that the prescriptions lean too much to the side of the creditors. The 2006 Doing Business report praises countries that reformed their systems to strengthen and enlarge creditors' powers. (World Bank 2006, p. 67-68) Equating a good bankruptcy system with high recovery rates, as one of the indicators does, seems biased in that same direction.

The Investment Climate Assessments

The ICAs are designed to systematically analyze the conditions for private investment in a country. They are broader and more detailed than the Doing Business Indicators and are underpinned by a survey (the Investment Climate Survey). The surveys are administered to firms, unlike those used for the Doing Business Indicators (which are administered to experts).

Like other analytical documents produced by the Bank, such as the Doing Business reports analyzed above, the nature of ICAs as primarily analytical documents does not detract from their strong influence on policy-making in developing countries.

According to a 2004 report, the ICAs had shaped 15 new lending operations in 13 IDA countries, among them Mozambique, Nigeria and Uganda. Another report points to Poverty Reduction and Support Credits as the program documents where to look for evidence of the incorporation of the ICA results (IDA 2004b, p. 5) in countries such as Ethiopia, Mozambique, Senegal and Tanzania. However, a review by this author found that in most of the PRSC cited the issues have more to do with sectoral

infrastructure bottlenecks –transport, financial, electricity- than with across-the-board investment climate reforms of the type of those encountered in the Doing Business Indicators. The rest of this section addresses some of the concerns raised by the ICAs.

Unclear value added

In some countries the nature of investment climate constraints and the actions required are already known. Often, similar surveys have been conducted by the government, local universities or think tanks, the Bank or other donors. In fact, given the concerns noted above regarding the politicised and non-neutral characteristics of World Bank research, it would be highly desirable to ensure that ICAs are carried out by local or regional research institutions, if possible in relation with the governments concerned, rather than with the Bank (otherwise results could still be bent). This issue has been recognized by an IEG evaluation of 2004 (OED/IEG 2004). The number of surveys also brings survey fatigue among firms asked to participate. This is a particularly acute problem in smaller countries with relatively small private sectors.

Inadequate coverage

An ICA is unfit to capture variations in investment climate conditions by geographic area and by industry. In their ambition to provide a generalization of the investment climate for a whole country, there is a risk that the value of the study of specific activities and their investment climate might be lost. Of course, from the general approach underpinning the Bank's exercise, market-friendly and rather dismissive of government's role in addressing market failures, this seems not very important. However, for an analysis that has to pinpoint the needs where government intervention through selective and strategic interventions is needed, ICAs are wanting. Moreover, in some countries the main constraints to private sector development may lay outside the scope of ICAs.

Lack of priority

Surveys and assessments had tended to produce long lists of problems and proposed solutions. ICAs use firms' rankings or impacts on productivity to set

priorities. Feedback from clients suggests that more effort is needed to identify priorities and sequencing. (OED/IEG 2004)

Lack of follow up

One concern that emerges in assessing a number of ICAs[34] in Africa is that while they may offer good descriptions, they do not offer much by way of insight on a course of intervention or action. According to the IEG evaluation of 2004, investment climate indicators tell analysts, from the perspective of firms, what hurts but not what to do about it. They tend to be descriptive rather than prescriptive. Examples of constraints typically include high taxes, high interest rates or the high cost of regulatory compliance. (OED/IEG 2004)

Access to credit, infrastructure costs in terms of transport, power, telecommunications, ports, etc. are often cited as constraints on the private sector. There is no question that they affect SMEs more than they affect large companies which are better equipped to cope with the costs. However, the ICAs either do not propose a solution or, when they do propose one, it is in terms of privatising the services in question – or deepening the privatisation when it has already occurred. Government intervention to correct market failures is never considered a valid option. In the case of Zambia, the ICA criticizes the fact that privatisation has thrown the previously state-owned companies into a regulatory vacuum. This has proved to be a common weakness in privatisations in low and middle-income countries. Yet, that does not say how the lack of regulatory capacity in already overstretched developing country governments can be addressed. The possibility of discriminatory treatment towards foreign investors in order to allow cross-subsidized financing of access to services by SMEs, for instance, never appears as a legitimate option.

Where are the trade-offs?

The evaluation hits the right target when it says: "This does not necessarily suggest that taxes, interest rates or regulations should be reduced. Economic and social objectives – fiscal stability, monetary management, environmental protection, labor protection—are the 'benefit' side of the cost-benefit analysis that needs to be done."

Survey-based instruments are not designed to provide an understanding of both sides of the analysis. Neither are they designed to provide an understanding of the root cause of the problem. (OED/IEG 2004)

FIAS (Foreign Investment Advisory Services)

According to the World Bank description, FIAS is a joint program of the IFC and World Bank that "has advised 130 member country governments on how to improve their investment climate for both foreign and domestic investors." (IFC/WB 2005, Cover) The Doing Business report and ICAs often provide the analytical starting point for FIAS advisory services to a country (IFC/ WB 2005, p. 8). At the same time FIAS collaborates with IDA, "providing its advisory work as inputs to ICAs, CASs and PRSPs and through direct collaborations.", with FIAS analytic work "being routinely incorporated in ICAs." (IDA 2004, p. 17) FIAS also collaborates with MIGA in providing "comprehensive packages of investment promotion assistance to governments and investment promotion agencies." (IDA 2004a, p. 3)

As for the nature or the underpinnings of the advice provided by FIAS, it is hard to know what they are, given that FIAS projects are not disclosed (unlike, for example, project concept documents given by other parts of the Bank).

Even in the absence of disclosure of concrete projects, however, the following statements give us a good glimpse of its inclination. Indeed, FIAS seems clearly more blunt in its goals of removing barriers beneficial to foreign investors. For instance, "FDI is no panacea for the problems of development, but if combined with a neutral trade regime, favouring neither export-oriented nor domestically focused industries, it can be an effective catalyst for economic growth." "A liberal regime of trade and investment that allows for competition from domestic and foreign sources promotes innovation and formulation of skills through experience." (IFC/WB 2005, p.7)

A large track-record vouches for the influence FIAS may have on policy reforms:

The Bank reports that 70 percent of FIAS policy recommendations were fully or partially implemented within three years of being made. (IMF/WB 2004, para. 19)

In 2004 FIAS completed 42 projects in IDA countries related to investment climate policy reforms and capacity building. (IDA 2004, p. 16) The projects include "reviews of investment laws and policy frameworks, diagnostic studies of administrative barriers to investment, specialized work on competition policy… "

Following completion of an FIAS Administrative Barriers Study in 2004, the World Bank incorporated FIAS analysis and recommendations into its economic and sector work and further in its private sector development policy dialogue with the government. Subsequently the Bank/IDA and IFC jointly designed the Kenya SME project, which ""includes reforms in such areas as speeding up the legal and institutional changes to ease business entry and licensing, SME tax simplification..." (IDA 2004a, p. 4)

In Lesotho FIAS did an administrative barriers study in 1997. In 2003, the new reformist government informed the Bank that it was willing to move on reform. "... the Administrative barriers study findings were adopted as part of the reform mix..." (IDA 2004a, p. 13) In Zambia FIAS carried out an administrative barriers study in 2003. A joint ARCS/ Investment Climate survey was designed by FIAS and the Africa World Bank private sector department. The recommendations of the administrative barriers study were incorporated by government into private sector development reform plans, whose implementation is being supported by the Bank initially through a component of an existing Bank project, and then a new enterprise development project. (IDA 2004a, p.13) Also in Zambia, with advice from FIAS, the government has changed tax law to eliminate discretion and to make the playing field more level. For example, some sectors, such as tourism and manufacturing, granted exemptions to parts of subsectors and not to other parts. (IFC/ WB 2005, p. 10)

In Sierra Leone, FIAS provided advice to the government on how to change the investment code to meet international best practices. Specifically, the new code eliminates discretion in granting incentives ... states that all incentives are offered universally to any firm ... also formally prohibits discrimination of treatment of investors based on nationality or color. (IFC/ WB 2005, p. 10) In Kenya, a "Guillotine reform" in licensing was undertaken at the behest of FIAS.

The support of "Private –Public business fora" is, apparently, another way for the World Bank to promote reforms of the investment framework. As described by the Bank, investor councils are composed of business leaders and key ministers under the chairmanship of the country president, who prioritise and take action on issues to remove obstacles to investment. Examples of countries where pilot investor councils have taken place are Ghana, Senegal and Tanzania (2001), Mali and Uganda (2004). FIAS reports to have several of its advised reforms implemented in Bangladesh because they were taken for follow up by a Business-Government council. While business-government coordination is important and was at the root of, for example, the Korean

take-off, it should be noted Korean government coordination was of domestic entrepreneurs, whereas it is not clear who are the business leaders involved in the World Bank-promoted councils, nor what their agendas are. Neither is it clear whether the government is in the driving seat of the coordination (as in the Korean case) or if it functions as a way for business pressure groups to get a fast-track approval of their demands in a way that bypasses public scrutiny.

Conclusion

In the past few years, the World Bank has increased its emphasis on investment climate reforms as a way to grow, reduce poverty and achieve development. This paper has sought to present the World Bank's efforts in the context of other ongoing efforts to reform investment climate and unpack what the World Bank means by a "good" investment climate.

Any attempt to capture the features of a "good" investment climate can be qualified as overly ambitious, given that different approaches and measures, tailored to specific social, political and economic contexts are more likely to be necessary. But the World Bank's efforts are plagued by additional problems that make it even more doubtful that it can succeed. The analytical and diagnostic work rely on assumptions that are far from sound, such as an always positive relationship between foreign investment and growth, benefits from FDI per se as opposed to FDI with certain characteristics and under a certain level and quality of state control, and the nature and features of the policy measures that are likely to attract FDI.

The World Bank's influence on the agenda and policy-making on investment climate reform in Africa may prove damaging to development and growth in the region. In addition, by creating the perception that these reforms should be prioritised, scarce human and technical resources in African countries may be put at the service of this agenda, rather than at the service of designing country-tailored measures that may better take advantage of opportunities to harness private capital for development purposes. Through its bias towards a hands-off approach by the state, and its distrusting attitude towards any form of state intervention, the Bank's investment climate reform agenda may undermine the very capabilities that states in Africa need to nurture in order to embed, as they craft their optimal investment climate, responses to the specific market failures they face.

Table 1: Doing Business Indicators 2006

Country	GCI 2006 Rank	Ease of Doing Business Rank	Difference
(1)	(2)	(3)	(4) = (3) – (2)
Egypt	63	165	-102
India	43	134	-91
Indonesia	50	135	-85
Venezuela	88	164	-76
Croatia	51	124	-73
Greece	47	109	-62
Brazil	66	121	-55
Philippines	71	126	-55
Costa Rica	53	105	-52
East Timor	122	174	-52
Tunisia	30	80	-50
Ukraine	78	128	-50
Chad	123	172	-49
Burkina Faso	116	163	-47
United Arab Emirates	32	77	-45
Morocco	70	115	-45
Cameroon	108	152	-44
Guatemala	75	118	-43
Burundi	124	166	-42
Italy	42	82	-40
Algeria	76	116	-40
Cambodia	103	143	-40
Madagascar	109	149	-40
China	54	93	-39
Tanzania	104	142	-38
Tajikistan	96	133	-37
Mali	118	155	-37
Azerbaijan	64	99	-35
Taiwan, China	13	47	-34
Russia	62	96	-34
Dominican Republic	83	117	-34
Bolivia	97	131	-34
Mauritania	114	148	-34
Zimbabwe	119	153	-34
Ecuador	90	123	-33
Turkey	59	91	-32
Argentina	69	101	-32
Benin	105	137	-32
Angola	125	156	-31
Slovenia	33	61	-28
Poland	48	75	-27
Vietnam	77	104	-27
Jordan	52	78	-26
Hungary	41	66	-25
Guyana	111	136	-25

Country	GCI 2006 Rank	Ease of Doing Business Rank	Difference
(1)	(2)	(3)	(4) = (3) – (2)
Panama	57	81	-24
Czech Republic	29	52	-23
Albania	98	120	-22
Surinam	100	122	-22
New Zealand	23	2	-21
Mozambique	121	140	-19
Honduras	93	111	-18
France	18	35	-17
Moldova	86	103	-17
Switzerland	1	15	-14
Colombia	65	79	-14
Germany	8	21	-13
Netherlands	9	22	-13
Austria	17	30	-13
Finland	2	14	-12
Latvia	24	36	-12
Macedonia	80	92	-12
Israel	15	26	-11
Spain	28	39	-11
Gambia	102	113	-11
Sweden	3	13	-10
Jamaica	60	50	10
Ireland	21	10	11
Kenya	94	83	11
Canada	16	4	12
Zambia	115	102	13
Mexico	58	43	15
South Africa	45	29	16
Thailand	35	18	17
Montenegro	87	70	17
Pakistan	91	74	17
Krygyz Republic	107	90	17
Bulgaria	72	54	18
Romania	68	49	19
Serbia	87	68	19
Mauritius	55	32	23
Ethiopia	120	97	23
Lithuania	40	16	24
Nicaragua	95	67	28
Botswana	81	48	33
Namibia	84	42	42
Mongolia	92	45	47
Armenia	82	34	48
Georgia	85	37	48

Notes

[27] Para. 19: African countries need to build a much stronger investment climate: we will continue to help them do so, including through the promotion of a stable, efficient and harmonised legal business framework (noting the work of the OHADA business legal unification process and the improvement of the investment climate through the OECD/NEPAD Investment Initiative) and increased access to finance including strong support for the development of micro-finance in Africa. Partnership between the public and private sectors is crucial.

[28] Para. 23: To boost growth, attract new investment and contribute to building Africa's capacity to trade we will: . . . b) Support investment, enterprise development and innovation, for example through support to the AU/NEPAD Investment Climate Facility

[29] Relying on a review of comprehensive survey data compiled by the European Round Table of Industrialists, complemented by more conventional sources, on investment conditions in 28 developing countries since the late 1980s.

[30] It covered 145 countries in 2005, 155 in 2006 and in its latest edition covers 175.

[31] The 2008 Doing Business Report has not, yet, broadened the scope as anticipated, though such broadening of indicators continues to be on the agenda of the Bank.

[32] The factors taken into account for the GCI Index are Institutions, Infrastructure, Macroeconomy, Health and primary education, Higher education and training, Market efficiency, Technological readiness, Business sophistication and Innovation.

[33] According to the Sao Paulo Consensus "The increasing interdependence of national economies in a globalizing world and the emergence of rule-based regimes for international economic relations have meant that the space for national economic policy, i.e. the scope for domestic policies, especially in the areas of trade, investment and industrial development, is now often framed by international disciplines, commitments and global market considerations. It is for each government to evaluate the trade-off between the benefits of accepting international rules and commitments and the constraints posed by the loss of policy space. It is particularly important for developing countries, bearing in mind development goals and objectives, that all countries take into account the need for appropriate balance between national policy space and international disciplines and commitments." (2004)

[34] Zambia, Mozambique, Tanzania, Nigeria.

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4. EXPANDING EXPLOITATION OF NATURAL RESOURCES IN MOZAMBIQUE: WILL IT BE A BLESSING OR A CURSE?[35]

Aurélio Bucuane and Peter Mulder

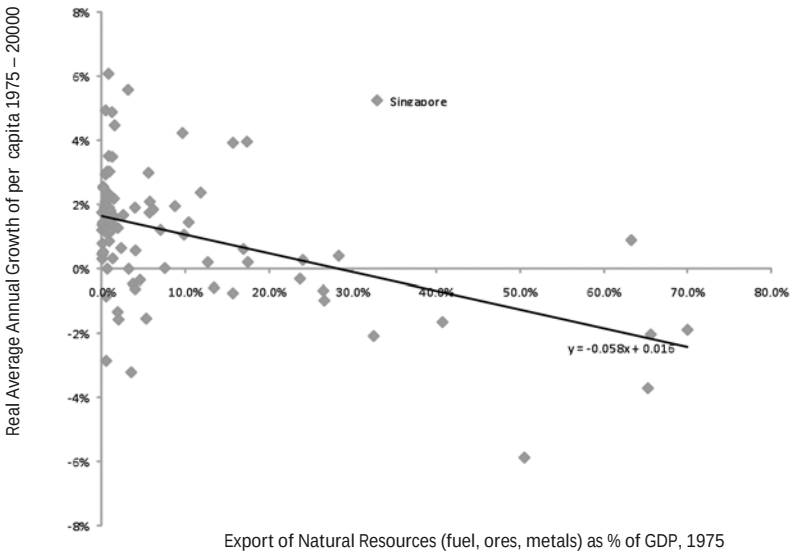
Introduction

Mozambique possesses considerable quantities of natural resources. Contrary to many (African) countries, however, Mozambique is still predominantly virgin soil: most natural resources are yet to be exploited. These resources include natural gas, coal, mineral sands, hydropower and most likely also oil. The Government of Mozambique is determined to extract and export its natural resource potential as fast as possible, supposing that this will contribute positively to economic growth and poverty reduction. Intuition suggests that resource wealth is a gift for the good: it may generate economic dynamics and a flow of income to finance investment programs and policies to fight poverty and stimulate economic development. And indeed, illuminating examples of this do exist: Australia, Canada, Norway and Botswana have been able to use their resource wealth to embark on a structural positive economic growth path. At the same time, the majority of resource rich countries have not been able to replicate this scenario. For example, in Nigeria the poverty incidence increased between 1970 and 2000 from 36% to 70%, in spite of receiving roughly US$ 350 billion (!) in oil revenues over the same period (Sala-i-Martin and Subramanian 2003). Unfortunately, Nigeria is not an isolated example: countries like Angola, Sudan, Sierra Leone, Liberia and Congo are all gifted with considerable natural resource wealth

(including oil, diamonds, coltan, rubber and copper) but decades-long exploitation of their resource abundance has not lifted them from the lowest ranks in the Human Development Index list. Likewise, the member countries of the oil cartel OPEC have failed to realize sustainable economic growth despite their oil abundance: the GDP of the OPEC as a whole decreased on average by 1.3% per year between 1965 and 1998 (Karl 1997). This co-existence of natural resource wealth and poor economic performance is known as the "resource curse" or the "paradox of plenty".

Figure 1 illustrates this phenomenon by depicting the simple relationship between natural resource wealth and economic growth for a cross-country sample of 90 countries. Resource wealth is measured as the export of natural resources as % of GDP in 1975 and economic growth is measured as the real average annual growth rate of GDP per capita during the period 1975-2005.[36]

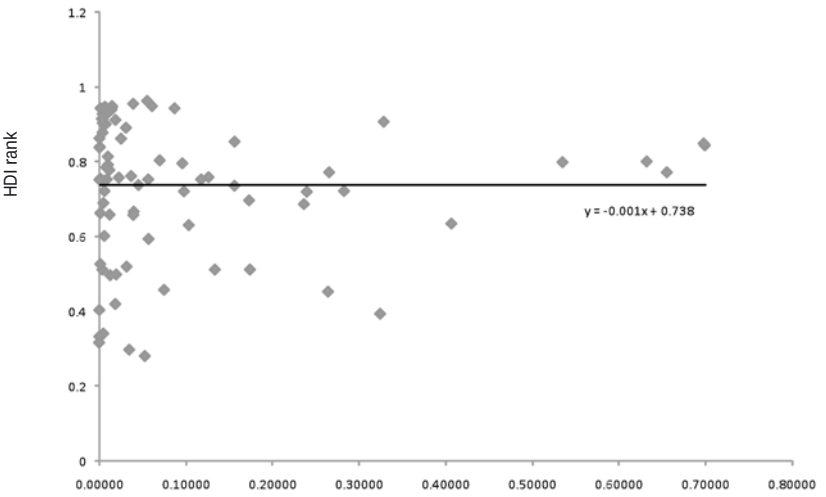
FIGURE 1: **The Relationship between natural resources welath and economic growth**



From Figure 1 it can be seen that the simple relationship between long run GDP growth and resource wealth is negative (with an estimated coefficient of – 0.058). In other words: countries historically blessed with relative natural resource abundance exhibit a relatively low average GDP growth rate. However, the Figure also confirms the existence of positive exceptions to this negative correlation, such as Singapore,

Chile and Norway. Surely, one might argue that GDP growth is a poor indicator to measure welfare or well-being, and therefore we also present a picture of the simple relationship between natural resource wealth (again measured as the export of natural resources as % of GDP) and the most well-known alternative indicator of welfare, the Human Development Index (in 2000). This index measures well-being across countries as a composite index of GDP per capita, life expectancy at birth and the adult literacy rate. The result is shown in Figure 2, for a cross-country sample of 85 countries.

FIGURE 2: **The Relationship between natural resource wealth and hdi ranking**



From Figure 2 it can be seen that there is no significant relationship between resource wealth in 1975 and well-being in 2000 (the estimated coefficient is 0.006). Some resource rich countries, such as Gabon, Zambia, Congo and Nigeria, have not been able to end absolute poverty during 25 years of natural resource exploitation. On the contrary, the majority of the most developed nations, like Sweden and Japan, are poor in terms of natural resources. Also within the sub-sample of Sub-Saharan Africa, the established resource rich African nations have generally performed no better than other African countries. In other words, history shows that it is far from obvious that natural resource wealth brings about improved well-being of a country's population.

In sum, natural resource abundance may turn into either a blessing or a curse with respect to a country's economic development. Given the (potential) resource wealth in Mozambique, the obvious question then is: will exploitation of these resources in the (near) future prove to be a blessing to Mozambique's development or is it more likely to pose a serious threat? And what can we do to ensure that future resource exploration in Mozambique will help to embark on a Norwegian- rather than a Nigerian-type of development path? The aim of this study is to answer these questions. To do so, we first need to identify the size and characteristics of Mozambique's natural resource wealth, including existing and future exploitation and export flows. This is the subject of section 2, which to the best of our knowledge results in the first comprehensive overview of Mozambique's natural resource wealth available to the general public. Subsequently, in section 3 we discuss the various mechanisms that may help explain the existence of a resource curse, based on a review and classification of the growing body of the economic literature in this area. In section 4 we combine these insights with the data on natural resources in Mozambique to evaluate the risk of a resource curse occuring in Mozambique. Apart from our focus on Mozambique, this approach differentiates our study from most contributions to the resource curse literature, which concentrate on the historical role of resource wealth in determining economic performance. Of course this change in perspective is motivated by the very fact that Mozambique does not yet have a past of large scale resource extraction, while the first projects have been implemented only recently and many more projects can be expected in the (near) future. Then in section 5 we try to come up with suggestions to avert a Mozambican resource curse. A final section resumes and concludes.

Natural Resources in Mozambique

Natural resources are given by nature, not created by man, and can be divided into renewable and non-renewable resources. A further differentiation can be made between point- and diffuse resources, depending on whether or not the resource is concentrated and can be exploited within a limited area (Auty 2001). Le Billon (2001) added to this classification the decisive factor of whether the distance between the resource and the central government is small or large, i.e. whether the resource can be easily controlled or not. In general, examples of point resources include oil, natural gas, minerals and diamonds while natural resources like agricultural products are much

more dispersed. Consequently, rents of agricultural activities are in general transferred throughout the whole economy while exploitation and rents of point resources are often concentrated in the hands of a few.

When talking about Natural Resources in this study we do not take into account the exploitation of agricultural, fisheries and forestry resources but limit ourselves to ores, metals and fuels, including electricity.[37] Although strictly speaking electricity is not a natural resource but a man-made product, we will treat electricity in this study as an integral part of Mozambique's resource wealth. The reason is that by far the largest current and future electricity generation in Mozambique is based on hydropower, the exploitation of which requires investments that in essence do not much differ from the investments needed to extract and process natural gas, coal, mineral sands and oil. To assess the potential impact of Mozambique's natural resource wealth on its economy we have compiled a comprehensive data set of Mozambique's natural resources, including data on reserves as well as current and future exploitation and export flows. We collected our information through the Ministry of Energy and the Ministry of Mineral Resources (who mainly rely on information provided by the various companies in the energy and extractive industry) as well as a variety of other sources including the United States Geological Survey (USGS) Minerals Yearbook, the journal African Mining Review and websites of the companies involved. Our data should be read as best-estimates based on information and knowledge available in 2007. To the best of our knowledge, our dataset is the first comprehensive overview of Mozambique's natural resource wealth available to the general public, bringing together information that until now has been largely dispersed and unpublished. However, we fully acknowledge that this data can and should be improved upon regularly, and if more information comes available. Key results of our efforts are reported in Table 1.

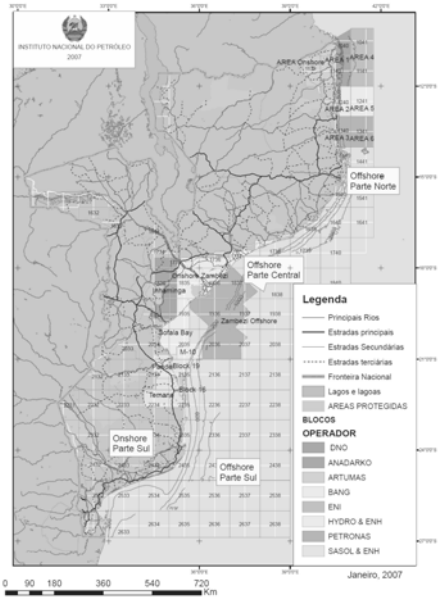
Table 1 shows that coal, natural gas, hydropower and mineral sands are currently the principal natural resources of Mozambique. Hydropower is a renewable resource that serves to generate electricity, while in the near future also part of the natural gas and coal reserves in Mozambique will be used as (non-renewable) sources of electricity generation. In addition, it is very likely that Mozambique possesses oil. So far these oil reserves are unproven, but in 2006 a number of oil companies were licensed to investigate these supposedly considerable potential oil reserves in Mozambique, both on-shore as well as off-shore (Mozambique and Rovuma-basins).

TABLE 1: Natural Resource in Mozambique – Reserves, Exploration, Export

	Unit	Capacity (Reserves)				Unit	Production (Exploration)			Export		
		Potential	Explored									
			2006	2008	≥ 2009		2006	2008	≥ 2009	2006	2008	≥ 2009
Electricity	MW	**14 700**	**2 185**	**2 265**	**5 885**	GWh/year	**14 732**	**15 873**	**41 242**	**10 877**	**11 300**	**27 366**
Hydro		12 500	2 185	2 265	3 685		14 732	15 873	25 824	10 877	11 300	15 102
HCB		2 150	2 150	2 150	2 150		14 502	15 067	15 067	10 877	11 300	10 547
Mavuzi & Chicamba		90	35	90	90		230	631	631	0	0	0
Massingir		25		25	25			175	175		0	0
Lúrio		120			120 (2012?)				841 (2012?)			0
Mphanda Nkuwa		1 300			1 300 (2014)				9 110 (2014)			4 555
Zambeze River (others)		6 800										
Others		2 015										
Thermal - Natural Gas		700			700				4 906			2 803
Inhambane		700			700 (2010)				4 906 (2010)			2 803
Thermal – Coal		1 500			1 500				10 512			9 461
Moatize		1 500			1 500 (2012/15)				10 512 (2012/15)			9 461
Natural Gas	TJ	**5 334 000**				TJ/ year	**102 494**	**123 494**	**144 494**	**101 162**	**119 789**	**137 269**
Pande/Temane		5 334 000					102 494	123 494	144 494	101 162	119 789	137 269
Mineral Coal	1000 ton	**6 000 000**				1000 ton/year	**5**	**5**	**15 000**	**4,9**	**4,9**	**13 500**
Moatize		2 400 000					5	5	15 000	4,9	4,9	13 500
Mucanha-Vuzi		3 600 000										
Minerals (Heavy Sands)		**456 220**						**1 466**	**2 888**		**1 466**	**2 888**
Moma		299 000						877	1 316 (2010)		877	1 316
Contained Ilmenite		273 000						800	1 200		800	1 200
Zircon		20 400						56	84		56	84
Rutile		5 600						21	32		21	32
Chibuto*		157 220						589	1 572 (2017)		589	1 572
Titaniferous (titanium) slag		100 000						375	1 000		375	1 000
Zircon		6 250						22	63		22	63
Rutile		1 220						5	12		5	12
High-purity pig iron		49 110						184	491		184	491
Leucoxene		640						3	6		3	6
Oil (crude)		**?**					**0**	**0**	**?**			

* based on: annual exploration × 100 years

FIGURE 3: **potential oil fields in mozambique – areas under investigation**



Source: Instituto Nacional de Petróleo

Figure 3 gives an impression of the various areas currently investigated. Because the investigation is in its initial phase, no useful data yet exists on the potential oil reserves of Mozambique.

As for electricity, Table 1 shows that hydropower is and will be the main source for electricity generation by far, with an estimated potential of 12,500 MW. Currently, just over 2,000 MW of this potential is being exploited, almost exclusively through the Cahora Bassa dam. In the near future, new dams are planned, including the Mphanda Nkuwa dam (1,300 MW), which will raise total exploitation of hydro potential to around 3,700 MW. In addition, it is expected that in 2010 a 700 MW natural gas-fired electricity plant will become operational, fuelled by gas from the Pande/Temane fields in Inhambane province. Furthermore, the planned large-scale exploitation of the Moatize coal basin (to start in 2009/10) has given rise to the possibility of constructing a coal-fired power station with a capacity of 1,500 MW, of which we expect 1,000 MW to become operational in 2012 while the remaining 500 MW will probably be available as of 2015. As for natural gas, total reserves of the Pande/Temane fields in the

Inhambane province are estimated to consist of more than 5 million TJ. Total coal reserves are estimated to be at least 6 billion tonnes, including the Moatize and Mucanha-Vuzi coal mines in Tete province. In addition, large deposits of Mineral Sands have been identified in Moma in Nampula province and near Chibuto in Gaza province. The most recent figures indicate a reserve of 299 million tonnes of mineral sands in Moma, mainly consisting of contained ilmenite as well as zircon and rutile. The Chibuto (Corridor) heavy sands mine represents one of the world's largest deposits of heavy minerals and has a lifespan of well over a hundred years. Our figures indicate a reserve of at least 157 million tonnes, but there is probably (much) more. Reserves include mainly titanium slag, as well as zircon and rutile, leucoxene and high purity pig-iron. Mineral ilmenite (iron titanium oxide) is smelted into titanium slag and then sold to the pigment industry, rutile can be used directly by pigment manufacturers and titanium metal producers, zircon is used in the ceramics industry, and high purity iron is a by-product of ilmenite smelting.

So far, the major part of Mozambique's natural resources is under-exploited, but this situation is rapidly changing. The right-hand side of Table 1 summarizes current and future production and export of electricity, natural gas, coal and minerals. From the Table it can be seen that during the next 7 years total electricity production is expected to increase from about 15,000 GWh/year to over 41,000 GWh. The major part of electricity is and will be generated from hydropower, followed by coal and natural gas. Large scale natural gas production started in 2004 with the exploitation of the Pande/Temane gas fields in the Inhambane province by the South African company Sasol, and is expected to grow steadily over the next years to around 145,000 TJ per year. Coal production used to be small-scale and became marginal during the civil war. This situation is, however, going to change since the Brazilian Company Vale do Rio Doce (CVRD) won a bid in 2004 to develop the Moatize coalfield in Tete province, with an expected coal production of 15 million tonnes per year, starting in 2009/10. The Moma heavy sands mine, explored by Kenmare Resources, began its operations in 2007 and is expected to gradually increase its annual production from 900,000 tonnes to over 1.3 million tonnes. The start of the exploration of the Chibuto heavy sands deposits has been delayed due to difficulties with the power supply. After redesigning the project, the company Corridor Sands is now expected to start production by the end of 2008 at a level of about 590 tonnes per year, with production gradually increasing to over 1.5 million tonnes per year by 2017.

Most natural resources exploited in Mozambique are exported. With respect to the coal from the Moatize mine, we expect 15% to be marketed in Mozambique, including consumption by the electricity plant, while the remainder will be exported for consumption by steel plants in Brazil (USGS 2005). The vast majority of natural gas is and will be exported to South Africa, although domestic consumption is tending to increase due to the construction in 2005 of a new pipeline to the Beleluane industrial park near Maputo and because of the natural gas-fired electricity plant to be constructed. Also in terms of electricity, almost all production is exported, mainly to South Africa but also to Zimbabwe and in the near future to Malawi. In Table 2 we present our best-estimates of current and future export prices of the various natural resources.

TABLE 2: (Estimated) Prices of Natural Resource Export

	Price of Exports		
	2006	2008	≥ 2009
Electricity			
Hydro	**1,66**	**1,83**	**2,48**
HCB	1,66	1,83	2,21
Mphanda Nkuwa			2,75
Thermal - Natural Gas			**3,20**
Inhambane			3,20
Thermal – Coal			**3,50**
Moatize			3,50
Natural Gas			
Pande/Temane	1 200	1 200	1 200
Mineral Coal			
Moatize	30	32	35
Minerals (Heavy Sands)		**136**	**142**
Moma			
Ilmenite	85	87	92
Zircon	700	714	743
Rutile	450	457	471
Chibuto		**398**	**408**
Titaniferous (titanium) slag	425	429	438
Zircon	700	714	743
Rutile	450	457	471
High-purity pig iron	300	303	309
Leucoxene	500	505	515

Next, we assess the role of current and future natural resource exports in total exports. To this end, we calculated the value of natural resource exports from Mozambique for the period 2006-2020 by taking historical data for the period 2000-2005 from the SADC Trade Database (SADC 2007) and the Ministry of Energy (2007a) and adding to this the product of the (expected) export quantities (Table 1) and prices (Table 2) for the period 2006-2020. The value of non-natural resource exports from Mozambique is also based on

historical data for the period 2000-2005 from the SADC Trade Database (SADC 2007) together with the assumption that these non-natural resource exports will grow by 10% annually.[38] The results are shown in Figure 3. The Figure shows a spectacular growth in exports from about 365 million US$ in 2000 to almost 6.5 billion US$ by 2020. Of the latter, about 1.8 billion consists of non-natural resource (related) exports (under the assumption of a 10% annual growth rate). A large part of the primary exports consists of aluminum (products), the growth of which is to be explained by expansion of production capacity of the Mozal factory (Mozal 3, in 2009/10).[39] In addition, electricity, mineral sands and coal will be major elements of Mozambique's exports, while the share of natural gas is relatively small as compared to the other natural resources.

As noted before, no data yet exists on the potential oil reserves of Mozambique because investigation of potential reserves is still in its initial phase. Therefore, we decided to do a kind of thought-experiment to see what happens to natural resource exports if Mozambique becomes an oil producing country similar to one of the existing oil producing nations. Assuming that we may exclude the possibility that Mozambique will become an oil producer of the size of Saudi-Arabia or Iran, we will analyse the situation when Mozambican oil production turns out to be *very small* like Tunisia, *small* like Chad or Gabon, *medium* like Brazil or Libya, or big like Norway. Based on the average oil production of these countries we define *very small* as 75,000 Barrels/day, *small* as 200,000 Barrels/day, *medium* as 1.5 million Barrels/day and *big* as 3 million Barrels/day, while for the sake of the argument we assume oil production to start at full-scale in 2015.[40] Finally, we assume a constant oil price of US$50/Barrel, based on the average oil price in 2006.[41] Under these assumptions and in the case that Mozambique develops into a (very) small oil producer like Tunisia, Chad or Gabon (75,000-200,000 Barrels/day), the value of Mozambican exports will increase to about 10 billion US$ in 2020 as compared to 6.5 billion US$ without oil. However, if Mozambique becomes a medium-size oil producing nation like Brazil or Libya (1.5 million Barrels/day) or a large oil producing nation like Norway (3 million Barrels/day) total export value may explode to over 30 or 60 billion US$, respectively. Of course, if oil prices remain structurally above the assumed average 2006 price level of US$50/Barrel (which we consider a likely scenario), these figures easily (substantially) underestimate the value of Mozambique's future export.

To further illustrate the importance of natural resource (related) exports in Mozambique, we present in Table 3 primary exports (fuel, ores and metal) as % of

total exports for the period 2000-2020. In addition we present the primary export share including potential oil exports, according to the scenario's discussed above.

TABLE 3: Natural Resources as of Total Exports

	% of total export										
	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018	2020
Without Oil											
Total Natural Resources	**38,6**	**63,8**	**71,3**	**75,4**	**77,1**	**80,1**	**79,8**	**77,6**	**75,0**	**73,7**	**70,2**
Oil Products	2,4	1,2	0,0	0,8	0,6	0,4	0,4	0,3	0,3	0,3	0,2
Natural Gas	0,0	0,0	2,1	6,5	6,0	4,9	4,3	4,1	3,9	3,5	3,4
Electricity	18,4	8,4	6,9	9,5	8,9	11,3	15,1	16,8	18,1	15,2	14,5
Aluminium(products)	16,5	53,0	61,3	56,8	45,4	49,5	47,9	44,8	41,6	36,6	34,6
Heavy Mineral Sands	0,0	0,0	0,0	0,0	14,6	12,7	11,0	10,4	9,9	16,9	16,3
Other Nat. Resources	1,1	1,1	1,1	1,8	1,5	1,2	1,1	1,1	1,1	1,1	1,1
Non-Natural Resources Exports	61,4	36,2	28,7	24,6	22,9	19,9	20,2	22,4	25,0	26,3	29,8
With Oil – 200,000 Barrels daily											
Total Natural Resources	**38,6**	**63,8**	**71,3**	**75,4**	**77,1**	**80,1**	**79,8**	**77,6**	**85,8**	**84,1**	**81,6**
Oil Products	2,4	1,2	0,0	0,8	0,6	0,4	0,4	0,3	43,2	39,8	38,2
Natural Gas	0,0	0,0	2,1	6,5	6,0	4,9	4,3	4,1	2,2	2,1	2,1
Electricity	18,4	8,4	6,9	9,5	8,9	11,3	15,1	16,8	10,3	9,2	9,0
Aluminium (products)	16,5	53,0	61,3	56,8	45,4	49,5	47,9	44,8	23,7	22,1	21,4
Heavy Mineral Sands	0,0	0,0	0,0	0,0	14,6	12,7	11,0	10,4	5,6	10,2	10,1
Other Nat. Resources	1,1	1,1	1,1	1,8	1,5	1,2	1,1	1,1	0,7	0,7	0,7
Non-Natural Resources Exports	61,4	36,2	28,7	24,6	22,9	19,9	20,2	22,4	14,2	15,9	18,4
With Oil - 1,500,000 Barrels daily											
Total Natural Resources	**38,6**	**63,8**	**71,3**	**75,4**	**77,1**	**80,1**	**79,8**	**77,6**	**96,3**	**95,6**	**94,7**
Oil Products	2,4	1,2	0,0	0,8	0,6	0,4	0,4	0,3	85,0	83,2	82,2
Natural Gas	0,0	0,0	2,1	6,5	6,0	4,9	4,3	4,1	0,6	0,6	0,6
Electricity	18,4	8,4	6,9	9,5	8,9	11,3	15,1	16,8	2,7	2,6	2,6
Aluminium (products)	16,5	53,0	61,3	56,8	45,4	49,5	47,9	44,8	6,3	6,2	6,2
Heavy Mineral Sands	0,0	0,0	0,0	0,0	14,6	12,7	11,0	10,4	1,5	2,9	2,9
Other Nat. Resources	1,1	1,1	1,1	1,8	1,5	1,2	1,1	1,1	0,2	0,2	0,2
Non-Natural Resources Exports	61,4	36,2	28,7	24,6	22,9	19,9	20,2	22,4	3,7	4,4	5,3

From the Table it can be concluded that the share of primary exports in total exports will probably fluctuate between 70 to 80%. It is to be noted that aluminum (products) produced by Mozal constitutes a major part of this. Without aluminum, the share of natural resource (related) exports in total exports will be around 40% to 50%. In case Mozambique develops into an oil producing country, the share of primary exports in total exports will easily grow to over 90%.

To put these numbers in an international perspective, Table 4 lists a couple of key indicators for Mozambique in comparison with a selected list of countries, including resource-rich and resource-poor countries. Since natural resource exploitation in Mozambique is still in its infancy, we compare the expected figures in Mozambique for 2010 and 2015 with the actual situation in other countries in 2000.

TABLE 4: Primary Exports Mozambique in International Perspective

	Fuel + ores and metals exports (% of GDP)	Fuel + ores and metals exports (% of exports)	Fuel exports (% of exports)	Ores and metals exports (% of exports)
Nigeria	49.7	99.6	99.6	0.0
Congo, Rep.*	48.7	88.0	87.6	0.3
Gabon	42.5	85.0	83.3	1.7
Mozambique 2010	**40.4**	**82.5**	**14.6**	**67.9**
Mozambique 2015, with Oil at 200,000 Barrel/day	**38.2**	**87.6**	**53.5**	**34.0**
Trinidad and Tobago	34.3	65.4	65.3	0.1
Norway	25.2	70.0	63.9	6.1
Mozambique 2010, without Aluminium	**19.1**	**39.0**	**14.6**	**24.4**
Zambia	13.1	63.9	1.6	62.3
Chile	11.8	46.5	1.1	45.3
Malaysia	11.6	10.7	9.6	1.0
Canada	6.8	17.5	13.2	4.4
Australia	6.3	38.5	21.9	16.6
South Africa	4.9	21.0	10.1	10.8
Botswana	3.6	7.1	0.1	7.0
Sweden	2.1	5.6	2.9	2.7
Germany	1.2	3.9	1.5	2.5
United States	0.3	3.8	1.9	1.9
Burkina Faso	0.3	3.3	3.2	0.0
Japan	0.2	1.6	0.4	1.3
Malawi	0.1	0.4	0.2	0.2
Mali	0.1	0.3	0.0	0.3
Angola	0.0	6.9	3.0	3.9

* Natural Resource Data are of 1995

From the Table it can be seen that in 2010 primary exports (fuel, ores and metal) in Mozambique are expected to amount to about 40% of GDP (assuming an annual GDP growth rate of 7.5%). As noted before, the share of primary exports in total exports is expected to be around 80% in 2010. Natural Resource exports consist mainly of ores and metals due to the important role of aluminum in Mozambican export, while the fuel component consists mainly of electricity and natural gas. In terms of these numbers, Mozambique can be defined as a resource rich country that can be compared to countries like the Republic of Congo, Gabon, Trinidad and Tobago, Norway and Zambia. Without aluminum, primary exports drop to about 19% of GDP, and to around 40% of total exports. These numbers are more in line with those of Chile and Malaysia.

So far, we have measured resource dependence (in Mozambique) by the share of primary exports in total exports and as % of GDP. An alternative way to measure natural resource dependence is to calculate the value of resource stocks relative to the total wealth of a country. The remainder of this section is devoted to estimating this stock value of (non-renewable) natural resources in Mozambique according to the methodology used

by the World Bank (2006) in its study 'Where is the Wealth of Nations?'. The study provides monetary estimates of the range of assets – produced, natural, and intangible – for a range of 120 countries, based on the year 2000. A key message of this study is that in most countries natural capital is an important share of total wealth, greater than the share of produced capital. This suggests that managing natural resources must be a key part of development strategies. The composition of natural wealth in poor countries emphasizes the major role of agricultural land, but subsoil assets and timber and non-timber forest resources make up another quarter of total natural wealth. For Mozambique no estimates for subsoil assets were provided, due to lack of data and the (near) non-existence of subsoil assets exploitation in 2000. We aim to fill this gap by applying the World Bank methodology to our data and using 2010 as a base year.

The approach used is based on the well-established economic principle that asset values should be measured as the present discounted value of economic profits over the life of the resource.[42] This value, for a particular country and resource, is given by the following expression:

$$V_t = \frac{\sum_{i=t}^{t+T-1} \mathrm{p}_i q_i}{(1+r)^{(i-t)}} \qquad (1)$$

where $\pi_i q_i$ is the economic profit or total rent at time i (π_i denoting unit rent and q_i denoting production), r is the social discount rate, and T is the lifetime of the resource. However, this approach is rarely used for the practical estimation of natural asset values since it requires the knowledge of actual future rents. Instead, simplifications of (1) that implicitly predict future rents based on more or less restrictive assumptions (such as constant total rents, optimality in the extraction path) are used. The simplification used here assumes that the unit rents grow at rate g:

$\frac{\dot{\mathrm{p}}}{\mathrm{p}} = g = \frac{r}{1+(\varepsilon-1)\,(1+r)^{(T)}}$ where ε = 1.15 is the curvature of the cost function, assumed to be isoelastic (as in Vincent, 1996). Then, the effective discount rate r^* is defined as $r^* = \frac{r-g}{1+g}$ and the value of the resource stock can be expressed as:

$$V_t = \mathrm{p}_t q t \left(1+\frac{1}{r^*}\right)\left(1-\frac{1}{(1+r^*)^T}\right) \qquad (2)$$

This expression is used to value the resource stocks, extending for a period of 20 years.[43] Furthermore we follow the World Bank in assuming a social discount rate of 4%.

To reflect uncertainty regarding future prices of non-renewable resource rents, we calculated the value of resource stock using three scenarios: Low, Medium and High, which differ with respect to the assumed prices. The supposed price ranges are taken from the values listed in Table 2. The results of our calculations for Mozambique based on equation (2) are shown in Table 5 (for more details we refer to Annex 1).

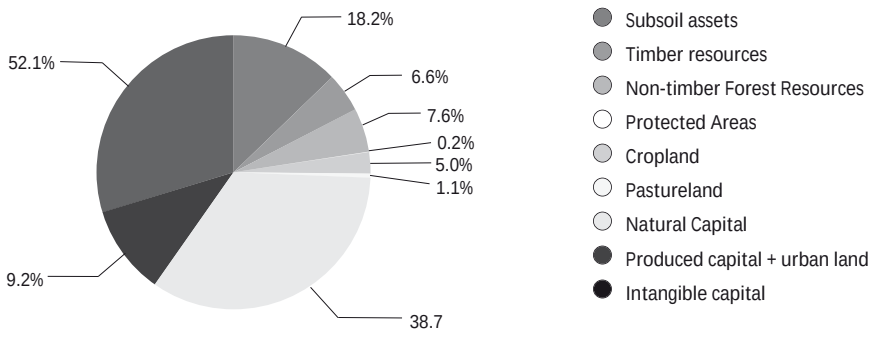
TABLE 5: Estimates of Value of Subsoil Assets Mozambique

		Low	Medium	High	Medium including Oil – 200,000 Barrel/day	Medium including Oil – 1,500,000 Barrel/day
Natural Gas	US$/capita	117	175	234	175	175
Coal		242	303	364	303	303
Heavy Sands		452	462	473	462	462
Oil					1 892	14 192
TOTAL		812	941	1 070	2 833	15 132

* Using 2015 population number (UN projections, medium variant)

From Table 5 it can be seen that the total value of Mozambique's natural resources rents for a period of 20 years is close to 1,000 US$ per capita.[44] The Table shows that the major part of this wealth consists of mineral sands and coal, while the value of natural gas is relatively small. If we take into account a supposed oil production of 200,000 Barrels/day (small, like Chad or Gabon), total value increases substantially to about 3,000 US$/capita and in case of a supposed oil production of 1.5 million Barrels/day (medium, like Brazil or Libya) this value increases further to about 15,000 US$/capita. In Figure 4 we plot the values of resource rents in Mozambique together with the World Bank

FIGURE 4: Wealth Stock Estimates for Mozambique



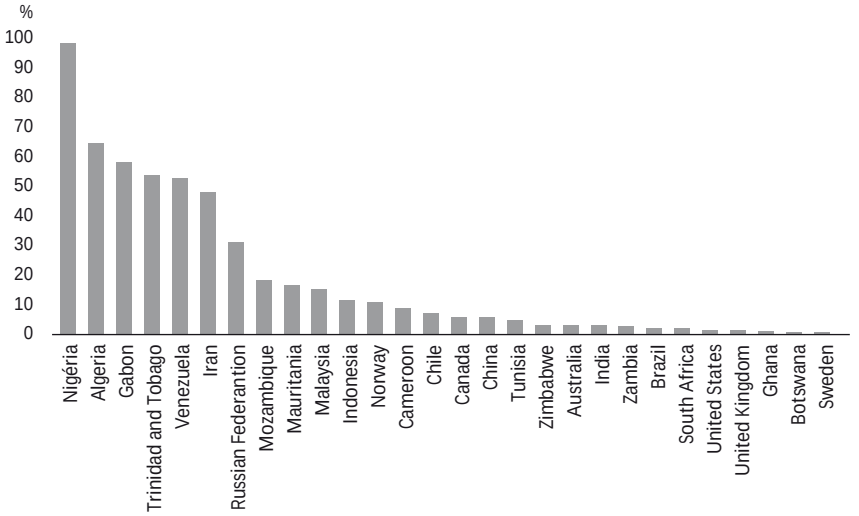
Source: Own calculation and Workbank (2006)

estimates of other sources of wealth in Mozambique. From the Figure, it can be seen that with 941 US$/capita, the subsoil assets amount to circa 18% of total estimated value for Mozambique. The largest share of total wealth consists of intangible capital, which includes an amalgam of human capital, governance, and other factors that are difficult to value explicitly. Apart from subsoil assets, Mozambique also has a considerable value of Timber and Non-Timber forest resources (together around 14% of total wealth).

If we assume that Mozambique turns into a small oil producing nation (like Chad or Gabon) the share of subsoil assets in total wealth in Mozambique will increase to about 40%; in case Mozambique becomes a medium-size oil producer (like Brazil or Libya) this number will be around 78%.

In Figure 5 we compare the share of subsoil assets in total wealth in Mozambique with a selected number of other countries according to the World Bank estimates.

FIGURE 5: Percentage of Susoil Assets in Total Wealth in Mozambique within the International Perspective



Source: Own calculations and Worldban (2006)

The Figure shows that even without oil exploration the share of subsoil assets in total wealth in Mozambique (18%) should be considered high in an international perspective. In case Mozambique becomes an oil producing country, its share of subsoil assets in total wealth (40% to 78%) will be comparable to that of oil producing countries like Venezuela, Algeria, or Gabon. In sum, in international perspective and by any standard the Mozambican economy is rapidly becoming natural resource-intensive.

The determinants of a Resource Curse

The observation that countries rich in natural resources are often characterized by relatively poor economic performance has received considerable attention in the economic literature. This large and still growing body of literature has been inspired by the work of Sachs and Warner (1995) who showed that economic growth rates of countries in the 1970s and 1980s were strongly and negatively related to their natural resource affluence (after controlling for other important factors), as shown before in Figure 1 of this chapter. This result has been confirmed by a series of studies (see for example, Gylfason 2001; Leite and Wiedmann 1999; Papyrakis and Gerlagh 2004, 2007; Sachs and Warner 2001; Sala-i-Martin and Subramanian 2003; Mehlum et al. 2005, 2006). Interestingly enough, although most examples of the resource curse come from developing countries, the phenomenon is not restricted to poorer nations. For example, Papyrakis and Gerlagh (2007) found that within the USA, resource-scarce states have outperformed resource-abundant states (such as Alaska and Louisiana). Another example is The Netherlands, where in the previous century large-scale natural gas exploration initially led to unfavorable economic consequences. Apart from documenting the resource curse as such, the economic literature has been concerned with identifying its possible determinants. After all, some countries have escaped the resource curse. So, how come that natural resource wealth stimulates economic performance in some countries but apparently impedes economic development in others? In this section we discuss the main explanations or transmission channels that have been suggested by the literature. We follow Papyrakis (2006) in distinguishing four principle explanations: 1. Dutch disease, 2. Investments, 3. Economic Policy, 4. Institutions. We briefly discuss these explanations below.

Dutch disease

Originally the Dutch disease phenomenon referred to the situation in the Netherlands during the 1960s when the discovery and export of natural gas in this country caused adverse impacts on its manufacturing sector through an appreciation of the currency. Natural resource exploitation and its revenues cause a demand shock that may lead to inflationary pressure at home as well as an overvaluation of the currency due to increased demand from abroad (Corden 1984; Neary and Van

Wijnbergen 1986). As a result, prices of non-natural resource goods increase, in that way turning the non-natural resource sector less competitive and also hampering diversification of the economy (Fardmanesh 1991). Since the size of exports and the degree of openness of an economy are important determinants of economic growth (Frankel and Romer 1999), natural resource wealth might in this way – paradoxically – have a negative impact on economic development. In greater detail, the Dutch disease consists of three principal mechanisms:

- The *spending effect*, which refers to an increasing demand for non-tradable goods and services, pushing up their prices. The discovery of considerable quantities of natural resources is often associated with large direct foreign investments (FDI), particularly in developing countries like Mozambique, and a sharp increase of export revenues. The implied inflow of foreign currencies causes an appreciation of the domestic currency, turning the non-natural resource sectors less competitive. At the same time, this causes increasing demand for goods and services, invoking increased prices and wages.

- The *movement effect*, which refers to a reallocation of production factors (capital, labour) from other sectors (manufacturing) towards the primary sector due to its increased marginal productivity (Corden and Nery, 1982). If new reserves of oil, natural gas, or coal are discovered in an economy that finds itself close to its maximum production level, the extra demand for production factors to extract the discovered resources may cause scarcity of these resources in other sectors. As a result, the wage premium in the primary sector – motivated by its high marginal productivity – causes a crowding-out effect regarding other activities in the economy.

- The *spillover-loss effect*, refers to natural resource exploitation undermining the positive externalities (spillovers) generated by other sectors including the development of know-how, innovations in the area of technology and management and all kinds of skills of the labour force. In general these effects are principally generated by the manufacturing sector due to its exposure to international competition, with considerable positive effects on the productivity of the economy as a whole (Matsuyama, 1992; Krugman, 1987). In contrast, the

primary sector generates in general little positive externalities for the rest of the economy, due to its capital intensity and very specific activity. As a result the primary sector often establishes only limited forward and backward linkages with the rest of the economy, particularly in developing countries with its high share of unskilled labour. Hence, a contraction of the manufacturing sector (see above) in favour of the primary sector might lead to a decrease in positive spillovers and thus a slow down of productivity increase at the level of the economy as a whole.

The Dutch disease becomes an even more serious problem when non-renewable resources (like natural gas, coal, mineral sands, etc.) are getting exhausted. If the other sectors of the economy have suffered for many years from Dutch disease phenomena, a country will face great difficulties in restoring its competitiveness once the natural resource wealth is reaching its end.

Investments

The important role of investments in promoting economic development has been well documented in the economic literature (see, for example, Barro 1991; Grier and Tullock 1989; Kormendi and Meguire 1985). Recent empirical research has identified the effect of natural resource abundance on *crowding out* investments and thus hindering economic growth, with circa 40% of the negative impact of mining on economic growth to be attributed to a fall in investments (Papyrakis and Gerlagh 2004). A principal reason for this is that world market prices for primary products tend to be more volatile than the prices of other goods and services, which makes an economy based on primary products vulnerable to frequent booms as well as recessions. These fluctuations in economic conjuncture often cause exchange rate volatility and (consequently) increased risks and uncertainty for investors (Herbertsson et al. 1999). This fact is reflected in a strong negative correlation between resource abundance and the level of FDI (Gylfason 2001b).

Additionally, natural resource wealth diminishes the sense of necessity of savings and investment because resource revenues feed the illusion that current and future wealth and prosperity do not depend much on capital accumulation (Papyrakis and Gerlagh 2004). Furthermore, resource rents may reduce the need for financial

intermediation with negative consequences for the development of financial institutions that usually promote investments in the long run. On top of this, as noted before, Dutch disease effects may invoke contraction of the manufacturing sector, thereby further contributing to reduced capital accumulation. Finally, governments of resource abundant countries may spend their revenues on unproductive investments and consumption, including expenses for the military and security or all kinds of prestige projects with little or no sustainable positive impact on the economy (Ascher 1999).

Policy failures

Natural resource wealth creates frequently a false sense of euphoria and confidence that undermines careful planning and prudent economic policies by the government (Gylfason 2001a). Resource revenues may contribute to myopic behavior and irrational expectations on the part of governments, leading to accumulation of debt with resource stocks as collateral. This makes countries vulnerable in the sense that resource price volatility on the world market might easily lead to a heavy debt burden (in case prices fall). Moreover, wealth that is easily obtained often stimulates unproductive behavior and undermines willingness to make great efforts – this is not only true for individuals but also for governments. Hence, natural resource wealth often encourages bureaucracy, inefficiency and corruption which in turn undermine innovation and improvements in efficiency (Papyrakis and Gerlagh 2004). Moreover, governments often tend to use resource revenues for subsidies and transfers supporting uncompetitive industries instead of promoting diversification and competitiveness (Auty 1994). Furthermore, investments in education are often neglected in resource abundant countries, which can be explained by the fact that the primary sector is principally in need of low-skilled labour (Gylfason 2001a), and also by the lack of sense of urgency to invest in human capital in the face of increased income from resources. This however makes it increasingly difficult for the economy to diversify its activities, because the non-resource sectors often do require skilled labour. Finally, since the resource revenues are collected by the government, the decisions about its spending are often in the hands of a few, which – against the background of weak democracies in many resource abundant countries – often implies lack of control, thereby contributing to further weakening of a country's institutions.

Institutions

Institutions are the "the rules of the game in a society" (North, 1990). The institutional quality of a country reflects the quality of laws and their enforcement, efficiency of the bureaucracy, level of corruption, political stability, democratic values and transparency. The economic growth literature leaves no doubt about the strong positive role good institutions play in bringing about economic development (see, for example, Acemoglu et al. 2001; Knack and Keefer 1995; Mauro 1995; Easterly & Levine 2003). In the resource curse literature it has not gone unnoticed that those natural resource rich countries that have escaped a resource curse (like Botswana, Australia, Canada, Norway) are characterized by the relatively high quality of their institutions, while most countries that suffer from a resource curse have poor institutions (Auty 2001; Bulte et al. 2003; Karl 1997; Ross 1999, 2001; Mehlum et al. 2005, 2006; Sala-i-Martin and Subramanian 2003; Torvik 2002). The idea is that weak (*grabber friendly*) institutions allow for resource revenues to be spent on all kinds of unproductive activities, whereas in the presence of strong (*producer friendly*) institutions the natural resource abundance is likely to be spent on productive investment in physical and human capital. In other words, the transmission of resource wealth into broad-based economic development depends critically on the institutional quality in a country.

Many authors, who point to institutions as the fundamental link between natural resource abundance and economic performance, take this reasoning one step further by arguing that natural resource exploitation actively undermines the institutional quality of a country. The underlying mechanism is to be found in the inclination of individuals to engage in rent-seeking rather than productive activities once resource wealth starts emerging, which often includes preventing the establishment of proper institutions or actively undermining existing institutions (see Baland and Francois 2000; Karl 1997; Ross 2001; Tornell and Lane 1999; Torvik 2002). As a result countries with weak institutions that start to exploit their natural resources suffer from a double resource curse according to this view: weak institutions that impede economic development are further weakened by natural resource exploitation as a result of which economic development is even more hampered, thus creating a vicious cycle that keeps countries trapped in poverty.

As noted before, rent-seeking behaviour has much to do with the nature of the resource wealth: point-resources (like oil, natural gas, minerals and diamonds) that allow for limiting access make a country particularly vulnerable to rent seeking with all its

negative consequences for economic growth. One of these consequences is lack of competition and the accumulation of much wealth by a few. The higher the potential resource rents the stronger rent-seeking activities will be (Auty 2001). It is important to realize that rent-seeking as such is in principle not an illegal activity. However, often the existence of resource rents invokes illegal activities by individuals in search for personal wealth, which undermines government administrations and their institutions (Leite and Weidmann 1999; Murphy et al. 1993). In many cases, even in established market economies, the management of natural resources is often not guided by open and transparent competition and licensing of concessions but rather by politically networked interests that lead to negotiations between companies and senior government officials outside the control of democratic institutions and the public in general.

Another aspect of institutional quality as a determinant of the resource curse refers to the way resource revenues are spent in the economy. In general, a significant part of these resource revenues is captured by the government which regularly uses these funds to satisfy specific interests of specific groups in society, particular those that constitute and support the government's power base. This often not only implies that these revenues are invested in projects with limited return for the economy as a whole, but it also may invoke feelings of injustice and disputes between various groups within society which in turn easily undermine democratic processes and political stability. The latter may be further enhanced by the fact that natural resources are often geographically concentrated, as a result of which discrimination across various interest groups easily translates into ethnic or regional tensions that ultimately may result in armed conflicts and civil wars (Collier and Hoeffler 1998). Evidently, this has a dramatic impact on economic development, as illustrated by the recent history of countries such as Nigeria, Congo, Angola and Sierra Leone.

Evaluating the Risk of a Resource Curse in Mozambique

Mozambique has never suffered from a natural resource curse, simply because the country never experienced large scale resource extraction.[45] However, as shown in section 2, this situation is currently changing with Mozambique developing rapidly into a natural resource-intensive economy. Will this foreseen exploitation of Mozambique's natural resources prove to be a blessing or a curse on its (long-term) economic performance? We address this question by making an assessment of the

chance that the Mozambican economy will suffer from each of the possible determinants of a resource curse, as discussed in the previous section. To this end, we aggregate these determinants into two areas: problems of an economic nature (Dutch disease, crowding out of investments, policy failures including under-investment in human capital and infrastructure, debt accumulation, etc.) and problems of an institutional nature (lack of transparency, corruption, rent-seeking, nepotism, waste of money, tribalism, weakening of democracy, etc.).

Problems of an Economic Nature

The Dutch disease explanation for the existence of a resource curse points to the contraction of the non-resource tradable sectors as a result of a boom in the natural resource sector. The contraction reflects decreasing competitiveness of the other tradable sectors caused by real currency appreciation due to a substantial inflow of foreign exchange, which in turn has an upward effect on prices and wages. This so--called *spending effect* may be accompanied by a *movement effect or resource allocation effect* if factors of production are re-allocated towards the natural resource sector, motivated by increased demand and higher wages. To assess the risk of these effects for Mozambique we show in Table 6 an estimate of the impact of the natural resource sector on the Balance of Payments up to 2020[46], together with data on the exchange rate as well as inflation.[47]

TABLE 6. Dutch Dutch Disease and Natural Resource Exploration

	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018	2020
Balance of payment Effect											
Aluminuim (mozal)	-318	-575	151	226	247	-467	437	451	460	470	480
Electricity	8	10	19	40	151	225	321	331	337	343	350
HCB	8	10	19	40	151	169	174	178	181	183	189
Mphanda Nkuwa	0	0	0	0	0	0	0	6	9	11	14
Thermal Central Inhambane	0	0	0	0	0	56	56	56	56	56	56
Thermal Central Moatize	0	0	0	0	0	0	91	91	91	91	91
Natural Gas (Sasol)	0	19	19	19	21	24	25	26	27	28	29
Mineral Coal (Moatize)	0	0	0	0	0	232	232	232	232	232	232
Heavy Sands	0	0	0	0	74	158	176	180	183	186	279
Corridor	0	0	0	0	12	33	49	50	51	52	143
Moma	0	0	0	0	62	125	127	130	132	134	136
Total	-310	-546	189	286	494	173	1,192	1,220	1,240	1,260	1,370
BoP Effect in % of GDP	-8.6%	-12.2%	3.7%	4.8%	7.2%	2.2%	13.0%	11.5%	10.1%	8.9%	8.4%
Exchange Rate (MT/US$)	15.7	23.7	22.6	25.8	27.6	29.2					
Inflation Rate	12.7%	16.8%	12.6%	8.1%							

Souce: own calculations and Ministry of Planning and Development

From the Table it can be seen that the real exchange rate shows a trend of small depreciation rather than appreciation, while inflation figures also show a modest reduction over time. Except for their respective periods of construction, the different natural resource (related) projects in Mozambique will have a considerable positive effect on the Balance of Payment, reaching an estimated 1.3 billion US$ by 2020. It is to be noted that the balance of payment effect is much smaller than the direct effect on the balance of trade (around 3.4 billion US$) because of substantial amounts of profit repatriation and debt service. Assuming a constant annual GDP growth rate of 7.5%, the total balance of payment effect of the natural resource (related) sector is expected to amount on average between 7 and 8% of GDP in the long run, with a peak of 13% around 2012. Obviously, these numbers will increase considerably once we include the revenues from oil exploration and export. However, lack of information does prevent us from making any meaningful estimate of the total balance of payment effect of oil exports. In sum, at this moment we do not have any indication that Mozambique is particularly vulnerable to Dutch disease-like phenomena. Of course, prudent spending of natural resource earnings remains a prerequisite for avoiding the risk of a Dutch disease, which is especially true in the event that Mozambique starts to export considerable quantities of oil (products).[48]

In addition, we consider the risk of a movement or resource allocation effect in Mozambique as fairly small. The principal argument here is simple: the number of jobs offered by (future) natural resource (related) projects is very small in comparison with the total labour supply. Moreover, it is to be noted that the main non-natural resource export sector in Mozambique is not manufacturing but fisheries and agriculture, which are small in size and technologically backward. Hence, in the case of a possible real exchange rate appreciation, the reduction of economic dynamics due to the so-called spill-over loss effect will mainly result from the agricultural rather than the manufacturing sector. However, so far there are no indications of this happening.

As discussed in section 3.2 and 3.3, another risk of a large share of primary products in total exports is that of exchange rate volatility resulting from potential natural resource price fluctuations. Substantial exchange rate volatility will have a negative impact on ('normal') investments by economic agents while (in case of downward resource price movements) it also may cause difficulties in repaying foreign debts, thereby invoking macro-economic instability. However, we believe the risk of

exchange rate volatility to be relatively small in the case of Mozambique since for many years to come a considerable part of primary exports in Mozambique is subject to a relatively stable price regime. The majority of electricity exports are and will be subject to long-term contracts which usually do not allow for large price fluctuations. As for aluminum, coal and minerals extracted from the heavy sands deposits, their world market prices are in general much less volatile than crude oil prices.[49] In addition, their export prices are to a large extent also subject to long-term contracts that typically take the form of a fixed market price with standard escalation. Moreover, the prices of all these resources (electricity, coal, aluminum, minerals) are expected to gradually increase for the foreseeable future due to the fact that increasing demand will outpace supply on regional and international markets. With regard to electricity, the excess demand on the regional electricity market is mainly driven by South Africa, while the increasing demand for the other resources is mainly caused by demand from emerging economies such as China, India and Brazil. However, if Mozambique turns into an oil producing country it will definitely become much more vulnerable to exchange rate volatility given the relatively large volatility of international oil prices in combination with the relatively large share of oil exports in total exports (see section 2).

Finally, in section 3.3 we also discussed the risk of the government reducing investments in productive capacity, including education and infrastructure, as a result of the false sense of wealth brought by windfall profits from natural resources. If we do not consider potential windfall profits from oil exploitation, we regard this risk as relatively small, simply because there are not many windfall profits to be expected. So far, the contracts between the Government of Mozambique and the companies exploring natural gas, hydropower and mineral sands foresee very small revenues for the Mozambican government – both in relation to the profits of the companies involved as well as in relation to total government revenues. Concerning the latter, we estimate that fiscal state revenues from the various large companies in the primary sector will increase to around 120 million US$ by 2010 and 250 million US$ by 2020, which is equivalent to about 7-8% of total fiscal and other internal revenues.[50] These estimates are based on fiscal revenue projections from the Quadro Macro model of the Ministry of Planning and Development, in combination with the assumption of a 10% increase in 'normal' fiscal revenues as of 2010 and including specific projections for the different mega projects. Table 7 provides a breakdown of our estimate.

TABLE 7: Estimate of the natural resource sector's contribution to government revenues

	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018	2020
Fiscal Revenues	450	461	791	871	1 155	1 350	1 634	1 977	2 392	2 894	3 502
Natural Resources (megaprojects)	11	18	26	44	64	122	156	182	201	215	256
MOZAL	4	9	16	16	16	26	37	46	56	68	83
HCB	7	9	8	12	11	10	10	11	11	10	10
MPHANDA NKUWA	0	0	0	0	0	0	0	13	13	13	13
CENTRAL TERMICA - Gas Natural Inhambane	0	0	0	0	0	8	8	8	8	8	8
CENTRAL TERMICA - Carvao Mineral Moatze	0	0	0	0	0	0	12	12	18	18	18
SASOL - Gas Natural Inhambane	0	0	2	16	36	49	51	53	55	57	60
MOATIZE coal mine - Moatize Tete	0	0	0	0	0	24	24	24	24	24	24
CORRIDOR Heavy Sands - Chibuto Gaza	0	0	0	0	1	5	13	13	13	14	38
MOMA Heavy Sands - Moma Zambezi	0	0	0	0	0	0	1	2	2	2	2
Other	439	443	765	827	1 091	1 350	1 634	1 977	2 392	2 894	3 502
Other Revenues	25	28	34	39	90	57	68	83	100	121	147
TOTAL	**475**	**488**	**824**	**909**	**1 245**	**1 407**	**1 777**	**2 151**	**2 602**	**3 149**	**3 810**
% Natural Resources (megaprojects)	2,3%	3,7%	3,1%	4,8%	5,2%	8,7%	8,8%	8,5%	7,7%	6,8%	6,7%

The underlying reason for the moderate estimated contribution of the natural resource sector to government revenues is that up to now, the Government of Mozambique has granted large tax benefits to these companies. Somewhat ironically, one could conclude that a positive effect of this is that there are simply no large amounts of money to be wasted on consumption goods or non-productive investments. The latter is further ensured, at least to some extent, by the continued strong role of the international community in providing financial resources for Mozambique in the form of development aid. Again, this situation might change if Mozambique produces considerable quantities of oil, which might easily lead to large windfall profits in the case of (sudden) positive price movements at the international oil market. For example, if Mozambique becomes a small oil producer (like Chad or Gabon, with 200,000 Barrels/day), a price increase of 10 US$ per Barrel implies an additional annual income of over 700 million US$. If we presume that oil contracts are such that 50% of these windfall profits will be captured by the oil companies, the state receives an additional 350 million US$, which might be more than 10% of total internal revenues. It needs no argument that if oil production is greater than the aforementioned 200,000 Barrels/day, these values easily become much larger and so does the risk of a false sense of wealth brought by windfall profits.

Problems of an Institutional Nature

To assess the potential role of institutions in avoiding or enhancing the risk of a resource curse in Mozambique, we show in Table 8 the score of Mozambique on the

aforementioned World Bank ranking of Aggregate Governance Indicators (Kaufmann et al. 2006), in comparison with other countries. These indicators are measured in units ranging from –2.5 to 2.5, with higher values corresponding to better governance outcomes. We combine this information with the estimated resource intensity of Mozambique in 2010/15 (as in Table 4). On the right hand side of Table 8 we list the HDI ranking as well as GDP per capita for selected countries in 2000.

TABLE 8: Institutional Quality, Resource Intensity and Economic Development

Country Name	WB Institutions indicator (–2.5-2.5)	Fuel + ores and metals exports (% of GDP)	Fuel + ores and metals exports (% of exports)	GDP per capita (US$)	GDP per capita, PPP (US$)	HDI rank 2000 (1-177)
	2000			2000	2000	2000
Sweden	1.68	2.1	5.6	27 012	24 526	6
Australia	1.64	6.3	38.5	20 285	26 181	3
Canada	1.61	6.8	17.5	23 198	27 880	5
Germany	1.51	1.2	3.9	22 750	26 075	20
Norway	1.50	25.2	70.0	39 322	35 132	1
United States	1.48	0.3	3.8	34 599	34 114	10
Japan	1.12	0.2	1.6	37 409	25 974	11
Chile	1.06	11.8	46.5	4 964	9 197	37
Botswana	0.77	3.6	7.1	3 135	7 525	131
Trinidad and Tobago	0.49	34.3	65.4	6 326	8 951	57
South Africa	0.27	4.9	21.0	2 910	9 434	120
Malaysia	0.23	11.6	10.7	3 881	8 952	61
Mali	–0.20	0.1	0.3	223	792	174
Malawi	–0.33	0.1	0.4	166	599	165
Mozambique 2010	**–0.40**	**40.4**	**82.5**	**208**	**874**	**168**
Mozambique 2010, sem alumínio	**–0.40**	**19.1**	**39.0**	**208**	**874**	**168**
Mozambique 2015, com Petroleo**	**–0.40**	**38.2**	**87.6**	**208**	**874**	**168**
Burkina Faso	–0.41	0.3	3.3	231	1 013	175
Zambia	–0.46	13.1	63.9	328	777	166
Gabon	–0.58	42.5	85.0	3 920	6 127	123
Nigeria	–0.99	49.7	99.6	332	878	158
Congo, Rep.*	–1.43	48.7	88.0	934	961	142
Angola	–1.78	6.2	6.9	715	1 952	160

* Natural Resource Data are of 1995. ** At 200,000 Barrel/day

From the Table it can be concluded that with an average score of –0.40 in 2000, the institutional quality in Mozambique is considered weak. In all, the picture that emerges from Table 8 is that of Mozambique as a country that will turn rapidly (within a couple of years) into a natural resource dependent economy with a weak institutional infrastructure and low levels of income and welfare. We are inclined to think that this mix makes Mozambique vulnerable to a resource curse, given the experience of other (African) countries in similar positions. To explore this risk somewhat further let us

zoom in on the quality of institutions in Mozambique in an international perspective. In Table 9 we present the scores of Mozambique on the separate World Bank Government Indicators in comparison with a selection of other countries.

TABLE 9. Governance Indicators for Mozambique in Interrnational Perspective

2000	AVERAGE	Voice and Accountability	Political Stability	Government Effectiveness	Regulatory Quality	Rule of Law	Control of Corruption
SWEDEN	1.68	1.45	1.29	1.77	1.30	1.87	2.43
AUSTRALIA	1.64	1.48	1.13	1.89	1.43	1.89	2.00
CANADA	1.61	1.18	1.14	1.94	1.29	1.87	2.25
GERMANY	1.51	1.18	1.14	1.92	1.30	1.84	1.67
NORWAY	1.50	1.33	1.22	1.63	0.87	1.90	2.07
UNITED STATES	1.48	1.11	1.08	1.74	1.45	1.79	1.73
JAPAN	1.12	0.86	1.06	1.15	0.73	1.66	1.28
CHILE	1.06	0.47	0.66	1.31	1.19	1.23	1.50
BOTSWANA	0.77	0.79	0.75	0.84	0.71	0.56	0.95
TRINIDAD AND TOBAGO	0.49	0.58	0.33	0.61	0.73	0.38	0.31
SOUTH AFRICA	0.27	0.96	-0.31	0.40	-0.03	0.15	0.49
MALAYSIA	0.23	-0.35	0.15	0.71	0.28	0.39	0.21
MALI	-0.20	0.26	0.21	-0.72	0.17	-0.69	-0.45
MALAWI	-0.33	-0.31	-0.09	-0.57	-0.17	-0.59	-0.23
MOZAMBIQUE	-0.40	-0.30	-0.33	-0.53	-0.12	-0.71	-0.39
BURKINA FASO	-0.41	-0.36	-0.31	-0.38	-0.06	-0.61	-0.76
ZAMBIA	-0.46	-0.25	-0.73	-0.63	0.25	-0.55	-0.84
GABON	-0.58	-0.49	-0.45	-0.72	-0.36	-0.65	-0.81
NIGERIA	-0.99	-0.61	-1.64	-1.00	-0.45	-1.10	-1.96
CONGO	-1.43	-1.55	-1.85	-1.80	-1.09	-1.26	-1.05
ANGOLA	-1.78	-1.47	-2.47	-1.86	-1.85	-1.52	-1.52

Source: Kaufmann et al. 2006

From the Table it can be concluded that Mozambique has a relatively low score in all six dimensions of governance, but particularly with respect to the Rule of Law and Government Effectiveness. Consequently, there is in our view little reason to nurse high expectations about the capacity of the government to fight rent-seeking and related illegal activities by individuals in search of personal wealth. The same is probably true regarding the extent to which we can expect the design and implementation of effective economic policies by the government, aimed at prudent resource management, and productive investments in, for example, education and infrastructure. In the end, Tables 8 and 9 show that in terms of institutional quality, income (GDP/capita) and welfare (HDI) Mozambique is not at all comparable to a rich resource abundant country such as Norway, but very much comparable to Zambia. On the other hand, Mozambique scores much better than resource abundant countries such as Angola, Congo and Nigeria in terms of institutional quality. Hence, there is also no reason to be overly pessimistic at this point.

As we argued in section 3.4, different types of natural resources bear a different degree of risk regarding the chances of becoming trapped in a resource curse.

Economies rich in so-called point-sources (like oil, natural gas, minerals, diamonds) that are often geographically concentrated, are in general much more vulnerable to rent-seeking and other unproductive activities than economies rich in widely scattered resources (Bulte et al. 2003). The underlying reason is that point resources can be easily controlled by relatively small groups in society. As a result, elites in control of point resources might lose interest in broad-based economic development, including promotion of education and democratic practices since this will dilute their power base. In section 2 we have shown that almost all major natural resources found in Mozambique are point resources: natural gas, coal, mineral sands and probably also oil. Fortunately, we cannot conclude that the elites in Mozambique that are in control of these resources are increasingly resisting the idea of broad-based economic development and instead are widely engaged in actively weakening the institutional infrastructure in Mozambique. On the contrary, the government program has defined as its main goal the fight against poverty and many initiatives are being taken in this respect. Moreover, Mozambique formally is a democracy and there is active involvement of the international community in all areas of policy making. However, it is also to be noted that Mozambique has a young and thus vulnerable democracy and effective control of the government is still relatively weak. In this respect it is beyond doubt that a formidable challenge and responsibility for the government exists with respect to good management and distribution of resource revenues in order to avoid feelings of injustice and disputes between various groups within a society that in turn may undermine democratic processes and political stability. Without wanting to be unnecessarily alarmist, it is not unrealistic to imagine that, under certain conditions, the likely existence of potentially large oil fields (off the coast) in Cabo Delgado and Sofala provinces might contribute to increasing regional and/or political tensions, particularly since they are geographically distant from the concentration of power in the capital, Maputo, and/or close to areas under the influence of the Renamo opposition party. Additionally, so far the treatment of existing large scale investment projects (the so-called mega projects) in Mozambique – most of them operating in the area of natural resource exploration – has been characterized by lack of transparency and granting of large fiscal benefits (see also Table 7).

Certainly building and improving institutions is a complex and long-term process in any place in the world (North 1990). In other words, there is no 'quick fix' when it comes to creating good institutions. In Table 10 we illustrate the recent evolution of

the quality of Mozambique's institutional infrastructure by presenting the 6 indicators for institutional quality for the period 1996-2005.

TABLE 10: Institutional Quality Mozambique 1996-2005

	1996	1998	1998	2000	2002	2003	2004	2005
Voice and Accountability	−0.26	−0.13	−0.13	−0.3	−0.3	−0.1	−0.11	-0.06
Political Stability	−0.59	−0.65	-0.65	−0.33	0.47	0.31	0.08	0.04
Government Effectiveness	−0.54	−0.42	−0.42	−0.53	−0.45	−0.48	−0.42	−0.34
Regulatory Quality	−1.07	−0.4	−0.4	−0.12	−0.55	−0.46	−0.43	−0.6
Rule of Law	−1.29	−1	−1	−0.71	−0.61	−0.71	−0.69	-0.72
Control of Corruption	−0.54	−0.87	−0.87	−0.39	−0.83	−0.8	-0.81	−0.68
Average	-0.72	−0.58	−0.58	−0.4	−0.38	−0.38	−0.4	-0.39

From the Table it can be concluded that in spite of continued high economic growth, political stability, considerable FDI and a consistent political discourse in favor of good governance, the regulatory quality and control of corruption in Mozambique have deteriorated over the last 5 years. The only factor showing considerable improvement is political stability, as a result of which the overall quality of institutions in Mozambique (measured as the unweighted average of the 6 indicators) has been more or less constant since 2000. Although we cannot draw firm conclusions from these perception-based indicators, these figures also do not exactly portray the ideal starting point for large scale natural resource exploration, given the experience in other (African) countries during recent decades. The current rather weak institutional infrastructure, which is not clearly improving, in combination with a rapid expansion of natural resource exploitation underscores our concern that Mozambique indeed is vulnerable to a resource curse that operates through the indirect effect of institutions.

Ways to Avoid a Resource Curse

Vulnerability to a resource curse is not to say that the resource curse is inevitable for Mozambique. In the end, some countries have (to a large extent) avoided a resource curse and others have even benefited from their resource wealth to construct a prosperous society due to sustainable economic development (such as Norway). What can be done to ensure that future natural resource exploitation in Mozambique will be a blessing instead of a curse? Without claiming to be exhaustive, we discuss below several options to decrease the risk of a resource curse.

The first three options are mainly motivated by the wish to reduce revenue volatility caused by fluctuations in natural resource prices. In general, volatility is

a bad thing: it hampers investment by increasing interest rates and uncertainty, it makes government planning difficult and it tends to raise debts and deficits because it is easier to raise spending when prices rise than to cut it back when prices fall. The other options deal with diversification, transparency and prudent exploitation as strategies to guarantee proper management of natural resources and their revenues.

Prudent and anti-cyclical spending and borrowing

The first option to mitigate the negative effects of volatility is that the government sticks to a policy of prudent budgeting as well as avoiding pro-cyclical spending and borrowing. Such a policy also helps to curb Dutch disease phenomena, such as inflation, that may be aggravated by increased government spending of resource revenues. Needless to say, this policy prescription is easier to give than to implement, especially in poor countries like Mozambique: it requires a strong finance minister who is able to fight uphill political battles to save, not spend, windfall profits while there are many public and politically networked interests that want to spend the money. An unorthodox solution to this problem is to distribute resource revenues directly to the public and require the government to rely on normal fiscal principles to determine appropriate levels of taxation and expenditure (Sala-i-Martin and Subramanian 2003; Sandbu 2006). Although an original proposal that we think deserves to be taken seriously, its practical difficulties for implementation in a poor country such as Mozambique are obviously enormous. But, at the very least, the economic damage caused by volatility demands much prudence in borrowing money with natural resources serving as collateral. If these contracts are designed such that the burden of resource price fluctuation falls (to a large extent) on Mozambique, the country indeed becomes increasingly vulnerable to external shocks with potential negative effects falling disproportionately on the poor who are typically less able to cope with volatility.

Stabilization Funds

Another way to reduce volatility in government resources is using natural resource revenues to create stabilization funds – the so-called 'rainy-day funds' (Stiglitz 2005) –

which may provide some guarantee for smoothing government spending and investment against the background of fluctuating natural resource prices. Since stabilization funds create a certain degree of separation of accounts, these funds also provide other functions, including reducing the risk that high resource revenues translate into Dutch disease problems (for example, through investments in other sectors in order to diversify exports), reducing the risk of revenues being squandered rather than spent on investments in human and physical capital that may compensate for the exhaustion of non-renewable resources. However, while examples of well managed oil funds do exist (for example in Alaska and Norway), they are exceptions to the rule that these funds are very hard to operate and subject to political intrigues and corruption. One possible way to increase proper management of natural resource funds is that they should be directly fed with contracts between private firms and the government, in combination with budget rules about spending the money as well as possible involvement of a third party, for example the World Bank, in order to create a certain distance from the day to day whims of politics.[51]

Good Contracts

A third way to diminish volatility in government revenues is designing good contracts between the government and the extractive industries, for example by using moving-average prices rather than current prices in contracts, in order to shift (at least part of) the volatility to the private companies (Shaxson 2005). Often, the private companies are granted a fairly stable price, while both the negative and positive price deviations on the international market – typically beyond the control of a particular country – are borne by the host country, thus magnifying revenue volatility for the country. Reversing this situation will reduce the latter, while large private firms can relatively easily insure themselves against price risks on the international finance markets.

Diversification

Obviously, reducing dependence on natural resources will reduce the potential negative impact of natural resource exploration on the economy. Resource dependence can be decreased by diversifying economic activity to sectors other than natural resources. In other words, it is important to develop broad based economic development by promoting the agricultural, manufacturing and service sectors, thus creating economic

dynamics and prosperity for the population as a whole – something that will never automatically result from natural resource exploitation alone. Revenues from natural resources could help Mozambique provide essential conditions for improving productivity and economic dynamics outside the natural resource sector, for example through financing physical infrastructure (roads, electricity), investment in human capital (education, health) and a healthy financial sector. However, a remaining key obstacle in Mozambique in this respect is its very complicated business environment.[52] In essence this is again a problem of institutional quality, which will not be easy to solve in the short run.

Transparency

Transparency is probably the most important strategy to avert a resource curse. It includes making public the interaction between the government and the companies extracting natural resources, the bidding and licensing procedures, the contracts signed, the quantity of resources exploited, the revenues received and the way the revenues are spent. Transparency reduces opportunities for corruption through an information effect: if the public is better informed regarding the resource revenues received by the state, this helps motivate the population to exert pressure on the government to monitor these funds appropriately and to spend them on investments that contribute to poverty reduction.

Given the current rather weak institutional infrastructure in Mozambique, in our opinion the international community has a key role to play in improving and guaranteeing transparency. This includes exerting pressure on (foreign) companies in making their payments to the government public, and on the government to promote and implement anti-corruption measures. An important way to do this exists in the form of the Extractive Industries Transparency Initiative (EITI), a potentially useful instrument to promote transparency and good governance in the area of natural resource exploitation through international auditing and publishing of payments made by mining and extractive industries (Andersson et al. 2007). Mozambique is currently considering membership of EITI .

Prudent Exploitation

Finally, we want to question the widespread (and often implicit) assumption that natural resource extraction will always raise a country's wealth by generating resource

revenues. For it is important to take into consideration the fact that in one way extraction of non-renewable resources reduces the wealth of a country – since the stock of natural capital reduces irreversibly as a result of exploitation of non-renewable resources. Just as firms include in their accounts the depreciation of their assets, degradation of natural capital should ideally also be reflected in the (annual) accounts of a country. If a country sells its natural resources and borrows money with future resource wealth as collateral, it may show an increase of consumption and GDP in the short run, but integrated accounting including all kinds of capital stocks may show that in fact the country is gradually reducing its wealth because once non-renewable resources (such as oil, natural gas, coal, minerals) are extracted and sold, the natural capital component of a country's wealth decreases (World Bank 2006). Investments in human and physical capital may, however, to some extent compensate for degradation of natural capital. In this way, natural resource exploitation can be seen as a reallocation of a country's portfolio with one asset (resources) being substituted for other assets (human and physical capital). In any case, high extraction rates without appropriate planning regarding ways to spend the revenues on productive investments may easily lead to a sub-optimal strategy for increasing wealth and reducing poverty. In such a case it is better to postpone exploitation of the resources, a strategy which also makes perfectly sense in the light of current rising prices of the resources on the international market. Instead of selling now at a low price, selling in, for examples, 20 years time at a high price can be an optimal strategy if the goal is to increase welfare across existing and future generations.

Conclusions

Many resource rich countries are among the poorest nations in the world, in spite of decades of exploitation of their natural wealth. This phenomenon is often referred to as the 'paradox of abundance' or 'resource curse'. Mozambique has considerable quantities of unexploited natural resources, the large scale exploitation of which has just begun and is expected to grow rapidly during the next decade. Will this be a blessing for the country, or is it more likely to turn into a curse?

To answer this question, we first have estimated the potential resource wealth of Mozambique in comparison to that of other countries. Our data comprise a comprehensive set of best-estimates of Mozambique's natural resource reserves as well as current and expected exploitation and export flows – information that until now

predominantly has been dispersed and unpublished. The major natural resources of Mozambique include coal, mineral sands, natural gas, hydropower, and probably also oil. Research into potential oil reserves in Mozambique is in its initial phase, and therefore no useful data yet exist regarding these potential reserves. Instead, we conducted a kind of thought experiment to see what natural resource exports would look like if Mozambique becomes an oil producing country similar to existing oil producing nations of varying sizes. Our calculations for the period 2000-2020 show that by any means Mozambique is rapidly becoming a highly natural resource-intensive economy, comparable to countries such as the Republic of Congo, Gabon, Norway, Trinidad and Tobago, and Zambia. We estimate that the share of primary exports in total exports (including aluminum) will be in the range of 70-80%, or around 40% of GDP, while the stock of natural capital (including forest resources) comprises over 30% of the country's total wealth. Once Mozambique starts to exploit oil, these figures will further increase, depending on the size of oil production. Next, we reviewed the growing body of literature on the determinants of a natural resource curse, discussing various transmission channels through which natural resource wealth may impact the economy. Subsequently, we assessed the risks of a resource curse occurring in Mozambique in the (near) future by assessing the different possible transmission channels in the Mozambican context. To this end we distinguished between economic and institutional transmission channels.

The economic transmission channels through which natural resource exploitation may harm the economy include decreasing competitiveness of the non-resource tradable sector caused by real currency appreciation (Dutch disease), crowding out of investments, policy failures including under-investment in human capital and infrastructure, and debt accumulation. Our assessment leads us to believe that the risk that Mozambique will suffer from these problems is relatively low in the short- and medium term. In the longer term (after 2015), however, this risk might become relatively high if Mozambique develops into an oil producing country – even if the country is going to be a small producer in international perspective. This judgment is mainly based on the expected increased vulnerability of the country to exchange rate volatility, given the relatively high volatility of international oil prices in combination with the presumably relatively large share of oil exports in future total exports. In addition, the relative size of the potential oil revenues increases the risk of crowding out productive investments and undermining prudent government finances as a result of the increased likeliness of a false sense of wealth brought about by windfall profits.

The institutional transmission channels through which natural resource abundance may hamper economic development include lack of transparency, corruption, rent-seeking, waste of money and weakening of democracy and political stability. We are inclined to think that Mozambique is rather vulnerable to a resource curse that originates from these problems of an institutional nature. The current institutional quality in Mozambique is arguably weak and in spite of continued high economic growth, political stability, considerable FDI and a consistent political discourse in favor of good governance, the perceived regulatory quality as well as the control of corruption in Mozambique has deteriorated since 2000. Moreover, Mozambique is a young democracy where effective control of the government is still relatively fragile. In addition, the current treatment of large investments by the various extractive industries is so far characterized by lack of transparency and granting of large fiscal benefits. It is against this background that Mozambique is rapidly developing into a natural resource dependent economy based on point-resources that can be easily controlled by relatively small groups in society. If the experience of other resource abundant (African) countries may serve as any guide, this is anything but an ideal starting point for large scale natural resource exploitation.

Nevertheless, a resource curse is not an inherently deterministic phenomenon: it can be and has been avoided by resource abundant countries. In this context, recent research has, in our view correctly, stressed the important difference between a resource abundant and resource dependent country (Brunschweiler and Bulte 2008, Stijns 2005). Resource abundance refers to the stock of natural capital while resource dependence indicates the share of natural resource exports in total exports or as percentage of GDP. In short, the experience of other countries suggests that natural resource abundance becomes a problem only when it leads to natural resource dependence. As we have shown, Mozambique is a resource abundant country whose economy is becoming increasingly resource dependent. The main strategies to avoid natural resource dependence include prudent exploitation of natural wealth and stimulating economic development outside the natural resource sector. This implies that fighting rent-seeking and corruption by means of transparent management of revenues is a necessary but not a sufficient requirement for avoiding a resource curse. Economic diversification requires a good investment climate, which in turns depends on political stability, macroeconomic stability, a favorable business climate, reliable infrastructure and a certain supply of skilled labour. Political stability in the face of natural resource wealth asks for appropriate distribution of (future) resource revenues in order to avoid feelings of injustice and

disputes between various groups within a society. Macroeconomic stability benefits from conservative, anti-cyclical spending and borrowing as well as from good contracts between the government and private firms that help to limit revenue volatility. A favorable business climate involves, among others, a substantial decrease of the cost of doing business by reducing red tape, simplifying import and export procedures and improving the enforcement of contracts. Reliable infrastructure requires investment in construction and maintenance of roads, railways, electricity, telecommunication and port facilities. Skilled labour results from investments in education.

This set of policy recommendations assumes a strong government and good institutions – which of course helps to explain why only those countries with a relatively high level of institutional quality have been able to avoid a resource curse (see also Brunschweiler and Bulte 2008). At present, a strong government and good institutions are typically not yet in place in Mozambique. This should not come as a surprise given the country's history of colonization and the post-independence civil war. Also, the Mozambican government's determination to fight poverty and stimulate economic development is laudable and making exploitation of the country's natural wealth part of a strategy to eradicate the country's severe poverty is both understandable and economically defensible. But, our analysis suggests that, given the small size of the country's non-primary economic sectors, rapid expansion of natural resource exploitation may easily turn Mozambique into a resource dependent economy. In combination with the country's current low level of institutional quality, this leads us to conclude that the country is vulnerable to a resource curse that eventually may backfire on the fight against poverty. As we have shown this risk is particularly high once Mozambique starts to exploit oil. Hence, resource abundance does not provide an easy way out of poverty. It rather implies increased responsibility as well as increased complexity in designing and implementing a successful long-term economic strategy, in which prudent instead of rapid exploitation of natural resources, diversification of the economy and improving institutional quality are essential ingredients.

APPENDIX 1 – Subsoil Asset Wealth

In section 2 of the main text we estimated the stock value of subsoil assets in Mozambique according to the methodology used by the World Bank in its study 'Where is the Wealth of Nations?' (World Bank 2006). The aggregate results are presented in Table 5 of the main text. Below we present the details.

TABLE A1.1 Estimate of Value of Natural Gas Stocks

Natural Gas				
Pande/Temande		**Low**	**Medium**	**High**
Quantity (q)	TJ	144,494	144,494	144,494
Rents (π)	US$/TJ	1000	1500	2000
Value (V)	US$	2,643,006,804	3,964,510,206	5,286,013,608

TABLE A1.2 Estimate of Value of Coal Stocks

Coal				
Moatize		**Low**	**Medium**	**High**
Quantity (q)	1000 Ton	15,000	15,000	15,000
Rents (π)	US$/ton	20	25	30
Value (V)	US$	5,487,438,562	6,859,298,203	8,231,157,843

TABLE A1.3 Estimate of Value of Heavy Sands Stocks in Moma

Heavy Sands – Moma				
Moma		**Low**	**Medium**	**High**
Ilmenite				
Quantity (q)	1000 Ton	1,200	1,200	1,200
Rents (π)	US$/ton	60	63	67
Value (V)	US$	1,306,010,378	1,382,834,518	1,459,658,658
Zircon				
Quantity (q)	1000 Ton	84	84	84
Rents (π)	US$/ton	490	508	525
Value (V)	US$	752,876,571	779,765,020	806,653,469
Rutile				
Quantity (q)	1000 Ton	32	32	32
Rents (π)	US$/ton	315	326	336
Value (V)	US$	181,497,030	187,546,931	193,596,832
Total Moma	**US$**	**2,240,383,979**	**2,350,146,469**	**2,459,908,959**

TABLE A1.4 Estimate of Value of Heavy Sands Stocks in Chibuto

Heavy Sands – Chibuto		Low	Medium	High
Titanium slag				
Quantity (q)	1000 Ton	1,000	1,000	1,000
Rents (π)	US$/ton	298	301	305
Value (V)	US$	5,441,709,907	5,505,730,024	5,569,750,140
Zircon				
Quantity (q)	1000 Ton	63	63	63
Rents (π)	US$/ton	490	508	525
Value (V)	US$	560,176,020	580,182,306	600,188,593
Rutile				
Quantity (q)	1000 Ton	12	12	12
Rents (π)	US$/ton	315	326	336
Value (V)	US$	70,294,088	72,637,224	74,980,361
High-purity pig iron				
Quantity (q)	1000 Ton	491	491	491
Rents (π)	US$/ton	210	214	217
Value (V)	US$	1,886,416,754	1,917,857,034	1,949,297,313
Leucoxene				
Quantity (q)	1000 Ton	6	6	6
Rents (π)	US$/ton	350	354	357
Value (V)	US$	40,972,875	41,382,603	41,792,332
Total Chibuto	**US$**	**7,999,569,644**	**8,117,789,192**	**8,236,008,739**

TABLE A1.5 Estimate of Value of Oil Stocks under different assumptions

Oil				
		Low	Medium	High
200,000 Barrel/day				
Quantity (q)	1000 Barrels	73,000	73,000	73,000
Rents (π)	US$/Barrel	28	35	42
Value (V)	US$	37,387,748,070	46,734,685,087	56,081,622,104
1,500,000 Barrel/day				
Quantity (q)	1000 Ton	547,500	547,500	547,500
Rents (π)	US$/ton	28	35	42
Value (V)	US$	280,408,110,522	350,510,138,152	420,612,165,783

APPENDIX 2 – Natural Resource Sector and the Balance of Payment

In this appendix we briefly describe the way in which we estimated the impact of the natural resource sector on the Balance of Payments until 2020. We define the

Balance of Payments effect as the direct trade balance effect (exports minus imports) minus expected debt service and profit repatriation. Our calculations took as a starting point the information provided by Andersson (2001), which we updated and revised where necessary, while adding our own calculations for those projects not included in his paper. As described in the main text, the main sources of our information are the Ministry of Energy, the Ministry of Mineral Resources, and a variety of other sources including the Unites States Geological Survey (USGS) Minerals Yearbook, African Mining Review and websites of the companies involved themselves. The information below is summarized in Table A2.1 at the end of this Appendix.

Aluminium – Mozal

Export and Import figures for 2000-2005 are taken from the SADC trade database (SADC, 2007). For the period 2006-2020 we assume a doubling of production capacity in 2010 (Mozal 3), as well as the following annual growth figures: 2007 (3%), 2008-2009 (1%), 2011 (10%), 2012, (5%), 2013-2014 (1%), 2015-2020 (0.5%). Concerning Mozal 3, we assumed investment data to be the same as for Mozal 1 (circa 1,350 million USD) as given by Andersson (2001), including the assumptions of a 3 year construction phase and 10% of total inputs during construction being sourced from Mozambique. Regarding profit repatriation and debt service, we used the figures provided by Andersson (2001) and subsequently increased this linearly in accordance with the extension of production capacity over time. It is to be noted that our estimates for the Balance of Payments effect of Mozal until 2008 are very much in line with those provided by Castel-Branco and Goldin (2003), once corrected for upwardly revised export figures based on actual information up to 2005 reflecting increased aluminum prices.

Electricity, Hydro – HCB

Export figures for 2000-2006 are provided by HCB, as given in Ministry of Energy (2007a), and assumed to grow from 10,817 GWh in 2006 to a maximum of 10,547 GWh as of 2009 (reflecting effective maximum capacity of HCB). In addition, we assumed export prices to increase gradually from about 1.6 USDc/kWh in 2006 to about 2.6 USDc/kWh by 2020. As for profits, we assume a profit margin of 0.1

USDc/kWh, of which 82% is repatriated until 2006 and 15% as of 2007 – reflecting the transfer of ownership from Portugal to Mozambique. As a result, our numbers for HCB differ significantly from those provided by Andersson (2001) because his calculations obviously did not yet reflect the new deal with ESKOM on electricity prices (2002) as well as the transfer of majority ownership of HCB from Portugal to Mozambique in 2007. We follow Andersson (2001) in assuming that up to 2006 as much as 70% of the turnover is used for debt service payments to the Government of Portugal, while we assume that this reduces to 30% as of 2007 (this would imply a total debt payment of around 1 billion US$ for the period 2007-2020, which is roughly the amount of debt agreed upon with the transfer of ownership).

Electricity, Hydro – Mphanda Nkuwa

We assume that Mphanda Nkuwa will become operational in 2014. Export figures are based on an annual export of 4,555 GWh against 2.75 USDc/kWh in 2014, with an annual increase of 1%. Furthermore we assume total construction costs of 1,600 million US$ (Ministry of Energy, 2007b), of which 10% will be sourced from Mozambique, and a 5-year construction period (2009-2013). Regarding profits we assume again a profit margin of 0.1 USDc/kWh and foreign ownership of 70%, implying that 70% of total profits will be repatriated. Finally, we assume that annual debt service repayments will be 10% of total debt, with debt being 70% of total investment costs (assuming 30% equity).

Electricity, Thermal, Natural Gas, Inhambane

We assume the new 700 MW natural gas fired electricity plant in Inhambane will become operational in 2010. Export figures are based on a price of 3.20 USDc/kWh in 2010, with an annual increase of 1%, and on the scenario that initially all its electricity will be exported to South Africa, while as of 2014 about 100 MW will be acquired by EdM and as of 2017 an additional 200 MW will go to the Corridor Heavy Sands project. Furthermore, we assume total construction costs of 800 million US$, of which 10% will be sourced from Mozambique, and a 4-year construction period (2007-2010, with major works in 2008-2009). Similar to Mphanda Nkuwa we assume again a profit margin of 0.1 USDc/kWh and foreign ownership of 70%, implying that

70% of total profits will be repatriated. Finally, we assume annual debt service repayments to be 10% of total debt, with debt being 70% of total investment costs (assuming 30% equity).

Electricity, Thermal, Coal, Moatize

We assume the new 1,500 MW natural gas fired electricity plant in Moatize will become operational in 2012 (1,000MW) and 2015 (500MW). Export figures are based on a price of 3.50 USDc/kWh in 2010, with an annual increase of 1%, and on the assumption that 90% of its production will be exported. Furthermore we assume total construction costs of 1,300 million US$, of which 10% will be sourced from Mozambique, and a 7-year construction period (2009-2015), with major works in 2009-2011 and 2015). Similar to Mphanda Nkuwa and the gas-fired thermal plant in Inhambane, we assume again a profit margin of 0.1 USDc/kWh and foreign ownership of 70%, implying that 70% of total profits will be repatriated. Finally, we assume annual debt service repayments to be 10% of total debt, with debt being 70% of total investment costs (assuming 30% equity).

Natural Gas – SASOL

Export figures for 2000-2006 are provided by Sasol, as given in Ministry of Energy (2007a), and assumed to grow from 102,061 TJ in 2006 to 137,269 TJ as of 2010 (reflecting effective maximum capacity of HCB). In addition, we assumed export prices will gradually increase from about 1.20 TJ US$/GJ in 2006 to about 1.49 US$/GJ by 2020. Regarding the Balance of Payments effect, we used the figures provided by Andersson (2001) and subsequently increased this linearly in accordance with the expansion of export quantities over time.

Coal – MOATIZE

We assume that large-scale exploitation of Moatize coal will start in 2009. Export figures are based on 90% of total production of 15 million ton/year at a price of 35 USD/ton. Furthermore we assume total construction costs of 1,000 million US$, of which 10% will be sourced from Mozambique, and a 4-year construction period

(2006-2009), with major works in 2008-2009). We assume profits to be 40% of total sales and foreign ownership of 90%, implying that 90% of total profits will be repatriated. Finally, we assume annual debt service repayments to be 10% of total debt, with debt being 70% of total investment costs (assuming 30% equity).

Heavy Sands – CORRIDOR

We assume the large-scale exploitation of the Chibuto heavy sands mine will start in 2010. Export figures are based on the information provided in Table 3 in the main text Furthermore we assume total construction costs of 1,000 million US$, and a 10-year construction period (2007-2016), with major works in 2008-2009 and 2014-16). Regarding the Balance of Payments effect, we used the figures provided by Andersson (2001) and subsequently increased this linearly in accordance with the expansion of production over time.

Heavy Sands – MOMA

We assume the large-scale exploitation of the Moma heavy sands mine starts in 2007. Export figures are based on the information provided in Table 3 in the main text. Furthermore, we assume total construction costs of 200 million US$, and a 3-year construction period (2005-2007). Profit figures are taken from Mirabaud (2007) and we assume foreign ownership (Kenmare Resources) of 95%, implying that 95% of total profits will be repatriated. Finally, we assume annual debt service repayments to be 10% of total debt, with debt being 70% of total investment costs (assuming 30% equity).

TABLE A2.1A Trade Balance & Balance of Payment Effect (million USD)

Aluminium-Mozal	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Export	1,106	1,117	1,128	1,692	1,861	1,954	1,974	1,993	2,003	2,013	2,023	2,034	2,044	2,054
Import	580	586	592	887	976	1,025	1,035	1,046	1,051	1,056	1,061	1,067	1,072	1,077
Import construction phase	212	845	160											
Trade Balance Effect	526	531	324	-41	725	929	938	948	953	957	962	967	972	977
Profits Repatriated	124	124	124	186	205	215	217	217	217	217	217	217	217	217
Debt Service	160	160	160	240	264	277	280	280	280	280	280	280	280	280
Balance of Payment Effect	242	247	40	-467	256	437	442	451	456	460	465	470	475	480

Electricity, Hydro – HCD	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Export	206	219	233	245	250	252	255	257	260	262	265	268	270	273
Import	206	219	233	245	250	252	255	257	260	262	265	628	270	273
Trade Balance Effect	206	219	233	245	250	252	255	257	260	262	265	268	270	273
Profits	16	16	16	16	16	16	16	16	16	16	16	16	16	16
Profits Repatriated	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Debt Payment	62	66	70	73	75	76	76	77	78	79	79	80	81	82
Balance of Payment Effect	142	151	161	169	172	174	176	178	179	181	183	185	187	189

Electricity, Hydro – MPHANDA NKUWA	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Export	0	0	0	0	0	0	0	125	127	128	129	130	132	133
Import construction phase	270	360	450	180	180									
Trade Balance Effect	0	0	-270	-360	-450	-180	-180	125	127	128	129	130	132	133
Profits	0	0	0	0	0	0	0	10	10	10	10	10	10	10
Profits Repatriated	0	0	0	0	0	0	0	7	7	7	7	7	7	7
Debt Repayment	112	112	112	112	112	112	112							
Balance of Payment Effect	6	8	9	10	11	13	14							

Electricity – Thermal Natural Gas – Inhambane	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Export	0	0	0	141	143	144	146	140	141	143	96	97	98	99
Import														
Import construction phase	90	270	315	45										
Trade Balance Effect	-90	-270	-315	96	143	144	146	140	141	143	96	97	98	99
Profits	0.0	0.0	0.0	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	
Profits Repatriated	0.0	0.0	0.0	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Debt Repayment	56	56	56	56	56	56	56	56	56	56	56			
Balance of Payment Effect	37	83	84	86	80	82	83	37	37	38	39			

TABLE A2.1B Trade Balance & Balance of Payment Effect (million USD)

Electricity – Thermal Coal – Moatize	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Export	0	0	0	0	0	221	223	225	341	345	348	351	355	359
Import														
Import construction phase			150	270	270	90	180	180	45					
Trade Balance Effect	0	0	-150	-270	-270	131	43	45	296	345	348	351	355	359
Profits	0	0	0	0	0	7	7	7	11	11	11	11	11	11
Profits Repatriated	0	0	0	0	0	5	5	5	7	7	7	7	7	7
Debt Repayment	91	91	91	91	91	91	91	91	91					
Balance of Payment Effect	-150	-270	-270	35	-53	-51	198	246	250	253	257	260		
Natural Gas –SASOL	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Export	148	163	168	171	178	182	186	189	193	197	201	205		
Import														
Trade Balance Effect	132	148	163	168	171	175	178	182	186	189	193	197	201	205
Balance of Payment Effect	**19**	**21**	**23**	**24**	**252**	**25**	**26**	**26**	**27**	**27**	**28**	**28**	**29**	**29**
Coal – MOATIZE	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Export	0.2	0.2	472.5	472.5	472.5	472.5	472.5	472.5	472.5	472.5	472.5	472.5	472.5	472.5
Import														
Import construction phase	270	450	90											
Trade Balance Effect	-270	-450	383	473	473	473	473	473	473	473	473	473	473	473
Profits	0.1	0.1	189.0	189.0	189.0	189.0	189.0	189.0	189.0	189.0	189.0	189.0	189.0	189.0
Profits Repatriated	0.0	0.0	132.3	132.3	132.3	132.3	132.3	132.3	132.3	132.3	132.3	132.3	132.3	132.3
Debt Repayment			70	70	70	70	70	70	70	70	70	70	70	70
Balance of Payment Effect			**180**	**270**	**270**	**270**	**270**	**270**	**270**	**270**	**270**	**270**	**270**	**270**
Heavy Sands – CORRIDOR	**2007**	**2008**	**2009**	**2010**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	
Export	0	0	0	238	241	244	246	249	251	254	257	260	703	711
Import														
Import construction phase	96	288	200	5	1	1	1	100	300	100				
Trade Balance Effect	-96	-288	-200	233	240	243	245	149	-49	154	257	260	703	711
	4	12	35	33	49	49	50	50	51	51	52	52	141	143
Heavy Sands – MOMA	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Export	119	122	125	191	196	200	205	209	214	219	224	229	234	239
Import														
Import construction Effect	50													
Trade Balance Effect	69	122	125	191	196	200	205	209	214	219	224	229	234	239
Profits	27	48	51	55	59	62	65	69	73	77	81	85	89	94
Profits	Repatriated	26	46	48	52	56	59	62	66	69	73	77	81	85 89
Debt Repayment	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Balance of payment Effect	30	62	62	125	126	127	129	130	131	132	133	134	135	136

Notes

[35] This paper was written when both authors worked at the National Directorate of Studies and Political Analysis (DNEAP) of the Ministry of Planning and Development in Maputo. We would like to thank the Ministry of Planning and Development (MPD) as well as the Ministry of Energy (ME) for access to their facilities and excellent collaboration. Peter Mulder also wants to thank the Danish International Development Agency (Danida) for financial support. The ideas presented in this paper are those of the authors and do not necessarily represent those of Danida, MPD, ME or any other institution of the Government of Mozambique. Any errors are exclusively our responsibility.

[36] Source: World bank Development Indicators.

[37] We also exclude gold and various types of mineral stones which, although available in Mozambique, are found in very small quantities and are to a large extent explored in an informal (illegal) way.

[38] This is in line with the projections of the Quadro Macro of the Ministry of Planning and Development (until 2010).

[39] We assume a doubling of production capacity in 2010, as well as the following annual growth figures: 2007: 3%; 2008-2009: 1%; 2011: 10%; 2012: 5%; 2013-2014: 1%; 2015-2020: 0.5%.

[40] Note that the investigation period started in 2007 with a maximum of 6 years, to be followed by exploitation.

[41] This assumption has rapidly become a rather conservative one in the light of the oil price increases since 2007. This observation underlines the volatility of oil prices and its potential huge impact on the value of oil exports in a country like Mozambique.

[42] This paragraph is based on World Bank (2006).

[43] From a purely pragmatic point of view, the choice of a longer exhaustion time would demand increasing the time horizon for the predictions of total rents (to feed equation [1]). On the other hand, rents obtained further in the future have less weight since they are more heavily discounted.

[44] Of course, electricity based on hydro is a renewable source and as such the methodology is, strictly speaking, not applicable to hydroelectricity. Furthermore, electricity in general is not a subsoil asset; hence, for matters of consistency we excluded electricity from our calculations.

[45] Note that although existent, resource extraction (such as coal) was always marginal under Portuguese colonial rule, while the economic significance of the Cahora Bassa dam was frustrated from shortly after its inauguration (1974) until the end of the 1990s due to destruction of the transmission lines during the post-independence civil war.

[46] Calculated as the direct trade balance effect (export – import) minus expected debt service and profit repatriation. Our calculations took as a starting point the information provided by Andersson (2001), which we updated and revised where necessary, while adding our own calculations for those projects not included in his paper. For example, our calculations reflect higher aluminum prices than assumed by Andersson, a completely revised calculation for HCB due

to the transfer of its ownership in 2007, as well as new information on the heavy sands mine of Moma, and the exploration of coal and the thermal production of electricity. We refer to Annex 2 for details of our calculations.

[47] Projections are from the Quadro Macro model of the Ministry of Planning and Development.

[48] It should be noted that the inflow of foreign aid in Mozambique during the last decade has also been considerable, accounting for about 20% of GDP in 2005, but it did not cause Dutch disease like problems (see also Foster and Killick 2006).

[49] For example, between 1950 and 2006 average annual fluctuation of real coal prices was – 0.34% with a standard deviation of 0.11. During the same period, real oil prices fluctuated on average by 6.41% per year, while the standard deviation was 0.36 (Source: Energy Information Administration USA, www.eia.doe.gov)

[50] Based on fiscal revenues projections from the Quadro Macro (MPD), assuming a 10% increase in 'normal' fiscal revenues as of 2010 and including Mozal (aluminum), HCB (hydro), Mphanda Nkuwa (hydro), the 2 new thermal power plants in Inhambane and Moatize, Sasol (natural gas), and the companies exploring the Moatize coal field and the Moma and Chibuto heavy sands deposits. See Annex 3 for more details.

[51] That this is not a full guarantee against mismanagement shows in the case of the Chad-Cameroon project, which was designed along these lines, but has been cancelled by the government of Chad in order to spend the money according to its own desires, including military expenses (Shaxson 2005, Yamada 2007).

[52] In the 2006 World Bank ranking 'Ease of Doing Business', Mozambique ranks 140 out of 175, particularly due to red tape (on average 113 days are required to start a business, 364 days to obtain licenses), high costs of import and export, and huge difficulties in enforcing contracts (on average 38 procedures, 1010 days).

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5. BUDGET REFORMS IN MOZAMBIQUE: TOWARDS A POLITICAL ECONOMY APPROACH

Paolo de Renzio

Introduction

Public Financial Management (PFM) is the process by which governments raise revenues and allocate, spend and account for public resources. The quality of PFM systems, therefore, is a key determinant of government effectiveness. The capacity to direct, manage and track public spending allows governments to pursue their national objectives, including economic growth and poverty reduction. Moreover, the quality of PFM systems affects governments' capacity to deliver services effectively in important ways, and hence have potentially strong implications for their efforts to reach the Millennium Development Goals (MDGs).

Recent debates on aid effectiveness have led to a shift in views on how aid can work better. Principles for enhancing aid effectiveness have been agreed by donor and recipient countries in the Paris Declaration on Aid Effectiveness (OECD 2005), along with a series of indicators and targets for tracking progress. Following such principles, evolving aid relationships in many recipient countries with a better performance record and stronger institutions are increasingly relying on programmatic delivery modalities, such as sectoral or General Budget Support (GBS). This is intended to increase government ownership of aid-funded development policies and programmes, reduce the transaction costs associated with fragmented aid delivery, and strengthen domestic accountability.

As more resources are channelled to poor countries, and increasingly through modalities that rely on, or at least are compatible with, country systems and procedures, budget processes assume new importance, as the main mechanism not only for allocating and spending aid resources, but also for delivering on development outcomes. PFM systems have therefore been an increasing focus of donor attention, their strength and adequacy being assessed for fiduciary purposes before aid is channelled via national budgets. Over the past few years, various methodologies have been developed to track PFM system performance over time. The joint IMF-World Bank HIPC assessment framework, used in 2001 and 2004 to gauge the capacity of countries benefiting from debt relief to track poverty-reducing expenditure was the first such attempt in low income countries[53], highlighting the opportunities and challenges in using indicator-based assessment instruments. In 2005, a much more detailed framework was developed after extensive consultations by a group of donor agencies called the Public Expenditure and Financial Accountability (PEFA) partnership, which has now become the standard tool in assessing PFM systems[54]. Mozambique, having received both debt relief and increasing amounts of budget support over the past few years, has been subjected to both assessments. In 2001 and 2004, HIPC assessments were carried out, while in 2005 an assessment using the new PEFA methodology took place. A follow up assessment is planned for 2007.

Early experience with PFM reforms has highlighted the many difficulties encountered in the implementation of PFM reform programmes in many countries, pointing to the need to understand better some of the underlying forces (social, economic and, above all, political) which influence the budget process and drive reform efforts. Dorotinsky and Floyd (2004) have summarised some findings on PFM developments in heavily indebted poor countries (HIPCs) since the mid-1990s. They conclude that, while budget formulation has improved in a number of countries, budget execution and accountability are still very weak in the majority. Thus, fewer than a third of the 20 countries surveyed had budget outturns which were close to the budget as adopted, and 90% of the African countries surveyed failed to produce final audited accounts within 12 months of the end of the fiscal year, rendering meaningful parliamentary oversight impossible. The authors also argue that paying more attention to institutional and governance arrangements is essential for designing and implementing PFM reforms. They note that:

> Apart from tepid political commitment in some countries, the complexity of numerous initiatives (for example, an integrated financial management infor-

> mation system, an MTEF, activity-based budgeting, and performance management) quickly drains available capacity and slows all reforms. (ibid., p. 207)

A more recent review of progress in 26 HIPCs (IDA/IMF, 2005) using the IMF-World Bank assessment methodology based on 16 different indicators of the quality of PFM systems, found that PFM performance had shown a slight improvement overall between 2001 and 2004, although the extent of progress had been mixed across countries and indicators. These mixed results happened despite substantial donor support, with an average of 7 donor agencies involved in PFM reforms in each country.[55]

A recent World Bank evaluation, *Capacity Building in Africa* (World Bank, 2005), concludes that 'while there have been successes, Bank support for capacity building has encountered considerable difficulty in the area of public financial management'. The report criticises the frequent focus on reorganising government units and on sweeping, unfamiliar techniques such as performance budgeting which have been 'transplanted from outside the country' and 'depend on consultants for implementation'.

These critiques point to certain flaws in the design of many donor-supported PFM reform programmes, which tend to pay too much attention to complex technical solutions and too little to existing constraints in terms of capacity, incentives and political-economy factors. Similar views were also expressed by a group of African senior budget officials, who stressed how 'incentives are important when reforms are implemented. Only rules that can be enforced and institutions that will matter should be introduced', while 'a sophisticated system that gets it right on paper is often destined to fail in implementation' (CABRI, 2005, p. 16).

Existing evidence therefore seems to support the claim that the main reasons for slow progress in PFM reform could belong to three different but interrelated categories. First, there is limited *capacity* within recipient governments to manage complex reform processes with highly technical components. Secondly, supporting donor agencies lay emphasis on 'big bang' *approaches* which aim at introducing a number of reforms at the same time, without giving due attention to sequencing matters or to political and technical feasibility. Finally, the *underlying factors* determining government willingness to embark on different reforms have clearly not been fully understood or taken into account in the design of donor interventions.

This paper is a preliminary attempt to look at ways in which the third of these factors, related to political economy issues which are more difficult to observe and therefore to interpret, can be usefully incorporated in policy-oriented research on budget reforms in low income countries.

The paper is organized as follows: section 2 gives a brief outline of recent PFM reforms in Mozambique. Section 3 summarises the methodology used to assess the progress in budget reforms, using data and information from both the HIPC and PEFA assessments, and analyses the results. Section 4 provides some the basic elements of a political economy approach, suggesting lines of enquiry and working hypotheses for a more in-depth study of the political economy of budget reforms in Mozambique. Section 5 concludes.

Recent PFM reforms in Mozambique

Since the first structural adjustment program in 1987, Mozambique has become a showcase of the growth and poverty reduction benefits of programs based on the 'Washington Consensus', with the implementation of a series of market-based reforms under the guidance of the World Bank and the IMF, which have transformed the role of government in economic policy-making. It has also been one of the first countries to benefit from debt relief under the HIPC initiative, supported by a PRSP (in Portuguese, *Plano de Acção para a Redução da Pobreza Absoluta*, herein PARPA) which was approved in 2001. The Government's medium-term strategy, reflected in the first PARPA, is based on maintaining macroeconomic stability, encouraging the private sector, promoting investment, rehabilitating infrastructure and developing human capital. The priority areas identified for public expenditure were education, health, agriculture and rural development, infrastructure and good governance. The second PARPA, which covers the period 2006-2009, puts more emphasis on economic growth and its importance for poverty reduction than the first one, and was formulated with the help of a series of sector working groups.

Since the late 1990s, Mozambique has also embarked on a series of so-called 'second generation reforms', focusing on a comprehensive public sector reform program designed to increase the capacity and effectiveness of the public sector in delivering services and promoting growth and development. Decentralization, improved Public Financial Management (PFM), pay reform, legal and judiciary

reforms, and anti-corruption initiatives all fall under this agenda, which is progressing at a slower rate than expected. These reforms include the strengthening of planning and budgeting systems, from the introduction of a Medium Term Fiscal Framework (*Cenário Fiscal de Médio Prazo, CFMP*) and of an Integrated Financial Management Information System (IFMIS, or in its Mozambican incarnation, *Sistema da Administração Financeira do Estado*, SISTAFE) to a clearer definition of the budget calendar, and of the roles and responsibilities of the different institutions involved.

These reforms are the result of two key pieces of legislation: the Budget Framework Law of 1997 and the SISTAFE Law of 2003. The objectives of such efforts were to: (a) improve the coverage and transparency of the management process of public finances (revenues and expenditures); (b) gradually assure effectiveness and efficiency of public spending according to policy objectives; and (c) enhance and assure long-term sustainability of fiscal policy and processes (Sulemane 2005).

Donor support for these processes has been substantial. As can be seen from Table 1, over the past 10 years Mozambique has received US$39m in technical assistance for PFM reforms from bilateral donors alone[56], a level which is higher than most other similar Sub-Saharan African countries, excluding Tanzania. This is linked to the increasing amount of aid flows being channelled directly through the country's budget. General Budget Support increased from about 2.7% of net official development assistance (ODA) in 2000 to about 14.1% in 2003 and 18.6% in 2004 (Batley et *al.* 2006), with overall resources that now top US$300m per year.

TABLE 1: Donor support for PFM reforms

Country	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Total
Mozambique	2.6	3.6	1	0.1	0.3	1	4.1	5	9	5.1	7.4	39
Tanzania	1.4	1.9	1.5	2.7	3.6	1.8	3	3.3	9.1	7.9	13.3	49.5
Zambia		0.1	0.2	0.2	0.2	0	0.3	0.8	2.5	6.1	10.9	21.3
Burkina Faso		9.8			0.8	0.6	0.5	0.7	1.3	1.9	1.8	17.3
Malawi		0	0.1	0.1	0.2	0.8	1.7	1.3	1.3	1.2	2.1	8.9

Source: www.oecd.org/dac/stats

Despite high levels of donor support, the quality of budget systems in Mozambique is still deemed to be quite low. A recent evaluation of budget support (Batley et al. 2006) stated that:

> The budget, planning and accounting systems on which donors are aligning are weak. Mozambique is a country with a high level of fiduciary risk, owing

> more to the weakness of its public finance management (PFM) system than to deliberate corruption or gross misuse of funds. There are serious and justified concerns over the effectiveness of un-earmarked aid flows entering a budget that is incremental in nature, is de-linked from costed outcomes, exhibits little improvement in operational efficiency over time, depends on vulnerable and non-transparent procurement practices, and remains an ineffectual indicator of how money is spent and allocated. (p.8)

A fiduciary risk assessment carried out in 2004 on behalf of the GBS donors (Scanteam 2004) also stressed that, despite an overall positive trend and a structured and comprehensive PFM reform programme, 'comprehensiveness and transparency of the budget is poor, medium-term planning and budgeting is weak, while budget execution and accounting and reporting present quite serious weaknesses' (p.1). Even the 2007 Joint Review, the annual meeting where donors and government discuss progress on their reciprocal performance, noted that:

> The risks associated with the PFM system decreased, but they continue to be considerable. Notably, the control framework is still weak, both in terms of compliance with legal and control mechanisms, and in terms of follow-up to internal and external audit processes. There's a need to ensure rapid implementation of PFM reforms. It's also important to note that the strategic allocation of resources to achieve better regional equity, and a closer link to the results foreseen in the PARPA II, together with efficient service delivery, are two fundamental objectives that deserve more attention.
>
> (Aide Memoire, April 2007. Translated from Portuguese)

Many of the opinions and assessments presented above, however, are often not based on a hard evidence base of the actual progress in PFM system reforms over the past years, but rather rely on a snapshot of the situation at a particular point in time. Looking at the actual results of the various assessments which have taken place, especially those that allow for inter-temporal comparisons, is therefore particularly useful in this respect. The next section does exactly that, in order to come to a clearer picture of how much improvement (or lack thereof) there has been in the quality of PFM systems in Mozambique since 2001.

Methodology, Results and Analysis

The HIPC assessment methodology was designed as an element of the strategy linked to international debt relief initiatives to ensure that the additional resources generated by debt cancellation were going to be used for poverty reduction purposes. In particular, the Boards of the World Bank and the IMF wanted to assess the capacity and strength of country PFM systems to track public spending, especially in areas that are crucial for poverty reduction, such as the delivery of basic services. The methodology revolved around 15 indicators, ranked from A (best) to C (worst), focusing on the primary dimensions of PFM performance: (a) *budget formulation*, covering the design of basic budgetary institutions and aspects of the process to prepare the annual budget; (b) *budget execution*, covering core aspects required to implement the budget; and (c) *budget reporting*, covering in-year, and end-of-year financial statements[57]. The basic idea is that the stronger the budget institutions are, the more governments will be able to use public resources (including debt relief) effectively in poverty reduction. In 2001, the methodology was applied in 24 HIPC countries. A slightly revised one, with an additional indicator on procurement systems, was used again in 2004 in 26 countries. In both cases, Mozambique was included in the sample, having been among the first countries to become eligible for the HIPC initiative[58].

In 2005, the PEFA framework was finalised. While it clearly draws on and is inspired by the HIPC methodology, it covers a much broader range of areas. It is based on a set of 28 high-level indicators, often composite in nature, which measure PFM system performance along six critical dimensions: (a) *credibility* of the budget; (b) *comprehensiveness* and *transparency*; (c) *policy-based budgeting*; (d) *predictability* and *control* in budget execution; (e) *accounting, recording and reporting*; and (f) *external scrutiny* and *audit*. Three additional indicators on donor performance are also included. The methodology is also based on much more detailed guidance on how to score each indicator, based on actual evidence gathered from government documents or other sources. The PEFA methodology has been used twice in Mozambique already, in 2005 (Lawson *et al.* 2006) and in 2007 (Lawson *et al.* 2008).

Important differences between the HIPC and PEFA approaches need to be recognized. HIPC expenditure tracking assessment followed a systems-approach, looking at critical elements of the over-all PFM system. The HIPC approach focused on the capacity of country PFM systems to track and report on spending on poverty

reduction, including both a country's own resources and resources freed-up through debt relief. For this purpose, for each indicator, a 'benchmark' performance level was identified. Taken in total, if a country were able to meet the benchmark for all indicators, it would be deemed able to track and report reliably on spending on poverty reduction. The PEFA approach also follows a systems approach, but includes a broader set of indicators covering more of the PFM system. The PEFA framework is meant to provide an overall assessment of the quality of PFM systems, without defining any specific benchmarks. While the HIPC assessment was targeted towards low-income country PFM systems, the PEFA framework is developed to be broadly applicable to all countries, regardless of level of development, embedding international good practice standards.

Despite these differences, it is often possible to use the information contained in the PEFA reports and 'map it back' onto some of the original HIPC indicators in order to update them. In this way, a small dataset containing scores for 11 indicators is available for Mozambique covering 2001, 2004, 2005 and 2007[59]. The overall results are summarised in Table 2 below.

TABLE 2: HIPC Assessment Scores, Mozambique 2001-7

	HIPC Indicator	2001	2004	2005	2007	Var.
Formulation	1. Budget coverage	B	A	A	A	↑
	2. Unreported extra-budgetary sources	C	C	B	B	↑
	3. Budget reliability	B	B	A	B	↑↓
	4. Inclusion of donor funds	B	B	B	B	=
	5. Budget classification	B	C	C	C	↓
	7. Integration of medium-term forecasts	B	B	B	B	=
Execution	8. Evidence of arrears	A	A	A	A	=
	9. Effectiveness of internal control system	A	B	B	B	↓
	10. Tracking surveys are in use	C	C	C	C	=
	11. Quality of fiscal information	B	C	C	C	↓
Reporting	15. Timeliness of audited financial information	C	C	B	B	↑
No. of benchmarks met		**4**	**3**	**4**	**4**	↓↑

Source: IDA/IMF (2001), IDA/IMF (2004), Lawson et al. (2006), Lawson et al. (2008).
The number of each indicator corresponds to that in the original HIPC methodology.

The results show that in terms of benchmarks met, Mozambique's overall performance has been stagnant, with a small but temporary decline in 2004. They also show that performance has been better (and improving) in the area of budget formulation, while budget execution saw some deterioration, and budget reporting improved, albeit from a low base. Some of the 2001 scores seem to deserve a certain degree of doubt, especially the ones on budget classification and on internal control systems[60]. In both cases, it can be argued that the situation did not worsen over the

period 2001-2004, and that therefore this skews the overall picture. Also, while the PEFA Assessments record some clear improvements in the quality of internal controls between 2005 and 2007, these do not translate in a better score on the HIPC indicators, given the definition of the benchmark.

There are some limitations to the analysis based on the HIPC assessment framework, however, which calls for the use of a slightly modified methodology (de Renzio and Dorotinsky 2007). Using the reduced number of original HIPC indicators for which information is available means that the three categories used to summarize the results – budget formulation, execution, and reporting – are less meaningful for this update. For budget reporting, only one original indicator is included, making it less significant. As a consequence, it might make sense to replace the sub-division along the different phases of the budget process with another one based on three basic dimensions of budgeting:

a) *the quality of budget information* (based on HIPC indicators 1, 2, 4 and 5), to assess the coverage, comprehensiveness and clarity of the budget documents;

b) looking at *the budget as a reliable policy instrument* (based on HIPC indicators 3, 7 and 10), in order to check the extent to which budgets are implemented as approved, contain a medium-term perspective and allow for tracking of resources to service delivery points; and

c) the *effectiveness of control and oversight functions* (based on HIPC indicators 8, 9, 11 and 15), to ensure that adequate mechanisms are in place to guarantee respect for existing rules and procedures, and to promote transparency and accountability.

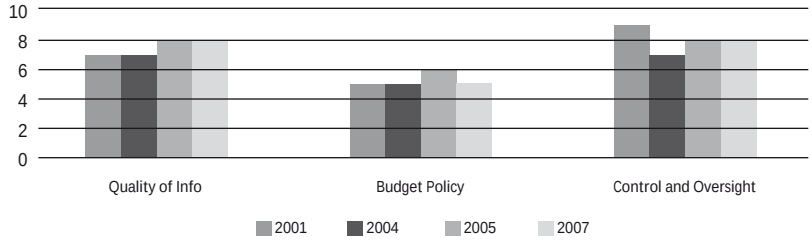
Secondly, using 'benchmarks met' as a measure of performance could hide changes above or below the threshold. In this sense, it might be preferable to use raw scores instead which assign a numerical value to each possible score[61], regardless of whether it meets the benchmark or not. Reporting on raw scores rather than benchmarks met will reveal more variation in performance. The benchmark approach, as a fixed standard, can be expected to show less over-all variation over time. While useful for assessing progress towards expected standards, it can mask performance changes more generally. Countries might improve or decline in performance on raw scores, but still meet or fail to meet a benchmark. Table 3 shows the results using the modified methodology.

TABLE 3: Raw scores by area, Mozambique 2001-7

	HIPC Indicator	2001	2004	2005	2007	Var.
Quality of Info	1. Budget coverage	2	3	3	3	↑
	2. Unreported extra-budgetary sources	1	1	2	2	↑
	4. Inclusion of donor funds	2	2	2	2	=
	5. Budget classification	2	1	1	1	↓
	Sub-total	**7**	**7**	**8**	**8**	↑
Budget Policy	3. Budget reliability	2	2	3	2	↑↓
	7. Integration of medium-term forecasts	2	2	2	2	=
	10. Tracking surveys are in use	1	1	1	1	=
	Sub-total	**5**	**5**	**6**	**5**	↑↓
Control & Oversight	8. Evidence of arrears	3	3	3	3	=
	9. Effectiveness of internal control system	3	2	2	2	↓
	11. Quality of fiscal information	2	1	1	1	↓
	15. Timeliness of audited financial information	1	1	2	2	↑
	Sub-total	**9**	**7**	**8**	**8**	↓↑
	TOTAL	**21**	**19**	**22**	**21**	↓↑

The modified methodology paints a similar but slightly more detailed picture of Mozambique's performance in improving its PFM system, with at least partial or more recent improvements in all three main areas (see also Figure 1). Improvements in the quality of budget information were driven by better coverage of overall government operations, and a reduction in extra-budgetary funding (although this is, by its very nature, very difficult to gauge). Budget reliability (in terms of keeping outturn close to original budget projections) has been quite good although variable, rendering the budget a useful policy instrument despite the lack of clear progress on medium-term frameworks and expenditure tracking. And finally, improvements in oversight have been only partly offset by a continued problem with internal controls.

FIGURE 1. Total socre by area, Mozambique 2001-07



Source: Author

What are some of the more general conclusions that can be drawn from the above analysis? First of all, despite some of the mentioned methodological issues, relying on

indicators-based assessments which are comparable over time allows a clearer picture to emerge of actual progress in the quality of the various basic elements of a PFM system. The repetition of PEFA assessments in Mozambique, in this respect, is likely to generate a wealth of information which will allow for a much more detailed analysis of progress in different areas.

Secondly, the analysis of the results over the period 2001-2007 shows that there have been improvements in the PFM system in Mozambique, especially with regard to budget coverage and transparency, and to the role played by the *Tribunal Administrativo* and Parliament in external oversight. Important weaknesses seem to persist, however, in the area of internal controls, despite the more positive trend noted in the most recent PEFA assessment.

Systems related to payroll control and procurement, which cover the great majority of public expenditure, have improved significantly, but other areas have performed less well. Expenditure tracking, for example, is done only at a very aggregate level, preventing a clear assessment of the impact of budget resources on service delivery. Overall budget credibility has also not improved. Moreover, the integrated financial management information systems (e-SISTAFE) component of the ongoing reforms, which is meant to improve the transparency and speed of execution and reporting, has been repeatedly delayed, as can be seen from the successive Joint Reviews. These elements, while showing an overall positive trend, are still undermining the quality of budget management, and raise questions about the extent to which other improvements can actually have a positive impact on the effectiveness of public expenditure.

Finally, an analysis of the positive, but slow and uneven, progress shown in PFM reforms can be used to look at the effectiveness of donor support for PFM reforms, and more generally of aid policies in Mozambique, and at the factors influencing the pace of progress in improving budget systems. The GBS evaluation mentioned above states that 'GBS has been influential in planning and budgeting, not only through its funding but also through the focus of dialogue on the national budget and shared policy objectives. It supports changes in the relationship and reporting lines between core government and line ministries, and between line ministries and donors […] The budgetary process is beginning to be adjusted to support a more coordinated and directive government strategy' (Batley et *al.* 2006, p. S5).

While the Government clearly sees (and has repeatedly stated) the benefits of moving towards GBS and other programmatic forms of donor support, in order to reduce aid fragmentation and increase the volume of resources which flow through the national budget, there are some contradictions which need to be highlighted[62]. First of all, as long as different aid modalities coexist in Mozambique, the administrative burden of aid coordination is probably increasing rather than decreasing, as government officials need to devote attention both to the large number of projects that still exist, while at the same time attending a large number of meetings created as part of the GBS machinery. Secondly, as Richard Batley notes in a recent study on *The costs of "owning" aid*, 'the demands on government for improved financial management and reporting, however valid, are certainly heavier' (2005:422).

Coming to a more comprehensive and exhaustive explanation of progress in PFM reforms, however, is no easy task. Looking at experiences from different countries, Andrews and Turkewitz note how 'the typical suspects of budget and financial management reform failure are poor political will and weak budgeting and financial management capacity' (2005:205). Quite often, however, these general factors are not unpacked and problematised, leaving both donors and recipient governments frustrated by a lack of understanding of the real reasons for lack of progress in PFM reforms.

On politics, their case studies show, unsurprisingly, that political support for reform is important, and that such support needs to be followed through with more specific bureaucratic and technical support, and sustained through periods of political change. On capacity issues, Andrews and Turkewitz claim that

> capacity building has supply and demand facets, with constraints on both sides hindering necessary capacity development […] Major factors influencing capacity building included politics, resource access, bureaucratic politics, unsympathetic and unwavering organizational structures, entrenched and "accepted" practices that ran contrary to the reform, the involvement of external agencies, and internal culture (2005, p.207-8).

A World Bank evaluation of capacity building (World Bank 2005) also notes that capacity-building efforts can be undermined by difficult governance issues, including the non-implementation of agreed reforms, particularly in areas such as procurement and parliamentary oversight.

Political economy factors, therefore, seem to be crucial in shaping the success or failure of PFM reforms, both directly and indirectly by influencing capacity building efforts. The crucial issue of how to interpret and expand such findings in the case of Mozambique is addressed in the following section, which aims to draw the basic elements of a political economy approach for the analysis of budget reform processes.

Towards a political economy approach

The term 'political economy' is most often used to refer to interdisciplinary studies that draw on different social science disciplines to explain the interaction and reciprocal influence between political institutions, the socio-cultural environment, and the economic system prevalent in a country. In other words, a political economy approach seeks to interpret phenomena at the interface between the economic and political spheres (as is typical of public policy issues, including budgets) by looking at the various actors involved, their capacities and interests, the formal and informal institutions that shape the environment in which they act, and the incentives which they face[63].

Budget processes and budget reforms are often approached from a more technocratic angle, looking at rules, regulations and practices. This, however, denies the fact that the budget is first and foremost an arena of political confrontation between competing interests, where each actor is motivated by a different set of interests and capabilities, and faces different incentives and constraints. A political economy approach is therefore the most adequate for going beyond simplistic explanations of capacity constraints and 'lack of political will', and taking a closer look at the underlying dynamics of budget processes and reforms. A recent DFID briefing paper on this matter puts it well:

> Lack of 'political will' is often identified as a major cause of reform failure. However, this recognition often reflects an insufficient appreciation of the political economy of policy reform, both its design and its implementation. Dysfunctions in PFM systems are often the result of political failures, as much as technical weaknesses. Technical capacities and political incentives interact to explain the functioning of budgetary systems. (DFID 2007, p.7)

A brief look at the list of actors normally involved in the budget process immediately reveals its complexity. Politicians and bureaucrats, central, sector and local government agencies, parliaments and audit institutions, political parties, the media and civil society, not to mention donor agencies in poor countries all participate in different ways in the budget process, and have different interests, incentives and commitment to improving its process and the related outcomes. Table 4 lists some of these actors in Mozambique (limited to the budget formulation phase), highlighting some of the issues and contradictions involved.

All of these actors are embedded in a system of formal institutions, such as constitutions, laws and regulations, and of informal norms, linked to political bargaining, patronage, party allegiances or other influence networks, and links with business interests or other lobby groups. The questions that are then most likely to be key in determining whether reforms are adopted and achieve their objectives are:

Who sets the agenda? Who gets what, when and how? Who knows whom, why and how?

The limited literature that exists on these matters[64] points to two important common issues. Firstly, there can be a significant gap between formal processes and informal practices, between the formal rules of the budget process and the informal institutions shaping budget outcomes. In this sense, power and politics help explain why studies in different countries have described the budget as a "theatre" (Rakner et al. 2004), as a "façade" (Killick 2004) or a "deceptive mirage" (Pradhan 1996). What matters, however, is the interaction between formal and informal institutions, whether they support each other or neutralise one another. In Malawi, for example, sound formal rules and procedures are in place, but are distorted by informal practices which determine the actual distribution of budget resources. The budget provides the illusion of rationality, partly to please foreign donors. Moreover, the incentives of the main stakeholders (the bureaucracy, the government, the legislature, civil society as well as donors) undermine, intentionally or unintentionally, formal institutions at each stage of the process (Rakner *et al.* 2004).

Secondly, looking at the broader political environment, many African countries are characterised by a particular institutional configuration that is based on the coexistence of a formal democratic state with its bureaucracy, and an extensive informal system based on patronage and clientelism. Such regimes have been termed 'neopatrimonial' (see van de Walle 2001 and 2005, Chabal and Daloz 1999, Cammack 2007).

Table 4. Actors in the budget formulation process in Mozambique

Actor	Main Role	Issues
Parliament	Parliament comments and approves PQG, PES and OE, and reports on plan and budget implementation.	• Parliamentary Committee is quite active, but has limited means and capacity. • Nature of political system prevents constructive dialogue in Parliament, with block voting guaranteeing approval of government plans and budgets. • Opposition offers little constructive criticism.
Council of Ministers	The Council of Ministers approves all government policies and documents before they are submitted to the Parliament for consideration.	• CoM does not seem to play a large role in strategic decision-making. • CoM has not approved CFMP until 2006, but only budget when ready to be submitted to Parliament. • Lack of clarity in division of roles between MF and MPD • Limited 'challenge function' vis-à-vis sector proposals. • Separation between detailed budget information and results information between OE and PES.
Government Central Agencies	MF and MPD are the two main agencies tasked with planning and budgeting. They collect information and proposals from the sectors, coordinate efforts and compile main documents (PARPA, CFMP, PES, OE)	
Government Sector Agencies	Sector ministries provide all detailed inputs for central plans and budgets, but at the same time undertake sector-specific planning and budgeting exercises.	• Often sector strategic plans and annual operational plans have not been fully consistent with PARPA and PES. • Sector incentives are not aligned with the objectives of integrated strategic planning and budgeting, mostly because of fragmented and specific funding sources. • Existing legislation gives little autonomy to Provinces and Districts, although this is gradually changing. • Full autonomy given to Municipalities prevents better integration of planning and budgeting processes. • Legal framework for local government finances is incomplete.
Government Local Governments	Limited role played by LGs, mostly limited to inputs into central sectoral planning and budget processes. Municipalities have full autonomy, but limited capacity for strategic planning.	
Civil society	Until recently, the role of civil society in planning and budgeting processes has been extremely limited. The recent creation of the Poverty Observatory has increased its involvement, but the content of its contribution is still limited.	• Variety of actors involved (trade unions, private sector associations, NGOS, media) means that there are many different interests at play, not necessarily compatible. • Scarce capacity and interest in general policy and public finance issues.
Donors	Group of 18 donors providing budget support play a very important role in the planning and budget process, through policy dialogue, financial support, technical assistance and conditionality frameworks (PAF).	• Despite heavy influence of GBS donors, the co-existence of different aid modalities undermines coherence and skews incentives. • Donor influence might undermine domestic accountability.

Source: de Renzio and Sulemane (2006)

Neopartimonial regimes are characterised by the use of state resources for private gain as a reward for political loyalty, by the distribution of favours at all levels of society to ensure regime stability, and by the centralisation of power around a 'big man', usually the president. In the words of Cammack (2007), in neo patrimonial regimes

> real power and real decision-making lie outside formal institutions. Instead, decisions about resources are made by 'big men' and their cronies, who are linked by 'informal' networks that exist outside (before, beyond and despite) the state structure, and who follow a logic of personal and particularist interest rather than national betterment. […] Though there are differences between regimes, their overarching logic is to gain and retain power at all costs. In such circumstances, policy decisions about development and governance are subordinated to that single, overriding goal. (p.600)

In such environments, access to public resources and rents are clearly functional to the regime's maintenance, and therefore budget processes become central power struggles. Budget reforms will be implemented only to the extent to which they do not threaten the capacity of the incumbent regime to remain in power. Cammack (2006), looking at the case of Malawi, shows how reforms in budget formulation were implemented because they encountered little resistance, while budgetary execution measures failed because they threatened patronage, and therefore attracted much greater resistance. At the same time, the lack of clear sanctions meant that although funds were regularly misused, no one was held accountable. Donors chose to support the easier reforms rather than recognise and tackle the more difficult execution issues. Even then, he notes how 'many of the formal [PFM] structures (including the MTEF) were donor-devised constructs developed without regard for political/patrimonial imperatives, and too often were poorly designed, improperly sequenced, or overly complex' (Cammack 2006, p.18).

Do these more general points apply in the case of Mozambique? In a study on the political economy of the budget, Hodges and Tibana (2005) draw an interesting picture of the functioning of the budget process, looking at the different actors involved and at their incentives. They find that high levels of aid dependency are one of the main determining forces shaping budget policies and processes, given the weaknesses of internal demand for accountability. In their words:

> The almost complete absence of a domestic "demand function" outside government for improvements in the budget is a manifestation of deep-rooted structural features of the Mozambican situation that will change only gradually as the country achieves higher levels of economic and social development […] More fundamentally, however, if internal pressure on the government remains

> weak, capacity development will not be enough, as commitment to pro-poor priorities is likely to be tempered by the more narrow "predatory" interests of the leading families that constitute the politico-business elite. To some extent donors can act as a "proxy" restraint on the elite in the absence of strong internal checks and balances. Nonetheless, there are limitations to this – and some inherent contradictions. Much more important in the long run will be the development of internal demand for improved budget policy and performance. (Hodges and Tibana 2004, p.13)

This seems to strengthen the impression that neopatrimonial forces are at work in Mozambique just as much as in many other African countries. In a way, the slow progress that the data show in control mechanisms for budget execution could also stem from a mechanism similar to the one that prevented budget execution reforms from being successful in Malawi.

The important role that donors play, however, can have some negative aspects as well. Hanlon (2004) and de Renzio and Hanlon (2007) argue two points. Firstly, that as a result of the complex GBS machinery, and of the weakness of the government system, donors are in fact increasingly involved in all stages of the policy process, having priority access to key documents and information, and influencing government policy by putting pressure 'from within'. The flip-side of this arrangement is that their joint responsibility and stake for Mozambique's success are higher than ever. Secondly, and as a consequence of this, Mozambique's fame as an African 'success story' led to the establishment of a 'pathological equilibrium' in which donors accept a certain level of corruption in exchange for political stability and overall compliance with a number of policy conditionalities. Governance reforms, as has been repeatedly noted in annual Joint Reviews, are allowed to slip, as long as other areas make enough progress. This seems to be more true for judicial reforms, for example, as they more directly threaten the interests of parts of the elite, than for PFM reforms, which have been making some, albeit slow, progress, especially in areas that more directly impinge on the government's capacity for maintaining the patronage system.

The discussion above suggests that it would be very useful to take a better look at the recent history of budget reforms using a political economy lens, in order to assess whether lack of significant progress in certain areas has its roots in the

constellation of actors, interests, institutions and incentives that are prevalent in Mozambique, and whether the reform package supported by donors has adequately addressed the factors shaping political commitment to reforms. Below a series of questions and working hypotheses are formulated, which could constitute the core of such a research approach.

- Who are the key actors and what are their interests and incentives for each major area of the PFM reform package (planning and MTEF, e-SISTAFE, tax reform, audit, local government, etc.)? Is it the case, as in Malawi, that certain areas of reform (e.g. budget formulation) are more likely to succeed because of their 'harmlessness' to key interests?

- How were reform priorities defined? Did donors pay enough attention to the issue of government ownership and careful sequencing? What was the role of key government players, and can the main supporters and detractors of the various reform components be identified?

- Have the potential winners and losers from reform outcomes been identified? Do they both have similar capacities to influence reform progress? Was there a strategy to compensate potential losers?
- What are the key formal and informal institutions affecting each of the reform areas? What are the incentives faced by different actors (i.e. in ensuring credible and binding medium-term projections, in following up on audit results, in creating a transparent and effective expenditure control system? Do the informal institutions weaken or strengthen the formal ones?

- What was the role played by 'accountability agents' (Parliament, *Tribunal Administrativo*, media, civil society, donors) in pushing for and sustaining momentum for reforms? Is a system that is almost exclusively based on donor pressure and support sustainable? What are the events and factors that could reverse the progress so far?

These are just some of the issues that a political economy approach would have to address. Of course, there are clear methodological difficulties in accessing the

sort of information that could help shed light on some of the questions above. Informal institutions are, by their very nature, difficult to observe, and it might be in the interest of many individuals not to reveal their true workings. Nevertheless, a carefully designed research approach should allow for enough useful evidence to be gathered in order to at least partially test some of the hypotheses presented above.

Conclusions

This paper has looked at the progress achieved by Public Finance Management reforms in Mozambique in the period 2001-7. This has emerged as a key area of governance, especially in the wake of donor efforts to channel increasing resources through recipient countries' budget systems. Data from HIPC and PEFA assessments show that there has been some positive but slow and uneven progress, despite significant donor support, to the tune of US$39m over the past decade. How can this be explained? Traditionally, capacity constraints and a generally conceived 'lack of political will' have been blamed for reform failures. Taking politics seriously, however, implies a much more careful approach to the political economy dynamics shaping reform initiatives and efforts. Some basic questions and hypotheses have been put forward to outline what a political economy approach could look like.

The role that donors can play in strengthening government ownership, budget systems and domestic accountability is more complex than many are willing to admit. Different actors and interests play different roles in shaping government policies and priorities. In aid-dependent countries, accountability mechanisms are shaped both by external factors, such as the influence of donors on budget choices, and by domestic factors, including clientelist practices and the role played by parliamentary committees and civil society organisations. Formal processes and procedures can be in contradiction with informal forces, and institutional incentives defined by existing rules and regulations may not be mirrored by individual ones driven by personal interest and patronage.

The purpose of this paper was merely to suggest future avenues for interesting research based on existing knowledge of progress made by PFM reforms in Mozambique, and on insights gained by political economy approaches in different

countries. It is therefore meant to be a preliminary sketch for future research, which will have to take into consideration methodological difficulties and data constraints.

Notes

[53] See all related material at http://go.worldbank.org/6NCYI7K2V0.

[54] See www.pefa.org.

[55] The total spending of donor agencies on public-sector financial management jumped from $9.4m in 1995 to $150m in 2000, and $245m in 2005 (OECD, Creditor Reporting System database, www.oecd.org/dac/stats/idsonline, in 2004 prices). This database does not include the World Bank, the IMF and regional development banks, which have also invested heavily in PFM reform programmes.

[56] Including the European Commission. The DAC database does not include funding from the World Bank, the IMF and other multilateral institutions, therefore underestimating the total amount of resources invested.

[57] More than just give a score for each country, the methodology defines minimum benchmarks that each country is expected to reach for each indicator.

[58] See IDA/IMF 2001 and IDA/IMF 2004.

[59] For ease of reference, these dates refer to the years in which the main data collection and scoring effort was undertaken. The 11 indicators exclude those on pro-poor spending, which are not covered by the PEFA methodology, and the one on procurement, which looks at different issues. For specific guidance on the various indicators, see WB/IMF (2003). For a table specifying how the scores for 2005 and 2007 were obtained, see the table in Appendix 1.

[60] A careful look at the material and information available in the reports supports this view. Some changes were introduced in the methodology between 2001 and 2004, which might also help justify some of the inconsistencies in the scoring.

[61] For the purposes of this paper, A=3, B=2 and C=1.

[62] For a discussion of some of these issues, related to the inherent costs of GBS, see Batley (2005).

[63] Reviews of theories of political economy are provided by Caporaso and Levine (1994), and by Persson and Tabellini (2000); broad political economy approaches to developing countries are provided by van de Walle (2001), and by Grindle (1996 and 2004).

[64] Usefully summarised and presented in DFID (2007).

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6. EXCHANGE RATE AND CONSUMER PRICES IN MOZAMBIQUE: A CO-INTEGRATION APPROACH

Carlos Leonardo Vicente

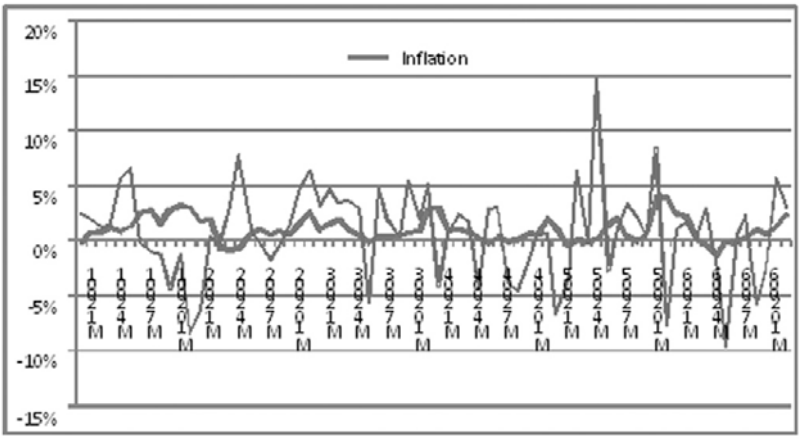
Introduction

Mozambique has been successful in reducing inflation from levels above 30 per cent a year in the late 1980s and early 1990s to a single digit starting in 1997. One of the most important policy actions in bringing inflation down was the control of money growth through tight monetary policy (Ubide 1997). However, inflation remains volatile (Figure 1) driven mainly by seasonal factors such as droughts, floods, the adjustment of regulated prices and speculation during the Christmas period (Bank of Mozambique 2002). Beyond seasonal factors and money, the behaviour of the exchange rate (particularly between the Mozambican metical and the South African Rand) has been identified as an important determinant of inflation in Mozambique (Ubide 1997; Omar 2003; Bank of Mozambique 2005 and Cirera and Nhate 2007)[65]. These studies report pass-through coefficients of between 0.18 and 0.74 suggesting that, *ceteris paribus*, a 1 per cent depreciation of the Metical/Rand exchange rate leads to an increase in the Consumer Price Index of between 0.18 and 0.74 per cent in the long run.

Ubide (1997) used monthly data for the period 1989:M1 to 1996:M12 to study the determinants of inflation in Mozambique. He found that unpredictable factors in the agricultural sector, monetary expansion and the depreciation of the Metical/Rand exchange rate are the main drivers of inflation. Based on a co-integrated Vector Auto-

-regression (VAR) including the Mozambican CPI (used as the normalizing variable), the South African CPI, money and the exchange rate, he reported a long-run exchange rate pass-through of 0.18, a long-run coefficient of 1.64 for the South African prices and 0.72 for money. Similarly, Omar (2003) replicated Ubide's methodology using data covering the period 1993:M1 to 2001:M12. He estimates a parameter of 0.74 for the Metical/Rand exchange rate and 0.34 for money. Contrary to expectations, he finds a puzzling negative relationship between South African and domestic prices.

FIGURE 1. **Inflation and exchange rate growth, 2001: M1 2006: M12**



Cirera and Nhate (2007) estimated a model including monthly data on consumer prices, import prices, the Metical/Rand exchange rate, border taxes, transport costs and markups. The sample covered the 2000-2005 period and included 25 agricultural and light processed products. They found that the pass-through from import prices to consumer prices was low (0.2 per cent on average) while the pass-through from the exchange rate to domestic prices was high (between 50 and 70 per cent, depending on the model specification).

Despite differences in model specification and econometric methodology (co-integration versus single equation), both Omar and Cirera and Nhate report similar results pointing to a higher exchange rate pass-through in Mozambique. Taken together, the results suggest that the benefits of a flexible exchange rate regime may be limited (Coricelli et. al. 2004)[66] and monetary policy cannot be conducted

independently without concerns about the exchange rate, making inflation targeting relatively harder to implement (Choudhri and Hakura 1998).

These findings support three main consensuses in the literature. Firstly, that the pass-through is incomplete – changes in nominal exchanges rates are not fully passed into prices, suggesting that prices are less volatile than exchange rates (Pollard and Coughlin 2005)[67]. Secondly, that the pass-through decreases along the production chain (McCarthy 2000), being higher at import price level and falling as one moves down the chain (to manufacturing and consumer prices[68]). Thirdly, the degree of pass-through varies across countries and studies.

McCarthy (2000) uses a VAR model consisting of eight endogenous variables (oil price inflation in domestic currency, the output gap, exchange rates, short-term interest rates, money, producer, import and consumer price inflation) to track the impact of exchange rate and import price shocks on the CPI and the Producer Price Index (PPI) inflation in nine developed countries[69] during the 1976:Q1-1998:Q4 period. Based on impulse response analysis, he finds a relatively larger pass-through from exchange rates to import prices but less to PPI and CPI inflation. In addition, he finds that PPI inflation responds more to import price shocks than CPI inflation. Nevertheless, both exchange rate and import price shocks account for a small fraction in the overall variation of inflation.

Campa and Goldberg (2005) investigated the pass-through to import prices in 23 OECD countries from 1975:Q1 to 2003:Q4. They concluded that 46 per cent of the short-run variation in import prices reflects exchange rate fluctuations. In the long-run, the pass-through increases to 65 per cent. An exception was a relatively lower pass-through of 23 per cent in the short-run and 42 per cent in the long-run for the USA.

Billmeier and Bonato (2002) applied a recursive and co-integrated VAR to study exchange rate pass-through along the production chain in Croatia, using monthly series of the average exchange rate between the *Kuna* and the Deutsche Mark, the retail and manufacturing price indexes, the output gap and the raw materials price index, spanning the period 1994:M4 to 2001:M1. In a recursive VAR setting, they find that manufacturing prices react to exchange rate innovations but the retail price index does not. In addition, using a CVAR including only the exchange rate, the manufacturing and the retail price indexes, they report a log-run pass-through of 33 per cent.

These differences in the degree of pass-through reflect country heterogeneity and model specifications. For example, Dornbush (1987) points to differences in market

concentration, import penetration and substitutability of domestic and imported products as important factors explaining the differences in pass-through across sectors and countries. Other authors (Devereux and Yetman 2002; McCarthy 2000) identify differences in inflation levels, exchange rate volatility[70] and shares of imported goods in domestic demand. However, Campa and Goldberg (2005) argue that macro-economic factors, including inflation and exchange rate variability, play little role in explaining pass-through differences among OECD countries. With regard to model specification, Kahn (1987) claims that, in general, studies reporting larger pass-through coefficients fail to account for other determinants of inflation, particularly energy price changes and economic policy shocks.

Using monthly data from 2001:M1 to 2006:M12, this paper applies the co-integration approach and the associated error correction model to study the importance of money, the exchange rate and South African prices in explaining consumer price changes in Mozambique, focusing on the estimation of the long-run pass-through coefficient. Impulse response analysis is used to disentangle the response of consumer prices to shocks in money, the exchange rate and South African prices. The decomposition of the error forecast variance of prices is applied to assess the importance of each of three variables in explaining domestic price variations.

The study contributes to the understanding of the pass-through literature in Mozambique in two ways. First, it updates Ubide and Omar's studies by using a recent dataset. Secondly, it tests whether the domestic and foreign prices 'puzzle' reported by Omar reflects a general feature of the relationship between Mozambican and South African prices, or can be regarded as sample specific. However, unlike these two studies which concentrated in the estimation of full inflation models for Mozambique, this paper focuses on the estimation of the pass-through coefficient using the same variables employed in previous studies, which allow important comparisons can be made.

Consistent with previous research, the paper finds that money, the exchange rate and inflation are important determinants of inflation in Mozambique. In particular, a 1 per cent exchange rate depreciation leads to a 0.15 per cent increase in the price level. In addition, impulse response analysis indicates that, following a shock, prices adjust quickly towards their new long-run equilibrium. Moreover, money and South African prices are the most important variables in explaining consumer price variations. Compared with the exchange rate, money explains a relatively larger variation in consumer prices.

Following this introduction, Section 2 describes the data used in the estimation. Section 3 outlines the analytical framework and the methodology including the Augmented Dicky-Fuller test for stationarity and the Johansen co-integration procedure. Section 4 presents and discusses the results and section 5 concludes.

Data

The empirical analysis is conducted using monthly data spanning the period from 2001:M1 to 2006:M12. The choice of the sample period was conditioned by the availability of exchange rate data. The exchange rate (e_t) is the average nominal bilateral exchange rate between the Mozambican Metical and the South African Rand. It is defined as the number of Meticais per unit of a Rand[71] such that an increase in the exchange rate means depreciation and a decrease means appreciation. As proxies for domestic and foreign price levels (p_t and p_t^* respectively), monthly consumer price indexes (2000:M12=100) are used. Money (m_t) is proxied by M2 aggregate which comprises the currency in circulation and total deposits (demand, time and advance notice deposits) in national and foreign currency.

Data on exchange rates comes from the Bank of Mozambique. The domestic CPI series were obtained from the National Statistics Institute online database while the South African price index and M2 were accessed from the International Monetary Fund's Financial Statistics online database. In the analyses that follow, LCPI, LCPISA, LM2 and LZAR are respectively the logarithms of the domestic CPI, the South African CPI, money and the exchange rate. All the variables are detrended using the X12 program.

Analytical Framework and Methodology

This section develops a simple theoretical model that forms the basis for the empirical analysis and the choice of the variables. According to Kim (2001) and Ubide (1997), the general price in the economy (P_t) is defined as the weighted average of the price of the non-traded good (P_t^N) and the price of the traded good (P_t^T) such that,

$$P_t = \alpha P_t^T + (1 - \alpha) P_t^N \text{, where } 0 < \alpha < 1 \qquad (1)$$

It is assumed that the price of the traded good is determined in international markets and depends on the nominal exchange rate (E_t) and the foreign price level

(P_t^*). Assuming that the absolute version of the purchasing power parity holds ($P_t^T = EP_t^*$), the price of the traded good in logarithms can be expressed as:

$$p_t^T = e_t + p_t^* \qquad (2)$$

It is also assumed that the determination of the price of the non-traded good takes place in the domestic market and is a function of overall demand in the economy which depends on equilibrium in the money market $\left(\frac{M^d}{P} = \frac{M^s}{P}\right)$. Hence,

$$p_t^N = \varphi\,(m^s - m^d) \qquad (3)$$

where φ is a 'scale factor representing the relationship between the economy-wide demand and demand for non-traded good' (Ubide 1995, p.15). A complete and conventional specification would specify the demand for money as a function of real income and interest rates. However, studies for developing countries have replaced interest rates by expected inflation on the grounds that there is a limited substitutability between money and interest bearing assets due to the underdevelopment of financial markets. Thus,

$$m^d = f\left(y_t, E(\mathsf{p}_t)\right) \qquad (4)$$

After performing the substitution and collecting terms we obtain:

$$p_t = f\left(e_t, m_t, p_t^*, y_t, E(\mathsf{p}_t)\right) \qquad (5)$$

where the domestic price level depends on money supply, expected inflation, foreign prices, the exchange rate and income[72]. Except the real income, the increase in all other variables would be expected to push up the price level.

In order to investigate the pass-through from exchange rate to inflation, this paper will estimate a four-variable co-integrated VAR including domestic consumer prices, exchange rates, money and South African consumer prices. The model is specified as a vector, $x_t = (p_t, e_t, m_t, p_t^*)$, where p_t, e_t, m_t, and p_t^* are the logarithms of the domestic consumer price index, the nominal exchange rate, money supply and the South African consumer price index[73].

The advantages of using a co-integrated VAR is that it is based on a VAR methodology under which the behavior of each variable in the model is explained by its own past values and the past values of the other variables. The VAR methodology

is very attractive because it does not impose *a priori* identification constraints on the variables thereby avoiding endogeneity problems. Since there is no certainty as to how money, exchange rates and prices interact, the VAR approach seems to be an appropriate modeling strategy (Deravi et al 1995). In addition, the dynamics of the variables can be analyzed through impulse response analysis and the relative importance of a set of variables in the model in explaining the variations of a particular variable can be assessed using variance decompositions. Moreover, unlike the unrestricted VAR, co-integration takes into account the long-run relationships between variables.

Besides the need to ensure consistency with the derived theoretical model, the inclusion of money, the exchange rate and foreign prices as key determinants of domestic price level is consistent with previous studies on Mozambique (Ubide 1997 and Omar 2003) and reflects the relevance attributed to these variables by the IMF and the Bank of Mozambique in their explanations about inflation dynamics. For example, the Bank of Mozambique identifies exchange rate depreciation as one of the factors explaining annual inflation in all of its annual reports from 2000 to 2006. In many of its reports, the bank also points out that money growth above the target is a key factor behind missed inflation targets. Similarly, the IMF (2003) names the same factors but with particular emphasis on excessive money growth.

Nevertheless, it should be noted that the model fails to account for demand and supply shocks due to lack of data. In many studies (for example, Gueorguiev 2003 and McCarthy 2000) demand and supply shocks have been proxied by the output gap[74] and oil prices[75] respectively. In addition, the model does not include proxies for seasonal factors, the importance of which in explaining inflation dynamics has been confirmed empirically by Ubide (1997). It is expected that some of these seasonal factors can be accounted for by seasonal adjustment of the series. On balance, it is hoped that although this specification only captures monetary and external (imported inflation and exchange rate depreciation) factors of inflation, it can be useful in drawing important policy implications.

Stationarity test

The Augmented Dicky-Fuller test (ADF) is used to determine the order of integration of the series. The test equation is specified as:

$$\Delta p_t = \gamma_0 + \delta p_{t-1} + a_1 t + \sum_{i=1}^{p} \varphi_i \Delta p_{t-i} + \varepsilon_t$$

Similar equations can be constructed for e_t, m_t and p_t^*. Δ denotes the first differences of e_t, p_t, m_t and p_t^*. γ_0, δ, φ and a_1 are constants, p is the lag length and t a time trend[76]. ε_t is a normally distributed error with mean zero. For series that do not display a time trend (the exchange rate and South African CPI), a_1 is set to zero. The null hypothesis that a particular series has a unit root is rejected if $\delta \neq 0$. However, given the lack of power of the ADF test to reject the null of hypothesis of unit root (Enders 2004), the Phillips-Perron test is used to supplement the ADF results.

If the variables are non-stationary and integrated of the order, one should search for the possibility of co-integration – the existence of a linear combination between the variables which is stationary.

Johansen's co-integration test and error-correction model

Engle and Granger (1987) have shown that co-integration implies the following vector error correction representation:

$$\Delta x'_t = \mu + \Pi x'_{t-1} + \sum_{i=1}^{p} \Gamma_i \Delta x'_{t-1} + \varepsilon_t$$

where μ, Γ_1, … , Γ_p are $(1 x n)$ vectors of parameters, p is the lag length and ε_t is a $(1 x n)$ vector of normally distributed disturbances with mean zero. The term $x r'_{t-1}$ is the error correction component which augments the traditional Vector Auto-regression (VAR) in first differences to account for the error correction mechanism. Its introduction recovers the information lost in the differencing process thereby allowing the model to capture both long-run equilibrium relationships and short-run dynamics (Ang and Mckibbin 2005). It should be noted that n is the number of endogenous variables in the model (in this particular case n=4).

The Johansen's maximum likelihood procedure examines the rank of matrix Π. If rank $(\Pi) = r < n$, then it can be concluded that there are r co-integrating vectors and matrix Π can be written as $\Pi = \alpha\beta'$, where β is a matrix containing r co-integrating vectors and is a $(1 x n)$ vector of error correction terms or the speed of adjustment coefficients towards the long-run equilibrium (Enders 2004 and Jonsson 1999). Based on the estimated characteristic roots of Π two test statistics (λ_{max} and λ_{trace}) are calculated (Enders 2004, p. 352-353). Both statistics test the null of $r = k$ co-integrating vectors against the alternative of $r > k$.

Empirical results and analysis

The results of the ADF and Phillips-Perron tests are reported in Table 1. Both tests show that the series are non-stationary in levels but after taking first differences the null hypothesis of a unit root can be rejected at 5 per cent level of significance. Therefore, money, exchange rate and price indexes are integrated of order 1 or I(1).

TABLE 1. Unit root test

H_0: The series has a unit root

	Variables in levels (logs)		Variables in first differences		Order of integration
	ADF statistic	Phillip-Peron Statistic	ADF statistic	Phillip-Peron Statistic	
Cpi	-2.832**	-2.021**	-4.605*	-4.568*	I (1)
Cpisa	-2.758**	-2.756**	-6.964*	-6.970*	I (1)
M2	-3.223**	-3.206**	-8.827*	-8.827*	I (1)
Zar	-1.419**	-1.483**	-7.892*	-7.999*	I (1)

Notes: M2 and CPI test include a trend. 5% critical value is – 3.473 for M2 and CPI, – 2902 for CPISA and – 2.903 for ZAR.
* denotes rejection of H_0. ** denotes rejection of H_0

Before moving to co-integration test, the causal relationship between the four series (in differences) was investigated using Granger causality analysis (Granger 1969). Given the sensitivity of both Granger causality and co-integration results to the lag length, the tests were preceded by a lag length selection test based on the Likelihood Ratio after estimating an unrestricted VAR in first differences. The proposed optimal lag is 5. This lag was maintained in all the estimations undertaken in this paper.

Table 2 reports the Granger causality results. The hypothesis that money and the exchange rate do not Granger cause domestic prices can be rejected at 10 per cent level of significance. Similarly, the same hypothesis can be rejected at 1 per cent level for the

TABLE 2. Granger causuality test

Pairwise Granger Causuality tests
Sample: 2001 M01 2006 M12
Lags: 5

Null Hypothesis:	Obs	F-Statistic	Probability
DLM2 does not Granger Cause DLCPI	72	3.06673 ***	0.08435
DLCPI does not Granger Cause DLM2		1.91497	0.17087
DLZAR does not Granger Cause DLCPI	70	3.01083 ***	0.08731
DLCPI does not Granger Cause DLZAR		3.84371 **	0.05409
DLCPISA does not Granger Cause DLCPI	72	6.50039 *	0.01301
DLCPI does not Granger Cause DLCPISA		1.73043	0.19271
DLZAR does not Granger Cause DLM2	70	0.10530	0.74657
DLM2 does not Granger Cause DLZAR		0.36787	0.54622
DLCPISA does not Granger Cause DLM2	72	0.54414	0.46322
DLM2 does not Granger Cause DLCPISA		4.60268 **	0.03544
DLCPISA does not Granger Cause DLZAR	70	3.27658 **	0.07476
DLZAR does not Granger Cause DLCPISA		0.61983	0.43389

* The null hypothesis is rejected at 1 per cent level of significance
** The null hypothesis is rejected at 5 per cent level of significance
*** The null hypothesis is rejected at 10 per cent level of significance

TABLE 3. Unit root test

H_0: The series has a unit root

	Variables in levels (logs) ADF statistic	Phillip-Peron Statistic	Variables in first differences ADF statistic	Phillip-Peron Statistic	Order of integration
Cpi	-2.832**	-2.021**	-4.605*	-4.568*	I (1)
Cpisa	-2.758**	-2.756**	-6.964*	-6.970*	I (1)
M2	-3.223**	-3.206**	-8.827*	-8.827*	I (1)
Zar	-1.419**	-1.483**	-7.892*	-7.999*	I (1)

Notes: M2 and CPI test include a trend. 5% critical value is – 3.473 for M2 and CPI, – 2902 for CPISA and – 2.903 for ZAR.
* denotes rejection of H_0. ** denotes rejection of H_0

South African prices. Therefore, past changes in money, exchange rates and South African prices have a predictive power for domestic inflation. However, there is a feedback from the exchange rate to domestic prices.

Motivated by the evidence that the four variables under consideration are I(1), the Johansen co-integration test was applied to domestic CPI, South African CPI, money and the exchange rate (in levels). The results are reported in Table 3.

Both λ_{max} and λ_{trace} statistics suggest one co-integrating vector at 5 per cent level of significance. Further evidence of co-integration is provided by the significance of at least one error correction term in Table 4.

TABLE 4. Cointegrating vectors and error-correction model

Cointegrating vectors

Pta	Pt*	mt	et	c
1.00	-0.10*	-0.51*	-0.15*	1.25
[-1.97]	[-16.34]	[-3.78]		

Error correction terms

D(pt)	d(pt*)	d(mt)	d(et)
-0.27*	-033	0.11	-0.03
[-5.05]	[-1.22]	[0.59]	[-0.08]

[a] Used as a normalizing variable. T-statistic in parenthesis.
* Significant at 5 per cent level of significance.

Therefore, it can be concluded that money, the exchange rate and prices do not move far apart from each other over time.

Using the domestic price level as the normalizing variable the long run relationship is expressed as (the values in parenthesis are the asymptotic t-statistics):

$$logCPI = 1.25 + 0.10logCPISA + 0.51logM2 + 0.15logZAR$$
$$(-1.97) \quad (-16.36) \quad (-3.78)$$

The results are consistent with theoretical expectations, given that all the estimated parameters have the correct signs and are significant at 5 per cent level of significance.

Hence, in the long run, the exchange rate, South African inflation and excessive money growth have positive impacts on the domestic price level. Specifically, a 10 per cent increase in money leads to a 5.1 per cent increase in the price level. Similarly, a 10 per cent exchange rate depreciation leads to a 1.5 per cent increase in the price level. Moreover, if the South African price level increases by 1 per cent, domestic prices rise by 0.10 per cent.

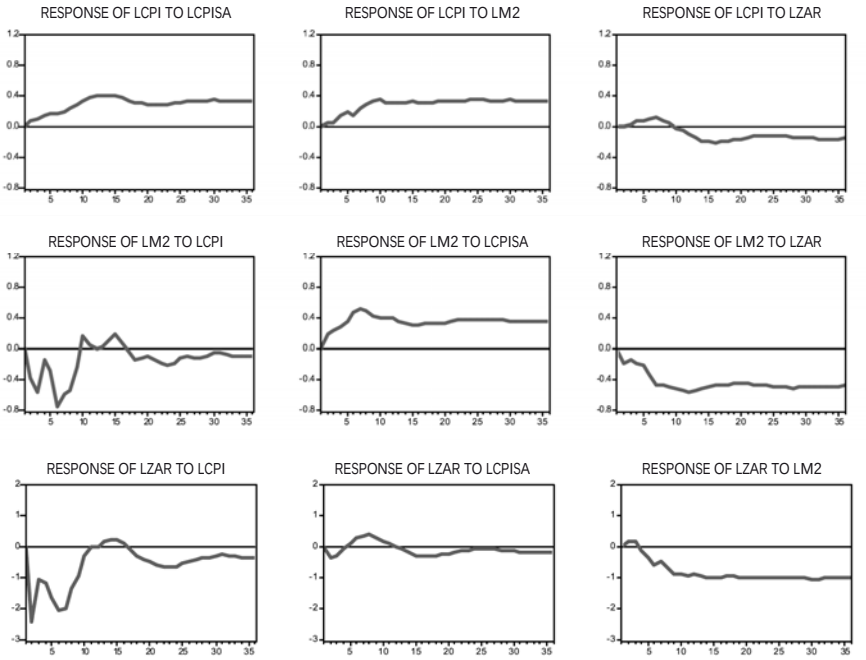
The associated error correction model is shown in Table 3. When estimating the models, the dependent variable is the monthly percentage change in a particular variable (for example money) and the independent variables are the lagged error correction terms (calculated based on the estimated co-integrating vector) and the lagged values of all the variables in the system. Given that the coefficient of the error correction terms measure the speed of adjustment (short-run dynamics) of a particular variable towards the equilibrium, it can be said that only the domestic prices do adjust following a disequilibrium in the long run relationship. This conclusion, which is supported by the significance and correct sign (negative) of the adjustment coefficient in the price equation, suggests that domestic prices are endogenous. The coefficient of – 0.27 in the domestic price equation implies that approximately one-third of the disequilibrium in adjusted within one month.

The finding that South African prices and money do not granger cause domestic prices and that both are weakly exogenous (given that their adjustment coefficients in the error correction model are not significant) suggest that the two variables are strongly exogenous and hence are the most important in predicting inflation. The same does not apply to the exchange rate which, although is weakly exogenous, does grange cause domestic prices (Table 2 above)[77].

Impulse response analysis

A further approach of evaluating the dynamic relationship between the four variables, in particular the effect of money, the South African prices and the exchange rate on domestic prices is to analyze the orthogonal impulse response functions reported in Figure 2.

FIGURE 2. Accumulated Orthogonal Impulse Response of Mozambican prices



The shocks are standardized to one percent, so that the vertical axis shows the approximate percentage change in a particular variable[78] in response to a shock in each of the remaining variables. The results indicate that following a one per cent shock in money the price level increases and reaches a peak after 10 months and stabilizes at a long-run effect around 0.4 percent. Similarly, a one per cent shock to South African prices stabilizes at a long-run effect around 0.6 per cent but it takes approximately 15 to 20 months, suggesting more persistence. In response to a one percent shock in the exchange rate, domestic prices rise during approximately seven months before reaching a peak and fall thereafter and become negative.[79] The general conclusion from these impulse response functions is that the adjustment process is fast and many of the responses display the same pattern as in Ubide (1997).

Variance decompositions

The relative importance of money, South African prices and exchange rates in explaining the domestic price level is assessed by decomposing the forecast error of

inflation into the portions explained by each variable. The results are reported in Table 5 for a period of 36 months.

TABLE 5. Percentage of Variance in Domestic CPI explained by innovations in South African Prices (LCPISA), Money (LM2) and exchange rate (LZAR).

Horizon	LCPISA	LM2	LZAR	LCPI
1	14.9	1.5	0.4	83.2
3	46.0	4.5	0.6	48.9
6	64.1	11.0	5.0	19.4
9	65.0	16.9	5.1	13.0
12	67.8	18.0	3.9	10.4
15	66.7	18.0	7.1	8.1
18	64.1	18.8	10.3	6.8
21	62.3	20.5	11.3	6.0
24	61.7	21.8	11.1	5.4
27	61.5	22.6	10.8	5.1
30	61.4	23.0	10.9	4.7
33	61.0	23.4	11.3	4.4
36	60.5	23.7	11.6	4.2
Ordering:	LCPISA	LM2	LZAR	LCPI

They show that most of the variance in Mozambican consumer prices can be attributed to South African prices, which accounts for 65 per cent after six months. Compared to the exchange rate, money explains a relatively larger variation in domestic prices. The results (particularly regarding the relative importance of the variables) are robust to alternative ordering (Table 6).

TABLE 6. Percentage of Variance in Domestic CPI explained by innovations in South African Prices (LCPISA), Money (LM2) and exchange rate (LZAR).

Horizon	LCPI	LCPISA	LM2	LZAR
1	100.0	0.0	0.0	0.0
3	81.5	15.8	1.8	0.9
6	39.2	45.8	10.1	5.0
9	19.1	58.1	18.1	4.7
10	16.0	60.5	19.7	3.8
12	12.9	63.6	19.7	3.7
15	11.2	62.0	19.5	7.2
18	10.9	58.6	20.0	10.4
21	10.7	56.3	21.6	11.5
24	10.3	55.6	22.9	11.3
27	9.7	55.5	23.7	11.0
30	9.4	55.3	24.1	11.2
33	9.1	54.8	24.5	11.6
36	9.0	54.3	24.8	11.9
Ordering:	LCPI	LCPISA	LM2	LZAR

Relation with previous studies

The coefficients of the estimated long-run relationship between prices, the exchange rate and money vary between the three studies despite all having applied the

same methodology. These differences can be attributed primarily to sample variability. Compared to the two previous studies (Ubide and Omar), this paper finds the lowest pass-through coefficient (0.15) although it is not very different from the one obtained by Ubide (0.18). This similarity between the two coefficients could be interpreted as the result of a prevalence of similar economic environments during the 1989-1996 and the 2001-2006 periods. However, such a conclusion is misleading. What the results seems to indicate is a balance between two determinants of exchange rate pass-through as suggested by Devereux and Yetman (2002). While Ubide's estimation period was characterized by relatively higher inflation and a less volatile exchange rate, the period covered in this paper features lower inflation and a volatile exchange rate resulting from current monetary and exchange rate policy. It follows that the relatively higher inflation during 1989-1996 may have exerted an upward pressure on the pass-through while less exchange rate volatility tended to lower the pass-through. The opposite seems to have happened during the 2001-2006 period. Therefore, *ceteris paribus*, the two pass-through coefficients would tend to converge.

It is also interesting to compare whether the relative importance of South African prices, money and the exchange rate has changed since Ubide's study. In order to assess this hypothesis, the error forecast variance of domestic prices is decomposed imposing the same ordering imposed by Ubide. The results (Table 6) show two main conclusions. First, unlike in Uribe's study, where the variations in domestic prices were mainly explained by its own innovations, this paper finds that changes in South African prices explain most of the variation in domestic prices. Second, money still explains a relatively larger share of price variability compared to the exchange rate. For example, in the 1989-1996 period the exchange rate explained 2.4 per cent of the forecast error variance in prices and money explained 12.4 per cent after 10 months. During 2001-2006, money explained 19.7 per cent and the exchange rate 3.7 per cent of the variance during the same time horizon.

Taking the three studies together, the domestic/foreign prices puzzle report by Omar (2003) can be regarded as sample specific and not as a general description of the relationship between Mozambican and South African prices. This is consistent with the Bank's of Mozambique assessment in its annual reports.

Overall, the results are in line with previous findings. First, they confirm that money, the exchange rate and South African prices are important factors explaining inflation in Mozambique. Second, they add additional evidence to the consensus that pass-through is incomplete. Nevertheless, they leave unresolved the issue regarding the true size of the pass-through in Mozambique since two other studies (Cirera and Nhate 2007 and Omar

2003) reported a relatively higher pass-through. Given that some studies for countries with better macro-economic fundamentals have reported higher pass-through coefficients compared to the one obtained here, one should be careful when interpreting this paper's results, which in part may reflect the small sample problem and the limitation of the modeling strategy (inclusion of only monetary and external factors).

Conclusion and policy implications

This paper applied a co-integrated VAR and the associated error correction model to investigate the relationship between domestic prices, South African prices, money and the exchange rate in Mozambique. Impulse response analyses were used to trace the response of consumer prices to shocks in money, exchange rate and South African prices. In addition, the decomposition of the error forecast variance of prices was applied to assess the importance of each of three variables in explaining domestic price variations.

Consistent with previous studies, it finds that money, the exchange rate and South African prices are important factors in explaining inflation in Mozambique. In particular, a 1 per cent exchange rate depreciation leads to a 0.15 per cent increase in the price level, *ceteris paribus*. The impulse response analysis confirms the positive impact of these three variables on domestic prices and provides additional information indicating the adjustment process is fast. Variance decompositions (under alternative orderings) suggest that South African prices and money explain most of the variation in domestic prices. In addition, they show that money is relatively more important than the exchange rate in explaining the forecast error variance of the domestic prices. The paper also finds that the South African and Mozambican CPIs are positively related which suggests that Omar's results are sample specific and do not reflect a general relationship between the price levels in the two countries.

However, the present findings should be interpreted with caution given the methodological and sample limitations. Despite such limitations, the results have important policy implications. First, money, the exchange rate and South African prices should continue to be used as important leading indicators of inflation. Second, money can be used as an intermediate target in the conduct of monetary policy given its strong link with prices although its effectiveness can be limited by the importance played by South African prices in the determination of domestic prices. Lastly, measures to ensure exchange rate stability are required not only to provide a predictable environment for exporters but also to support a low inflation monetary policy.

Notes

[65] Exchange rate changes affect inflation directly and indirectly (Kahn 1987). For example, the depreciation of the Metical against the South African Rand raises the price that Mozambican consumers pay for goods imported from South Africa, feeding directly into the overall price level depending on the weight of imported goods in the Consumer Price Index (CPI) basket. The indirect effect operates through the incentive that domestic producers of importable goods have to raise their prices in line with the rise of the imported goods. It also operates through the induced increase in production costs as a result of an increase in the price of imported inputs.

[66] However, it should be noted that higher pass-through to import prices is desirable in order to induce the switching of expenditure in favour of domestically produced goods and therefore improving the trade balance. But, it is undesirable at consumer price level because it prevents real depreciation by raising the domestic inflation at a given level of foreign inflation (Ito and Sato 2006).

[67] The reasons for incomplete pass-through include imperfect competition and strategic pricing (pricing to the market) whereby foreign producers accept temporary margin erosion in order to maintain their market share (Dornbush 1985). In addition, the existence of menu costs (the cost of changing prices constantly) may prevent exchange rate depreciation from being fully passed into prices so long as the depreciation is perceived as temporary (Billmeier and Bonato 2002; Goldberg and Knetter 1997)

[68] The lower pass-through into consumer prices is partially explained by the inclusion of non-traded goods in the basket used for the computation of CPIs. The evidence of a decreasing pass-through coefficient along the production chain applies to Cirera and Nhate (2007).

[69] United States, United Kingdom, France, Japan, Germany, Belgium, the Netherlands, Sweden, and Switzerland.

[70] Devereux and Yetman argue that in countries where annual inflation rates are systematically high (above 25 per cent) and exchange rates are very volatile, pass-through tends to be complete because the benefit to importing firms of adjusting prices offsets the cost (the menu costs) of keeping the prices fixed in domestic currency. This is because higher inflation erodes current profit margins if prices are kept constant as the exchange rate depreciates.

[71] The South African rand was used as a proxy for foreign prices on the grounds that South Africa is Mozambique's major trading partner. South Africa accounts for more than 50 per cent of Mozambican imports. Its importance is also reflected by the weight of the Rand (54.3 per cent against 39.3 and 6.4 per cent for the Euro and Dollar respectively) in the calculation of the effective exchange rate of the Metical (Bank of Mozambique 2005).

[72] Usually, the direction of causation cannot be assigned a priori.

[73] It is clear that zero restrictions on income and expectations were imposed in equation (4) due to lack of data.

[74] Many studies apply the Hodrick and Prescott filter to estimate the potential or trend output required to estimate the output gap. Given the uncertainty involved in the estimation, particularly when the underlying data is unreliable, such an exercise was deemed irrelevant.

[75] Despite being available, oil prices (which are administered by the government) were not included in the model due to their lack of variability.

[76] The inclusion of a trend in the test equation allows for the possibility of trend stationarity.

[77] Ang and Mckibbin (2005, p.17) provide a good discussion on weak and strong exogeneity.

[78] The ordering of the variables is as follows: South African prices are ordered first, followed by money, the exchange rate and domestic prices. This ordering treats South African prices as the most exogenous variable with contemporaneous effects on the other remaining variables. Money is allowed to affect the exchange rate and domestic prices contemporaneously but not the opposite although in practice, monetary policy can react immediately to shocks in prices and exchange rates.

[79] This reversed negative may suggest instability in the underlying VAR.

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7. TRANSPORT, TRADE AND ECONOMIC DEVELOPMENT IN MOZAMBIQUE: AN AGENDA FOR CHANGE

Pauline Dibben[80]

Introduction

Africa's economic performance gave almost universal cause for concern throughout the 1980s and '90s, but the continent has in recent years experienced a fragile recovery, based on a transformation in policy and economic performance in a mere seven or eight countries. One of the most spectacular turnarounds has been Mozambique, until recently the world's poorest country, but now an exemplar in terms of GDP, human development, and foreign investment (Kulipossa 2006).

Mozambique still faces many challenges. Although it has seen an increase in GDP, it was still only USD 267 per capita in 2004, compared to USD 10,700 for South Africa (IMF 2004b). Moreover, over half of its population is still poor (IMF 2004), life expectancy at birth is an average of 38 years, and there are high levels of unemployment and informal sector work. Access to work and trade is also inhibited by problems with the country's transport system. Although there has been massive reconstruction of both ports and railways, there is still obvious evidence of the ravages of civil war, and significant access and mobility problems across the Northern parts of the country. This situation is not helped by the serious flooding which devastated the livelihoods of many people in the early 2000s, and occurred again in recent years.

Against this background, the aim of this chapter is to evaluate the current status of transport infrastructure and provision in Mozambique, and in doing so assess the

key challenges for: building trade and employment, reducing poverty and increasing economic development. This review is necessary in order to delineate the current priorities for policy and practice, and future research.

The chapter draws on existing documentary evidence, in addition to data from in-depth interviews conducted during a scoping study in 2004, then further interviews in September 2005 and 2006 with senior academics, NGOs and government policy makers in Mozambique. The interviews included focused discussion on the adequacy of the current transport infrastructure and public transport provision, including roads, rail, and ports, and the implications of this for local and broader economic development. The chapter progresses as follows. After outlining the economic and social benefits of an appropriate transport infrastructure and system, it briefly reviews Mozambique's political history, poverty levels and industrial landscape. It then engages with ongoing debates about its reliance on donors and FDI, and the relationship with its neighbour South Africa, before moving on to focus on the current status of its transport system and in particular, the contribution of the Maputo Development Corridor to local and economic growth. The particular attention paid to this initiative is due to its status as the main connecting road to South Africa, and the key route within a spatial development zone.

Economic and social benefits of an adequate transport infrastructure and system

Transport is essential for broader economic growth, and for the individual needs of local communities, yet problems with roads, railways, ports, air transport and other infrastructure have been widely cited as among the main constraints on economic growth in Africa. In Mozambique, as in other parts of Africa, the railways and roads that were established in colonial times were primarily designed to transport minerals and other raw materials from the African interior to the ports for shipping to Europe, so that today, Africa's local, national and international transport costs are typically twice as high as those for a typical Asian country (Commission for Africa 2005). Moreover, with market competition, farmers further away from the place where goods are sold can often receive lower prices, and so in effect are bearing the costs of transporting their goods to market (Stiglitz 2002). A further problem with the current transport situation in Mozambique, that cannot easily be addressed, is related to

geographical constraints. Mozambique is a long country, and so a large majority of the country is a considerable distance away from the capital city, Maputo. Moreover, as mentioned above, the country suffers from periodic flooding, which often has disastrous effects on the transport infrastructure. These two factors create ongoing difficulties that are not easily resolved.

Yet transport is arguably vital, both for broader economic growth, and also for accessibility and social justice for poorer communities, particularly in rural areas where there is likely to be a lack of public transport provision (Farrington and Farrington 2005). The lack of appropriate transport impacts on life chances and opportunities, particularly through the potentially limited access to education and employment, or to markets for trading goods. In circumstances where people are unable to access the essential ingredients for sustainable livelihoods, they may arguably suffer from 'travel poverty' (Root 1998). This term has been applied to developed countries such as Britain (Dibben 2003; 2006), where it has been suggested that transport is the single most important concern of people living in rural areas (Countryside Agency 2000), and indeed a basic human necessity (Lucas 2004), but it also has particular relevance for developing countries.

Political history of Mozambique

Mozambique, in common with many African countries, experienced a long period of colonial war. But in 1975, after an anti-colonial war of liberation of about ten years, Mozambique gained independence from Portugal, and was run as a socialist economy by the liberation movement, Frelimo (Webster and Wood 2005). However after independence, the former colonial owners of enterprises left the country, and firms were abandoned, and decapitalised, and either nationalised or placed under the control of an administrative commission consisting of workers and Frelimo activists (Webster et al 2006).

Independence in Mozambique was followed by a 16 year civil war, during which the rebel movement, Renamo was supported by South Africa and what was then Rhodesia. The outcome was the destruction of much of Mozambique's infrastructure, over a million deaths, and the displacement of more than three million people (De Sousa 1999). The war was ended by the Rome peace accord of late 1992, and followed by Mozambique's first democratic elections in November 1994. Frelimo gained a narrow majority over Renamo in both this election, and in those that followed in 1999 and 2004 (Webster and Wood 2007), leading to relative political stability.

Poverty, life expectancy, and unemployment

Although on a national level poverty has decreased, there are still great imbalances, so that poverty is greater in less populated, rural areas (Jacobs Consultancy 2005). More than 78% of the Mozambican population live in the countryside (Meeuws 2004), and surveys of household consumption in 1997 and 2003, show that although poverty levels fell from 69.4% to 54.1%, rural areas were still poorer (IMF, 2004b). Meanwhile, life expectancy, with the AIDS epidemic factored in, is only 38 years (Republic of Mozambique 2004). Added to this, unemployment is high, and according to some figures, only 6% of the total employable population are employed in the formal public and private sectors (CTA report 2005).

Against this background, the Government is seeking to reduce poverty levels through achieving the United Nations' Millennium Development Goals, and has developed the following proxy indicators: the reduction of extreme poverty and food insecurity; fighting HIV/AIDS; providing basic commodities including water; providing universal primary education; gender equality; reducing child mortality; improving maternal health; fighting against malaria; and environmental sustainability (Republic of Mozambique 2004). It has been reported that the government is 'making good progress towards meeting its overall target of reducing the incidence of poverty, and the country should easily meet its MDG target of 40% by 2015' (EIU 2006). This has been assisted by agricultural expansion, greater non-farm activities in rural areas, and a rise in employment income among the poorest members of the community (IMF and IDA 2006).

Industry and trade

In terms of GDP, there has been a steady growth rate of around 8% since 2002 (Jacobs Consultancy 2005). Although this has slowed down somewhat during recent years, GDP growth increased slightly from 7.7 percent in 2005 (influenced at least partly by a drought that year) to an estimated 7.9 percent in 2006 (IMF 2006).

Mozambique has a diversified economy, divided into industry, agriculture and services. Industry accounts for about 30% of GDP, agriculture about 25% and services about 45% (Jacobs Consultancy 2005). The largest share of industry is taken by aluminium, and government services account for the largest part of the service sector (Jacobs Consultancy 2005). For almost 90% of the rural population over 10 years of

age, agriculture is the main economic activity (EMTF 2004), but this is predominantly shareholder subsistence farming. However, there has recently been growth in tourism, with plans for major developments along the coast.

Methodology

Following a scoping study in 2004, the first stage of the fieldwork consisted of 27 in-depth interviews which were conducted during September 2005 with academics, senior government officials in the field of transport, trade and investment, representatives of private sector and labour interests, and donor agencies. The second fieldwork stage consisted of around 12 follow-up interviews in September 2006, investigating themes such as privatisation and the role of donor organisations in more detail. Each of the field visits was conceived as part of a longer project, and revisiting the same people facilitated the building of relationships, and enabled at least a minimal temporal calibration to research findings (see Harrison 2000). After each stage, responses were analysed using a precursor of NVIVO, a software package for analysing qualitative data that facilitates both open and axial coding through a hierarchical coding scheme (Richards and Richards 1994). Each research visit was preceded by an extensive review of available academic literature, policy documents, and news reports, and then supplemented by additional material obtained during and following the fieldwork visits.

A number of related themes were explored during the research, and this helped to shed light on the contribution of the transport system to development, employment and trade. The next sections analyse two key factors in moving from being a developing to developed country: the reliance on the donor community, and the contribution of foreign direct investment. In Mozambique's case, this latter aspect is heavily influenced by its relationship with its neighbour South Africa.

Reliance on donors

Mozambique relies heavily on donor institutions, which provide around 49% of the annual state budget (EIU 2006). As one interviewee explained,

> *"The government is trying every possible organization to get influence and resources"*
>
> (Interviewee from Mozambican University 2006)

Such donors include the World Bank and the IMF, organisations that have been heavily criticised over recent years for pushing liberalisation and privatisation (Stiglitz 2002; Sachs 2005; Bond 2003), while ignoring factors such as corruption (Hanlon 2004; De Renzio and Hanlon 2007). Indeed, it has recently been argued that at a time when countries in Asia were investing in healthcare and education, African governments were slashing the budgets of clinics and schools in response to IMF and World Bank policy (Commission for Africa 2005). In debt, developing countries have often not had the available finance to subsidise their enterprises and have not been able to obtain new loans unless they agreed to reforms (Chandra 1992).

There are two main problems with foreign aid. Firstly, Mozambique has struggled to maintain debt repayments. Prior to the G8 summit in 2006, the World Bank and IMF cancelled the debt of 18 highly indebted poor countries, including Mozambique, and it was estimated that Mozambique would initially save USD 55 million every year. However, by the following September, the World Bank and Mozambique had already signed a loan agreement for USD 120 million for poverty relief (Jensen 2005), which would presumably increase its debt repayments for the future. Secondly, foreign aid has come with stringent conditions attached, centring on a reduction in state expenditure, the phasing out of protective tariffs and increased privatization (EIU 2001). Although there have been some conflicts between the IMF and World Bank and the Mozambican government on reforms, the government has generally complied with the conditions, even going so far as to state publicly that unwanted policies were *their* policies. In the case of the cashew nut processing industries, for example, the government was forced to say that liberalisation and privatisation were their own measures, even though it did not agree with them (Dijkstra 2002). A third problem is that foreign donors can dominate policy-making, and thus reduce the host country's ability to set its own agenda, and at the same time, the employment of foreign staff for key civil service positions can lead to a two tier payment scale, encouraging 'clientelism and multi-employment'(EIU 2006). In the area of transport and infrastructure, World Bank aid has included a Railways and Ports Restructuring Project (US$ 100million – FY00), aiming to increase the operating efficiency of the three major port-rail systems in Mozambique; the Roads and Bridges Project (US$ 162 million – FY02), to improve road infrastructure, sector policies, and management; and the Beira Railway Project (US$ 110million – FY05), intended to improve cost-effectiveness and efficiency for freight and passenger rail transport in the Zambezi Valley and beyond (IMF 2006).

Foreign Direct Investment

While public and donor projects accounted for the bulk of investment from 1985 to 1994, by 1997, private investment accounted for 82 per cent of the total value of approved investment (Castel-Branco et al 2001). By 2003, Direct Foreign Investment was USD 336.7m (IMF 2004b), and in the first six months of 2005, 49 new foreign investment projects, out of a total of 64, which included home based initiatives, were approved by the Mozambican government (AIM 2005e). Four projects (aluminium, forests, and two sugar estates) totalled USD 1.53 billion, of which the aluminium factory, Mozal, alone accounted for USD 1.3 billion. Mozal has been described by some as a showcase, demonstrating Mozambique's viability, suggesting private sector confidence (Rogerson 2001) and raising its profile and credit rating (Soderbaum and Taylor 2001). Moreover, although in the beginning it did not use local suppliers, giving the difficulty with communicating in Portuguese as one of the main reasons, Mozal has more recently decided to procure various supplies such as stationery, vehicle rental, small tool repairs, vehicle service and maintenance exclusively from local suppliers, and it has also set up an SME Development Centre as part of its 'Mozlink program' to encourage good financial, HR and Health and Safety practices (BHP Billiton 2004).

In addition to the project mentioned above, there is also a major hydrocarbon project operating in Mozambique, the Pande-Temane Gas Project, the contracts for which were signed in 2000, and more recently four international companies have been granted the right to start drilling for oil (IMF and IDA 2006). While exports from mega-project exports have generally remained buoyant (29 per cent on-year growth in the first semester of 2006), traditional exports surged by 66 per cent in US dollar terms, led by a recovery in cashew, sugar and seafood export volumes (IMF 2006).

Thus relatively high levels of GDP in Mozambique have largely resulted from mega-projects. However, criticism has been made of the huge tax incentives given to such projects:

> *"Total cumulative investment has been over US$ 4 billion for 1997-2005, putting Mozambique on the global FDI map. The sector's contribution to the fiscal accounts has, however, been lagging, due to generous tax exemptions." (IMF and IDA 2006).*

The establishment of a Central Revenue Authority (ATM), charged with the fine tuning of tax policy to broaden the tax base by eliminating unwarranted tax exemptions, implementing a simplified tax regime for SMEs, and adopting a comprehensive approach to the taxation of natural resource exploitation, may yield wider benefits, as might the new bills passed in May 2007 which established new tax regimes for the oil and mining industries (AIM 2007b). These changes were intended to stop the case by case negotiation of projects that has taken place in the past, but it will be interesting to see how, and to what extent, this improves Mozambique's budgetary status.

As mentioned above, Mozambique is still heavily reliant on South Africa. Historically, this reliance has included South Africa's employment of migrant workers from Mozambique. In the 1960s and 1970s, South African mines were the major employer of Mozambicans, outweighing industries such as agriculture, which were partly funded by this wage income. But in the mid 1970s, South Africa was under pressure to reduce domestic unemployment and cut the numbers of migrant workers drastically, leading to heavy unemployment, and a collapse of the agricultural industry in Mozambique.

Economic linkages between the two countries have been shaped by various factors including the comparative weakness of the Mozambican economy, and the regional strength of South Africa, which is largely due to its mineral-energy accumulation. South Africa has expanded into Mozambique both through minerals and energy, but also in industries such as beer, sugar, grain milling and tourism. South African corporations are the driving force for many projects in Mozambique, accounting for about 85% of total FDI (Castel-Branco 2004). The relationship with South Africa is generally viewed as positive, but with reservations:

> *I'm not against South Africa. It's a good country. (But) … the (South African) Government are helping the private sector and fighting to get markets. In the end, South Africa will eat all (our) markets"*
>
> (Interviewee from the Road Transport Organisation 2005)

Transport infrastructure in Mozambique

Historically, Mozambique's transport system, in common with many other African countries, has tended to serve large industry, with a lack of development of rural routes, particularly in the north of the country, and there are insufficient funds for rehabilitation and maintenance. However, the transport system has been developed over recent years, as a result of donor funding and the privatisation and concessioning of ports, railways and roads. CFM (Mozambique Railways) is the state owned company responsible for developing ports and railways in Mozambique, but is itself in a period of transformation involving the privatisation of CFM management, the formation of a holding company, leasing port and railway terminals, and diversifying activities to include areas such as tourism, air transport, the building industry, real estate management and finance.

Ports

The three major ports in Mozambique have been concessioned, and trading capacity has improved. However, they still face competition from ports in South Africa, and the minor ports provide limited facilities (Wood and Dibben 2005). Mozambique has no deep sea freight, but artisanal coastal and inland shipping still provides employment for around three per cent of the population. Concessioning began with the terminals at the Port of Maputo, which resulted in '*general organisational good*' with new investments, new facilities, and generally better conditions (Interviewee from CFM 2005). After this positive experience, Mozambique concessioned Beira Port in 1998, involving a joint venture with a company from the Netherlands, Cornelder. The Mozambique government has a 33% share in this, and Cornelder essentially owns the rest of the port. The outcome of this concession has been largely positive:

> *"Beira is one of the best concessions that we have- because they make some investment and give employment to a lot of people. In this concession agreement, there is new money, and they keep some CFM staff with better conditions than before" (Interviewee from CFM 2005).*

Maputo port was then concessioned in 2003, and CFM kept 49% of the shares. Maputo Port is run by the MPDC (the Maputo Port Development Company) which is

a consortium consisting of the British Mersey Docks and Harbour Company, the Swedish company Skanska, a Portuguese company, Liscont, and Mozambicans (Mocambique Gestores). Together it owns 51%, while CFM owns the remaining 49%. The contract was awarded to MPDC in April 2003 for 15 years. The agreement was that MPDC would invest US 70 million over a three year period in new tugs, the construction of a new port entrance linking to the N4 highway that runs from Maputo to Johannesburg, the purchase of new equipment and the upgrade of roads. Since concessioning, Maputo Port has improved its timing and turnaround (Interviewee from Maritime department 2005). However, there have been some problems with the private sector consortium, headed by Mersey Docks. They paid the variable fees, but did not pay the fixed costs of eight million dollars to CFM. The reason that they gave for this was that they expected to handle large volumes of cargo, which did not materialise because the Ressano-Garcia railway line was not completely rehabilitated (Interviewee from CFM 2005), and the harbour could not work effectively when solely relying on trucks (Interviewee from NGO2 2005). There was, however, further concessioning in January of 2005, when Nacala Port was concessioned to an American company, and CFM again kept 49% of shares (Interviewee from CFM 2005). The concessioning of smaller ports has tended to be seen as problematic due to potential problems with economic viability, and the possibility that investment, for example in handling equipment, would be higher than the return (Interviewee from Maritime department 2005).

Railways

Railway infrastructure has been developed over recent years, with concessioning taking place, but the experience with this has been variable, with delays in reconstruction. The contract for the Ressano-Garcia line was negotiated with Spoornet in 2002. But there were problems between Spoornet and NLPI (Interviewee from CFM 2005). The concession meant exclusive use, operation and management of the railway track in which Spoornet had a major share for a period of 15 years, renewable for five years or additional periods. Two million US dollars were to be paid by the concession holder up to seven days before the start of the operations. The fixed annual amount to be paid was 1.7 million dollars (Meeuws 2004). However, it was not in Spoornet's interest to use Maputo port, the preferred port being that of Durban, since both Portnet and Spoornet are part of Transnet (Interviewee from NGO3 2005; Jacobs Consultancy 2005). Thus, while it had

been thought that Maputo port would be used, Durban remained congested, and Maputo port did not operate at full capacity (Interviewee from NGO2 2005). As a result of these ongoing problems, in November 2005 the Mozambique government cancelled Spoornet'a lease, leaving CFM to rehabilitate the line (AIM 2005d).

Further problems occurred in the North of Mozambique. The Nacala line was concessioned in January 2005 but did not bring in large revenues. When discussing the agreement, CFM informed the concessionaire of potentially low returns and suggested that CFM continued this service as the representative of the State. The private sector investor refused this option, and affirmed that they would keep their promise to "*develop this poor country*". However, transport was not regular, creating problems for the economy of Niassa province (Interviewee from CFM 2005).

Thirdly, problems occurred with the rehabilitation of the Sena line that links Beira Port to Malawi, where a contract was signed with an Indian Concession, CCFB (CFM 2005). The World Bank provided USD 130 million funds to rehabilitate the line, with work expected to be completed by early 2009 (AIM 2005b).

Airports

Civil aviation has not seemed to be a major priority area for Mozambique in recent years, irrespective of its importance for tourism and in times of natural disaster, as during the periodic flooding that has beset the country. This may partly be due to the fact that larger companies that have invested in Mozambique often provide their own aircraft to transport workers.

Irrespective of the variable experience with ports and railways, there has also been concessioning of airports. In June 2006 the government pre-qualified seven consortia for the tender to modernize Maputo's Mavalane International Airport. In common with the model used for ports and railways, the airport would be managed by a private operator for a defined period of time, with the airport's infrastructure remaining the property of the government (EIU 2006).

Roads

In 1999, the Government established a new national road management system which included the creation of the National Roads Administration (ANE), responsible

for the administration of national and regional roads, and for the financing of roads through the Road Fund. ANE is an autonomous public institution under the Ministry of Public Works and Housing (MPWH), reporting to a Board of Directors which includes both the private and public sectors (Jacobs Consultancy 2005).

The priority in recent years has been for transport corridors: the Maputo corridor linking South Africa's Gauteng Province with Maputo, the Limpopo Corridor linking southern Zimbabwe with Maputo, the Beira Corridor linking central Zimbabwe with Beira, and the Nacala corridor linking Malawi with the northern port of Nacala (Wood and Dibben 2005). This has been funded largely through private sector and donor involvement, so that the Maputo Corridor was financed under a 30 year BOT (Build Operate Transfer) scheme; the rehabilitation of the Beira Corridor was funded by the 7th European Development Fund (EDF); and the Nacala corridor was funded by the 8th EDF.

However, road coverage in Mozambique is generally poor, so that even 50 km outside of Maputo there is very little infrastructure (Interviewee from NGO2 2004), with even greater problems in more Northern areas, so that from Cuamba to Lichinga there is, "*Something that looks like a road but no road*" (Interviewee from CFM 2005). As recently as 2002, Mozambique had about 28,500km of classified roads, of which less than a quarter were surfaced. Although the road network has improved considerably as a result of World Bank funding (Meeuws 2004), there are still areas with little coverage. Rural roads are now receiving greater priority from donors such as the World Bank and IMF, with priority for enabling isolated and poor regions with agricultural potential to access national markets (IMF, 2004b).

Road maintenance is also a problem, and even in the capital city, taxi drivers are often forced to sway off of the main road in order to avoid potholes. The situation in other parts of the country is similarly problematic:

> *"The roads are bad. Maputo to Matola is a good road as it is the N4, but from here to Xai-Xai (North) the road is still bad."*
>
> (Interviewee from Ministry of Transport and Communications 2005)

> *"Another tourist point is Pemba… the beach and sea there are different from the south of Mozambique. It takes three days by road and some of the roads are not good"*
>
> (Interviewee from Civil Aviation 2005).

"I crossed the Zambezi river, and went up there for an inspection. There was 2.5 metre high grass on the road! On one bend I couldn't see the road, and even the cattle can come out. You can't drive more than 40km"

(Interviewee from ANE 2005).

The problems with roads are even more apparent when it rains, and the north-south road links are heavily disrupted by flooding (Jacobs Consultancy 2005). However, at least one firm is benefiting from this situation:

"There is only one metal engineering firm in Nampula- which repaired trucks because of the roads. So they hope that the Government delays the rehabilitation of the roads!"

(Interviewee from Eduardo Mondlane University 2005).

Road maintenance is the responsibility of each individual province, and they each receive a road fund to maintain existing roads, which is determined by the national government. The provincial governments have the power to open non-classified roads important for local trade and for access to classified roads. However, problems arise when new roads are built that the provinces are not able to maintain. They are then limited by the amount of funding provided by donors. Each province has an intersectoral roads committee that tries to coordinate road building with other development projects, and influence the national government. But there is no response if resources are scarce (Interviewee from Eduardo Mondlane University 2004).

Even where roads are available, there are often very low levels of traffic, especially in the north of the country, so that on the main road from the North to South of Mozambique there are only 50 vehicles a day (NGO3 2005). This is largely because of the low density of the population which is mostly poor, and is not able to generate large scale production. This raises questions as to which roads should be built, and whether it is better to concentrate on developing central roads with linkages to the hinterland, or work from economic centres rather than simply focus on rural roads (Interviewee from NGO1 2005).

A further issue is the cost of road transport. Road transport from Maputo is an average 0.045 USD per ton/km, compared to road transport for Beira at 0.09 USD per ton/km. Part of the reason for this is the imbalance in commodity flows, so that if

transporters succeed in obtaining backload, prices will, in general, be much lower (Meeuws 2004). At district level, the transport of agricultural commodities has tended to be carried out by informal road transporters using means such as bicycles, tractors, small-capacity vans and trucks of up to 10 tons. Between provinces, transport is generally undertaken by the formal transport sector, but also illegally by foreign vehicles. The unit costs for travel are affected by the capacity of the truck, the distance travelled per day and the economic life span of the vehicle, all of which are related to the state of the road being used. Usually, the prices applied do not cover costs, so that the transport of grain is only feasible if it is carried with other, higher value, goods (Muendane 2001).

Public road transport consists of buses, kombi-taxis, pickups (also known as bakkies) and taxi cars. There are only about two or three large bus companies in Mozambique, and a lot of small businesses in the passenger transport area, with over a thousand people owning one 15 seater bus. The owners of these buses are often those who received a pension of 5,000 dollars as a result of rail privatisation (Interviewee from ANE 2005). Within the road transport department, there is a recognised shortage of buses, both for the city of Maputo, and also for the rest of the country, and particularly the main cities such as Beira and Nampula. There is also a recognised need to change from 15 seaters to safer vehicles of 25 or 36 seats (Interviewee from Ministry of Transport and Communications 2005). Nevertheless, the situation has improved over the last five years, as previously most people in Maputo travelled in pickups (Interviewee from ANE 2005).

Other concerns relate to road safety, with an 'alarming rate' of accidents (CTA report 2005 p41). This is at least partly as a result of the poor condition of many roads, but also related to the bad state of passenger vehicles. In May 2003 a road safety campaign aimed at minibus-taxis and other forms of passenger transport inspected 4,178 vehicles and seized 808 of them. They found that almost one in five of the passenger vehicles was mechanically defective or lacked legal documentation (AIM June 2003). Taxi rides during the course of fieldwork were in vehicles with a lack of functioning seatbelts, loose seats, bad tyres and broken windscreens (Observation 2005 and 2006). However, another issue is the lack of an appropriate regulatory framework for road safety.

Conclusions

Mozambique can be viewed as a success story, due to its sustained levels of GDP, and improvements in Human Development Indicators. Nevertheless, an adequate

transport infrastructure and appropriate institutional framework are clearly essential in order to promote trade at both the macro and micro level, and hence generate broader economic growth. This is vital, given Mozambique's remaining high and uneven levels of poverty and unemployment.

In terms of economic growth, research findings confirm that Mozambique is still constrained through a reliance on donor institutions, which has led to extensive privatisation, and more recently the concessioning of ports, rail and roads. At the same time, the country is heavily reliant on the capacity of mega projects and inward investment from countries such as South Africa.

There is always likely to be some debate about the role of donor organisations. The ability of some countries to be able to donate money to others is, in itself, a symptom of global inequality. Moreover, the ability to give money also brings with it the ability to define the conditions under which that money will be given. In the case of the IMF and World Bank, conditionality has involved the privatisation of industry and the concessioning of Mozambique's transport infrastructure. While privatisation seems to have generally received a bad press, due to its hasty implementation and lack of regulatory structures, concessioning appears to have had mixed results. Lessons should be learnt from both success and failure in considering future private sector involvement, but also take account of lessons learnt elsewhere (see, for example, Dibben et al 2004; von Holdt 2006).

Inward investment is another area that has received very mixed reviews. It is generally accepted that this has led to high levels of GDP, and thus a good reputation for Mozambique, but up until recently, the very favourable taxation concessions have resulted in dubious actual and short-term benefits. Time will tell whether new taxation regimes make a difference here.

In terms of small scale development, there appears to have been some growth in small and medium sized enterprises and the recovery of agriculture. More generally, it is acknowledged that "small and medium sized enterprises form the engine of employment generation, facilitating a shift from the informal to the formal sector" (IMF and IDA 2006). However, this recovery is set against Mozambique's troubled past, and the neglect of the peasantry during rural development policies in the 1980s and 1990s, with marginal investment and few employment opportunities (Harrison 2000). More specifically, in the light of the evidence provided above, the existing lack of rural roads, and low maintenance of roads in both the North and even the South of the country is likely to inhibit further development.

A proposed agenda for future research on transport for trade in Mozambique would build on the evidence above, and take into account the need for both broad and localised economic growth. In order to facilitate this, future research projects might include: a longitudinal study of foreign direct investment in transport and taxation regimes; a detailed study of the concessioning of transport infrastructure; and a comprehensive mapping of the current status of railways, waterway and roads in both urban and rural Mozambique.

Notes

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2009: **Mozambique Programme Aid Partners Performance Review 2008** (Carlos Nuno Castel-Branco, Rogério Ossemane e Nelsa Massingue)

2008: **Mozambique Programme Aid Partners Performance Review 2007** (Carlos Nuno Castel-Branco, Carlos Vicente e Nelsa Massingue)

On September 19, 2007, the Inaugural Conference of the Institute for Social and Economic Studies (IESE) took place. IESE is a Mozambican research institution undertaking inter-disciplinary, heterodox and independent research. The generic theme of the Conference was "Challenges for Social and Economic Research in Mozambique". This Conference involved, besides the public inauguration of IESE, reflecting broadly on where we are with respect to social and economic research, to what extent this research is linked with and seeks answers to key development challenges in Mozambique, and what the results of this research are showing us about the many issues we don't know enough about and the directions along and around which we need to continue to investigate. More than 40 papers were submitted to the Conference, all of which are published on IESE's Web site, www.iese.ac.mz. Of these Conference papers, 18 were selected to form the three volumes that are now published by IESE, namely "Reflecting about Economic Questions", "Cidadania e Governação em Moçambique (citizenship and governance in Mozambique)" and "Southern Africa and Challenges for Mozambique". Each volume is initially published in the original language of the majority of the its articles.

The editors of the volumes are members of the Scientific Council of IESE.

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