CURSED BY RESOURCES, INSTITUTIONS OR MULTI-NATIONALS?

IN WHAT WAYS HAVE DOMESTIC INSTITUTIONS IMPACTED ON THE RELATIONSHIP BETWEEN MNMCs AND ECONOMIC GROWTH AND POVERTY IN ZAMBIA, AND HOW SIGNIFICANT HAS THIS CONTRIBUTION BEEN?

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Abigail Dymond

School of Environment and Development

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Abstract.

This dissertation uses a qualitative case study to investigate the relationship between MNMCs, growth and poverty in Zambia and studies the ways in and extent to which domestic institutions have impacted on this relationship. As such, it generates findings which are of interest to those concerned with development in Zambia but which also have broader theoretical implications for the literature on mining and development and the literature on mining and institutions.

This dissertation finds the relationship between multinational mining corporations (MNMCs), growth and poverty to be beset with ambiguity and to contain significant negative elements. MNMCs have failed to resolve traditional concerns about the relationship between mining, growth and poverty, whilst bringing new concerns to the table. These findings are important in a literature that has been criticised for its inattention to privatisation and MNMCs, as they demonstrate that modalities of ownership in the mining sector do make a difference to growth and poverty reduction processes.

Yet if the relationship between MNMCs and development is somewhat ambiguous, the impact of institutions on this relationship is equally so. Whilst domestic institutions tend to compound the negative relationship between MNMCs and development in Zambia, the relationship between institutional quality and given growth and poverty outcomes is a complex one. In order to convey this complexity, it is necessary to consider issues often overlooked by the literature on mining and institutions: differences between domestic institutions; changes in institutional quality over time; and the ways in which domestic institutions interact with each other, with other types of institutions, with specific characteristics of the copper mining sector itself and with individual and collective agency.

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Declaration

The author declares that no portion of the work referred to in the dissertation has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

Chapter 1: Introduction.

The international mining sector has undergone fundamental changes over the last two decades, with a wave of privatisation sweeping the sector. As Bridge (2004: 408) notes, 'since 1985 more than 90 states have adopted new mining laws or revised existing legal codes in an effort to increase… foreign investment in the mining sector'. Over the same period fundamental changes have also occurred in our understanding of the resource curse, with a near consensus emerging that domestic institutions matter for the relationship between mining and growth in developing countries.

Despite these two developments, surprisingly little attention has been devoted to the role of MNMCs in promoting growth and poverty reduction in developing countries, and the ways in which institutions have mediated this relationship. The literature on mining and growth pays little attention to modalities of ownership in the sector, and to the ways in which MNMCs impact growth and poverty. The literature on institutions, for its part, has been slow to recognise the far-reaching institutional changes that privatisation has occasioned.

This dissertation aims to help fill this and other gaps in the literature by providing a qualitative case study of Zambia, a resource rich country that has undergone privatisation. Between 1997-2000 the state-owned copper mining company, ZCCM (Zambia Consolidated Copper Mining) was separated into 7 different bundles of assets—the two most important being KCM (Konkola Copper Mines) and Mopani Copper Mines (MCM)—and each of the 7 bundles were acquired by MNMCs (Fraser and Lungu 2007: 8). Whilst ZCCM still exists, it has been reconstituted as ZCCM-Investment Holdings and is reduced to holding 10-20% of shares in two of the seven bundles (Fraser and Lungu 2007: 8). Zambia thus presents an excellent opportunity to examine the relationship between MNMCs, institutions and development outcomes in general. More specifically, by looking at the relationship between MNMCs, growth and poverty in Zambia and studying the ways in and extent to which domestic institutions—and interaction between these institutions—has impacted on this relationship, it provides an excellent opportunity not only to contribute to the debate about development in Zambia but also to add value to the broader literature on mining and development, as well as the literature on mining and institutions.

Yet if this research is important for theoretical reasons, it is equally important for moral reasons. Whilst MNMCs are profiting from Zambia's copper, 64% of its inhabitants live below the poverty line (Ministry of Finance and National Planning 2008: 8) and per capita income is lower now than it was in the 1960s (World Bank 2006). Worldwide, two thirds of the 1.5 billion people surviving on less than $2 dollars a day live in countries with mineral and / or metal deposits (World Bank and IFC 2002: 1). For these people, the relationship between MNMCs, domestic institutions and development is not just interesting theoretically; it is of profound importance for their day to day lives. At a time when governments across the world are re-writing their relationships with MNMCs to increase the mineral rents accruing to the state, it is more important than ever that the academic community ask critical questions about the role of MNMCs and institutions in promoting development.

The dissertation is structured as follows. Chapter 2 reviews the existing literature, outlining where gaps in our knowledge exist. Chapter 3 details how this dissertation aims to fill these gaps, setting out and justifying the research question, aims and objectives and the methods employed to answer them. Chapters 4-6 set out the main research findings of this dissertation. Whilst Chapter 4 focuses on the relationship between MNMCs and growth, and the ways in which domestic institutions mediate this relationship, Chapter 5 is concerned with the relationship between MNMCs and poverty and the ways in which this relationship is impacted by domestic institutions. Taken together, these two chapters provide a dual function, advancing one particular conception of the relationship between MNMCS, institutions, growth and poverty whilst simultaneously advocating for more nuance and sophistication in the way in which this debate is handled.

If these two chapters are concerned with the role of domestic institutions in mediating the relationship between MNCMs and development, Chapter 6 attempts to contextualise this discussion by focusing on other factors that may influence this relationship, and by questioning some of the working assumptions about the nature of institutions made in previous chapters, whilst Chapter 7 concludes.

Chapter 2: The Literature Review.

This chapter argues that there is added value in a piece of work looking explicitly at the ways in which domestic institutions mediate the relationship between MNMCs, growth and poverty, for three reasons. First, there is little work focusing on the relationship between mining and poverty and considerable disagreement in the literature that does exist. Second, as the introductory chapter argued, whilst there is more work looking at the relationship between mining and growth and at the ways in which domestic institutions impact on this relationship, there is still room to add value to these two set of literature, both of which have been slow to react to privatisation. Third, the literature on institutions and mining can be criticised for insufficient attention to differences between various types of institutions, to the ways in which these institutions interact with each other, and to changes over time.

These arguments are put forward in the first—and main—section of this chapter, which aims to show how this dissertation can make an original contribution to the debate so far. However, a literature review is not only helpful in understanding where a dissertation can add value: it is also helpful in understanding its limitations and in locating the dissertation in its proper context. With this in mind, section 2 reviews literature that is relevant to the discussion on MNMCs, mining and institutions—and is important to keep in mind throughout the chapters that follow—but that the dissertation has been unable to deal with in any great depth, due to space constraints. Finally, the concluding section moves from identifying gaps in the analysis so far towards identifying literature and tools that will be helpful in our attempt to plug some of these gaps.

To put forward the first critique of the existing literature, there been relatively little attention paid to the link between mining and poverty (Ross 2003: 4) and the literature that does exist is heavily divided as to the nature of this relationship.

Some analysts—Sachs and Warner (1997); Gylfason (2001); Collier et al (2007)—claim that natural resource abundance has negative implications for growth (the resource curse hypothesis), leading others to claim, by extension, that natural resource abundance has a harmful effect on poverty levels (Ross 2003). Others (Rodriguez and

Sachs in Ross 2003: 3) accept that mining is negative for growth, but argue that high levels of consumption and investment mean that it can nevertheless be associated with atypically high levels of social welfare', whilst yet others (e.g. Brunnscheweiler 2008) dispute the resource curse hypothesis altogether.

This debate notwithstanding, there is some evidence to suggest that mining operations have had a positive effect on monetary forms of poverty at the local level, creating employment opportunities both directly—through jobs created working on specific mining projects—and indirectly (World Bank in Pegg 2006:380). On the other hand, concerns about the extent of direct jobs created—and about the efficacy of these jobs in reducing poverty—are widespread. Ross notes that the jobs created are often inaccessible to the poor 'who are generally unskilled or semi-skilled', whilst the employment opportunities available are too few to generate significant 'consumption linkage effects' (Hirschman in Emerson 1982: 561). Moreover, there is a relative consensus (Auty 2006; 136) amongst the academic community that forwards and backwards linkages from mining are limited – with several analysts going so far as to term mining an 'enclave' economy (Hirschman in Emerson 1982: 561; Karl 1997: 47). There are also fears that environment pollution from mining operations can damage livelihood strategies outwith the sector (Pegg 2006: 379).

The relationship between mining and non-monetary aspects of poverty is equally contested. There is some agreement that mining has impacted on certain non-monetary determinants of capabilities in a negative fashion: several studies have correlated natural resource abundance with a lack of political freedoms and a tendency towards authoritarianism (Ross 2001; Wantchekon 1999); with civil war (Collier et al 1998) and with increases in HIV/ AIDS and malaria prevalence rates (Fraser and Lungu 2007: 4). It has also been associated with a variety of negative impacts on the environment, and, concomitantly, on the health of local populations (Pegg 2006: 378). However there is little work looking at the role that MNMCs play in this correlation, and the work that has been done points in two different directions, some studies finding that MNMCs can improve the environmental impact of mining (UNCTAD 2007: 147), others arguing more strongly that their presence exacerbates environmental concerns (Warhurst and Isnor in Hilson et al 2004: 26).

Further points of disagreement arise as to the ability of mineral rents to fund poverty reducing programmes and to enhance social service provision. Davies (1995; 1773) finds that health and education indicators are higher in mineral rich economies than in mineral poor ones, and Stijns (2001: 47) demonstrates that ‘resource abundant countries invest a non-negligible proportion of their rents in human capital’ to the extent that ‘human capital indicators are positively associated with resource abundance and mineral rents indicators.’ On the other hand, Glyfason (2001: 847) found that expenditure on education and several educational indicators—from expected years of schooling for girls to gross secondary-school enrolment—were ‘inversely related to the share of natural capital in national wealth’ and several analysts argue that the very existence of mineral rents produces powerful incentives for rents to be spent in ways which have no connection to poverty reduction. Overall, ‘the relationship between resource wealth and human poverty is… unresolved’ (Ross 2003: 4) – and this dissertation aims to contribute in a small way to this debate.

To turn to the second critique of the literature, it can be argued that neither the literature looking at mining and growth nor the literature on mining and institutions pay sufficient attention to the role of MNMCs (UNCTAD 2007: 81). With the exception of Breisinger and Thurlow (2008: 2), much of the literature explaining the purported negative relationship between natural resources and growth rates is blind to the role played by MNMCs. Some classic works (e.g. Sachs et al 1997) do not focus on the post privatisation period. Other works do focus on this period but either explicitly restrict their analysis to sectors which are state-owned (e.g. Robinson et al 2006) or simply ignore important aspects of the relationship between mining and growth under privatisation.

Many analysts focus exclusively on rent allocation as a cause of low growth. Mitra (1994: 295) argues governments invest in public investment projects with low rates of return, and enact ‘difficult-to-reverse increases in public consumption.’ Whilst Mitra argues that mis-use of rents is irrational, Robinson et al (2006) argue it is a rational response to the political pressures that politicians are faced with. If these analysts focus on the supply side of rent allocation—starting with the incentives and pressures faced by those who have access to rents—other writers focus on the demand side, explaining slow growth rate with reference to the ability of competing groups to increase ‘public subsidies and other forms of transfer…more quickly than in increase in windfall income’ (Lane and Tornell 1996: 214).

Whilst these accounts may disagree as to the precise explanations for particular patterns of rent distribution, they are united in emphasising the importance of rent allocation in explaining below average growth rates in mineral rich countries. In so doing, they have missed other important parts of the resource curse experience. In order to distribute mineral rents, the state must first collect them – and under conditions of privatisation it can no longer be assumed that mineral rents accrue exclusively to the state (UNCTAD 2007: 137).

if the role of MNMCs is virtually ignored by the literature on mining and growth on the one hand, it is also ignored by much of the literature on mining and institutions on the other. Robinson et al (2006; 449) assumes that ‘the resource rents accrue to the public sector, and the government decides how much of the resources to extract’ – assumption which are both challenged by privatisation. Atkinson and Hamilton (2003) focus on the role of institutions in determining patterns of government savings, investment and consumption, ignoring the role that institutions play in gathering these financial resources in the first place. Similarly, Mehlum’s analysis--by focusing on the way in which rents are distributed-- ignores the way in which rents are collected in the first place (Mehlum et al 2006).

If there is insufficient attention paid to certain types of institutions, there is also a comparative lack of attention paid to the differences between and interaction of institutions themselves. Many authors lump institutions together as a homogenous grouping: both Mehlum et al (2006) and Robinson et al (2006) use an ‘unweighted average’ of the quality of different types of institutions provided by ICRG and Murshed (2004) uses democracy as a proxy for institutional quality. There is less attention paid to the interaction between institutions and how this can impact the effects of NR abundance.

The preceding section reviewed the existing literature in several related areas—including the work on mining and poverty; mining and growth and on the impact that institutions have on the mining sector--and identified areas where this study can add value. However, it is also important to note other literatures which are relevant to this enquiry, but to which it contributes little. Whilst the chapter has been focused on the literature concerned with the impact of institutions on mining and MNMCs, there is an important counter-strand which looks at the reverse relationship: the way in which the mining sector impacts institutions.

Authors such as Murshed and Isham et al argue the point is less that domestic institutions affect the relationship between mining and development, but more that the mining sector negatively affects the quality of domestic institutions and hence development outcomes. Isham et al (2003: 25) demonstrate econometrically that 'point source… dependence negatively affect(s) national socioeconomic institutions' which, in turn, impact growth. They find that a decrease in a country's point source index by one standard deviation would improve the quality of the rule of law by just over half a standard deviation. Similarly, Murshed (2004: 1) finds that 'a point-source type natural resource endowment does retard democratic and institutional development, which in turn hampers economic growth.'

Such works raise an important point. Following Karl (1997: 236), it is appropriate to recognise that there is a complex and circular relationship in which domestic institutions do not only influence, but in turn are influenced by, the mining sector. Yet it been necessary—given the space constraints—to concentrate analytical attention and effort on one side of the circle. The majority of this dissertation focuses on the ways in which institutions interact with the (MNMC dominated) mining sector—as this an area where there is most potential to add value—but in so doing, it has had to put to one side questions about the influence that the latter is also able to influence the former. The intention of this section is simply to hold this point in mind during the chapters that follow (Chs 3-5), preceding a fuller discussion in the penultimate chapter.

This chapter has reviewed strands within current debate on extraction and development and identified three literatures to which this thesis will contribute – these are the literatures on: mining and poverty; mining and growth; and the impact of institutions on MNMCs. Fortuitously, there are certain elements in the existing literature that help in this undertaking. Hinojosa et al (2008: 5, emphasis added) argue it is necessary to look at ‘the capacity of the state to *control*, *extract* and allocate resources’, not just at the latter function, whilst Snyder et al propose a ‘revenue-centred framework’ that ‘situates rulers in the context of the institutional and economic constraints on their ability to earn revenue, and combines this focus on revenue with a focus on state spending’ (2005: 563) Whilst Snyder is concerned with conflict prone resource rich countries, this framework is useful for resource rich countries more broadly. Bearing these insights in mind, this dissertation proceeds to a fuller discussion of the research question and the methods used to answer it.

Chapter 3: Methodology.

This chapter outlines the research question, aims and objectives and then discusses the methods and data-sources employed to answer the question. But before attempting this discussion, it is necessary to clarify the concepts and terms that will be employed in this chapter and throughout the dissertation as a whole.

Whilst commercial mining in Zambia dates from the 1920s (Lungu 2008a; 404), and has included exploitation of a variety of natural resources, this study focuses on copper mining—by far the most important of these substances to the Zambian economy—from 2000-9, as focusing on this period enables a closer look at the relationship between MNMCs, economic growth and poverty. The term multinational mining corporation is used to refer to companies with headquarters outside of Zambia but who own a majority of shares in a copper mining company based in Zambia. Economic growth is defined largely by reference to GDP, in keeping with the literature, and poverty is understood not simply as a lack of income, but as 'deprivation of basic capabilities' more broadly (Sen 1999: 20). As noted in Chapter 2, there are a broad range of non-monetary issues that exert an impact on individuals' capabilities and are impacted by the existence of mining operations – and not enough space to look at the impact of MNMCs on all of them. Given Zambia's average life expectancy of 37 (UNDP in SCIAF 2007: 2) and particularly poor health indicators on the Copper-belt—where HIV/AIDS prevalence rates are 22% and malaria prevalence rates are as high as 38% in some areas (Lungu 2008b: 553)—it seems appropriate to focus on health in particular.

The final term that needs outlining is domestic institution. The former part of the term is relatively uncontested and domestic is used to refer to those institutions which are internal to Zambia, but there is considerable 'un-clarity about what exactly an institution is' (Seale 2005; 4), with the term used to refer to both a 'pattern of action and the factors that support that pattern' (Nelson et al 2001; 41). For the purposes of the line of research enquiry followed here, institutions are defined as 'any form of constraint that human beings devise to shape human interaction' (North 1990; 4), thus incorporating both consciously designed, written 'rules that human beings devise'—such as 'economic rules and contracts'—as well more informal and organic ‘conventions or codes of behaviour’ (North 1990: 4). In this conception, institutions are the factors influence given regularities, not the given regularities themselves, and they do not simply ‘constrain’ possibilities but also ‘enable choices and actions that otherwise would not exist’ (Hodgeson 2006: 2). Finally, whilst there is a useful distinction to be made between institutions and organisations (e.g. MNMCs) as actors within institutions (North 1990), organisations can also be institutions in their own right and either or both definitions can be helpful depending on the nature of the research enquiry (Hodgeson 2006). In order to capture the multiple benefits afforded by these definitions—and to capture the fact that organisations can take on institutional qualities—the dissertation employs both of them: chapters 4-5 look at MNMCs as actors within institutions, whilst chapter 6 considers the advantages to be gained from looking at MNMCs as institutions in their own right.

Having outlined key terms, it is now possible to outline the research parameters. This dissertation aims to consider the question: In what ways have Zambia’s domestic institutions impacted on the relationship between MNMCs and economic growth and poverty between 2000-9, and how significant has this contribution been?

Within this, the dissertation aims to:

- Outline the ways in which MNMCs impacted on economic growth and poverty in Zambia 2000-9.
- Identify ways in which (the quality of) domestic Zambian institutions, and interaction between them, affects the relationship between MNMCs and economic growth and poverty. Given the range of institutions that could impact on MNMCs, the intention is not to go into detail about the impact of every single one of these institutions on poverty and economic growth. Rather, it is to be able to draw on a range of potentially relevant institutions in order to say something meaningful about the relationship between MNMCs, institutions and specific development outcomes.
- Assess the relative importance of domestic institutions in this relationship

The objectives of this dissertation are to:

- Investigate the correlation between the entrance of MNMCs and economic growth

- Investigate the correlation between the entrance of MNMCs and poverty
- Outline the ways in which (the quality of) Zambian domestic institutions may have affected this correlation.
- Briefly consider variables other than domestic institutions that may impact the relationship between MNMCs, economic growth and poverty. Given the space limitations, the study is not designed to explore these in great depth, nor to generate an exhaustive list. Rather, it is designed to suggest other factors that may be important, to avoid attaching an undue importance to the role of domestic institutions and to suggest avenues for future research.

Methods used:

This dissertation uses the case study method to meet these research objectives. Case study analysis is defined as 'an intensive study of a single unit with an aim to generalize across a larger set of units' (Gerring 2004: 341) – although it is recognised that the ability to generalise from one case to the next may be sharply limited in practice.

Qualitative case study analysis has been chosen for its ability to fill a gap in the existing literature. In a debate often conducted at a high level of abstraction and generality, and in an area that relies heavily on cross-national comparisons and regression analysis, on formal logic and idealised models, qualitative case studies can 'complexify' existing research findings (Collier et al 2006; 58). Indeed, Stevens et al (2008 :64) argue there is a need for more qualitative work in this area in order to capture 'time and historical context' and 'the dynamics of potentially more than one combination of a set of variables'; some of the key issues this dissertation aims to address.

This choice of a single unit case study is somewhat controversial (King, Keohane, and Verba in Collier et al 1996; 73), but single-case studies do have advantages. Collier et al (2006: 73) argues that 'no-variance designs play an invaluable role in generating new information and discovering novel explanations' – a statement to which Haglund's study of copper in Zambia (2008) bears eloquent testimony. Drawing steadfast inferences from a small number of cases will always be a challenge. Adding another case study will not necessarily 'increase the…comparability of a sample'

(Gerring 2004; 348) – but it will sharply curtail the space available for, and the amount of detail in, each case study. As UNCTAD (2007: 129) note, attempting to distinguish the effects of private ownership of the mining sector from the effects of the mining sector itself is no easy task. A high level of detail is therefore necessary in order to ensure the distinctions drawn are as robust as possible.

Zambia has been chosen for reasons that are methodological and practical. From a methodological perspective, selecting typical cases enables the researcher to 'better explore' the 'mechanisms at work in a general, cross-case relationship' and enhances the likelihood that the case chosen is representative of other countries (Seawright et al 2008; 301). Zambia is often cited as a representative case in the resource curse literature (Lungu 2008a and b; Collier and Goderis 2007) – with Breisinger and Thurlow calling it the 'typical resource-rich African country' (2008: 19) – and the quality of its institutions are close to the regional average (World Bank Governance Matters data base in Haglund 2008; 559). These typical qualities, when combined with what many consider to be an atypical growth rate (as outlined in the next chapter), make it an interesting and fruitful case study.

From a practical perspective, information on copper mining in Zambia is easily available. Whilst Zambia's record on transparency is far from exemplary, it is possible to obtain detailed information in English on Zambian regulatory institutions—including copies of the individual contracts negotiated between MNMCs and the government of Zambia—a situation which is not replicated in many of Zambia's resource rich counterparts.

Material for the case study is derived from a variety of sources. Information on Zambia's growth and poverty rates are taken from the World Bank and IMF, from the Ministry of Finance and National Planning and from statistics published by the Office of National Statistics (e.g. Living Conditions Surveys and Censuses). Whilst the Census and other Zambian government statistics are subject to several flaws—and thus are used here only in conjunction with other data sources—they are of sufficient quality that 'the trends indicated by Zambia's censuses can be accepted with confidence' (Potts 2005: 601, see this article for a good overview of some of the problems with the census).

These sources are complimented by contemporary newspaper articles in the Zambian press, by reports published by Zambian NGO the Jesuit Centre for Theological Reflection—which detail the basic needs basket for an average Zambian family in the Copper-belt—and reports by two UK NGOs, Christian Aid and SCIAF (the Scottish Catholic International Aid Fund), who have conducted primary research into copper mining in Zambia. Industry journals are also consulted, as are press releases, annual reports and environmental impact statements from the parent companies. Although not peer reviewed, such documents have a role to play in providing up-to-the minute, detailed information about MNMCs, poverty and growth in Zambia that is not available from more formal sources. Company documents are particularly valuable to any attempt to isolate the impact of MNMCs on a range of outcomes.

Information on legal, written institutions is gathered from the Development Agreements (signed between the government of Zambia and individual mining companies), the Mines and Minerals Act and the Environmental Protection and Pollution Control Act, all of which are publicly available on the internet. Information on informal institutions and their quality is gathered in part, and with reservations, from the World Bank *Governance Matters VII* data-base. The publication aggregates over 35 different data-sets to assess 6 aspects of governance, including regulatory quality, the rule of law and control of corruption (2007: 1). However, the database has been criticised for, amongst other issues, the extent of inter-dependence between the 6 aspects it measures (Thomas 2007: 25), for an over-reliance on individual perceptions and subjective opinion in reaching an overall assessment of institutional quality (Kurtz et al 2007) and for inherent value-judgements. For example, 'the measure of regulatory quality is premised on the notion that minimal regulation and minimal barriers to trade and investment flows are optimal' (Thomas 2007: 17). Also of concern is the fact that whilst the indicators focus on institutions at the national, cross-sectoral level, private sector institutions may differ markedly from the small-scale agricultural to the large-scale mining sector.

The existence of these issues does not mean that the data-set should be entirely disregarded. Not only does it give access to otherwise prohibitively expensive commercial databases, its use of multiple data-sets helps correct for bias that might arise from any one source. Moreover, the dataset can be presumed to be of some value as it is often used by writers working in this area (e.g. Haglund 2007; Brunnscheweiler 2008;). However, given the contested nature of the World Bank statistics, this information is used with caution and is supplemented by journal articles on Zambia which are able to explore institutional quality in the mining sector in more detail than is possible in cross-national publications.

Such forms of research design and data collection should facilitate a rich, detailed and insightful case study: a task to which the remaining chapters are dedicated.

Chapter 4: MNCs, institutions and growth.

This chapter questions mainstream accounts of the relationship between MNMCs, institutions and growth in Zambia, arguing that the relationship is paved with more 'contention and ambiguity' (Bebbington et al 2009) than these accounts allow.
The literature predicts that Zambia, a country with an unfortunate combination of mineral resources and weak institutions, will have exceptionally low GDP growth rates. This may have held true in the 1990s, when GDP growth rates averaged 0.2% (World Bank 2009). Yet Zambia in the post privatisation period has achieved average rates of GDP growth that, at 5% per annum (World Bank 2009; average for years 2000-7), are impressive in their own right and higher than those experienced by non-mineral exporting countries (author's calculations from UNCTAD 2008).

Dominant accounts explain this discrepancy between theory and practice with reference to successful privatisation of the mining sector, (IMF 2006: 34**;** Permanent Secretary of the Ministry of Mines in Fraser and Lungu 2007: 19), and thus posit an overwhelmingly positive relationship between MNMCs and growth. However this chapter reconciles the considerable ambiguity in this area in a slightly different fashion. The first part of the chapter suggests that MNMCs have contributed little to the growth that has occurred and, even where they have made a contribution, the nature of this contribution has pursued short-term growth at the expense of long term growth. Overall, long-standing concerns about the role of mining in growth have not ended with the end of state-ownership, and privatisation has bought new concerns to the forefront.

Having outlined one account of the relationship between MNMCs and growth, the final section discusses the role of institutions in this relationship and finds that, whilst they have contributed to this relationship in mainly negative ways, their role is complex, varied and prone to change and thus is difficult to summarise in any one single statement or generalisation.

To advance the first proposition—that MNMCs have made a limited contribution to growth—there is a strong argument to suggest that whilst the mining sector as a whole may have contributed somewhat to growth, this is less a result of private ownership per se and more a result of the 135% increase in the price of copper that occurred between 2004-6 (UNCTAD 2008: 15). Before the 2004 price boom, the copper mining sector was growing at a rate that was slow to non-existent: investment declined two fifths between 2000 to 2003, and less copper was produced in 2003 than was produced in 1993 (Fraser and Lungu 2007: 72). It was only when copper prices increased in 2004 that the sector started to see rapid growth, with levels of capital investment trebling between 2003-5 **(**Fraser and Lungu 2007: 71**)** and copper output increasing 15.7% in 2004 (Ministry of Finance and National Planning 2005).

Indeed, a closer examination of Zambia's growth rates shows that the increase is closely correlated with the price boom. In the early days of privatisation (1997-2000), Zambia's economy was 'regressing'; its annual average GDP growth was 1.2% against an LDC (least developed country) average of 4.5% (UNCTAD 2002; 3-4). It was not until the copper price boom started in 2004 that Zambia's growth became sufficient to place it in the high growth category (UNCTAD 2006). In some ways this finding is unremarkable: GDP growth is partly a function of price so it is no surprise that increases in the latter should positively impact the former. Yet it is important in this context as it shows that growth has been led by the 'commodity price boom…(not) privatisation itself' (Lungu 2008a; 407).

It is also important to put the extent of mining led growth into context. In 1998 the mining and quarrying sector as a whole (which includes natural resources other than copper) contributed just 6.3% to total GDP in 1998 and this percentage had halved to 3.1% in 2004 (IMF 2006; 46). Ianchovichina and Lundstrom (2009: 16) calculate that copper mining accounted for 0.7% of the real growth that occurred between 2001-06, and as the 2000s progressed, the contribution of mining to real growth actually decreased, from 1% in 2001 to 0.6% in 2006.

It could be argued that these statistics are less a reflection on the importance of mining as it is on the extent on diversification that has taken place: and this may be partially true. Yet most progress towards diversification was made in the 1990s—when the Herfindahl Index more than halved from 0.80 to less than 0.40—and diversification virtually stalled following privatisation (Ianchovichina and Lundstrom 2009: 12). This provides some evidence that the relatively small percentage of GDP growth attributed to the mining sector is not simply a statistical artefact caused by the increasing importance of other sectors: it is also partly a testament to the decreasing importance of mining for growth. At the very least, it points to the need for a critical examination of exactly how much of Zambia's growth rate can be attributed to copper mining in general, and to MNMCs in particular.

To turn to the next proposition, even where MNMCs do contribute to growth in the short-term, the nature of this contribution tends to undermine longer term growth in two ways. First, judicious use of government revenue is crucial to sustaining long term growth in resource rich countries. Many resource rich countries that have been successful in achieving and maintaining high growth have done so by using mineral rents to fund diversification—for example, Chile used revenue from copper mining to promote structural diversification, investing in 'agricultural export sectors… upstream resource-based processing…and education' (Breisinger and Thurlow 2008: 7)—and appropriate use of government revenue can also enhance long term growth in other ways.

Glyfason (2001: 847) argues that 'more and better education…stimulates economic growth' and that public expenditure is necessary, if not sufficient, for improving developing countries' education systems. Bravo-Ortega and De Gregorio's econometric analysis (2005) points to the importance of government investment in human capital more broadly, whilst Sachs (2007) argues that 'long-run growth-focused investment' in financial, physical and human capital can help resource abundant countries increase their growth rates.

However, in Zambia, the majority of mineral rents accrue not to SOEs but (predominantly) to MNMCs, denying the government funds that could potentially be spent on growth enhancing activities. Not only were ZCCM assets undervalued when they were sold initially—with KCM valued, in 2008, at 67 times more than it was sold for (author's calculations from Minesite 2008)—taxation rates were set so low that the Zambian state barely benefited from the record high copper prices from 2004 onwards (Von Soest 2007: 637; see also Weeks 2008). In 2008 metal exports totalled \$3,885.1 million but the government collected just \$64.5 million: one third of revenue that the government made under the nationalised sector in 1991 (author's calculations based on information in Ministry of Finance and National Planning 2009 and Fraser and Lungu 2007: 55).

Second, whilst government revenue may not substantially increase during price booms, Zambia nevertheless experiences the currency appreciation ‘typically associated with large inflows of export earnings’ (Weeks 2008). The kwacha appreciated 14% in nominal terms between 2005-7 (Weeks 2008), undermining ‘the competitiveness of non-mining exports and encourag(ing) import competition in domestic markets’ (Breisinger and Thurlow 2008: 17). In 2007 growth rates slowed in Zambia’s agriculture and manufacturing sectors, whilst the textiles and leather sector experienced negative growth (Ministry of Finance and National Planning 2008). Zambia thus experiences the worst of both worlds—experiencing the negative effects of price booms without the concomitant increase in government revenue—and attempts at diversification are doubly disadvantaged, once by Dutch Disease and twice by lack of government revenue.

If the last section has demonstrated that the relationship between MNMCs and growth contains some negative elements, the next section shows that Zambian institutions have influenced this relationship in predominantly negative ways. Yet, that said, it is important to recognise that the influence institutions exert is far from one dimensional. Their impact may be mainly negative – but it is not exclusively so.

On the one hand, institutions have been negative for the relationship between MNMCs and growth – a finding consistent with the existing literature that shows poor quality institutions lead to poor growth outcomes. Yet the reasons for this negative relationship are not always those that are posited in the literature, for two reasons. First, privatisation induces considerable institutional change, altering the relative importance of different institutions and creating new institutions altogether. The existing literature, which tends to pay little attention to the wave of privatisation that has swept the sector, is ill-placed to analyse the institutional changes that privatisation brings. Second, the literature tends to concentrate on allocative institutions – but the impact of natural resources on growth is also mediated by the quality of institutions that govern mineral extraction (‘extractive institutions’) and the transfer of mineral rents from MNMCs to the state (‘acquisitive institutions’), amongst others.

This section looks at institutions in each of these three areas, starting with the institutions governing extraction. Privatisation has created a set of written institutions—the Development Agreements, individual contracts signed between GoZ and individual mining companies—which aim to formalise when, under what conditions and to what extent extraction should occur. However, these agreements ‘contain clauses that allow the companies to withhold finance, or to pull out of the mines entirely’ (Lungu and Fraser 2007: 20), enabling the owners of both KCM and Luanshya to withdraw from the sector without having to pay compensation and allowing MCM to leave the mines idle for three years (Government of Zambia 2000). Such institutions place MNMCs under few obligations to increase the growth of the mining sector and, with it, the growth of Zambia’s economy and help explain why the contribution made by MNMCs to Zambia’s growth is minimal.

Privatisation has also created a new set of institutions governing the extent to, and ways in which, mineral rents are transferred from MNMCs to the state (henceforth referred to as ‘acquisitive institutions’). Acquisitive institutions in Zambia have limited the amount of revenue collected from the sector and thus fail to put the short term growth generated by MNMCs on a long term footing.

The Development Agreements set royalty rates of 0.6%--well below the developing country average of 5-10% (IMF 2001)—and a corporate income tax rate with a marginal effective tax rate of ‘around 0%’ (World Bank in SCIAF 2007: 7). Taken together, these provisions have ensured that Zambia’s effective tax rate in the mining sector is ‘the lowest in the world’ (Ministry of Information and Broadcasting 2008): whilst other African countries have effective mining tax regimes varying from 45.4% to 53%, Zambia’s effective tax rate 2002-6 was 11% (Van Soest 2007: 641). Whilst the Zambian government is theoretically entitled to dividends from two of the seven mining companies, the Auditor-General revealed that it had received no dividends from at least one of these companies between 2003 and 2005 (SCIAF 2007: 7).

This situation has been compounded by the ways in which the new institutions created by privatisation interact with pre-existing predispositions and practices, in particular attitudes to the rule of law. When the law is low regard and legal authorise are relatively ineffective, it may become easier for companies to contemplate illegal activities than in countries where the rule of law is more respected. Indeed, the Commissioner General of the Zambia Revenue Authority noted that ‘some mines have not been compliant to (paying) amounts of their tax returns’ under the 2008 tax regime (in Reuters 2008). Such behaviours may be one reason why Zambia has collected only 35% of taxes owed by the copper mining companies in 2008 (Ministry of Finance and National Planning 2009).

Moreover, the lack of stability in the fiscal regime covering the mining sector—which has been changed in 2007, 2008 and 2009—creates confusion about the amount of royalties and tax companies are obliged to pay. Tax changes are not perceived as credible or long-lasting, a situation which some companies have actively exploited to their advantage. For example, the owners of the second largest company, MCM, protested about the windfall tax introduced in 2008. In response, the Zambian government offered MCM a reduction on the amount of windfall tax payable (First Quantum 2008) and subsequently abolished the tax altogether (Ministry of Finance and National Planning 2009).

Acquisitive institutions have thus failed to ensure that the short term growth created by MNMCs provides a basis for growth in the long term. Yet important as this discussion on acquisitive institutions has been, it is only part of the picture: after all, acquisition of mineral rents only benefits growth if they are allocated effectively. However, the quality of allocative institutions leaves a lot to be desired. Control of corruption and the rule of law are both weak in Zambia, as detailed above, and written institutions leave much to be desired. Although written institutions allow for an Auditor-General to investigate varying aspects of financial discipline, the post-holder has ‘no powers to take punitive action against the executive where it finds evidence of misbehaviour’ (Burnell 2001: 40). Although the Zambian Budget has to get parliamentary approval, a plethora of written institutions—from Treasury Bills to Supplementary and Excess Appropriations—provide a way of retrospectively endorsing spending patterns that have deviated from the Budget without parliamentary approval (Von Soest 2007). The overall effect of these institutions is to render the Budget ‘an academic exercise’ (Zambian Committee of Experts in Burnell 2001; 43).

In this institutional context, it is no surprise that government revenue is mis-allocated, spent on personal enrichment (Larmer 2005: 37) and on funding ‘discretionary transfers’ to ‘privately powerful groups’ (Lane and Torvill 1996; see also Von Soest 2007: 626 for a comprehensive account of this in the Zambian context). All of these activities have a negative impact on Zambia’s growth rate: indeed, the World Bank has argued that ‘problems in budget execution and budget control lie at the root of Zambia’s fiscal failure in the past decade’ (in Von Soest 2007: 628).

It is thus plausible that such institutions—and the behaviours enabled by them—have a negative impact on the relationship between MNMCs and growth. Yet the Zambian experience also brings into question two certain elements of that account. First, the Zambian experience—where mining comprises 12% of corporate tax revenues (Christian Aid 2004: 12), less than ‘the financial services and telecoms sector’ (Fraser and Lungu 2007: 77)—illustrates that is it possible to have rent-seeking without rents. From the demand side, just the belief that mineral rents exist is sufficient to engender rent-seeking and, from the supply side, politicians still face powerful incentives to accede to these demands.

If there is a need to pay closer attention to the notion of rents and rent-seeking, there is also a need to look more carefully at the relationship between ‘poor’ institutions and ‘low’ growth. Indeed, the high growth rates experienced by Zambia in the period under discussion suggest there is no simplistic correlation between the former and the latter.

Zambia’s high growth rates can be explained, in part, with reference to the changes that privatisation has wrought on allocative institutions. Privatisation, by giving MNMCs a degree of ‘financial and managerial autonomy’ about investment decisions, ‘insulates’ a considerable portion of mineral rents from falling victim to poor quality institutions and being allocated according to ‘short-run economic and political gain’ (Shafer 1983: 96). It thus paves the way for rents to be reinvested back into the sector. They can also be explained by reference to the relatively short time period under examination: institutions may indeed have a negative effect on growth rates, but these effects may be temporarily masked by the unusually high copper prices and so take longer to manifest themselves.

Yet there is an alternative explanation that presents itself: that Zambian institutions are not, in fact, as poor as the highly aggregated statistics would suggest, and hence the effect they have on growth rates is less stark. Whilst Zambia is considered by most observers to have uniformly poor institutions, and to have poor codes of conduct around corruption, the introduction of the Zambia Revenue Authority is widely understood to have reduced irregularities and corruption in the tax collection process (Von Soest 2007) and, in common with other revenue authorities in Africa, has 'enhance(d) the potential of… governments to increase tax revenues' (Fjeldstad et al 2009: 4) – even if this potential has not translated into 100% tax collection from MNMCs in the Zambian context.

The ZRA should not be unduly lauded as a paragon of institutional virtue; not just because it has failed to collect all of the revenue owed by the mines, but also because its establishment owes more to 'donor pressure' and desire of sections of the ruling elite for access to 'increased resources' that could later be used for furthering 'neo-patrimonial and political demands' than it does to a genuine desire amongst the elite for progressive institutional change (Von Soest 2007: 621). Yet the example of the ZRA nevertheless cautions about making sweeping generalisations about the quality of Zambian institutions, and shows that certain acquisitive institutions can exert a positive influence on the relationship between MNMCs and growth.

If the 'bad institutions' label serves to mask differences in institutional quality across Zambia, it also serves to mask the ways in which institutional quality can change over time. Several improvements in institutional quality have taken place from 2000 onwards, amongst them the abolition of the Presidential Fund which allowed the President to spend a budget of $5 million per annum without any constraints on his decision-making (Von Soest 2007: 628).   These improvements in institutional quality may go some way towards explaining why Zambia's growth rate is higher than the theory would predict. At the very least, it suggests a need to revisit those accounts that pose a deterministic relationship between the mining sector, poor quality institutions and slow growth.

This theoretical conclusion can also be complemented by substantive conclusions specific to Zambia, namely that the relationship between MNMCs and growth is less positive—and considerably more ambiguous—than many mainstream accounts would suggest. This does not mean that MNMCs are responsible for all of Zambia's economic problems, nor that their presence has been exclusively negative. MNMCs were better placed than ZCCM would have been to capitalise upon the copper boom, as their autonomy prevented allocative institutions from interfering with investment decisions, and enabled them to leverage capital investments far in excess of anything seen under state-ownership (Fraser and Lungu 2007: 70).

However privatisation has failed to resolve many of the long-standing concerns about the role of mining in growth whilst simultaneously introducing new concerns into this relationship, and Zambian institutions have impacted on the relationship between MNMCs and growth in ways which are mainly negative. It will be helpful to bear these points in mind throughout the next chapter, which focuses on the relationship between MNMCs, institutions and poverty in Zambia.

Chapter 5: MNMCs, institutions and poverty.

If the last chapter sought to question the received wisdom on the link between MNMCs and growth in Zambia, this chapter seeks to do the same with MNMCs and poverty. MNMCs have been associated with reduced poverty at both the national and local level. The poverty headcount decreased 7% between 1998 and 2006 to a national average of 64% (Ministry of Finance and National Planning 2008: 8), while the poverty headcount on the Copper-belt decreased 23% during this period (Office of National Statistics 2007); three times the average rate of poverty reduction for urban areas (Ministry of Finance and National Planning 2006: 12). At first glance, it is tempting to conclude that there is a positive relationship between privatisation and poverty reduction – and, perhaps, to go further, attributing the progress in poverty reduction that has been made to privatisation and MNMCs (Ministry of Finance and National Planning 2006: 14).

Yet this account is subject to considerable 'contention and ambiguity' (Bebbington et al 2008) and this chapter argues that MNMCs have had a mainly—albiet not exclusively—negative impact on poverty reduction. Privatisation has failed to address traditional concerns about the impact of mining on poverty whilst introducing areas of concern not experienced under state-ownership, and domestic institutions have facilitated the negative aspects of this relationship. Section one discusses the impact that MNMCs have had on consumption measures of poverty at the national and local level. However, there are a broad range of non-monetary issues that exert an impact on individuals' capabilities and section 2 focuses on some aspects of the relationship between mining and health in order to illustrate that MNMCs can impact poverty in ways which go beyond the purely economic. The chapter then considers the role that institutions play in mediating the relationship between MNMCs and monetary and non-monetary forms of poverty, before concluding.

We start with a discussion of the relationship between MNMCs and monetary poverty at the national and local level. In terms of the former, there is some evidence that the reduction of the nation-wide poverty headcount happened not because of MNMC led growth, but because of the relative absence of MNMC-led growth outlined in the previous chapter. Thurlow et al (2006: 608) show that 'the collapse of the mining and manufacturing sectors' in the 1990s allowed agricultural growth to flourish and hence poverty levels to decrease in rural areas; a trend continued in the early days of privatisation when the sector experienced extremely low growth rates. Indeed, there are indications that the accelerated growth of the mining sector from 2004 onwards has not only impeded diversification in the ways outlined in the previous chapter but, though its impact on currency rates, has 'reversed' the 'share of agriculture in GDP' (Thurlow et al 2006: 608) and coincided with an increase in rural poverty rates from 78% to 80% (Ministry of Finance and National Planning 2008: 8). Fynn and Haggblade (in Cali and Te Velde 2007; 13) found that if the Kwacha were to maintain the levels reached in 2006, the loss in agricultural export earnings would affect 194,000 farm households.

This provides some tentative evidence that mainstream accounts may be right to posit a connection between mining, growth and poverty reduction: but wrong about the nature of this connection. Instead of mining led growth being positive for poverty reduction, it seems to be negative, at least in part.

To turn to the link between MNMCs and monetary poverty at the local level, whilst the poverty headcount has been dramatically reduced on the Copper-belt, this is explained partially by out migration, as people unable to create livelihoods on the Copper-belt try their luck in other provinces. Potts (2005: 598) notes that there has been a general trend towards out-migration from urban areas across Zambia as a whole—a trend that started in the 1980 but accelerated during the 1990s—and that the Copper-belt has 'by far the strongest rate of net out-migration recorded for the country as a whole'. Indeed, 'by 2000, 28 per cent of those born in Copper-belt Province were living elsewhere', compared to 14% in 1980 (2005: 601). Even the Zambian Poverty Reduction Strategy Paper, keen to stress the advantages of privatisation, concedes that migration to other provinces has played an important role in the levels of poverty reduction seen on the Copper-belt (Ministry of Finance and National Planning 2006: 33). Moreover, as those who remain have increasingly adopted livelihood strategies in agriculture and other sections of the informal economy (Potts 2006: 603), reductions in their poverty may not stem from the presence of mining, but from the resurgent agricultural sector that resulted from the relative lack of mining in growth detailed above.

But this chapter aims not just to critique the arguments of others, but to advance an argument of its own; namely that the relationship between MNMCs and monetary measures of poverty is a largely negative one, with MNMCs undermining the viability of income-generating strategies outwith the mining sector, whilst failing to offset this with job creation within the mining sector.

On the one hand, agriculture has been undermined by environmental pollution from the mines. The Ministry of Agriculture and Co-operatives notes that farmers living near KCM's Nchanga plant have 'suffered crop losses due to sediments and silt' from the mines which has cost local farmers a total of £12,641 in lost income during 2005 alone (SCIAF et al 2007). On the other hand, privatisation has done little to resolve long-standing concerns around the extent of employment opportunities provided by the mines (Pegg 2006), and of 'the tendency of large scale mining projects…to act as enclaves' (Emerson 1982: 563) – and may even have exacerbated these concerns. The procurement practices of some MNMCs actively disadvantage local suppliers—MCM's procurement system is entirely online, and requires subscription fees of $300 to register as a potential supplier (Kitwe and District Chamber of Commerce and Industry 2007)—whilst privatisation has reduced the size of the workforce by a third (based on a statement by the Minister for Mines and Minerals Development in Paguntaka 2009 and on figures in Lungu 2008b).

This is not to argue that these negative features of the mining-poverty relationship are unique to privatisation, or caused by MNMC ownership—quite to the contrary. It is simply to note that privatisation has failed to resolve these issues on the one hand, but has generated new areas of concern for the relationship between mining and monetary poverty on the other. Whilst ZCCM offered employees permanent positions, MNMCs offer short term contracts mediated through sub-contracting firms. Contract workers accounted for 42% of the workforce in 2004 (b 2008: 550), and evidence suggests that these employees are paid wages less than the official poverty line (SCIAF 2007; Fraser and Lungu 2007) . The largest MNMC in Zambia, KCM, has recently announced a 40% decrease in the amount paid to contractors (Lusaka Times 2008) – a move which risks further depressing the wages that contractors receive. Another example is the practice adopted by MNMCs of employing expatriate labour in areas where local capacity exists. KCM have bought in contract labourers from India to perform manual, non-specialised work. When 70% of these labourers quit in protest at their terms and conditions KCM's contractor, Onshore Construction, then looked to fill the posts with Zambian citizens (Times of Zambia 2008).

Taken together, such practices limit the quantity and quality of employment opportunities in ways not encountered under state-ownership. The net effect is that MNMCs reduce pre-existing income generating opportunities but fail to generate new income generating opportunities to take their place.

Whilst this debate is important, poverty is more than just a monetary measure (Sen 1999). Poverty can be exacerbated or alleviated by a range of non-monetary influences, including health – a subject to which we now turn.

Whilst MNMCs have improved the environmental impact of mining when compared to ZCCM—improvements which have also improved the health of local communities—nevertheless the health impact of their operations remains an on-going concern. Under state-ownership, water pollution was extensive—with some rivers having copper levels 80 times over internationally accepted levels (Draisma in OECD 2002: 11)—and air pollution reached dangerous levels. When ZCCM was operating the Nkana smelter, 75% of sulphur dioxide emissions produced were released into the atmosphere (OECD National Contact Point, UK 2008): an issue of concern as excessive levels of sulphur dioxide can cause respiratory illness, exacerbate cardiovascular disease and result in reduced lung function (WHO 2005: 415).

Privatisation has led to improvements in several of these areas, with copper levels being brought in line with acceptable levels in some rivers (MCM 2009) and sulphur emissions decreasing in some operations. Under Anglo-American ownership, KCM reduced the percentage of sulphur dioxide emissions released into the atmosphere by 40% (OECD National Contact Point, UK 2008). However, environmental pollution from MNMC-owned operations continues to negatively impact not only on the income-generation opportunities of local communities—as illustrated above—but also on their health. Copper levels continue to routinely exceed safe limits in certain rivers, many of which are used by local communities as a source of drinking water.

For example, Kitwe stream has levels of copper that exceed those set by the Zambia Bureau of Standards by 28 times (MCM 2009). Moreover, malaria—which is exacerbated by the pools of stagnant water caused by copper mining—is 'one of the top 10 causes of mortality and morbidity' on the Copper-belt (Lungu 2008b: 553). The incidence of reported malaria was 38% in Kitwe in 2005 (Lungu 2008b: 553) compared to a national average of 22% in 2006 (Pepfar 2009: 3).

Whilst privatisation has failed to resolve concerns about the side-effects of mining for the health of local communities, it has undermined the quantity and quality of healthcare provision available on the Copper-belt. Under privatisation, responsibility for health services—and social service provision more generally—have been transferred, from the mining companies, to municipal or city councils (Lungu 2008b). This has impacted negatively on service delivery with the number of hospitals in mining towns decreasing from 10 to 6, and health clinics decreasing from 37 – 19 (Lungu 2008b: 554). Thus MNMCs continue to negatively affect the health of local populations at a time when health care provision on the Copper-belt has been negatively impacted by privatisation.

If privatisation has undermined the availability of health services on the Copper-belt, it has also undermined the ability of the government to fund them appropriately. As discussed in the previous chapter, privatisation—combined with the types of acquisitive institutions present in Zambia—has resulted in only a small proportion of mineral rents accruing to the government: a development with implications not only for growth but also for expenditure on poverty reduction. At $120 million, the amount of revenue that the government failed to collect from the mines in 2008 was twice the amount allocated to water-supply and sanitation in 2009 (Ministry of Finance and National Planning 2009). Moreover, the types of allocative institutions present in Zambia—institutions which facilitate rent seeking at a time when the actual proportion of rents accruing to the government is minimal—mean that even where mineral rents reach the government, they are not always used for poverty reduction. For example, in 1999, the government spent as much on mobile phone usage as it did on healthcare (Burnell 2001: 45)

These paragraphs show that the institutional changes created by privatisation, by transferring responsibility for health care onto the government whilst simultaneously impeding government's ability to fund such services, have deepened poverty on the Copper-belt. But the relationship between MNMCs, poverty and institutions does not stop there: domestic institutions have had a myriad of other effects, both negative and positive, on MNMCs and poverty.

The Development Agreements have compounded the negative relationship between MNMCs and non-monetary poverty, allowing MNMCs to breach national and international environmental law as long as they are compliant with the 'Final Environmental and Social Management Plans' negotiated with the government. These plans often permit extremely high pollution levels; indeed, KCM's plan allows it to emit 25 times the World Health Organisation recommended limit of sulphur dioxide (SCIAF 2007). Written institutions also facilitate a negative relationship between MNMCs and monetary poverty, as low wages for permanent workers are facilitated by the Minimum Wages and Conditions of Employment Act which enables employers to pay wages which, although above the official poverty line, are below JCTR (2004) estimates of the amount that an average family needs to cover its basic needs (the basic needs basket).

Codes of behaviour around and widespread attitudes to the rule of law—not just the wording of the laws themselves—is also important. For as the low wages paid to contract labourers, and pollution levels testify, companies do not always abide by the written institutions created by privatisation, whilst the government fails to adequately enforce them. The ILO (2008: 397) notes the Ministry of Labour lacks the 'enforcement capacity' to ensure that the legal framework is respected, and similar concerns exist about the efficacy of the ECZ to implement environment legislation (Haglund 2008).

If Zambia's record on the rule of law has meant that written institutions are not always adhered to, the permissibility of corruption has led to a situation where certain MNMCs choose to make irregular payments to the government rather than to meet their legal obligations. For example, the Indian MNMC RAMCoZ was contractually obliged to pay 'terminal benefits' to mine-workers it fired, but a former senior

RAMCoZ Executive confirmed that the company made ‘regular payments’ to the MMD government in ‘exchange for evading its responsibilities’ to the newly-redundant workers (Larmer 2005: 36).

In addition, a series of written and unwritten traditions in Zambia—from the constitution that spells out the extent of Presidential power, to the unwritten norms that enable government officials to develop ‘highly personalised linkages with the private sector’ –have facilitated a highly ‘interventionist political culture’ (Haglund 2008: 561) which undermines written institutions. In 2007 the Labour and Social Security Deputy Minister, downplayed the legal requirement for MNMCs to advertise short term contracts locally—saying ‘we are more concerned with the permanent jobs that the mining companies would create for the local people than how these companies bring in others on contract basis’ (Times of Zambia 2008). Thus a variety of written and unwritten institutions—some created by privatisation, others pre-dating it—mediate the relationship between MNMCs and poverty in mainly negative ways.

Yet the influence of Zambian institutions is not exclusively negative. Certain institutions can impact on the relationship between MNMCs and poverty in positive ways—for example, the Development Agreements require that all positions in the privatised mining companies must be offered first ‘‘to all suitably qualified applicants who are Zambian citizens’ (Government of Zambia 2008)—whilst the quality of institutions can also improve over time. The willingness of ECZ to enforce environmental legislation has increased in recent years: in 2005, the ECZ took a tokenistic attitude towards violation of environmental laws by MNMCs: when MCM polluted a local water source, they wrote to MCM to inform them that they had violated Zambia’s environmental laws but took no further action (Fraser and Lungu 2007). When a similar incident occurred in 2007, ECZ charged MCM with breaching environmental legislation (Fraser 2009).

To conclude, this chapter has questioned mainstream accounts of the relationship between privatisation and poverty in Zambia. It suggests that whilst private ownership has improved some aspects of the relationship between mining and poverty, it has not dealt successfully with the core concerns that dogged the state-owned sector—from issues around job creation and economic linkages, to concerns about the fiscal and environmental impact of mining on alternative livelihood options—and has bought with it additional concerns about casualisation, employment of ex-patriate labour and loss of social services provision. Overall the relationship between MNMCs and poverty is largely negative – and institutions have mediated this relationship in ways which are mainly negative.

That said, the MNMC-institutions-poverty nexus is extremely complex and there is a far-from deterministic relationship between the quality of institutions and the quality of poverty reduction achieved by the privatised mining sector. That some of the most positive impacts on poverty—namely, improvements to environmental management systems—have occurred despite institutions that enable behaviour to the contrary attests not only to this complexity but to the multiple factors at influences at work here; a subject we now turn to in the next chapter.

Chapter 6: Domestic institutions in context.

The preceding chapters have concentrated on the relationship between domestic institutions and MNMCs. In order to do so effectively, it has been necessary to make some working assumptions and to exclude other potentially important factors from the debate. This chapter aims to redress the balance by considering some of these other factors and directly examining the assumptions made so far. In so doing, it aims to shed further light on the relationship between MNMCs, growth and poverty and to generate additional insights about the role of domestic institutions in this relationship.

Indeed, this chapter argues that, in addition to the domestic institutions already outlined, three distinct—yet inter-related—influences are central to the relationship between mining, growth and poverty. These factors—namely, the characteristics of the mining sector itself; institutions internal to MNMCs as well international institutions; and agency in its individual and collective forms—are by no means the only factors of relevance, but they are amongst the most important, and are now discussed in turn.

A key theme of this dissertation thus far has been that certain features of the relationship between mining, growth and poverty—from Dutch Disease to rent-seeking behaviour—have endured, despite changes in the sector's mode of ownership. This suggests, to advance the first point, that some growth and poverty outcomes should be explained, at least in part, with reference to the underlying characteristics of the mining sector itself (UNCTAD 207: 129). Such characteristics may not make a specific set of outcomes inevitable—after all, much still hangs on the role played by institutions—but they do produce powerful tendencies that make such outcomes more likely.

The physical characteristics of natural resources—their 'depletable' nature (Karl 1997: 47), the fact that they need to be extracted—means that resource-based growth will be finite, and extraction will alter the surrounding environment and the communities that depend on it. Moreover, 'the actual geographic pattern of production matters' (Isham et al 2003; 11). Copper is geographically concentrated in one region in Zambia and is increasingly inaccessible, requiring a high level of machinery and technical skill to exploit. Such physical characteristics serve to limit the 'appropability' (Boschini et al 2003; 593) of copper by non-regulated actors—e.g. illegal small-scale miners—thus enhancing the ability of the state to 'control and extract rents' (Isham et al 2003; 11), even if this ability is, in turn, constrained by other factors**.**

Not all characteristics of the mining sector are geologically determined, however. Many are a 'product of prior choices' (Karl 1997: 47) – and inherently political. Indeed, as Le Billion (2001) reminds us, the value attached to many resources—even one with as many practical applications as copper—is socially constructed. Yet once in place, such characteristics exert a very real influence on growth and poverty. For example, the (high) price of a mineral produces tendencies towards rent-seeking (Lane and Tornell 1996), mis-allocation of resources (Robinson et al 2006), and institutional weakening.

This latter point deserves particular mention, as it suggests a relationship between mining and institutions that is far from one-dimensional. Several analysts have found that both the geologically and the socially determined characteristics of natural resources can produce tendencies towards institutional weakening. Copper, as a geographically concentrated resource, is more likely than less concentrated resources to produce concentrated rents amenable to capture and abuse by the state (Isham et al 2003; Murshed 2004). These rents then impact on institutional quality through impeding the development of democratic institutions, high quality allocative institutions, and institutions for financial oversight. Ironically, it is in these types of situations that institutions are all the more important: as Boschini et al (2007: 614) note, 'the negative effects of poor institutional quality are much more severe in countries rich in potentially more problematic types of resources'. Thus, regardless of ownership, natural and man-made features of the sector produce a given set of tendencies towards environmental degradation, rent-seeking and institutional weakening, with potentially negative consequences for both poverty and growth.

But if the characteristics of the mining sector affect, and in turn are affected by, domestic institutions, they are also—to advance the second point—affected by institutions operating in other fora. Whilst the analysis so far has maintained North's

(1990) distinction between institutions and organisations, other analysts argue that 'organizations are a special kind of institution' (Hodgson 2006: 8) - and that the formal and informal rules within companies can play an important role in mediating their impact on growth and poverty. For example, the norm in Chinese owned copper mining companies is for managers to be replaced every three years, leading to 'an emphasis on short-term profits' (Haglund 2008: 563). This increases the likelihood that profits are repatriated back to the home country, instead of being reinvested in the Zambian mining sector, and leads to increased use of (poorly paid) contract labour amongst Chinese firms when compared to their non-Chinese counterparts (Fraser and 2007; 22) as firms with short-term horizons have less incentive to make long term investments in their workforce**.**

Chinese companies also have internal formal and informal rules which shape attitudes towards financial accuracy and reporting. Haglund found that Chinese companies were more nonchalant than their non-Chinese counterparts in their regard for 'auditor opinions' and that this 'nonchalance' enabled tax evasion practices—namely transfer pricing and 'parallel accounting systems'—that would be extremely difficult to hide in formally audited accounts (2008: 563). Such practices act to undermine growth and poverty reduction by denying the government mineral rents that could be used to fund progressive activities in both of these areas.

Whilst such institutional differences are important, they should not be over-emphasised as the sector as a whole is 'driven' by a 'realpolitik of extraction'. This helps facilitate a culture within individual firms, regardless of national origin, in which 'continue(d), indeed expand(ed), investment' is regarded as the norm, irrespective of the negative impact that such investment may have on the host countries' growth and development (Bebbington et al 2008: 11).

If internal institutions matter so, too, do external ones. Thus far, the analysis has focused on the influence of institutions at the national level, but international institutions can also exert a powerful influence. There are a plethora of international institutions that may impact upon this relationship—including the EITI, the Sustainable Development Framework of the International Council on Mining and Metals and the OECD Guidelines on MNCs—and this chapter does not intend to look at them all in depth but, rather, to provide two of many examples which illustrate the impact that international institutions can have.

First, the role of the International Financial Institutions has been instrumental in determining the contribution that MNMCs can make to growth and poverty. Campbell (2003: 2) notes that 'the reform measures introduced largely at the recommendation of the multilateral financial institutions… have the potential effect of driving down standards in areas of critical importance for economic and social development' and this chapter provides some specific evidence to support her general hypothesis. Zambia was placed under intense pressure from the IFIs to privatise ZCCM. Larmer (2005; 44) notes that 'aid… (was) withheld at decisive moments to weaken the bargaining power of the Zambian state, to undermine the legal right of civil society organisations to influence the privatisation process, and to enable new investors to flout their social obligations', whilst a series of loans from the World Bank and IMF in 1995, 1996 and 1999—and access to debt relief through the HIPC programme—were made conditional on privatisation of ZCCM (Lungu 2008a: 405). As Larmer (2005: 44) argues, 'every action of the IFIs was designed to place the mines in the private sector as rapidly as possible, regardless of the consequences for income generation, living standards, and the future sustainability of the mining sector'.

Conditionality—when combined with the 'downward trend in the international price of copper' (Craig 2001: 408)—left the government little choice but to privatise; a situation which weakened the Government of Zambia's bargaining position with potential investors (Craig 2001; Larmer 2005; Lungu 2008a). This helps to explain why the government accepted institutional changes that were detrimental to Zambia's growth and poverty reduction prospects. For example, whilst the Mines and Minerals Act of 1995 specifies a royalty rate of 3%, Anglo-American insisted on a royalty rate of 0.6% – a rate that became the industry-wide standard and was 'subsequently incorporated in amendments to primary legislation' (OECD National Contact Point, UK; 2008). Similarly, whilst Zambia's environmental legislation (the Environmental Pollution Prevention and Control Act) had earlier specified the amount of pollutants that could legally be released by the mining companies, an official from the ECZ notes that the government was unable to insist on these during the negotiations ‘because no mining company could meet them. So we agreed on a phased approach – an agreement based on actual emission levels [at the time the EMP was drawn up]’ (SCIAF 2007: 18).

Second, the role of voluntary codes of conduct has been important. For example, the Equator Principles—a set of environmental and social standards that signatory Banks apply to projects with a capital cost of $50 million—are highly relevant to the Zambian copper mining industry due to its reliance on project finance. Some indication of the importance of the Principles is provided by an observation from the Environmental Manager at First Quantum Ltd Zambia, who notes that the only difference between the Equator Principles and the Environmental Impact Assessment legislation in Zambia is that ‘the former is enforced’ (Haglund 2008: 565).
The fact that, in a sector dominated by the ‘realpoltik of extraction’, such codes of conduct not only exist, but are endorsed by key players in the sector—the Equator Principles are endorsed by signatory banks representing ‘75% of the global project finance market’ (Haglund 2008; 565)— points towards the importance of the final factor discussed in this chapter: the role of agency, both individual and collective (with collective agency understood as ‘coordinated action on the part of individual agents to achieve some common objective’ (Milokanis 2007; 39).

Such types of agency are important for two reasons. First, they play an important part in shaping institutions, and thus influence developmental outcomes indirectly.
The collective agency of new social movements in the North can help to explain how international codes of conduct were set up, and thus their impact on the relationship between MNMCs and poverty. Amalric (2005: 19) explains the Equator Principles with reference to advocacy campaigns run by Northern NGOs. High profile banks that have been exposed to ‘NGO criticism’—and have attempted to counter this criticism by adopting voluntary standards—seek to impose such standards ‘on all members of the industry…to restore a level playing field with their less exposed competitors.’ Similarly, Wright et al find ‘a high correlation between declaring a commitment to the Equator Principles and being subjected to a sustained campaign by a civil society group’ (2006: 106). Thus, the collective—and purposive—acts of individuals sharing a common position as Northern consumers and investors has played a role in mediating the relationship between MNMCs and poverty in the South.

Individual agency has also played an important role in shaping institutions; for example, President Mwanawasa has abolished several of the institutions—including the Presidential Discretionary Fund—that were set up by his predecessor, President Chiluba, to facilitate mis-allocation of government resources.

Moreover, as the previous discussion about negotiation of tax rates and environmental standards shows, the agency of, and decisions taken by, MNMCs has been important in shaping the fiscal and environmental institutions that apply to them. As the Chamber of Mines notes, the 'new investors demanded'—and were given—'special conditions in the purchase conditions' of the mines, altering institutions to make the 'investment climate… attractive to Foreign Direct Investment' (in Fraser and Lungu 2007: 17).

Second, it would seem plausible that agency has had a direct influence on the relationship between MNMCs and development. Choices made by corporate actors—for example, the decision made by NFA to deliberately avoid paying duties on their exports, or the decision made by KCM to sharply curtail profit repatriation and reinvest 97% of their profits back into the mining sector—have a direct impact on growth and poverty.

But it is not only companies that are important; collective action by social movements also has a role to play. Whilst it is difficult to conclusively demonstrate that collective action by local communities have resulted in a more progressive relationship between MNMCs and development than would have otherwise occurred, it is plausible that it puts MNMCs under more pressure to be able to demonstrate positive impacts on growth and poverty and is one of many factors influencing decision making. Indeed, Bebbington et al (2008: 2902) argue that social movements have 'forced debate on the desirability of mineral-led forms of rural development, and the institutional and livelihood changes that these would necessarily require…(and) have elicited changes in accumulation dynamics and processes of dispossession'.

On the Copper-belt, collective agency is exercised around a range of issues and takes a variety of forms. These include traditional forms of protest around worker's rights—from union organisation to the rioting, arson and physical violence conducted by Chambishi employees in March 2008 (BBC 2008)—but also include collective action 'contest(ing) issues of dispossession and colonization' (Bebbington et al 2008: 2891). Copper-belt communities have been protesting about 'dispossession… (as) a question of loss in both the quantity…(and quality) of people's assets' (Bebbington et al 2008: 2891): 50 farmers have initiated legal action against KCM claiming that water pollution from the mines has negatively impacted on their crop yields (Irin 2007) and affected individuals in the Copper-belt town of Mufulira and surrounding areas 'blocked the entrance to the offices of Mulonga Water firm in… (Mufulira and) the mine' in protest over contamination of drinking water by MCM in the incident detailed above (Lusaka Times 2008). A group of small-scale miners also initiated collective—and non-peaceful—action in response to the killing of a small-scale miner by security forces engaged by KCM (AllAfrica 2008).

Urban and rural constituencies have also combined to protest a different type of dispossession, a dispossession 'understood as the loss of exchange value that occurs through… tax and royalty exemptions.' Larmer and Fraser interpret the success of opposition party the Patriotic Front in the 2006 elections—with PF MP's elected to every seat in the Copper-belt (Larmer and Fraser; 2007: 692)—with reference to their 'attacks on foreign investors (particularly from China) for their abuse of the workforce and their supposedly corrupt relationship with the MMD' and their promise to increase taxation in the mining sector. More direct evidence of mobilisation around this issue occurred in 2008, when 'hundreds of people on the Copper-belt demonstrated in favour of the new taxes' (Daily Mail 2008).

The importance of Southern social movements in mediating the relationship between MNMCs and development has been amplified by two factors. First, linkages with international NGOs—whilst rarely decisive in determining the success or failure of collective action around mining (Bebbington et al 2008: 2901)—have played a role in the Zambian context. As Harstaad et al (2007: 289) note, the involvement of international NGOs enables 'oppositional politics…(to) 'jump scale' by rearticulating issues at larger scales to mobilize leverage'. This happened in the Zambian context with local issues rearticulated by collective actors at the national level by NGOs (e.g. the Jesuit Centre for Theological Reflection) and both wings of the trade union movement (the Federation of Free Trade Unions and National Union of Miners and Allied Workers), and at the international level by Northern NGOs including Christian Aid and SCIAF.

Second, the divisions in, and fragility of, social movements is an important factor in determining their success (Bebbington et al 2008: 2896). Key to this is the degree to which key sections of the community stand to derive benefit from mining operations. Yet although there are those—employees, suppliers, beneficiaries of CSR initiatives—who benefit from mining on the Copper-belt, these elements are unlikely to intervene on behalf of the mining companies due to the unwritten codes of conduct and institutions that exist around the role of companies – heavily contested ideas about the extent of companies' responsibility for local social service provision, and the additional benefits—from a housing and transport allowance, to funeral expenses—that many workers believe they should provide their employees. Thus agency shapes, but is itself shaped by, the institutional context in which it operates.

This observation brings us full circle, back to the role of domestic institutions and to this chapter's conclusion: that factors other than domestic institutions—namely the structure of the mining sector itself, institutions at the internal and international level, and individual and collective agency—are important in mediating the relationship between MNMCs, growth and poverty, but that these sets of influences are closely intertwined. Challenging and bringing to the forefront some of the working assumptions made in earlier chapters has revealed a whole nexus of intertwined and reciprocal relationships between agency and institutions; between domestic institutions, international institutions and institutions internal to MNMCs; and between the mining sector itself and the quality of institutions that govern it. As Karl (1997; 236) notes, the 'ultimate effect' of a particular commodity 'depends on how it interacts with pre-existing institutions to create new ones'.

Thus, whilst it seems plausible that domestic institutions exert a significant influence on the relationship between MNMCs and development, they certainly do not do so in isolation, and the interconnected nature of these factors make it difficult to draw any more definite conclusions about the relative importance of domestic institutions.

Chapter 7: Some concluding thoughts.

This dissertation set out to explore the relationship between MNMCs and economic growth and poverty in Zambia, and to assess the ways in which Zambia's domestic institutions impacted on this relationship. In so doing, it has generated both substantive and theoretical conclusions.

To start with substantive conclusions, this dissertation has questioned the mainstream accounts of the relationship between MNMCs and growth and MNMCs and poverty, arguing that these relationships are more contentious and ambigious than these accounts allow. Evidence suggests that, contrary to conventional thinking, the impact of MNCMs on growth and poverty has been a mainly negative one. MNMCs have made a minimal and somewhat counter-productive contribution to growth, whilst worsening poverty in many—albiet not all—respects.

Long-standing concerns about the role of mining sector in development—from Dutch Disease to rent-seeking, from environmental degradation to the existence of enclave economies—have not resolved by privatisation. But if the entrance of MNMCs has been unable to solve these traditional problems, it has also been associated with a host of new problems, from high levels of rent retention of MNMCs, to widespread retrenchment, increased casualisation of the workforce and decreased social service provision – all of which negatively impact on both growth and poverty.

If the role of MNMCs has been predominantly negative so, too, has the role of domestic institutions. Domestic institutions have negatively impacted on the relationship between MNMCs and growth, preventing the Zambian state from capturing a significant portion of mineral rents whilst facilitating mis-allocation of rents that are captured. Moreover, by setting few standards for local procurement, worker's terms and conditions and environmental management, and enabling corruption and disregard for the rule of law, institutions have also had a negative effect on the relationship between MNCMs and poverty. However, the role played by institutions is too complex to be accurately summed up by any single generalisation; institutions may have had negative effects on the relationship between MNMCs, growth and poverty but they have had also positive effects and the relationship between institutions and outcomes is far from a deterministic one. Factors other than domestic institutions are important in mediating the relationship between MNMCs, growth and poverty. Where domestic institutions do exert a significant influence, they do so in conjunction with agency and with other types of institutions and it is not always possible to isolate the impact of domestic institutions from the impact of these other factors.

These substantive conclusions have theoretical implications for the literature on mining and development. To the extent to which the dissertation has revealed a degree of continuity between growth and poverty outcomes under state and private ownership, it shows that some of these negative effects seem to be inherent to the mining sector itself. Yet this dissertation has simultaneously shown that growth and poverty outcomes are also affected by changes in modalities of ownership, thus suggesting more attention needs to be given to the effects of privatisation in general, and in particular to the role of MNMCs as both actors and institutions. Moreover, by characterising the relationship between MNMCs and poverty as a mainly negative one, this dissertation not only contributes to the on-going debate about the relative advantages and disadvantages of mining for poverty reduction. It also contributes to the broader debates over the merits of privatisation, providing further evidence in support of Campbell's hypothesis that IFI-driven privatisation of the mining sector has had negative effects for economic and social development (2003).

Such conclusions also have theoretical implications for the literature on mining, institutions and growth and poverty, suggesting that our treatment of each of these components—the 'mining sector', 'institutions' and 'growth and poverty outcomes'—needs to be more sophisticated than it has been to date. Instead of discussing the 'mining sector' in the abstract, it is necessary to look at the modalities of ownership in the particular mining sector in question.

Instead of looking at domestic institutions as an abstract, aggregate entity, it is necessary to look closely at the actual institutions in country, to be alert to variations in quality from one institution to the next and be sensitive to changes in institutional quality and the relative importance of institutions over time, as well. As part of this undertaking, it is necessary to pay close attention to the institutional changes wrought by privatisation and, in particular, to those institutions concerned with rent generation and acquisition. Paying more attention to the interaction between different types of domestic institutions and between institutions at different levels, as well as how the very nature and quality of these institutions are shaped both by structural features of the mining sector and by collective and individual agency, would also reap dividends for our understanding of this area.

Finally, it is necessary to go beyond first impressions and mainstream accounts of growth and poverty outcomes and look at more detail at the outcomes we are trying to explain. Growth may be high but it may not be sustainable. Monetary poverty may have reduced in some areas, yet people may be worse off on non-monetary measures. Just because positive effects can be found in the presence of mining, and throughout the time of privatisation, does not mean that the connection is a causal one.

Taken together, these findings suggest a need to revisit those accounts that pose a deterministic relationship between the mining sector, poor quality institutions and poor growth and poverty outcomes and to adopt a nuanced consideration of the multiple ways in which institutional configurations, in combination with a range of other factors, affect growth and poverty rates.

Whilst this dissertation has attempted to reach conclusions of substantive and theoretical import, it has perhaps succeeded in generating more questions than answers. For example, to what extent is the negative relationship between MNMCs, growth and poverty unique to, and explained by factors specific to, Zambia? To what extent does this finding hold true for other countries and for other types of natural resource extraction? If the impact of privatisation on growth has been negative, and has had economic implications only partially captured by GDP, is there a need to complement GDP with alternative measures of growth better placed to deal with issues of profit retention and profit repatriation by MNMCs?

The research also raises important questions about the role of institutions: if the quality of institutions in Zambia varies, and if institutional quality can change over time, there is a need to understand why institutions differ from each, what drives the institutional change that does occur and how significant these differences in institutional quality really are. If the effect of domestic institutions on growth and poverty outcomes in resource rich countries is mediated by other types of institutions, and by a reciprocal relationship with agency, is it possible to ascertain the relative importance of these factors, or at least to be clearer on the types of interactions that occur between them?

Many of the conclusions posited above are contingent on the way in which these questions are answered. Nevertheless it is hoped that they at least point to ways in which we can enhance our understanding of the complex web of relationships between natural resources, MNMCs, institutions and development and, in so doing, ensure that these relationships are of maximum benefit to growth and poverty reduction processes in developing countries.

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