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EDITOR'S INTRODUCTION

- Beyond Conflict Minerals: The Broader Links Between Natural Resources and Peace and Security** 1

Virgil Hawkins

ARTICLES

- Political Stability and FDI in SADC: A Love-Hate Relationship** 5

Yani Karavasilev

-
- Social Conflict in the Context of the Development of New Mining Concessions in Zambia** 41

Robby Kapesa, Jacob Mwitwa and D.C. Chikumbi

-
- South Africa's Total Strategy in the Context of Counterinsurgency (COIN) Theory** 63

Burget A. Senekal and Jan-ad Stemmet



Beyond Conflict Minerals: The Broader Links Between Natural Resources and Peace and Security

Virgil Hawkins

Osaka University, Japan

The links between the extraction of natural resources and conflict have a long and inglorious history dating back to the beginning of time. As a region rich in a host of valuable minerals and other natural resources, the southern African region is no exception. The race to acquire the diamond and gold fields of the region, for example, played a major part in its colonization, as well as its subsequent history. The legacies of this history, and some of the major players in that race, perhaps most notably Cecil Rhodes, remain the subject of considerable controversy today, with the 'Rhodes Must Fall' movement that erupted on the campus of South Africa's University of Cape Town in 2015, and spread to other universities in the country, being a case in point.

The extraction of natural resources and subsequent colonization process also helped shape the history of what is now the Democratic Republic of the Congo (DRC). The Congo in the late nineteenth century fell under the control of Belgium's King Leopold II, who ruled the vast territory as his personal fiefdom. At a time when the world's thirst for rubber seemed insatiable, the extraction of this resource involved violent forced labour, and resulted in the deaths of millions of people and the maiming of many others. While it was the new-found utility of rubber for tyres for bicycles and cars in the West that fuelled this demand (and the devastation it wrought) at the time, in more recent years it has been the connection between minerals used in the electronics industry – including tin, tungsten, tantalum and gold (among others) – that has contributed to the prolonging of violent conflict in that country.

In Angola's long and devastating armed conflict, the government's control over the country's (predominantly offshore) oil fields help it stave off attacks from the Western-backed UNITA rebels, who were in turn sustained in part by their control over the diamond fields in the inland. Sometimes, the economics seemed to trump the politics and the ideology of the conflict (and perhaps even rational behaviour) in strange ways in this conflict. With US corporations running oil facilities controlled by the government in Angola at the time, Angolan government troops and their Cuban allies were tasked with protecting these installations against attacks from rebel troops backed by the US. The fact that the rebels still had access to the diamond fields after the end of the Cold

War meant that they were able to continue fighting, even in the absence of superpower support. It was not until 2002 that they were militarily defeated and the armed conflict finally came to an end.

With the Kimberley Process Certification Scheme (KPCS), established with a view to prevent so-called 'conflict diamonds' from making their way onto the international rough diamond market, now in peril, and armed conflict ongoing in the mineral-rich DRC's eastern region, the question of the relationship between natural resources and organized armed conflict remains a pertinent one. But in considering natural resources not only in the context of the existence or absence of open hostilities, but also in terms of peace and security in a broader sense (including in countries and areas that are officially at peace), other questions demand answers. How important, for example, is peace and stability in attracting and maintaining foreign investment to enable the exploitation of natural resources, ostensibly for the benefit of all those involved? Another pertinent question might be related to the achievement of peaceful and sustainable coexistence between the corporations doing the extracting of the resources, and the local communities, some of whose member may end up being employed by those corporations, while others may be displaced.

Mining is an extremely capital-intensive activity. It is certainly true that labour-intensive alluvial (often illicit) mining for diamonds and other minerals in Angola, Zimbabwe and the DRC – often involving diggers armed with little more than a shovel and a bag in what may be exceptionally hazardous conditions – does make up a considerable portion of the mining industry in the region. This activity carries with it a host of concerns related to peace and security, and has been the focus of much academic attention. But the bulk of the mineral-related wealth of southern Africa is exploited through capital-intensive industrial mining. This can be seen in the offshore oilfields of Angola, in the copper and cobalt mines in the Copperbelt on both sides of the DRC-Zambia border; in the diamond mines in Botswana and Namibia; and platinum mines in South Africa, among many other examples. More recent discoveries of large reserves of natural gas in Mozambique will also have major economic implications for that country – perhaps along with implications in terms of peace and security).

Much of this exploitation is made possible through large amounts of foreign direct investment (FDI). Generally speaking, foreign corporations will be reluctant to commit to major long-term investments in countries that are in a state of conflict, are otherwise politically unstable, or any other state in which their ability to obtain returns on their investments will be potentially jeopardized. In this sense, it seems intuitive that there will be a positive relationship between FDI and political stability in any given country, but the reality is not necessarily that simple. The first article in this issue, 'Political stability and FDI in SADC: A love-hate relationship' by Yani Karavasilev, explores this question, using panel data econometric models.

The question of the relationship between mining corporations and the local

communities based in the areas in which they dig, is also an important one from the perspective of peace and security, even in relatively stable environments. Mining is potentially an exceptionally lucrative activity and expectations regarding the wealth that will be generated naturally tend to be high on the part of the mining corporations, the host government, and the local communities. The expectations of mining corporations are centred around profits, but these may be threatened by political instability and the volatility of international market prices. Host governments look forward to the benefits that the inflow of investment will bring, including taxes and royalties, increased employment opportunities and growth in support industries. But host governments in low-income countries are often vulnerable and weak in terms of their negotiating positions, resulting in the bulk of the mineral wealth leaving the country. Corruption also often bears a considerably portion of the responsibility for this outcome.

Local communities in areas marked for mining activities bear expectations in terms of employment opportunities, and improvements in public service delivery in a broader sense. But such expectations are frequently left unmet. As a capital-investment industry, mining does not necessarily generate large-scale employment, and much of the employment that it does bring about may require skills that people in the local communities do not possess, which therefore benefits 'outsiders' that are attracted to the site, rather than 'locals'. At the same time, local mining activities bring with them a host of negative impacts, including displacement and environment degradation. Such issues are discussed here (in a case study on mine in Zambia) in the article by Robby Kapesa, Jacob Mwitwa and D. C. Chikumbi, under the title 'Social conflict in the context of the development of new mining concessions in Zambia'. Even for those who are able to find employment, unfavourable conditions of employment may be a source of conflict between the corporations and their employees. A disastrous example of this was seen in Marikana, South Africa, in 2012, in which tens of striking mine workers were shot and killed by security forces.

The third article in this issue, 'South Africa's total strategy in the context of counterinsurgency (COIN) theory', by Burgert A. Senekal and Jan-ad Stremmet, marks a departure from the discussion on the exploitation of natural resources, but serves as an important contribution to our historical understanding of apartheid South Africa's strategy in the country and in the broader region. The authors compare counterinsurgency strategies and doctrines in South Africa to those employed (both past and present) by other powers and find little in the way of fundamental differences. They conclude that the ultimate failure of these strategies lay not with their utilization, but with the cause itself.

All three articles in this issue remind us that it is important to look to the past in attempting to understand the present, and to peer into the future. *Southern African Peace and Security Studies* continues to welcome articles that help to further our understanding of the region, and of issues associated with peace and security in general,

from both past and present perspectives.



Political Stability and FDI in SADC: A Love-Hate Relationship

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Abstract

This study empirically analyzes the effects of political stability (PS) on FDI inflows in SADC members in the post-Cold War period (1996-2013) by utilizing panel-data-appropriate econometric models as well as regression discontinuity design methods, instrumental variable approaches, simultaneous equations and GMM as robustness checks. The main finding is that there is a non-linear causal relationship, whereby political stability can only positively influence FDI inflows once a certain minimum level of stability has been reached. The critical point is identified to correspond to an approximate value of -1.0 of the World Bank's 'Political Stability and Lack of Violence' governance indicator, which is used as a measure for PS and a main independent variable. Angola and the DRC are identified as the only two members which display PS levels consistently below the cut-off point and also as the only two severely natural-resource-dependent countries. A narrative is developed of why these do not fit the pattern, while stressing the necessity to address PS and regional integration as key factors in FDI attraction and economic development in the SADC and other emerging economies alike.

Introduction

Foreign direct investment (FDI) is undoubtedly one of the most important factors for economic advancement in developed and developing economies alike. The theoretical and empirical literature supporting that claim is so massive it that cannot possibly be overviewed or cited without committing innumerable errors of commission, and in light of it, a similar exercise could not be said to constitute anything remotely newsworthy and as such will be omitted from this study, whose broad focus is to establish the aspects of governance in Sub-Saharan African countries (SSA) most relevant to the attraction of the so intensely desiderated FDI, and in particular, to evaluate the role of conflict and political stability in the member states of the Southern African Development Community (SADC) in post-Cold War trends in FDI inflows in the region. The aim is to ascertain to what extent the level of political stability can affect FDI inflows in the very peculiar and unprecedented case of an economic community of

post-conflict and post-apartheid states and what sets them apart from other countries. The paper is organized as follows: first trends in FDI inflows to Africa and their determinants are overviewed, paying special attention to political stability, then an empirical model is formulated and estimated based on existing literature and hypotheses, and finally a discussion elucidates the causal relationships and the lack thereof elicited through the statistical analysis.

Trends in FDI Flows to Africa and SADC

Since the early 1980s¹, world FDI flows, now attributable to almost 54,000 transnational corporations (TNCs) which have an estimated \$3.4 trillion invested in about 449,000 foreign affiliates throughout the world, have grown tremendously. The value of sales by these foreign affiliates has increased more rapidly than that of foreign trade (world exports), reaching an estimated \$9.5 billion. Developing countries' share in total FDI inflows rose from 26% in 1980 to about 54% in 2013, excluding transition economies. Among developing countries, though, the distribution of world FDI inflows is uneven. In 1997, for example, developing Asia received 22%; Latin America and the Caribbean 14%; and Africa 1%. In relative terms, however, the picture looks different: expressed as a ratio of gross fixed capital formation (GFCF), FDI inflows to Africa were 7% of GFCF in 1996 due to the low GDP of African countries, which was the same ratio as in developing Asia. In other words, inflows to Africa have a greater impact on the countries of that continent in relative terms than the absolute figures might suggest. As far as SSA is concerned, FDI inflows there have increased dramatically in the past three decades, especially since 2000:

However, the FDI that goes to Africa is concentrated only in a few countries. The traditionally biggest recipients, namely Egypt, Nigeria, Angola and South Africa (the latter two being SADC members), pocket a significant proportion of FDI inflows – their share reached approx. 62 % of African FDI in 2002. On the one hand, the increased inflows that South Africa has enjoyed in recent times have been attributed mainly to the privatization process, the return of companies based in the neighboring countries during the apartheid period and the interest of investors in the South African large domestic market. On the other hand, Nigeria and Angola are the largest oil producers on the continent and FDI in the oil industry accounted for over half of all FDI inflows to Africa in 2002 (UNCTAD, 2005). Since FDI is highly concentrated, swings of FDI inflows to the main recipients exerts a major impact on the flows of FDI to Africa as a whole. (Ajayi 2006)

Not only has SSA's relative global FDI position relative to other developing regions deteriorated in the past decades, but in addition, the relative standing of SADC members within SSA, has been declining – whereas five out the top seven FDI destinations in

¹ World Investment Report, UNCTAD (2014).

SSA were SADC members back in 1980s (when SADC was first established as SADCC) and by 2014 that number has declined to three (refer to Table 1).

Figure 1. FDI stock in African regions (Millions of USD). Source: UNCTAD.

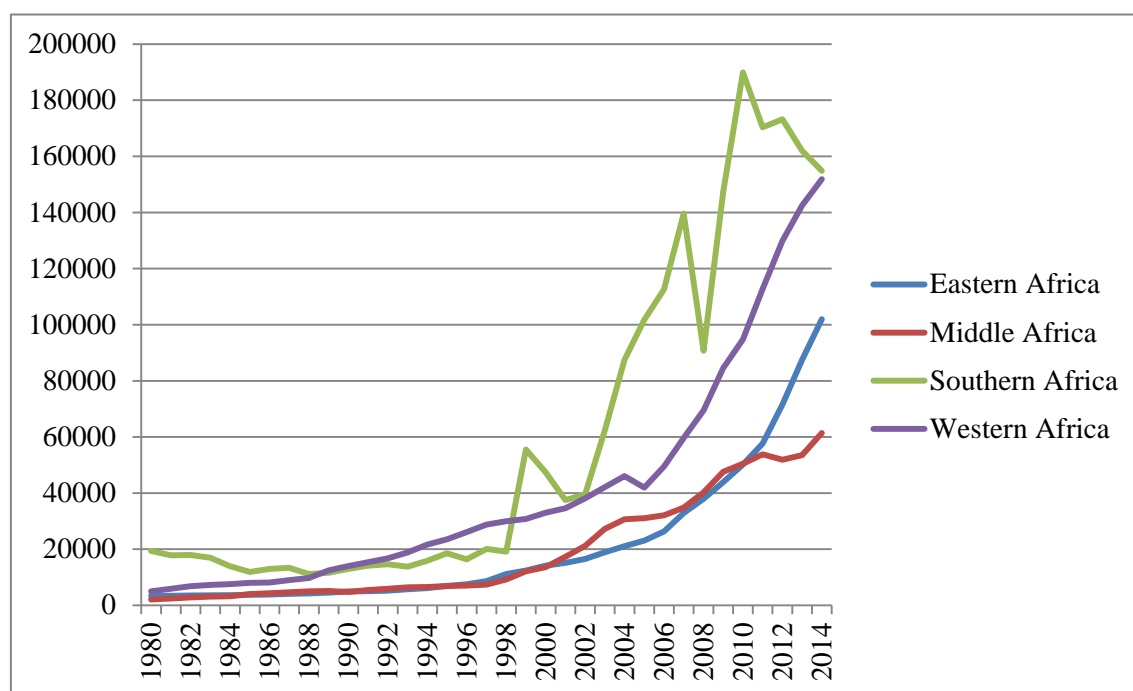


Table 1. Ranking of top SSA FDI recipients (Millions of USD). Source: UNCTAD.

1990		2000		2010		2014	
RSA	9,210	RSA	43,451	RSA	179,565	RSA	145,384
Nigeria	8,539	Nigeria	23,786	Nigeria	60,327	Nigeria	86,671
Liberia	2,732	Angola	7,977	Angola	16,063	Mozmbiq.	25,577
Zambia	2,655	Zambia	3,966	Ghana	10,080	Ghana	23,205
Namibia	2,047	Liberia	3,247	Tanzania	9,712	Congo	22,010
Botswana	1,309	Tanzania	2,781	Eq. Guin.	9,413	Eq. Guin.	17,250
Gabon	1,208	Côte d'Iv.	2,483	Congo	9,262	Tanzania	17,013
<i>TOTAL</i>	<i>36,716</i>	<i>TOTAL</i>	<i>108,156</i>	<i>TOTAL</i>	<i>385,312</i>	<i>TOTAL</i>	<i>470,098</i>

In terms of the sectoral allocation of FDI, Africa differs from the rest of the world in that whereas the structure of FDI has shifted towards services elsewhere, Africa continues to attract FDI mainly into sectors where competitive advantages outweigh the continent's negative factors which include minerals, timber, coffee, and oil (Mills and Oppenheimer 2002). Notably, a number of post-conflict economies, especially SADC members Angola and Mozambique have also seen sharp increases in mineral production

in recent years. Recently, however, FDI has been diversifying into other sectors, in particular manufacturing and the services, whereby the share of FDI into the primary sector is steadily declining. (Ajayi 2006) UNCATD (2005) reports that in Sub-Sahara Africa, the percentage of foreign investment flows to the primary sector range from 55% to 80%.

The Determinants of FDI in Africa

FDI is in general motivated by so-called pull and push factors. The push factors, which are exogenous to developing countries, focus primarily on growth and financial market conditions in high-income economies, whereas the pull factors depend on a number of characteristics of host countries. While the push factors determine the totality of available resources, the pull factors determine its allocation. There are countless studies on the theoretical determinants of FDI and a voluminous yet inconclusive stock of econometric literature on the determinants of FDI. In a survey of the evidences on the various determinants of FDI in Africa specifically, Ajayi (2004) identifies the following non-exhaustive list:² the size of the market and growth, the costs and skill of the labor force, the availability of infrastructure, the country risk, the openness of the economy, the institutional environment, the availability of natural resources, the concentration of other investors (agglomeration effects), the return on investment, the enforceability of contracts and transparency of the judicial system, the macroeconomic stability, and the business facilitation measures and initiatives by outside bodies to promote investment in Africa like bi- and multilateral agreements.

A number of Africa-focused studies have been carried out analyzing FDI determinants on the continent, and several of them conclude that Africa is different from the rest of the developing world. Notably, Asiedu (2002, 2003, 2004, 2006, 2013) has conducted extensive comparative research on African versus other developing economies. Asiedu (2002), using a cross-section data on over 70 developing countries for the 1980-1999 period, empirically shows that policies which have been successful in other regions may not be equally successful in Africa. The analysis, however, is focused on only three main variables – the return on investment, infrastructure availability and openness to trade and does not take into account natural resource availability, which is recognizably an important determinant of FDI to Africa. In a related study, Zeng et al. (2002) also find that policies that have been successful in other regions may not be so in Africa.

In fact, many other studies on FDI determinants in SSA such as Bende-Nabende (2002), Razafimahefa and Hamori (2005), Ezoha (2011), Rogoff and Reinhart (2003), Li and Liu (2005) do not focus on political stability, focusing rather on economic determinants such as monetary policy, exchange rates and financial development. In fact,

² See Ajayi (2003, 2004) and De Schutter et al. (2006).

Asiedu does include a political instability variable in her analysis but its effects are not found to be significant. Similar findings are reported by Loree and Guisinger (1995) who find that political risk had a significant negative impact on FDI inflows in 1982 but no effect in 1977. Jespersen et al (2000) and Morisset (2000) also find no significant impacts for political stability on FDI.

On the opposite, Lemi and Asefa (2003) who, using a generalized autoregressive heteroscedastic (GARCH) model, analyze the determinants of U.S. FDI in 29 African countries over the period 1987-1999 with a special focus on uncertainty, conclude that for aggregate U.S. FDI in Africa, political instability is major concern both in the case of manufacturing and non-manufacturing FDI, in fact more important than uncertainty. Just like many of the other abovementioned studies, they find the market size is a significant factor. Mijiyawa (2012), who analyzed 53 African countries in 1970-2009 using a GMM model, also finds significant effects for political stability.³

In a study solely focused on Africa, Asiedu (2006) reexamines the impact of political instability and includes several additional factors including natural resource endowment. Employing panel data on 22 African countries for the period 1984-2000 she finds political stability is crucial for attracting FDI and debunks the notion that FDI in Africa is solely driven by natural resource availability and argues that while natural resources and large markets can attract more FDI, small countries and/or countries that lack natural resources in the region can also obtain FDI by improving their institutions and policy environment. In light of these findings, Asiedu (2006) stresses the importance of regional blocs such as the SADC in enhancing FDI flows to the region, arguing that in addition to expanding the size of the market, regionalism can promote political stability by restricting membership to countries with democratic political systems, as well as provide stick—or-carrot type of incentives for member countries to implement good policies.

A potential reason for the ostensibly ambiguous evidence for the effects of political stability on FDI inflows emerging from the various empirical studies might be the evasive nature of the concept and thus its measurement. For instance, Asiedu (2003) uses the average number of assassinations and revolutions as in Barro and Lee (1993) while in an earlier study Edwards (1990), who finds a significant effects for political stability, uses the probability of change of government as a proxy for political instability and the frequency of political assassination, violent riots and strikes as a proxy for political violence. Schneider and Frey (1985) also use the number of political strikes and riots as a proxy for political stability and find significant effects on a global level. Morisset (2000), on the other hand, uses the political risk indicator as measured by the

³ In the same vein, but not focusing on Africa, Woodward and Rolfe (1993) find that political stability increases the probability that a country is selected as an investment location. Similar results have been found by Globerman and Shapiro (2003) and Li (2006).

International Country Risk Guide as a proxy for political stability and find no significant effects. The same measure is used by Mijiyawa (2012). Elbadawi and Mwega (1997) use the number of political upheavals as a proxy.

Measurement issues seem to affect conclusions about the role of natural resources in the region to a much lesser extent though. For example, although Asiedu (2006) utilizes the sum of minerals and oil, an independent variable within the regression analysis, as a proxy for natural resource endowment which contrasts with the method employed by Morisset (2000), who subtracts manufacturing from primary and secondary sectors to derive natural resource data, both authors obtain similar results, concluding that African countries can be successful in attracting FDI that is not based on natural resources by implementing policy reforms.

In addition to cross-country studies, there are also a number of country-specific studies. Comparing eight country case studies from Botswana, Cameroon, Cote d'Ivoire, Ghana, Kenya, Nigeria, South Africa and Uganda, Ajayi (2006) draws the following conclusion about FDI in SSA:

- there is no unanimously accepted single factor determining the flow of investments;
- not all determinants are equally important to every investor in every location at all times;
- some determinants are more important at a given time than another time. The weights attached to factors vary between investors;
- macroeconomic and political stability are necessary but not sufficient;
- critical minimum level of factors is important for the flow of FDI and lastly policies do matter in each of the countries;
- for countries to derive positive effects of FDI, they must be at the driver's seat in terms of putting in a place an appropriate development strategy.

Apart from the cross-country and country-specific studies, however, there do not seem to exist any empirical studies focused specifically on regional economic blocs like SADC. It is therefore the purpose of this paper to help toward filling that gap in empirical literature.

Conceptual Framework

Sample and data sources

The data used in the present study was derived mainly from the World Bank and from the IMF, where World Bank data was unavailable. The sample contains data for all 15 SADC members for the period 1996 through 2014 (in practice 2013, since 2014 data was mostly unavailable as of the time of writing). All data is aggregated in country-year dyads. Restricting the analysis to SADC members obliterates the need to include variables accounting for regional integration.

An important caveat concerning statistical data on African economies is the degree

of data reliability. As Jerven contends in his widely acclaimed book “Poor Numbers” (2013), data used to report and assess development in Africa is in a precarious state. The author utilizes examples from multiple countries in Africa to show how controversial data on GDP growth, crop production and population numbers can be. The cases of Nigeria, where the director of statistics announced a 50% increase in GDP in 2011, Tanzania, where disagreement among sources concerning GDP growth figures are in the region of 1%-5% annually in the past few decades, Malawi, where crop production was arguably underestimated in order to attract more fertilizer subsidies, and Kenya, where the 2009 population census almost resulted in ethnic conflict due to the inclusion of a tribal ethnicity questionnaire which resulted in distorted numbers, and Uganda, where up until 2008 external trade statistics had been collected only based on goods passing through the Mombasa port in Kenya, are particularly striking. The quality of data in Mozambique and Malawi is particularly low among SADC members, and the DRC is not even discussed. Considering this, it is important to stress the limitations of any quantitative study using African data and therefore the results presented in the current one should be taken with a grain of salt.

Dependent variable

In contrast to other empirical studies, like Asiedu (2004, 2006), which mainly use either FDI stock or FDI inflows as a percentage of a country’s GDP to measure FDI, in this study annual FDI inflows per capita in U.S. dollars are used as a dependent variable and this is done for several reasons.

A preliminary set of regressions, where the percentage version of FDI inflows was used instead, showed very contradictory results. A close look revealed that countries in the sample, such as Angola, which experienced extremely rapid economic growth in 2005-2007 (about 15-20% annually, contrasted to an average of 4%)⁴, experienced also a relative decline in FDI inflows due to their relatively slower rate of increase. That, however, does not reflect the fact that FDI inflows per capita also increased, which might lead to contradictory results and spurious conclusions.

Additionally, since SADC countries display huge disparities in their per capita incomes, as can be observed in Table 2, which presents average values for the 1996-2013 period, using a ratio-based FDI measure might not tell the whole story. For example, the DRC, the per-capita-wise lowest income country in the sample (about ten times lower than the average), received FDI inflows in the range of 30-35% of its GDP in the period 1996-1999, which is sevenfold the average of 5% for the pooled sample, whereas in per capita terms, the FDI is three times lower than the average for the pooled sample. It is hoped that by using a per-capita FDI measure the distortion in the analysis is removed and this is confirmed by regression coefficients which are reversed once this

⁴ Author’s calculation based on World Bank data.

has been done.

Considering the determinants of FDI discussed in previous studies, the variables outlined in the next section were used in the empirical analysis.

Independent variables

Based on previous studies discussed in the previous section, a number of control variables were included in the model. Among them, the variable of interest in this study is political stability. The explanatory variable along with their sources are explained below.

Political stability and the Worldwide Governance Indicators

Political stability in this study is measured using the World Bank's Worldwide Governance Indicators (WGIs) which capture six key dimensions of governance:

- Voice and Accountability (VA)
- Political Stability and Lack of Violence (PS)
- Government Effectiveness (GE)
- Regulatory Quality (RQ)
- Rule of Law (RL)
- Control of Corruption (CC).

The indicators measure governance on a scale ranging from approximately -2.5 (weak) to 2.5 (strong governance performance).⁵ They are a compilation of the perceptions of a very diverse group of respondents, collected in large number of surveys and other cross-country assessments of governance. Some of these instruments capture the views of firms, individuals, and public officials in the countries being assessed. Others reflect the views of NGOs and aid donors with considerable experience in the respective countries, and still others are based on the assessments of commercial risk-rating agencies. The data covers over 200 countries in the period between 1996 and present. Based on close to 40 data sources produced by over 30 organizations worldwide, such as Freedom House, Transparency International, the Economist Intelligence Unit, Reporters Without Borders, the EBRD and so on, the database has been updated annually since 2002 and has therefore been considered as the most comprehensive and authoritative method of measuring governance. Virtually all of the individual data sources underlying the aggregate indicators are, along with the aggregate indicators themselves, publicly available for free. Details on the underlying data sources, the aggregation method, and the interpretation of the indicators, can be found in Kaufmann and Mastruzzi (2010).

It is important to mention that WGI values for 1997, 1999 and 2001 are missing

⁵ The composite measures of governance generated are in units of a standard normal distribution, with mean zero, standard deviation of one, and in certain cases they go outside of the -2.5-+2.5 range. In the case of SADC the minimum is -2.99, recorded in the DRC.

since at the time the WGIs were computed biannually. As results, those values were imputed by using the average of the previous and the following year. While not completely accurate, in most cases there were no striking shifts in PS, so the imputation was considered appropriate.

Since SADC members were on the average most politically stable between 2006 and 2012, and on the other hand average FDI inflows were at their highest between 2007 and 2013, with one year lag, the WGIs were used in their one-lag values as independent variables. As a robustness check their contemporaneous values were used, but the one-period lag values yielded more significant results (refer to highlighted cells in Table A1 in the Appendix).

In all estimated models, the PS variable is used in its one-year lag version. By lagging it by one-period, we follow the approach used by Sun et al. (2002) in an attempt to both reduce the likelihood of endogeneity as well as to account for the fact that since contemporaneous information is rarely available to investors, they have to rely on the most recent annual data, which is usually from the previous year. Also, political stability in particular is not something that changes by the day. Rather, it changes gradually, as can also be observed in Table A1 so a one-year lag is justified. The diagnostic regressions showed better predictive power for the first lag rather than for the contemporaneous value of the PS indicator.

Overseas development assistance

Yasin (2005) explores the link between the two major sources of external capital needed to fill Africa's significant resource gap (FDI and ODA), by using a panel data from 11 SSA countries for the period 1990 - 2003. The basic assumption is that Official Development Assistance (ODA, i.e. grants and loans from bilateral and multilateral organizations such as the World Bank) may remove some of the obstacles to FDI flows and thus improve the economic conditions that attract FDI. In line with previous studies, there is a positive relationship between bilateral ODA and FDI, which suggests that ODA granting countries have a significant influence on the locational decisions of the multinational corporations (MNCs) located in these countries. Thus, African countries need to formulate policies to enhance the economic and political relationships with donor countries. As regards to multilateral ODA, the empirical findings on its influence on FDI flows are controversial to date. Yasin's estimation suggests that these ODA flows are not a critical requirement for FDI activities by the MNCs in the developing countries.

Market size and GDP growth

As mentioned, it has been agreed that market size is very important for FDI and the prospective growth thereof is of specific relevance to investors. Consequently, following many other empirical studies on FDI determinants, such as Gastanaga, Nugent and

Pashamova (1998), Knickerbocker (1973), Lim (1983), Root and Ahmed (1979), Ryckeghem (1998), Singh and Jun (1995), Torrasi (1985) and Noorbakhsh et al. (2001), the GDP growth rate is used as a proxy for the growth of market size in host countries and also proxy for investment returns. Elbadawi and Mwega (1997) argue that while market size is relatively unimportant in explaining FDI flows to Africa, economic growth is an important determinant.

Exchange rate volatility and inflation

High inflation might reflect instability of the macroeconomic policy of the host country thereby engendering uncertainty in the investment environment and discouraging FDI (Bajo-Rubia and Sosvilla-Rivero 1994, Yih Yun Yang et al. 2000). In contrast, falling price levels and the resulting contraction in economic activities might trigger a deflationary spiral and eventually bankrupt the host country's firms, inducing local investors to sell off their interests in the host country's companies to foreign investors at low prices, thereby expanding the inflow of FDI. Including inflation in the estimation can also proxy for the volatility of exchange rates, which has often been identified as a significant impediment for the inflow of FDI. (Chakrabarti 2001). FDI investors lack the security of portfolio investors, as the latter can reduce the risk of exchange rate variability by hedging through the derivative market in the short run. As hedging is impossible in the long run, FDI investors must pay much closer attention to exchange rate volatility. This factor is a particularly robust determinant for risk-averse investors (Benassy-Quere et al. 2001).

Labor costs and price level

The cost of labor in developing countries is very important factor for FDI, with one important caveat: if the FDI in the high-tech sector, FDI might flow to high wage areas because of high skill requirements. That is a possible explanation why while a large number of studies are unequivocal in that lower labor costs are a significant factor for attracting FDI⁶, some studies such as Flamm (1984), Lucas (1993), Schneider and Frey (1985) and Wheeler and Mody (1992) do not find significant effects. Measuring labor cost, however, might be problematic as noted by Noorbakhsh et al. (2001), since data on wages might be a poor reflection of wages offered by TNCs, and that is especially relevant in a region with astronomical inequality levels such as SADC. For that reason, instead of including a wage variable, a general price level variable was used in this study.

It is hoped that the variable captures not only labor cost in the broad sense, but also other expenses related to FDI such as utilities and infrastructure-renting expenditures and can be used as a proxy for the stability of real exchange rates (regardless of nominal

⁶ See Wei (2000) and Kravis and Lispey (1982).

inflation rates). The nominal USD GDP to purchasing power parity USD GDP conversion factor is used to measure the price level of a country. The average conversion factor for the pooled sample is about 2.3, which means that SADC price levels are on the average 2.3 times lower than the U.S. which is used as a benchmark, the lowest being in Madagascar where the price level is 28% of the U.S. and the most expensive being Namibia with 52%. Elbadawi and Mwege (1997), however, find that a depreciation of the real effective exchange rate, an increase in a country's openness to trade, and the expansionary effects of fiscal balance have positive impacts on FDI.

Natural resources

FDI location decisions depend on multiple host country including the availability of natural resources (Sawkut et al., 2009). Whether the natural resources-FDI link is reinforcing or inverse (known as 'the natural resource curse') was most recently explored by Asiedu (2013) who, using a panel data of 99 developing countries over the period 1984-2011 and six measures of institutional quality from two different sources (five variables mostly sourced from the International Country Risk Guide), found out that natural resources have an adverse effect on FDI, confirming the existence of the abovementioned 'curse'. Asiedu (2013), however, found that good institutions mitigate the adverse effect of natural resources on FDI, although institutions alone cannot neutralize that negative effect.

Excluded variables

Various variables, such as population density, foreign debt, total GDP (market size) among others, were used in preliminary regressions but excluded since they proved to be insignificant and make the model more cumbersome and decrease the degrees of freedom. Following the principle of parsimony, trade variables were excluded as well, since they are highly correlated both with both FDI and GDP per capita. There are numerous studies addressing the link among these macroeconomic indicators, and there is no general consensus concerning the causal relationships that exist among them, probably due to endogeneity reasons. Therefore, the exclusion of trade from the analysis was considered as a way of reducing both endogeneity and multicollinearity.

Other variables excluded due to multicollinearity were tertiary education and FDI stock. The exclusion of these variables is not considered to have led to an omitted variable bias, since earlier studies, such as Elbadawi and Mwege (1997), find that terms of trade shocks and the level of schooling are found to have little to no impact on FDI into Africa.

Estimation Model and Hypotheses

Considering the existing literature outlined in the previous section, it is hypothesized that PS will have a positive impact on FDI inflows in SADC members. It is also

hypothesized that there will be interaction effects between PS and other significant factors influencing FDI. Based on these hypotheses, the following equation (1) is used as a starting point for the pooled linear estimations:

$$(1) y = \alpha + \beta_1 X + \beta_{2...n} Z + \varepsilon$$

and the following equation (2) was used for linear panel data models, respectively:

$$(2) y_{it} = \alpha + \beta_1 X_{it} + \beta_{2...n} Z_{it} + \lambda_{it} + \varepsilon_{it}$$

where y is the FDI inflows per capita, α is the intercept, X is one of the six WGIs, Z is a vector of control variables including price levels (using the GDP deflator), natural resource rents, overseas development assistance, inflation rates, GDP growth and net flows on external debt, and ε is the robust standard error (whenever mathematically possible), λ is country-specific characteristics, i is an SADC member country, and t is a year between 1996 and 2013.

In addition, equations of the following kinds were used to estimate a non-linear (quadratic) regression (equation 3), 2SLS instrumental variables pooled and panel regressions (equations 4 and 5), and finally, dynamic system GMM linear and quadratic models (equations 7 and 8) with respect to the effects of political stability (PS) specifically:

$$(3) y = \alpha + \beta_1 X + \beta_2 X^2 + \beta_{3...n} Z + \varepsilon$$

$$(4) y = \alpha + \beta_1 PS + \beta_{2...n} Z + \varepsilon$$

$$PS = \alpha + \beta_1 NR + \beta_{2...n} Z + \varepsilon$$

$$(5) y_{it} = \alpha + \beta_1 X_{it} + \beta_{2...n} Z_{it} + \lambda_{it} + \varepsilon_{it}$$

$$y_{it} = \alpha + \beta_1 X_{it} + \beta_{2...n} Z_{it} + \lambda_{it} + \varepsilon_{it}$$

$$(6) y_{it} = \alpha_{it} + \beta_1 L_k \cdot y_{it} + \beta_2 PS_{it} + \beta_3 L_k \cdot PS_{it} + \beta_{4...n} Z_{it} + \varepsilon_{it}$$

$$(7) y_{it} = \alpha_{it} + \beta_1 L_k \cdot y_{it} + \beta_2 PS_{it} + \beta_2 PS_{it}^2 + \beta_3 L_k \cdot PS_{it} + \beta_3 L_k \cdot PS_{it}^2 + \beta_{4...n} Z_{it} + \varepsilon_{it}$$

where NR stands for the log of natural resource rents per capita, and is used an instrumental variable in the 2SLS (5), being able to predict PS but not FDI inflows. In the 3SLS equation (6) NR is treated as endogenous and GDP per capita is used an exogenous instrumental variable. In (7) and (8) L_k stands for the number of periods by which both the dependent variable (FDI inflows) and the explanatory variable of interest (PS) are lagged.

Various specifications of the above-mentioned estimation models were tested, whereby the control variables were used in both their aggregate form (usually percentage of GDP) and in their per-capita form, whenever possible. Also, considering that FDI is less volatile than other kinds of investments, such as portfolio, and thereby decisions are taken considering both the status-quo and recent developments alike, both contemporaneous and one-year lagged WGIs were employed. In the regression discontinuity design model, only observations with PS of over -1.0 were included, as will be justified in the next section.

In order to normalize the distribution of the variables by reducing skewness, all non-percentage variables were converted into a log format, following the standard procedure in related literature. Nevertheless, a data description analysis showed the presence of an outlier in the dataset, as far as the dependent variable is concerned. Following Hoaglin's outlier detection criteria, according to which moderate outliers would display FDI per capita of over USD 1375.5 and extreme ones would exceed USD 2091, the Seychelles were discovered to be an extreme positive outlier, most likely due to its tax-haven status⁷, and were accordingly excluded from the empirical analysis:

Table 2. FDI versus GDP per capita in SADC members for 1996-2013.

Country	FDI inflows per capita	GDP (PPP) per capita
Seychelles	2111.12	19532.96
Botswana	410.33	11908.41
South Africa	385.35	11117.85
Mauritius	298.44	13281.36
Angola	184.22	4787.05
Namibia	184.14	7344.99
Zambia	155.38	2671.66
Madagascar	138.61	1401.46
Swaziland	92.31	5584.77
Lesotho	92.07	1913.25
DRC	63.88	583.14
Tanzania	62.75	1777.51
Mozambique	34.63	767.99
Zimbabwe	30.05	1933.92
Malawi	14.54	668.87
<i>Average</i>	283.85	5685.01

⁷ See Hoaglin et al. (1986)

Empirical Analysis

Diagnostics and preliminary tests

Before proceeding with the analysis, various standard checks were performed to ensure the reliability and validity of the estimation. The non-stationarity of the variables was confirmed using the panel-data-appropriate Levin-Lin-Chu unit-root test, one of the most widely used panel data unit root tests in the literature (Li and Liu, 2005). The null hypothesis of the existence of a unit root in the residuals was rejected for all specifications. In addition, a pre-estimation correlation test and post-estimation variance inflation factor (VIF) test (for the OLS estimation) were used to corroborate the absence of multicollinearity. Histograms and descriptive statistics were used to make sure all already log-transformed variables are normally distributed and do not contain outliers. For the resulting balanced panel data set containing 266 (14x19) country-year dyads, STATA was used to estimate the empirical model.

Table 3. Correlation coefficients of WGIs (excl. Seychelles).

PS						
PS	1	VA				
VA	0.7912	1	GOV			
GOV	0.7682	0.9094	1	REG		
REG	0.8043	0.8912	0.9128	1	LAW	
LAW	0.8513	0.9086	0.9207	0.9315	1	CORR
CORR	0.7911	0.8536	0.9126	0.8855	0.8987	1

Linear estimations

Diagnostic ordinary least squares (OLS) and weighted least squares (WLS) regressions were estimated for every one of the six WGIs and they yielded almost identical results. Only the WLS is reported here for brevity. Since all six indicators were highly correlated with each other, as confirmed both by a simple correlation test and by a principle component analysis, they were not simultaneously used in a single specification. The pooled regressions, excluding the Seychelles, and using robust standard error and log-converted variables, showed that all six indicators have significant and large positive effects across countries in the entire period considered. Notably, the Control of Corruption and the Government Effectiveness indicators had the largest coefficient, Political Stability having the lowest. The signs and the significance of the coefficients was in line with our hypothesis. The R-square coefficients were moderate, hovering about 20%, suggesting that there are factors other than the ones included in the estimation that influence FDI inflows.

**Table 4. Weighted least squares, weight: population (excl. Seychelles);
L = one-year lag.**

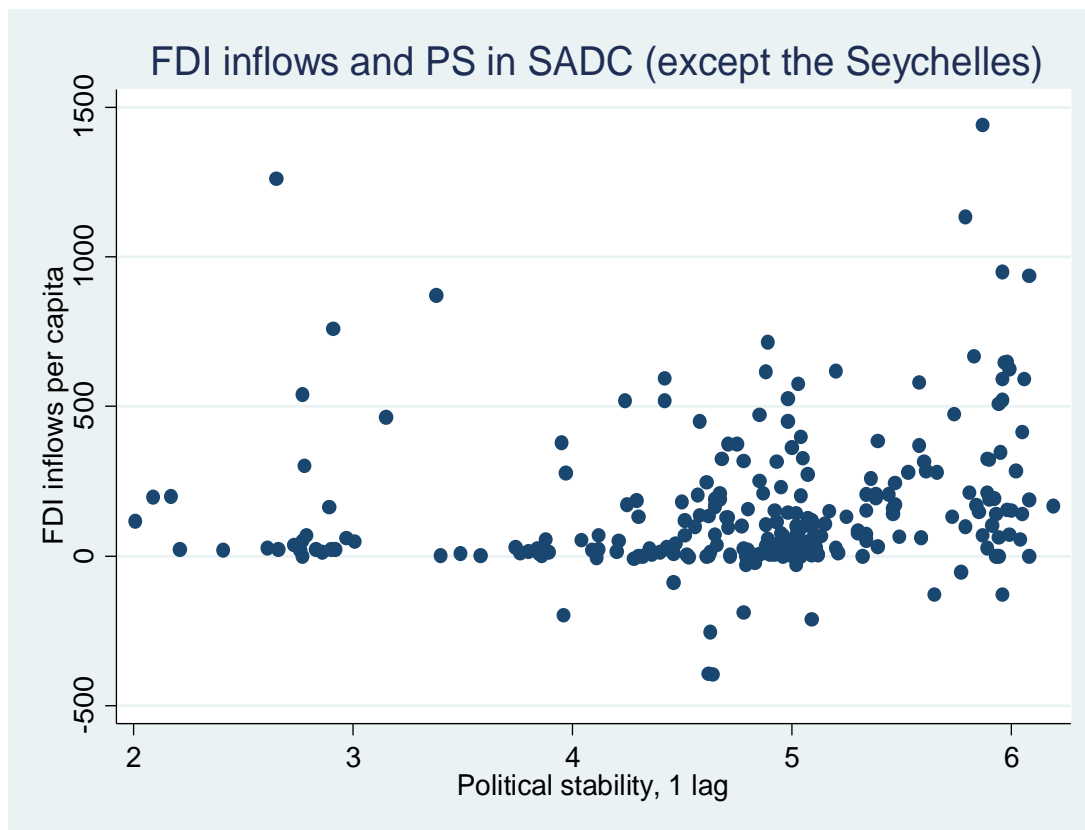
VARIABLES	(1) FDI inflows	(2) FDI inflows	(3) FDI inflows	(4) FDI inflows	(5) FDI inflows	(6) FDI inflows
Price level	-1.588** (0.709)	-1.744** (0.693)	-1.735** (0.689)	-1.763** (0.701)	-1.594** (0.692)	-1.728** (0.691)
GDP growth p.c.	-0.000106 (0.0114)	0.000699 (0.00974)	0.00456 (0.00999)	-0.00136 (0.00971)	-0.00107 (0.00993)	0.00230 (0.0101)
Inflation	0.000388** (0.000169)	0.000536** (0.000197)	0.000556** (0.000201)	0.000556** (0.000200)	0.000497** (0.000191)	0.000541** (0.000197)
ODA p.c.	0.346*** (0.126)	0.358*** (0.120)	0.389*** (0.124)	0.357*** (0.122)	0.355*** (0.124)	0.327*** (0.116)
Natural res. p.c.	0.0485 (0.0568)	0.0555 (0.0501)	0.0412 (0.0513)	0.0504 (0.0513)	0.0656 (0.0511)	0.0650 (0.0492)
L.Political stability	0.0780*** (0.0263)					
L.Voice and acc.		0.281*** (0.0483)				
L.Governance			0.305*** (0.0536)			
L.Regulatory qlty.				0.275*** (0.0465)		
L.Rule of Law					0.273*** (0.0466)	
L.Corruption ctrl						0.330*** (0.0573)
Constant	5.044*** (0.310)	4.095*** (0.250)	3.985*** (0.265)	4.200*** (0.245)	4.094*** (0.276)	3.963*** (0.284)
Observations	237	237	237	237	237	237
R-squared	0.191	0.320	0.332	0.304	0.278	0.321

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Noticeably, the effects of PS appear as much smaller than those of other indicators, although still highly significant. The post-estimation Breusch-Pagan test showed the presence of heteroscedasticity ($\chi^2(6) = 502.60$, Prob > $\chi^2 = 0.0000$) which is also evident from the scatterplot – as the value of PS increases, the variance in the FDI inflows vary increasingly. Unfortunately, the issue of how to deal with heteroscedasticity is far from being settled in econometric literature. One alternative is to use the White heteroscedasticity-consistent estimator, whereas another is the Weighted Least Squares estimator. (Noorbakhsh et al. 2001) Accordingly, the OLS regression was weighted by the size of the population of each country, as SADC members have vastly different population levels. The heteroscedasticity can be clearly

seen in the scatter plot of all observations, excluding the Seychelles.

Figure 2.



To investigate further, a more panel-data appropriate fixed-effects general least squares (FE GLS) regression was estimated – the Hausman test indicated that a fixed-effects model was more appropriate than a random-effects one, which is far from unexpected, considering that the countries in the sample display very different characteristics. The fixed-effects estimation, which controls for country-specific effects, however, showed very different results from the OLS/WLS. All indicators except Control of Corruption appear with negative and insignificant coefficients although two of them are significant, notably Political Stability.

The results were not in line with expectations and opposite to those obtained via the OLS, suggesting there might be a non-linear trend. Indeed, a glance at the scatter plot above suggests the presence of a U-curve. Interestingly, a similar trend was observed for the other WGIs, except for Control of Corruption, where the trend is clearly linear. In order to ascertain whether that was the case in terms of statistical significance, a quadratic model was fitted.

**Table 5. Fixed-effects general least squares (excl. Seychelles);
L = one-year lag.**

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
	FDI inflows	FDI inflows	FDI inflows	FDI inflows	FDI inflows	FDI inflows
Price level	-1.942*** (0.405)	-2.547*** (0.354)	-2.607*** (0.351)	-2.514*** (0.361)	-2.520*** (0.350)	-2.617*** (0.351)
GDP growth p.c.	0.0207** (0.00831)	0.0203** (0.00848)	0.0191** (0.00848)	0.0202** (0.00849)	0.0208** (0.00841)	0.0188** (0.00849)
Inflation	0.000545** (0.000201)	0.000711** (0.000196)	0.000729** (0.000197)	0.000673** (0.000205)	0.000655** (0.000196)	0.000765** (0.000195)
ODA p.c.	0.168*** (0.0564)	0.203*** (0.0562)	0.200*** (0.0569)	0.192*** (0.0573)	0.174*** (0.0574)	0.205*** (0.0563)
Natural res. p.c.	0.189*** (0.0610)	0.142** (0.0605)	0.141** (0.0610)	0.130** (0.0621)	0.146** (0.0599)	0.145** (0.0606)
L.Political stability	-0.367*** (0.118)					
L.Voice and acc.		-0.213 (0.164)				
L.Governance			-0.111 (0.176)			
L.Regulatory qlty.				-0.168 (0.149)		
L.Rule of Law					-0.436** (0.191)	
L.Corruption ctrl.						0.122 (0.147)
Constant	7.226*** (0.527)	6.808*** (0.815)	6.363*** (0.911)	6.665*** (0.805)	7.882*** (0.948)	5.253*** (0.730)
Observations	237	237	237	237	237	237
R-squared	0.274	0.247	0.243	0.246	0.259	0.244
Number of country	14	14	14	14	14	14

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Quadratic models

Considering the discrepant results of the OLS/WLS and fixed-effects GLS model estimations, quadratic equation (3) was estimated. The results are reported in Table 6.

Replacing the coefficients into the estimation equation yields the following:

$$FDI\ inflows\ per\ capita = 7.976 - 0.989 \times PS + 0.125 \times PS^2 + x + e$$

If this equation is then differentiated with respect to the PS coefficient, the following one is obtained:

$$(FDI\ inflows\ per\ capita)' = - 0.989 + 2 \times 0.125 \times PS$$

**Table 6. OLS with squared terms (excl. Seychelles);
L = one-year lag, sq = squared term.**

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
	FDI inflows	FDI inflows	FDI inflows	FDI inflows	FDI inflows	FDI inflows
Natural res. p.c.	-0.00715 (0.0274)	0.00322 (0.0236)	0.0359 (0.0227)	0.0266 (0.0210)	0.0150 (0.0235)	0.0551** (0.0276)
Price level	-1.538** (0.713)	-1.658** (0.706)	-1.860** (0.717)	-1.988*** (0.728)	-1.728** (0.711)	-1.671** (0.699)
GDP growth p.c.	0.0122 (0.00783)	0.0146* (0.00754)	0.0128* (0.00747)	0.0147* (0.00749)	0.0156* (0.00794)	0.00937 (0.00758)
Inflation	0.000280* (0.000154)	0.000550** (0.000235)	0.000483** (0.000190)	0.000509*** (0.000194)	0.000445** (0.000184)	0.000476** (0.000198)
ODA p.c.	0.185*** (0.0698)	0.187*** (0.0637)	0.209*** (0.0703)	0.228*** (0.0699)	0.206*** (0.0690)	0.212*** (0.0707)
L.Polit. stability	-0.989*** (0.254)					
L.sq.Polit.stabil.	0.125*** (0.0302)					
L.Corrution		-0.998** (0.396)				
L.sq.Corrution		0.141*** (0.0417)				
L.Voice & acc.			-2.052*** (0.377)			
L.sq.V. & Acc.			0.254*** (0.0435)			
L.Governance				-2.108*** (0.373)		
L.sq.Governance				0.268*** (0.0441)		
L.Regul. qlty.					-1.658*** (0.336)	
L.sq.Regul. qlty.					0.217*** (0.0410)	
L. Rule of law						-1.335*** (0.294)
L.sq.R. of law						0.181*** (0.0345)
Constant	7.976*** (0.639)	7.708*** (0.949)	9.917*** (0.864)	9.961*** (0.849)	9.016*** (0.747)	8.076*** (0.624)
Observations	237	237	237	237	237	237
R-squared	0.205	0.283	0.307	0.337	0.296	0.265

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Solving the equation by applying the FOC would suggest that for a PS value larger than 3.956 in its converted non-negative form (2 to 7), which corresponds to $3.956 - 5 = -1.044$ in its original form (-3 to 3), there is a positive linear relationship and for values smaller than that, the FDI-PS relationship is negative. A glance at the PS indicator for SADC countries reveals that the observations with a value below this cutoff are essentially restricted to the DRC in the entire period, Angola until 2002, and Zimbabwe between 1999 and 2010 (refer to Table A1 in the Appendix).

Regression discontinuity design

Based on the results from the quadratic estimations, a regression discontinuity model was utilized to estimate a linear equation. The results are presented in Table 7.

Table 7. OLS for observations with PS of over 0.0.

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	FDI inflows	FDI inflows	FDI inflows	FDI inflows	FDI inflows	FDI inflows
Nat. res. rents, %	-0.00123 (0.00465)	0.000531 (0.00471)	0.0157*** (0.00528)	0.0119** (0.00475)	0.0126** (0.00507)	0.0122** (0.00555)
Price level	0.157 (0.374)	0.265 (0.314)	-0.277 (0.345)	0.0561 (0.304)	0.148 (0.301)	0.0430 (0.315)
GDP growth p.c.	0.0116 (0.0105)	0.0102 (0.0106)	0.0109 (0.0104)	0.00976 (0.0107)	0.0104 (0.0100)	0.0149 (0.0112)
Inflation	-0.00119 (0.00671)	-0.000498 (0.00715)	0.00129 (0.00670)	-0.00116 (0.00673)	-0.000697 (0.00675)	0.00182 (0.00653)
Political stability	0.329*** (0.109)					
Voice and acc.		0.248*** (0.0609)				
Governance			0.440*** (0.0808)			
Regulatory qlty.				0.401*** (0.0777)		
Rule of law					0.358*** (0.0694)	
Corruption ctrl.						0.387*** (0.0782)
Constant	4.441*** (0.527)	4.910*** (0.310)	4.152*** (0.345)	4.220*** (0.341)	4.361*** (0.353)	4.219*** (0.398)
Observations	113	113	113	113	113	113
R-squared	0.170	0.184	0.297	0.282	0.242	0.261

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Based on the results of the quadratic equations, a cutoff value of -1.0 was initially selected. However, as other cutoff points, including the sample the mean of -0.8 , were tested for robustness reasons, a PS indicator value of 0.0 proved to allow for most significant results of the linear model. Thus, it was used as a cutoff value and so for observations with PS indicator of 0.0 or higher, which represent about half of all observations, it is established that there is a significant positive relationship between all WGI and FDI inflows using an OLS model.

A fixed-effects GLS model using contemporaneous or lagged values of the WGI does not show significant effects of WGI, no matter what and how many controls are included and what cutoff value is used. The results are not reported here for brevity. Nevertheless, using a three-period lag PS shows significant results at the 10% level, confirming that PS has positive impacts on FDI in countries which has already achieved some political stability, and that impact has a lag of about three years. Maintaining political stability of about three years seems to provide a good enough guarantee for investors.

Table 8. Fixed-effects general least squares with a 3-year lag PS for PS>0.0.

VARIABLES	FDI inflows
Lag 3 Political stability	0.275* (0.143)
Price level	0.161 (0.536)
GDP growth per capita	0.0217 (0.0135)
Inflation	0.00567 (0.00762)
ODA per capita	0.0279 (0.0693)
Natural res. rents per capita	0.000185 (0.000208)
Constant	4.541*** (0.801)
Observations	97
Number of country	11
R-squared	0.125

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Endogeneity issues and robustness

The models presented so far are single equations, which means that they might be, and most likely are, subject to endogeneity resulting in biased estimated coefficients,

meaning that the PS-FDI relationship might not be causal but might instead run both ways or be determined by a third unaccounted-for factor. To examine whether an endogenous relationship between FDI inflows and political stability truly exists, first a two-stage least squares (2SLS) instrumental variable (IV) OLS model was used. In the IV regression, PS was instrumented for by the amount of natural resource rents *as a percentage of GDP*, which was not found to be correlated with FDI inflows *per capita*, unlike natural resource rents *per capita* which is, and was correspondingly used as a control variable in the earlier regressions. Natural resource as a percentage of GDP can predict PS significantly in the first stage of the two-stage least squares IV regressions.

The results of the IV estimation confirmed the robustness of the results obtained in the previous sections, suggesting that there is a causal positive relationship between PS and FDI inflows on a cross-country basis. The coefficient remained robust as additional control variables were included in the equation, suggesting a 28% increase in FDI inflows as the PS indicator goes up by one unit⁸. The impact in fact not as large as it may seem, because one point increase in the PS indicator is equal to a 15-20% increase in political stability (the indicator ranges from approximately -3/-2.5 to +2.5/+3 only).

Table 9. Two-stage instrumental variable model estimates (Seychelles included).

VARIABLES	(1) IV OLS, all observations FDI inflows	(2) IV OLS, PS>-1.0 FDI inflows	(3) IV FE GLS, all observations FDI inflows	(4) IV FE GLS, PS>-1.0 FDI inflows
Political stability	0.247*** (0.0737)	1.113*** (0.212)	4.295 (2.805)	6.736* (4.085)
Price level	-1.049*** (0.318)	-2.058*** (0.500)	-9.913* (5.414)	-9.079* (5.439)
Inflation	0.000168 (0.000106)	0.00395 (0.00507)	0.00103 (0.000648)	0.0441 (0.0286)
ODA per capita	0.00294*** (0.000554)	0.00165** (0.000720)	0.00147 (0.00163)	0.00171 (0.00213)
Debt flows p.c.	0.000252*** (6.00e-05)	0.000222*** (7.14e-05)	0.000159 (0.000157)	0.000185 (0.000197)
Constant	5.360*** (0.319)	1.293 (0.975)	-10.51 (11.44)	-25.26 (19.26)
Observations	252	213	252	213
R-squared	0.306	0.149		
No. of countries			14	13

Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

⁸ $e^{0.247}=1.28$.

As an additional control for endogeneity, the post-estimation augmented Durbin-Wu-Hausman test was applied following the OLS test. The test was suggested by Davidson and McKinnon (1993) and can be easily conducted by including the residuals of each endogenous explanatory variable as a function of all exogenous variables in a regression of the original model, which, however depends on a subjective judgment about the exogenous nature of the variables considered.

The test results indicated that endogeneity is not significant, meaning natural resources are a really exogenous variable to FDI and political stability, and this gives credibility to the results obtained through the two-stage least squares IV estimation. Thus, a fixed-effects two-stage least squares model was estimated for both all observations and for PS > -1.0 observations alike. (Li and Liu, 2005) The fixed-effects model once again confirmed the results obtained in the previous sections, suggesting that they are robust. For countries with a PS indicator of over -1.0, one point (i.e. 15-20%) increase in the PS indicator can lead to a staggering eight-fold⁹ increase in FDI inflows *within* a country. A cutoff point of -1.0 works better than 0.0 in these models, and the results do not change significantly once the Seychelles is excluded from the analysis (refer to Table A2 in the Appendix).

As a final robustness check a dynamic system GMM small-sample model was used. The Arellano-Bond system-GMM model, which uses lags of the dependent and independent variables as instruments, also confirmed the results obtained in the previous sections. A causal non-linear trend was confirmed, whereby both the linear and the squared PS were significant. The results are not reported for brevity. More interestingly and relevantly, when the analysis is conducted for observations where PS is larger than 0.0, the strongest predictor of FDI was PS with a two-year lag, which is similar to the results obtained in the previous section which showed that the three-year lag was the most significant. In any case, the robustness tests do confirm that even if it assumed that natural resources are not an inappropriate instrument for PS and if PS is itself assumed to be endogenous, PS is still a strong predictor of FDI, especially in countries which have already achieved the crucial PS of 0.0.

The Sargan test for over-identifying restrictions was not significant for all specifications except the 0-lag one, suggesting the goodness-of-fit of the model. However, the Sargan test might be biased in the case of heteroskedastic error term, which is unfortunately the case, as the Breusch-Pagan test previously showed, which might cast doubts on the validity of the results. Therefore, a further robustness check was performed.

As mentioned earlier, there were no issues with the stationarity of the data, so the system GMM was chosen over the first-differences GMM, as its estimation power is generally considered superior in the absence of non-stationarity. Standard

⁹ $e^{6.736} = 842.18$.

first-differences GMM (Arellano and Bond, 1991) requirements may be fulfilled if there is autocorrelation in the first order but no autocorrelation in the second order. Except for the zero (contemporaneous) and one-period lag specifications, that seems to be the case, so the first-differences GMM was also conducted for the two and three-period lag specifications as an additional robustness check, as the standard GMM may potentially have an edge over system-GMM from the point of view of instrument proliferation. It reduces the likelihood of instrument proliferation resulting in biases of the coefficients which might be present in the system GMM. (Roodman 2009). The results, not reported here for brevity, were consistent with the system GMM.

Table 10. Arellano –Bond system-GMM for observations with PS of over 0.0 (excluding the Seychelles).

VARIABLES	(4) PS, no lag FDI inflows	(1) PS, 1 lag FDI inflows	(2) PS, 2 lags FDI inflows	(3) PS, 3 lags FDI inflows
Lag1 FDI inflows	0.218 (0.213)	0.150 (0.189)		
Lag 2 FDI inflows			0.0159 (0.196)	
Lag 3 FDI inflows				-0.0380 (0.183)
Political stability	0.209 (0.167)	0.0852 (0.159)	0.520*** (0.170)	0.285** (0.135)
Natural resources .p.c.	0.000286* (0.000145)	0.000320** (0.000136)	0.000326*** (0.000118)	0.000369** (0.000142)
Constant	3.762*** (1.181)	4.865*** (1.285)	3.344*** (1.093)	4.966*** (1.225)
Observations	108	108	104	98
Number of country	11	11	11	11
AR1	***	***	***	***
AR2	**	*		
Sargan OR	*			
Sargan GMM				
Difference in Sargan GMM	***			*
Sargan IV	*			
Difference in Sargan IV				

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Discussion

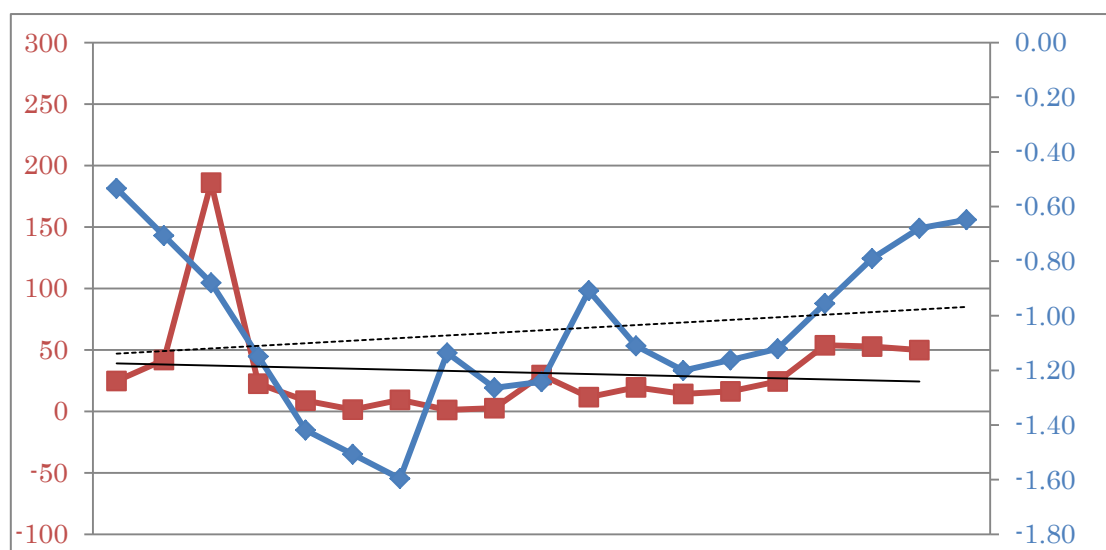
The U-curve narrative: the curious cases of Angola and the DRC

The non-linear relationship between PS and FDI identified in the present analysis can be

related to Barro's finding (1996, 2000) that there is a U-shaped relationship between FDI and democracy. To reiterate, it was identified that the lowest point of that U-curve lies at about a value of -1.0 of the PS indicator. Above this level of PS, and especially above 0.0, there is a relatively large, robust and positive causal relationship between PS and FDI inflows in SADC members, especially with a lag of one to two years. From Table A1 in the Appendix, it can be seen that the SADC members which are below the lower cutoff point are mainly the DRC, Angola and Zimbabwe. On the other hand, SADC members that have achieved respectable PS levels of over 0.0 includes Botswana, Mauritius, Zambia, Namibia, Mozambique and Lesotho. In other words, most countries in the SADC follow the expected linear trend between PS and FDI except Angola, the DRC and to a certain extent Zimbabwe, where the trend seems to be the opposite mainly due to the presence of a string of two or three years (within the entire almost two-decade period under consideration) of very strong correlation in the opposite direction, at least in the latter two cases: 1997-1998 in Zimbabwe and 1998-2000 in the DRC. This section therefore proceeds to explore why these countries do not fit the trend and what it is that separates them for the rest of the SADC members.

First of all, a detailed look at the within-country trends in those three cases reveals that the cases of Zimbabwe and the DRC are not so detached from the general trend as is Angola. In the case of Zimbabwe, except for 1998 which saw a peak in FDI inflows, the rest of the time FDI and PS are visibly correlated in their annual fluctuations (Figure 3).

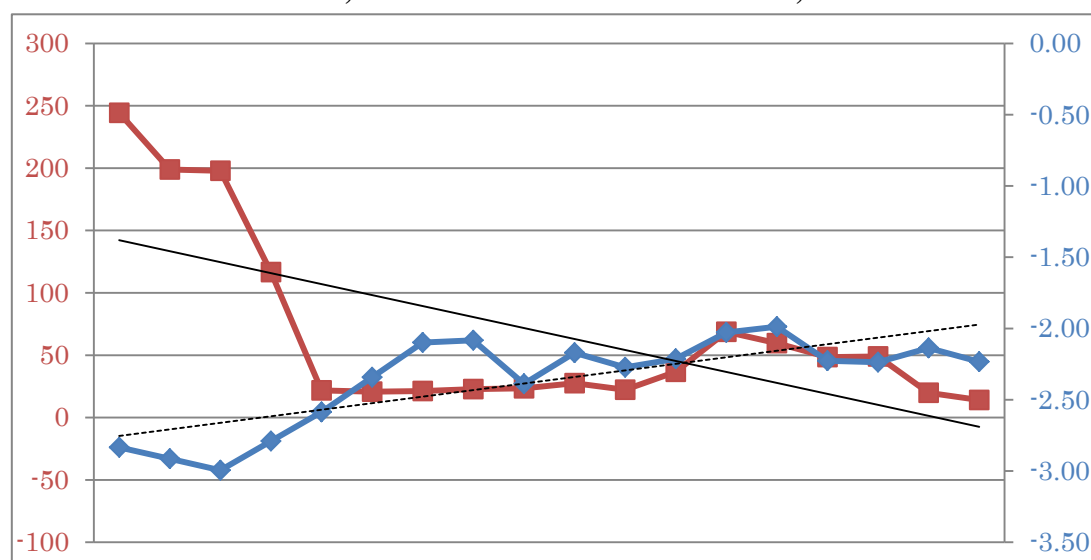
Figure 3. Political Stability (blue, right scale) and FDI inflows (red, left scale) in Zimbabwe, 1996-2013. Source: World Bank, 2016.



The same is true for the DRC after the onset of the Second Congo War in August 1998 (Figure 4). Zimbabwe's involvement in the Second Congo War in 1998 might

partially explain partly why FDI inflows there were particularly high in that year – most of the DRC’s neighboring nations, particularly Malawi, Angola and Zimbabwe received increased amounts of FDI around and after the onset of the war suggesting a potential flight and/or diversion of FDI from the DRC to the neighboring areas.

Figure 4. Political Stability (blue, right scale) and FDI inflows (red, left scale) in the DRC, 1996-2013. Source: World Bank, 2016.



Concerning the DRC in particular, a closer look at the geography of FDI there suggests that there might be no relation between PS and FDI there. The DRC is the largest country in SSA, approximately one-fourth the size of the USA or China, and in addition the largely underdeveloped infrastructure obstructs quick coordination among the already largely economically, linguistically and ethnically different parts of the state. This line of thought would render the analysis of the DRC as a single politico-economic entity counterintuitive to say the least. The map below (Figure 5) shows that what could be described as the economic powerhouse of the country is in essence a relatively small region bordering Zambia, situated in the Katanga Province which itself is home to a mere 6-7% of the population of the country. The reader can verify on the map what a tiny part of the DRC said area is.

The region, whose center is the city of Lubumbashi, could be said to account for upwards of 70% of the DRC’s total exports (about 78% of the DRC’s exports are either raw or processed copper and cobalt, most if not all of which are extracted in southern Katanga. Approximately the same amount of the FDI flowing into the country should be expected to be concentrated in the region, based on data from the DRC’s National Investment Promotion Agency (2016) and on Oxford Policy Management data (2016), who report that 70-90% of overall FDI is concentrated in the mining sector (numbers vary depending on the year). The region has been largely unaffected by the conflict in

the country, which has taken a heavy toll on the North and South Kivu provinces in the Eastern Part of the country, and which has understandably had an impact on the overall PS in the DRC.

Table 11. The DRC’s Exports in 2013.

Source: Observatory of Economic Complexity, MIT (2016)

Commodity	Percentage of exports	Value in USD
Refined Copper	33.0%	\$2,380,000,000
Copper Ore	19.0%	\$1,370,000,000
Crude Petroleum	12.0%	\$888,000,000
Cobalt	8.8%	\$626,000,000
Raw Copper	7.5%	\$536,000,000
Cobalt Ore	6.9%	\$491,000,000
Cobalt Oxides	3.2%	\$229,000,000
<i>TOTAL</i>	<i>90.40%</i>	<i>\$6,520,000,000</i>

Figure 5. Map of natural resource extraction in the DRC.

Source: Le Monde Diplomatique based on UN data (2016).

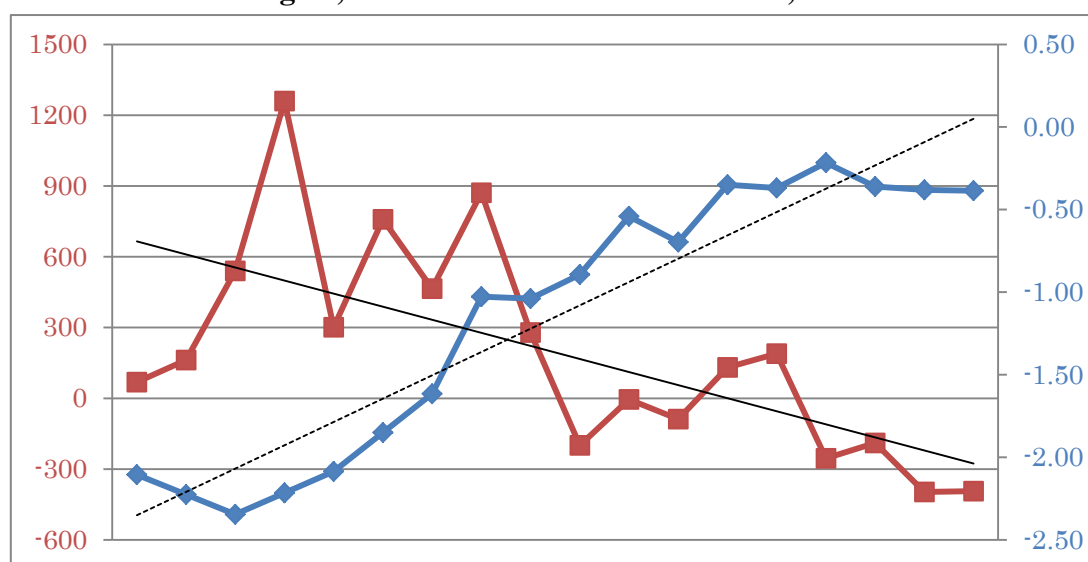


To support the idea that PS is not the most relevant factor in investment decisions in

the mining sector in the south, a backward interpretation of the following numbers is considered. Namely, according to a Fraser Institute survey reported by Oxford Policy Management (2016), the DRC's political environment was picked out as a major negative factor influencing FDI - the survey found that over 50% of investors surveyed the said that the DRC's policy environment was a deterrent to investing in the country's mining sector. By comparison, only 5% of investors considered South Africa's and Tanzania's policy environment to be a deterrent. While this is certainly true, one does have to look from the opposite angle and recognize that for almost 50% of investors the policy environment is not a major issue. At least not in comparison with other factors, such as corruption, which was found to be a deterrent to 100% of investors (compared to 60% for neighboring Zambia), and the infrastructure problems of the DRC, which concerned close to 100% of investors, compared to only 50% for Zambia, for instance.

Whereas political stability turned out to be a major concern for approximately 80% of investors, only half of them (40%) reported they would not pursue *any* investment in the DRC. The reverse reading of the survey results is very much in line with the results in this study as explained by the economic geography and the geographical concentration of conflict and political instability in the DRC.

Figure 6. Political Stability (blue, right scale) and FDI inflows (red, left scale) in Angola, 1996-2013. Source: World Bank, 2016.



Finally, the case of Angola is the only one where a clear negative relationship between PS and FDI be observed, and it is the SADC member that is responsible for the “hate” part of the relationship, i.e. the downward-sloping part of the U-curve. Angola is the only other severely natural-resource dependent country in SADC alongside the DRC, and specifically, it is oil-dependent, being the only OPEC member within SADC. The overwhelming part of FDI in Angola goes into the oil sector, which accounts for more

than 90% of the country's hard-currency revenue (i.e. exports). The number of oil extraction wells more than doubled between 1993 and 2003. US companies, especially ChevronTexaco, dominate oil investment in Angola (Goldstein, 2004). In light of the fact that FDI in the oil sector depends mainly on the discovery of reserves and on global demand for oil, it is not surprising to see huge fluctuations from 1300 to 300 USD per capita in the 1990s, as well as outflows of FDI due to falling demand in the recent years despite constantly improving political stability.

The most relevant part of Angola's dependence on oil in fact the geography of its oil extraction industry, very much in parallel with the DRC's mining sector. Hodges (2004:151) reports that over 98% of Angola's oil is pumped from fields offshore, in the Atlantic Ocean, so there is almost no direct contact between the oil industry and the onshore political and social development. Since any potentiality of political violence is virtually non-existent, it follows logically that there should be no relationship between the PS indicator and the FDI inflows.

FDI within SADC

Lastly, the natural resource dependence and the lack of relationship between FDI and PS in Angola and the DRC are not the only characteristics that differentiate them from the rest of the SADC members. The two countries, together with the Seychelles which is considered an outlier in this study, are the only ones which do not participate in the SADC Free Trade Area established in August 2008 (SADC, 2012). As a result, they are not as deeply integrated into the community, with tariffs, regulations and visas limiting their participation in cross-border value chains, FDI and joint-venture projects.

To illustrate the lack of integration, FDI outflows from SAR to other SADC members are examined. SAR is an FDI powerhouse not only in the region but in Africa as a whole, and a lot of FDI in SADC members originate from SAR. Clearly, DRC and Angola are the only SADC member which did not experience an increase of FDI from SAR, and Angola even experiences disinvestment, which could explain why the FDI stock in 2012 is negative (Table 12).¹⁰

Curiously, apart from some SAD FDI in Angola, no other African country reports investing in either the DRC or Angola, and of the latter, Angola has minimal investments in Mozambique and SAR, whereas the DRC only has some FDI in Zambia. The overwhelming part of FDI in the DRC originates from Belgium and China, and in the case of Angola, the main contributors are France, Norway, Portugal, the USA, China and Brazil. Considering this, one would wonder whether the DRC and Angola are part of SADC, or for that matter the African community at all.

¹⁰ Negative FDI flows are a common phenomenon, but not FDI stock. It is not completely clear why UNCTAD reports a negative FDI stock figure. It is probably a mix-up of the flow/stock categories.

**Table 12. SAR's FDI stock in SADC members (sorted by FDI in 2013).
Source UNCTAD.**

SADC member	FDI stock, 2001	FDI stock, 2012	Percent increase, 2001-2012
Mauritius	546.3	10622.0	1944%
Mozambique	339.5	2175.4	641%
Namibia	115.9	1119.5	966%
Botswana	42.1	1112.8	2643%
Zimbabwe	48.4	905.8	1871%
Lesotho	218.0 ^a	810.0 ^b	372%
Zambia	7.3	551.3	7552%
Swaziland	12.6	470.3	3733%
Tanzania	43.7	425.1	973%
Malawi	1.5	223.1	14873%
Seychelles	4.5	39.1	869%
Madagascar	0.0	1.6	n.a.
DRC	0.0 ^c	0.0 ^c	n.a.
Angola	0.0	-140.0 ^d	n.a.

Superscripts: a: data for 2007 (earliest available), b: data for 2010 (latest available), c: neither DRC nor SAR reported mutual FDI inflows or stock, d: refer to footnote 10.

Concluding Remarks

It is hoped that the results from the empirical analysis, combined with the narrative developed to shed light on the reasons behind Angola's, the DRC's and to a certain extent Zimbabwe's non-compliance with the observed linear trend between political stability and FDI, can provide a relevant case in point for policymakers not only in SADC member states, but also in other emerging regions which have embarked on the way to regional integration and development cooperation such as Mercosur, ASEAN, CIS and perhaps even regions as advanced as the EU. The importance of political stability cannot be understated in the context of regional economic integration, and the present analysis suggests that governments in SADC should foster integration and political stability in order to achieve sustainably high levels of FDI inflows in the region, thereby achieving par with other rising regions, such as Asia which currently attracts the lion's share of FDI going to low and middle-income economies. Overcoming political instability might eventually break the vicious circle of natural resource-dependence in countries like the DRC and Angola by attracting FDI in sectors different from the extraction of natural resources and eventually bring about a more equitable and prosperous future.

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Appendix

Table A1. PS scores per country, SADC average PS, and Total SADC FDI inflows (USD millions), 1996-2014. Source: World Bank.

Highlighted: PS scores of over -0.05; Annual FDI inflows of over 350 USD mill.

YEAR	1996	1997	1998	1999	2000	2001	2002	2003
ZIMBABWE	-0.53	-0.71	-0.88	-1.15	-1.42	-1.51	-1.60	-1.14
ZAMBIA	-0.23	-0.07	0.09	0.02	-0.05	-0.20	-0.35	0.17
TANZANIA	-0.72	-0.60	-0.48	-0.64	-0.80	-0.57	-0.35	-0.88
SWAZILAND	-0.30	-0.20	-0.11	-0.09	-0.07	-0.04	0.00	0.04
SOUTH AFRICA	-0.43	-0.50	-0.58	-0.42	-0.25	-0.29	-0.32	-0.33
SEYCHELLES	0.96	0.98	1.00	1.09	1.19	1.02	0.84	0.63
NAMIBIA	0.77	0.58	0.39	0.00	-0.38	-0.15	0.09	0.44
MOZAMBIQUE	-0.11	-0.04	0.04	-0.06	-0.15	-0.01	0.12	0.21
MAURITIUS	1.04	0.99	0.95	0.84	0.73	0.89	1.05	0.99
MALAWI	-0.54	-0.38	-0.21	-0.34	-0.47	-0.28	-0.08	0.00
MADAGASCAR	0.11	0.10	0.09	0.07	0.04	-0.12	-0.29	0.59
LESOTHO	0.12	-0.05	-0.22	-0.12	-0.02	-0.10	-0.18	0.07
DRC	-2.83	-2.91	-2.99	-2.79	-2.59	-2.34	-2.10	-2.08
BOTSWANA	0.92	0.90	0.87	0.91	0.96	0.87	0.79	1.08
ANGOLA	-2.11	-2.23	-2.35	-2.22	-2.09	-1.85	-1.62	-1.03
SADC average PS	-0.26	-0.28	-0.29	-0.33	-0.36	-0.31	-0.27	-0.08
TOTAL SADC FDI	126.60	180.70	252.80	310.30	159.90	246.60	292.80	287.80

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
-1.26	-1.24	-0.91	-1.11	-1.20	-1.16	-1.12	-0.96	-0.79	-0.68	-0.65
0.15	0.07	0.36	0.34	0.46	0.53	0.46	0.47	0.61	0.38	0.21
-0.65	-0.57	-0.33	-0.35	-0.21	0.07	-0.02	-0.05	0.02	-0.17	-0.54
0.02	-0.37	-0.29	0.04	-0.08	0.01	-0.04	-0.49	-0.42	-0.44	-0.52
-0.12	-0.15	0.05	0.20	0.04	-0.11	-0.02	0.03	-0.02	-0.04	-0.08
0.67	0.94	0.92	0.82	0.77	0.62	0.88	0.96	0.76	0.84	0.42
0.65	0.60	0.79	1.02	1.19	0.90	0.81	0.89	0.94	0.93	0.62
-0.03	0.12	0.49	0.30	0.34	0.59	0.34	0.30	0.34	-0.28	-0.35
0.97	1.00	0.74	0.83	0.85	0.66	0.58	0.94	0.96	0.94	0.74
0.09	0.08	0.11	0.06	-0.06	0.05	0.06	-0.07	0.00	-0.21	0.12
0.20	-0.05	0.13	0.03	-0.49	-0.75	-1.05	-0.76	-0.58	-0.70	-0.54
0.39	0.02	-0.13	-0.39	-0.22	0.34	0.47	0.38	0.25	0.32	-0.27
-2.39	-2.17	-2.27	-2.21	-2.03	-1.99	-2.23	-2.24	-2.14	-2.23	-2.27
0.89	1.06	0.96	0.98	0.98	0.93	0.96	1.05	1.08	1.08	1.02
-1.04	-0.89	-0.54	-0.70	-0.35	-0.37	-0.22	-0.36	-0.38	-0.39	-0.27
-0.10	-0.10	0.01	-0.01	0.00	0.02	-0.01	0.01	0.04	-0.04	-0.16
222.00	216.90	290.20	399.40	474.30	388.10	381.00	394.80	396.40	353.00	126.60



Social Conflict in the Context of the Development of New Mining Concessions in Zambia

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Abstract

Zambia's mining sector currently accounts for over 80% of the country's total export earnings, contributes about 11 per cent to the Gross Domestic Product (GDP) and it has created over 65,000 jobs in the fourth largest copper producing country in the world. It is worth noting that the improvement in the sector's performance is highly attributed to a favourable investment climate and competitive global metal prices, among other factors. This is evidenced by the expansion of the industry both in terms of quantity and type of minerals mined in the country. This article reports on new direct foreign investments, the impacts of new mining concessions on local livelihoods and the conflicts they have triggered. The authors review evidence regarding debates on the resource curse and the possibility of an extraction-led pathway to development and its consequent social conflicts. Further, the authors describe different types of resentments and social mobilization that have greeted mineral expansion at two mining concessions within the country, and consider how far these conflicts have changed the relationships between mining firms and local communities. The conclusions in this paper address how far economic benefit-based social conflicts can be managed in mining communities so that the very investment that was meant to improve the livelihoods of the local people in those communities is not threatened.

Background

Mining is an activity that should bring extensive economic benefits to poor countries, especially those (like Zambia) that lack alternative sources of development and are otherwise unattractive to foreign investors. Since 1991, a great deal has been done to establish an enabling framework for mineral investment in Zambia. A new mineral policy, together with legal, regulatory and administrative frameworks more favourable to private investors were formulated and established (UNCTAD 2006). Emphasis was placed on security of tenure and strengthening of mineral rights. Comprehensive packages of incentives for the mining investors in terms of reduced taxes and royalties were also approved. Much of this was due to World Bank interventions (World Bank &

IFC 2002). Associated with a rise in mineral prices, this resulted in substantial inflows of foreign direct investment (FDI) from as low as US\$121.7 million in 2000 to US\$334.0 million in 2004 (UNCTAD 2006), creating new opportunities as well as challenges for Zambia. Zambia's Investment Policy Review Report (UNCTAD 2006) further indicates that the country's new opportunities include: technology and skills transfer, hard-currency earnings in the economy, increase in government revenue, direct and indirect employment, and infrastructure development such as roads, electricity, water, local development and contribution towards the growth of Gross Domestic Product (GDP). Zambia's GDP has been growing steadily since 2004. Table 1.1 gives Zambia's real GDP growth and other macroeconomic indicators from 2010 to 2014.

Table 1. Macroeconomic Indicators (Figures for 2014 are projections)

Macroeconomic indicators	2010	2011	2012	2013	2014
Real GDP growth	7.6	6.7	7.3	6.5	6
Real GDP per capita growth	7.0	3.1	3.4	3.3	5.4
CPI inflation	7.9	7.2	7.3	7.3	7.9
Budget balance % GDP	-3	-2.6	-3.6	-3	-3.5
Current account % GDP	3.6	3.2	3.9	4	4.2

Source: Ministry of Finance and National Planning (MFNP) (2014)

Regrettably, Zambia has failed to translate GDP growth into tangible economic benefits especially for rural communities where mining is taking place. To reverse the increase in poverty, Zambia's economy needs to grow by more than 7%, while policy should ensure that the growth is inclusive (UNCTAD 2006). Macroeconomic and structural policies that promote job creation, social empowerment and significant levels of investment in health and education are essential to achieve economic inclusion (African Economic Outlook 2012; World Bank 2012). Unfortunately, Zambia occupies 164th position out of 179 countries on the UNDP's Human Development Index, with over 60 percent of the population living below the national poverty line, of which over 40% are in extreme poverty (UNDP 2013)

With these realities in mind, the present paper addresses the following questions: To what extent are the livelihoods of the local people in a manganese mine in Matelo; and a copper mine in Kalumbila, impacted upon by mining activities taking place in the area? And what social conflicts are resulting from mining activities in both Matelo and Kalumbila mining communities? Subsequent to this introduction is the clarification of the key concepts used in this discourse, followed by a brief discussion of the theoretical framework within which we pose these questions. The remainder of the discourse is subsumed under the three remaining thematic sections.

Conceptual explications

Given the reality that concepts in social sciences elicit varying meanings, we will clarify the usage of the key concepts – mining, economic benefits and conflict – as a way of providing a common platform upon which the interpretation of these concepts can be based and also as a means of understanding their linkages in social existence.

Campbell (2008) defines mining as the extraction of valuable materials from the earth from an ore body, lode, vein, seam, or reef, which forms the mineralised package of economic interest to the mining firms. Mining is accompanied by many disruptions to the social, environmental, cultural and economic issues of surrounding communities. Jenkins (2004) argues that historically, the mining industry has taken a “devil may care” attitude to the impacts of its operations, often acting without social legitimacy, causing major devastation, and also leaving when an area has been exhausted of all economically valuable resources a legacy of impunity and poverty. Similarly, Hilson (2002) argues that mining activities can be potentially destructive to host communities. It is this very nature of mining operations that carries with it the inevitable phenomenon of conflict. Mining-induced environmental degradation, violation of human rights, forceful evictions and demolitions affect the way mining is perceived at a local community level and to a greater extent evoke local hostility and resistance against existing and proposed mining projects.

Therefore, in this paper, mining is largely seen as a socio-economic issue associated with loss or significant reduction of access to basic natural resources on which communities depend. Notably, social-economic and environmental impacts associated with extractive sector developments can exacerbate conflict through diverse mechanisms, generating the need for multi-level and multi-disciplinary analysis resulting in mining development in Zambia to be seen as both an environmental and socio-economic challenge.

The concept of economic benefits refers to both tangible and intangible gains. Goessling (2010) argues that multinational corporations (MNCs) remain as major beneficiaries of mining projects in most developing countries and, to a lesser extent, individuals in the ruling governments. Mining in Zambia is no different, and very rarely contributes to an improvement in the situation of local communities (Mwitwa et al. 2011, Mwitwa and Kabemba 2007, Moyo 2012, German et al. 2014). Profits made from mining are transferred abroad and appear to function poorly in raising the level of economic development in local communities and the country at large. Meher (2009) links technological advancements and the need for highly qualified workers to low employment opportunities available to local and indigenous people in economically undeveloped rural regions hosting mining activities. This is the case in Matelo and Kalumbila, discussed in this paper, as the few employment opportunities created by the

mining companies operating in the area were usually taken up by 'outsiders' due to lack of education and necessary skills by the locals.

Furthermore, loss of access to natural resources, physical displacement, and relocation of communities to pave the way for the establishment of private mining concessions are widely acknowledged as posing an enormous social risk to the affected communities (Banks 2013; German et al. 2014; Kemp and Owen 2015; Sonter et al. 2014). Unlike other industries such as agriculture and manufacturing, mining companies are faced with high levels of uncertainty around their land requirements. Banks (2013) attributes this uncertainty to improved geological knowledge as operations progress, commodity prices volatility, and to the availability of new technologies. On the contrary, Downing (2014) blames mining firms and describes it as a "stepwise mining expansion and land take" strategy, the piecemeal tendency in which mining companies move human settlements. This strategy is seen as a move by mining companies to grab land from local communities without attracting significant condemnation from the general public than if land is taken at once. Though this strategy enables mining companies to avoid attracting adverse international attention (Downing 2014), it generally contributes to strained relationships between mining companies and local communities (Davis & Franks 2011).

In addition, Bainton and Mcintryre (2013) argue that mining does not provide host communities with the much needed benefits but instead MNCs are concerned with fast gains above all, and not with establishing any long-term contributory mechanisms that benefit local development and as a result very rarely adhere to the principles of sustainable development.

The term conflict has been defined differently by different scholars. Wilmot and Hocker (2011) define conflict as an expressed struggle between at least two interdependent parties who perceive incompatible goals, scarce resources and interference from others in achieving their goals. Maill (1999) has offered a more relative definition. He posits, "Conflict is an inevitable aspect of social change. It is an expression of heterogeneity of interests, values and beliefs that arise as new formations generated by social change come up against inherited constraints." Furthermore, Sandole (1999) defines conflict as any situation in which two or more social entities or parties perceive that they have mutually incompatible goals. A scrutiny of the many definitions (including those stated above) reveals that the choice of words depends largely on one's intellectual persuasion and professional interest. However, a general and logical conclusion is that conflict involves: parties, goals, behaviour, competition and incompatibility of objectives or interests. There is also a greater degree of agreement within the field of peace and conflict studies that conflict is inevitable and that it has both functional and dysfunctional roles to play in society (Ohlsson 1999).

Therefore, it is worth noting that mining and the social conflicts in Zambia are two separate components but are tied intrinsically by development. For the mining sector to

flourish, the business and social environments in which mining is operating from must be conducive. Mwitwa et al. (2012) posit that the extent to which the local people benefit from mining taking place in their community often determines the degree of coexistence of the mining firm and the local community.

Theoretical framework

Structural dependency theory is often used with regards to mining in low-income countries. Mining in countries like Zambia is a capital-intensive enclave industry, foreign-owned, largely expatriate operated and using imported inputs (especially equipment). In Zambia there are not enough linkages created within the local economy to support national development because minerals are exported as raw materials leaving nothing behind in communities where mining is taking place (Kangwa 2008, Mwitwa and Kabemba 2007, Mwitwa et al. 2011, Moyo 2012, Van Alstine and Afionis 2012). This is one of the root causes of local resistance and resentment in mining communities such as Matelo and Kalumbila in Zambia.

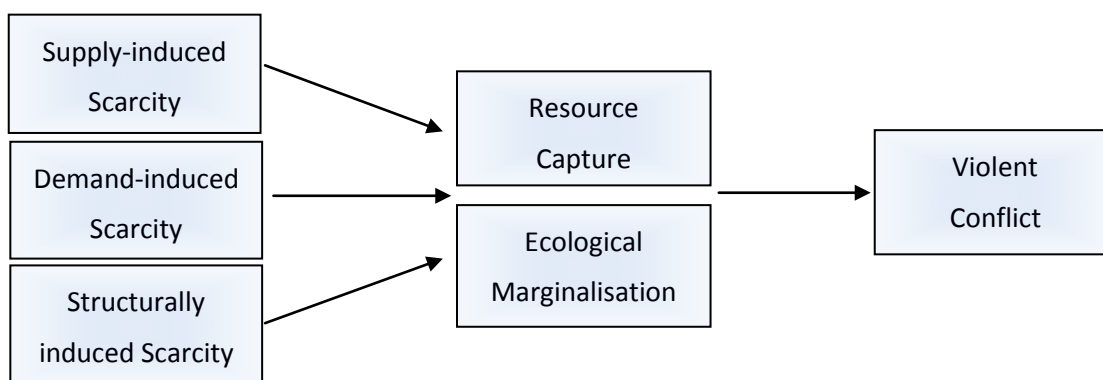
The challenge of sustainable mining especially in developing countries like Zambia is likely to persist well into the future, despite a recent decline in mineral prices (Helwege 2015, World Bank 2013). However, it is imperative for governments in developing countries to realise that while no mining is environmentally benign, more can be done to protect the health and livelihood of the local people in source areas. Sustainability in the mining sector requires the mining country not only to improve the technical capacity of its institutions tasked with revenue collection but also to increase local people's stake in the generated mineral wealth (Mohan 2012, Viale 2013), while at the same time promoting the rights of local communities (German et al. 2014). Thus, from the dependence theory upon which this study is partly based, it can be postulated that generated mineral wealth should work to improve the welfare of the local people in source areas to recompense for the incurred environmental degradation, with a view to promoting peace and stability in these areas. In this regard, the important question of this paper is: To what extent are the livelihoods of the local people impacted upon by mining activities in a manganese mine in Matelo; and a copper mine in Kalumbila?

The link between environmental resources and conflict has engaged the minds of scholars (Gleditsch 2001, Gleditsch and Urdal 2002, Onuaoha 2008) and institutions (ICMM 2012, UNEP 2009). These scholars have argued that denying people access to natural resources upon which their livelihoods depend drive them into conflict in order to win back access to such resources. Based on the aforementioned, Homer-Dixon (1991, 1994, 1999) and Homer-Dixon and Blitt (1998) articulate the theory of eco-violence upon which this study is also premised. According to this theory, a large population in many developing countries are highly dependent on natural resources such as land, water and other related resources for their livelihoods, and if access by the local

people to such resources is denied then social unrest is unavoidable in the affected communities.

In explaining the above, Homer-Dixon identifies three types of environmental scarcity: (i) Supply induced – degradation or depletion of resources; (ii) Demand induced – increase in demand for resources due to population growth or increased per capital consumption; and (iii) Structural scarcity – changes in access to resource due to inequality in the distributions of resources among social groups. The Figure 1.1 demonstrates the linkages amongst majors variables as identified by Homer-Dixon (1991, 1994, 1999).

Figure 1. Environmental scarcity and violent conflict



It can be seen from figure 1.1 that three environmental scarcities presented in the first three blocks interact and reinforce each other, resulting in the two social processes shown in the two middle blocks – ‘resource capture’ and ‘ecological marginalization’. The former occurs when resource depletion and population growth induce unequal access to resources. In such cases, powerful state elites – attempting to secure resources that may become scarce in the future – manipulate a country’s policies in their own favour (Bernauer et al. 2012). Further, Bernauer and colleagues argue that the weakness in institutional responses to social grievances increases the risk of violent conflict. The latter process occurs when unequal resource access and population growth affect resource degradation and depletion. Under those circumstances, groups facing resource scarcity may develop coping strategies such as migration.

Mining companies operating in indigenous communities in developing countries tend to place different socio-economic values on land and other environmental resources to that of host communities. Historically, the mining industry's approach to the impact of its operations on land and other environment resources has resulted in massive environmental degradation in source areas. However, mining-induced environmental degradation is linked to conflict between host communities and involved

mining companies (Gamun et al. 2015, Helwege 2015, Hilson 2002, Mensah and Okyere 2014). Therefore, conflicts or disputes between mining companies and host communities centre on the distributional effects – who gains, and who loses and bears the cost exerted on the environment.

The deep-seated theoretical assumption of this theory is that resource scarcity is the product of inadequate supply, too much demand or inequitable distribution of a resource that puts vulnerable groups in a difficult situation. These three sources of insufficiency are in turn exacerbated by variables such as population boom, economic development and environmental degradation. Environmental resource degradation on the other hand will reduce economic productivity, further inducing the disruption of economic livelihoods, poverty and migration. Constrained productivity together with migration is linked to violence usually perpetuated ostensibly along religious, class, ethnic, or linguistic lines (Gleditsch and Urdal 2002, Onuoha 2008).

Therefore, in the context of mining in Matelo and Kalumbila, as will be seen below, the eco-violence theory may be useful in explaining the dynamic link between mining investments and rural natural resource-based livelihoods. In Matelo and Kalumbila, indigenous cultures and identities are inextricably linked to the lands on which people live and the natural resources on which they depend. However, mining activities in the two affected communities are likely to lead to significant and permanent changes to the social, cultural, economic and political landscape; conflicts in the area are likely to worsen as competition over natural resources is likely to heighten between the mine and the local people and between newcomers and the local people. Against this background, this paper discusses the issue of social conflicts resulting from mining activities in both Matelo and Kalumbila mining communities.

Matelo and Kalumbila Mines: Diversity of Livelihoods and Vulnerability Context

The Matelo community is about 25 km west of the centre of Mansa, in Luapula Province, Zambia. It is located on latitude 11°12' S and longitude 28°53' E and lies about 1,216 metres above sea level. The mine is situated at the western-most point of the community. The entire community is within Senior Chief Chimese's chiefdom, situated in the northern part of the Mansa district. The Matelo mine is operated by Genesis Procurement Group of Companies. The mine is currently producing manganese ore. The Luapula Province which hosts this mine is currently considered largely rural and ranked as the poorest province in Zambia, characterised by a mono-economy with high poverty levels standing at 80.5% (CSO et al. 2015).

The Kalumbila mine on the other hand, is located on latitude 12°07' S and longitude 26°24' E and lies about 1,373 Metres above sea level (FQM 2014). It is situated about 180 km from the centre of Solwezi in the western direction along the Solwezi-Mwinilunga road. The Kalumbila Mine is in Chief Musele's chiefdom in a remote part

of Solwezi District in the North-Western Province of Zambia. The mine is operated by Kalumbila Minerals Limited (KML), a subsidiary company of First Quantum Minerals Limited (FQM) and is set to be the largest copper producing single mine in Africa. Production is scheduled to commence by 2015 (FQM 2014). Zambia's 2013-2014 demographic and health survey ranks North-Western Province as the second poorest province in Zambia with high income inequalities and poor amenities (CSO et al. 2015).

In the case of Matelo and Kalumbila, even though households do not derive their income and livelihood exclusively from agriculture, it is however the principal land-based livelihood strategy. These communities are characterised by monoeconomies with, among other hardships, poor infrastructure, poor access to social and economic amenities, poor water and sanitation conditions, and low levels of economic activities (CSO et al. 2015). The Catholic Diocese of Solwezi (2013) submits that local people living in the rural areas of North-Western Province engage themselves in small scale farming as their main occupation and, that farming stands at 72% compared to other livelihood activities in the area. Similarly, civil society for poverty reduction (CSPR) (2013) confirms that the agriculture sub-sector contributes significantly to improved rural livelihoods of more than 80% of the rural people in Luapula Province.

To complement subsistence income from traditional agriculture, rural households in both Matelo and Kalumbila also engage in harvesting and processing of natural resources from the village commons. Chileshe (2005) argues that where land-based livelihoods are of primary importance to households, open access to arable land and other natural resources becomes very important.

Without a doubt, land-based livelihoods, in particular cropping, livestock and natural resources, do provide an important contribution to rural households in Zambia such as in Matelo and Kalumbila. Chileshe (2005) and Mwitwa et al. (2011) emphasise the importance of local people's open access to village commons in Zambia because of the many benefits people draw from such land. Unfortunately, land-based livelihoods in Matelo and Kalumbila have been distressed as access to land and other natural resources by the local people has been increasingly restricted. Previously land that existed as village commons have been turned into private mining concessions in which local people's access is not allowed. Thus, local people can no longer access important resources upon which their livelihood depends (e.g. firewood for cooking and heating purposes; caterpillars, wild vegetable and mushroom for consumption; and thatch grass and poles for building houses).

However, denying local people access to the valuable natural resources upon which their livelihoods depend, comes with a great cost to the mining companies involved as well as the host communities. The costs to the companies include, among others: project delays, damaged infrastructure, diminished reputation, shut-down time, legal and other organizational costs because of the violence and resentment from host communities (Franks 2009, Reed 2002, Ruggie 2010). Kemp and colleagues (2011) identify costs

resulting from lost employment and other business opportunities due to failure by projects to take off, and lost time for personal projects especially for those who are fully engaged in active conflict with the mine where much of the time is spent attending meetings designed to resolve conflict as the major costs to host communities.

Dynamic Link between Mining Investments and Rural Natural Resource-Based Livelihoods

Employment creation

Mining in Matelo and Kalumbila has both positive and negative impacts with regard to local employment. Positive impacts included (albeit limited) new employment opportunities and knowledge and skills transfer. Negative impacts include corruption, in-migration and lack of relevant skills by the local people to gain employment. It was reported in Kalumbila that for anyone to find a job easily in the mine he or she must be well connected to either the chief or to the mine officials charged with staff recruitment responsibilities. At the time of the study Kalumbila had a total of 2,000 permanent and casual workers against the projected figure of 10,000 workers by 2016 (FQM 2014).

However, in both Matelo and Kalumbila communities, local employment was highly emphasised and was seen as an entitlement by the locals themselves which the mining company was supposed to provide without fail. In Kalumbila, the locals felt that the 2,000 total employed personnel at the mine, the majority of them were 'outsiders' (coming from outside Kalumbila). In contrast, the company reported that of the 2,000 total employed personnel at Kalumbila, about 1,600 were locals, sourced from within the communities around the mine (FQM 2014). The perception that there were more labour migrants at Kalumbila Mine than the locals had deepened local resentment and hostility against the mine and migrants in the area.

On 25 March 2015, violence erupted in Kalumbila around Kisasa area in which some unruly job-seekers positioned themselves on the road, burning tyres and disturbing the flow of traffic. The clashes were between job-seekers from North-Western Province and those who had just arrived from other regions within the country, primarily the Copperbelt Province. The newcomers felt discriminated against and were fighting for their consideration while the locals were fighting to protect 'their' job opportunities against the perceived 'outsiders'. The violence left two people critically injured and 18 arrested by the police (The Zambia Daily Mail 2015). Kalumbila Mine regretted the incident and blamed the people of North-Western Province for the violence. The mine once more reiterated the fact that FQM, the owner of Kalumbila Mine, is an equal opportunity employer which does not employ people along tribal or regional lines (The Zambia Daily Mail 2015).

Job-seekers from other regions reported that corruption had surrounded recruitment processes at Kalumbila. They said for anyone to be recruited at the mine he or she must be a local person and well connected to the chief. The job-seekers from outside

Kalumbila complained bitterly against employing only ‘locals’ and questioned whether Zambia is one country any longer. In Matelo, the same problems occurred, with newcomers complaining that they were being discriminated against by the ‘locals’ (personal interviews 21 October 2014).¹

At the national level, the mining sector contributed about 11% to the Gross Domestic Product (GDP) involving some 65,000 jobs in Zambia in 2010 (World Bank 2011), compared to 56,200 jobs and a contribution of about 5% to the country’s total GDP in 2014 (Chamber of Mines 2014). In 2013, mining contributed only 3.5% to the country’s total employment (World Bank 2013). The 2013 Afrobarometer Survey indicated that “unemployment” topped the list of the most critical problems facing Zambia that the people in the country wanted the government to urgently address (Afrobarometer 2013). This situation did not change much from 2009 when unemployment was ranked the second biggest problem, after agriculture (World Bank 2012b).

Therefore, it is clear that though unemployment in Zambia is a national problem, in mining communities such as Matelo and Kalumbila located in remote areas, the problem is complicated as other issues such as local benefits and ethnicity have taken centre stage. In Matelo and Kalumbila, employment issues are causing social unrest and deepening local resentment and hostility against newcomers who are always seen as competitors for the limited employment opportunities available. Local people feel more entitled to employment than newcomers; that jobs should be allocated to the locals first before anyone else. However, much of these problems can be attributed to a lack of sufficient employment opportunities available at the two mines to meet local people’s expectations.

Support to social services and infrastructure development

In Southern Africa, Kemp (2009) and Kemp et al. (2011) indicate that the relationship between the extractive industries, resident communities and local economic development are frequently symbolized by unfulfilled expectations and even conflict. Unfulfilled expectations in Matelo and Kalumbila include inadequate employment opportunities and insignificant mining contributions to the improvement of social services and infrastructure development in local communities as part of mining firms’ corporate social responsibilities (CSR). Infrastructure such as roads, health and education facilities in both Matelo and Kalumbila are in a deplorable state while in some areas within the community access to these facilities is non-existent, due to distances between the community and social service facilities.

¹ Personal interviews with job-seekers from other regions within the country in Matelo.

The expectations of the local people in Matelo and Kalumbila are that mining should improve their livelihoods and develop their communities. Mensah and Okyere (2014) assert that community self-assessment of financial benefits together with corporate promises significantly shape local community's expectations. It is sufficient here therefore to say that the people in Matelo and Kalumbila mining communities expected much from the mining companies operating in the area, but unfortunately, the actual realization of social and economic benefits are far below these expectations. People expected mining to contribute significantly towards improvement and construction of education and health infrastructures, roads, and the provision of water and sanitation facilities. Unfortunately, the Matelo and Kalumbila communities have not received significant support in these areas. Failure by Matelo and Kalumbila mines to provide meaningful CSR projects in their project areas of influence has acted as a breeding ground for disputes and resistance by the local people. The local people in these communities have developed a strong negative stance against existing and proposed future mining projects.

Though many mining companies tend to assert that these expectations are imaginary and often lie outside their sphere of influence as private business entities, they also should realise that a smooth company-community relation is good for the company and that the cost of company-community conflict to the company is huge and puts the reputation of the company at stake. Mining companies, like any other business entities, should develop as part of their corporate social responsibility (CSR), programs meant to meet some of the local people's expectations (Davis and Franks 2011, Mensah and Okyere 2014). CSR, therefore, remains mining company's tool for driving the development progress of their catchment areas and the surest way for a mining company to receive a 'social licence' for its operation in the community from the local people.

However, it is imperative to note that the situation of communities in Zambia looking to mining companies as 'development entities' may present shadows of a failure or inadequate efforts of the central, provincial and local governments to take charge of the development process and improve the livelihoods of the local people in source areas by transforming unsustainable resources (minerals) into sustainable social development benefits for local communities.

Support to agriculture

Agriculture is the mainstay of the majority of people in Matelo and Kalumbila and it is considered both an economic activity and source of domestic support. Thus, the land on which agricultural activities are undertaken remains the most important resource for the local people that perceive it as being critical to their livelihoods and socio-economic survival (Chileshe 2005, Mwitwa et al. 2011).

However, there are no traceable contributions towards agriculture that mining has been making in Matelo as part of its CSR. On the other hand, the Kalumbila community

has received a smaller portion of support towards its agriculture sector as part of CSR from Kalumbila Minerals Limited (KML). The support is directed towards equipping local farmers with modern and sustainable farming methods. Unfortunately, the community has lost about 618 km² of the total 950 km² of community land to the mine. This therefore implies a massive takeover of agricultural land previously cultivated for domestic and economic purposes. The community bears the immediate negative impact of the mining activities on the land surface and also faces displacement and resettlement. The Wanyinwa community was resettled in two locations: part of the community was resettled in an area (Northern Settlement) about 10 km from their original community, away from their farmlands into congested urban-like settlement. The other part was resettled about 40 km away. The Kankozhi community also faces the threat of being further pushed away from their long held farmlands due to the explorative activities of KML mining operations.

On the other hand, the fact that local employment at the Matelo and Kalumbila mines is limited and that locals are not provided with access to financial schemes by the mine as part of CSR or by the government as part of local empowerment, not enough cash goes into the local economy to impact on agriculture. Additionally, there is an informal pressure in Kalumbila on local farmers to plant non-traditional crops such as maize, jatropha and other related crops favoured by the government and the mining company but without fully providing local farmers with enough necessary farming inputs to support the cultivation of such 'modern' crops. In retaliation, local farmers have continued with the cultivation of their traditional crops that include cassava, millet and sorghum despite the poor yield. The mining company has responded to that move by the local farmers by effecting a reduction of the already low levels of support (capacity building in modern and sustainable farming methods) given to local farmers.

From the above discussion, it is clear that local livelihoods in Matelo and Kalumbila have been negatively impacted upon by mining and have remained subsistence in nature or 'survivalist' and are characterized by uncertainty. Chileshe (2005) submits that most rural livelihoods in Zambia are susceptible to natural and socio-economic shocks such as poor soil, poor cash, crop prices, lack of finances, and natural resource degradation. Other limitations identified include poor road infrastructure, distance from health and education facilities. Therefore, there is an apparent need for transformation of structures and processes at a village level to reduce the livelihood constraints in source areas such as Matelo and Kalumbila and to compel mining companies to support agriculture as part of their CSR.

Mining and Social Conflicts

Human rights issues and conflict

Indigenous communities in both Matelo and Kalumbila suddenly have found themselves in a situation where their open access to land and natural resources is no

longer guaranteed. Furthermore, these communities suddenly have found themselves disempowered during decision-making processes regarding mining operations that concern the land and resources they depend upon or with which they are otherwise connected. Their pre-existing rights (e.g. rights of access, use and withdrawal) on land previously held under customary regimes cannot be supported now that such land is converted from customary to private mining concessions.

Previously some land existed as village commons before being converted to private mining concessions. Local people had open access to valuable products on such land that include wild vegetables, mushroom, caterpillars for consumption; trees for charcoal burning; and thatch grass and poles for building houses. These products have been supporting livelihoods in Matelo and Kalumbila.

However, the Kalumbila Mine has taken over large portions of land, installed shafts and other major installations, and fenced the explorative areas to prevent any trespassing and encroachment in the area. While some concessionaires may allow a restricted set of access and withdrawal rights such as use of paths cutting through the concession, collection of firewood, and collection and harvesting of environmental products, as commercial operations proceed (German et al. 2014); others, such as the Kalumbila mine, do not allow even restricted access in its land, thus cutting off benefit flows entirely from the local community. The effect has been loss of open access to valuable natural resources upon which many rural livelihoods depend. Productive agricultural land for the people of Kalumbila has also been lost.

Conversely, the Matelo manganese mine was allowing a restricted set of access and withdrawal rights; (e.g. use of paths cutting through the concession, collection of firewood, and collection and harvesting of environmental products). However, cultivation within the concession was not allowed. The result is a limited access to variable resources and a loss of valuable agricultural land upon which livelihoods in Matelo depend upon.

In both Matelo and Kalumbila, the communities have suffered limited expansion space, as huge tracts of land are under private mining concessions, and impoverishment as a result of the loss of their livelihoods. Locals in the two mining communities disclosed that their consent was not sought before mining activities started in their area. The mining companies in both communities worked out their compensation packages without involving the affected people. The move has seen an increase in conflict between host communities and the mining companies involved in the area. Free, prior and informed consent of the locals help them to have control over granting of concessions to private entities and to understand how the concession would shape the shifts of local rights (German et al. 2014, Helwege 2015, Hilson 2002, Whiteman and Mamen 2002). The granting of a 'social licence' to the mining company by the community and the understanding of the local stakes in the project helps to strengthen

the relationship between host communities and involved companies thereby reducing conflict.

German and colleagues (2014) argue that the pre-existing rights of the local communities such as rights of access, use and withdrawal on land can be alienated if no compensation is paid to any of the affected land users when rights are transferred to industry, when compensation is less than its true value or when it is inequitably captured by local elites. Thus, the fact that affected households in both Matelo and Kalumbila are not compensated (or are under-compensated) is an indication that their land rights have been violated. A comparative study of cases in Zambia and the DRC also analysed how copper mines led to increased deforestation adversely affecting forest-dependent communities (Mwitwa et al. 2012).

Therefore, as long as local people's rights, such as access, use and withdrawal on land in Matelo and Kalumbila remain unprotected, conflict is inevitable. The local people want their resources back because to them land is a 'God given resource' and land means more than a resource to them, land is life.

Conflicts arising from socio-cultural changes

One of the significant impacts of mining on the local community in Kalumbila is a rapid change in the economic and social fabric of society. The allure of new opportunities such as employment and business opportunities as a result of mining creates in-migration in Kalumbila. Job-seekers and other migrants, many of whom are from the Copperbelt Province, resorted to camping in local villages around the mine which include Wanyinwa, Musele, Kankozhi and Kisasa in Kalumbila. In-migrants were found competing with locals for natural resources such as land, firewood, and water that traditionally support local livelihoods. These actions, as well as greater competition for limited employment opportunities had aggravated relations between locals and in-migrants. This scenario was increasing social unrest in Kalumbila.

Beyond competition for resources, services, and utilities, the rapid influx of workers and their families can profoundly impact the social and cultural fabric of local communities, threatening their values, norms, and traditions (Banks 2003, Kelly 2014, O'Faircheallaigh 2013). It was reported that social ills such as alcohol abuse, theft and prostitution had increased in Kalumbila since the inception of mining activities in the area. Haley (2012) argues that social ills such as theft, prostitution, alcohol abuse, fighting and child labour that come as a result of in-migration are a danger to the social fabric of society and the reason for many social conflicts in mining communities. In Kalumbila, these social ills have proven to contribute to significant negative social impacts. The consequences include increased criminality, conflict and violence in the ensuing general breakdown in the community's law and order. Changes in community values, norms and traditions have presented the community and the mine management with additional social challenges to cope with in Kalumbila.

Drive-in drive-out arrangement at Matelo mine

In Matelo, mining has not yet impacted negatively on the social fabric of the society partly because of the drive-in drive-out arrangement prevailing at the mine. As an isolated facility relatively close to Mansa town (about 20 km away from the Mansa central business area) workers at the mine prefer staying in Mansa town and only drive-in and out for work. Few local people employed by the company – such as watchmen and general workers – stay within the community. Poor pay is one of the major reasons why local workers cannot relocate to town. Having an insignificant number of migrant and local workers staying in Matelo means social cultural stability is assured in the area. Haley (2012) asserts that where migrant mine workers do not stay in local communities around the mine but scattered around distant urban centres, the impact of mining on the socio-cultural aspects of the local communities is minimal. In Matelo, the negative impacts of mining on the local culture such as alcohol abuse, child labour and prostitution are negligible currently but are slowly coming to the fore in Matelo as the area is being opened up by mining to the wider community.

Mineral dependency, governance and conflict

The concentration of economic activity in one sector gives rise to socio-political and institutional relationships that weaken sustainable and inclusive development. Bebbington et al. (2008) argue that sector concentration of economic activities implies a concentration of ownership and of power (often in foreign hands) which reduces political competition in policy making and institutional design, increasing the potential for elite capture and bias. Mining in both Matelo and Kalumbila are managed by foreign investors. Zambians benefit through tax and other mineral rents. Kangwa (2008) argues that the concentration of economic activities in a single sector in Zambia leads to revenue streams that are large and easily identifiable, triggering struggles over their control. Kangwa further argues that mineral rents in Zambia also feed the over-expansion of bureaucracy, and induce patronage, clientelism and graft that weaken the quality of governance systems. Mineral resource abundance is linked to governance issues which suggest that mineral resources weaken institutions of governance and also bring about rent seeking and corruption (Bebbington et al. 2008, Bihuzo 2012, Burnley 2011, Mwitwa et al. 2012).

Therefore, the major challenges of mineral resource governance for Zambia currently during the sector investment boom are to provide security in employment, income, human rights and agriculture for all of its citizens especially in source areas, and to promote participatory management of resources through transparent and accountable institutions capable of managing its mineral resource wealth for the benefit of its entire population. Presently, Zambia's mining sector has been negatively impacted by a lack of transparency and corruption in the appropriation and use of state revenue.

Recommendations and Conclusions

Recommendations

This study has shown that the current conflict surrounding mining in Zambia centres on inequitable distributions of risks, impacts, and benefits. It has been argued in this study that if this conflict is left unresolved it has the potential to lead to serious costs to the companies involved, the host communities, the government at both local and national levels, and to the broader society. Therefore, while community relations approaches can be of help to shape mining companies' actions so that they are more economically, socially, culturally, and environmentally responsive to the communities their activities impact upon, such as Matelo and Kalumbila in Zambia, there is an urgent need to:

- 1) Adopt certain minimum guarantees, from political, legal and economic perspectives, that safeguard the interest of vulnerable mining communities such as Matelo and Kalumbila. These guarantees should include entitlements, legal framework support and land users' rights that make local communities indispensable actors in the decision-making framework.
- 2) Actively engage communities at all levels especially from the beginning of a project to ensure that the expected costs and benefits in the pending mining project are fully understood. Deeper and stronger community engagement will undoubtedly reduce on violence and strengthens company-community relations. Other key stakeholders such as civil society groups should also be taken on board as this promotes a functional relationship amongst key stakeholders, during and after the mining operation life span.
- 3) Consider sustainable alternative livelihoods that are far reaching and empowering. The government and the mining companies involved should invest in sustainable businesses, projects, training schemes and enterprises that will provide host communities with alternative livelihood opportunities. CSR projects should be directed towards helping communities develop sustainable alternative livelihood activities that will survive even after mining closure.
- 4) Make conflict resolution process at all levels (community, district, provincial, and national) more encompassing, involving, and inclusive and mutually trustworthy. Existing local mechanisms in both Matelo and Kalumbila do not recognise women, children, newcomers, and other international civil society groups with necessary expertise, thus rendering current local mechanisms for conflict resolution and management inadequate.

All of these proposed recommendations are challenging to implement in a developing country like Zambia with ineffective institutions and poor political will. Conflict in the mining and minerals development industry has persisted in Zambia not only because the multinational corporations operating in the country are exploitative, but also because the country's political processes fail to protect humans and both the

built and natural environment. However, with the renewed efforts, resolute political will and institutional change the mission is not impossible for the country to accomplish.

Conclusions

This paper brings to the fore the social conflict in the new Matelo and Kalumbila mining concessions in Zambia. It argues that inequitable distributions of risks, impacts, and benefits are the key drivers of mineral resource-related social conflicts in these areas and are likely to remain at the centre of mining-related research and advocacy in Zambia far into the future. It further argues that the lack of benefits from mining by the local people lies at the very heart of some of the real and ongoing challenges in mining in Zambia, including: intractable local-level conflict; emerging national norms and performance standards; and ever increasing expectations for the industry to translate high-level CSR policy into tangible benefits.

Property rights and customary uses of land are still poorly defined in Zambia. In both Matelo and Kalumbila, chiefs and other traditional leaders assert disproportionate power as custodians of land and other natural resources. While some of these leaders have used this power to the benefit of their subjects, it is unfortunate that a greater number of traditional leaders in Matelo and Kalumbila have used this power to divert some benefits meant for the whole community to building their own power base. Furthermore, the distinction between surface and subsurface rights that grants national control over land use creates inevitable tension. Not only does it create an ideal environment for conflict over appropriate levels of compensation, but it also leads to forced displacement and resettlement of residents. In addition, traditional uses of open land (village commons), such as grazing land, lack legal title though seen as community resources. Mining firms have appropriated such land, especially in Kalumbila, resulting in conflict between host communities and the mining firms. Therefore, the conflict between mining companies and host communities in Matelo and Kalumbila usually ensues due to the fact that mining companies and communities place different socio-economic values on land.

Civil society groups are playing an important facilitatory and capacity building role in both Matelo and Kalumbila, helping to bridge divergent views between local people and mining companies and to manage conflict within or among communities. They have generally displayed greater commitment to empowering communities than government ministries and departments, and have worked better to integrate the development needs of local people with mining companies' concerns. However, it is imperative to mention that the influence of civil society groups was not always positive as they sometimes pushed communities into making decisions they may otherwise not have made, and some of these decisions have resulted in disputes between mining companies and host communities.

Finally, it is worth noting that though disputes have been comparatively less violent and damaging in both Matelo and Kalumbila than elsewhere, the country's efforts in addressing the underlying causes of these disputes will significantly frame how things evolve into the future. Will there be more resentment, resistance and hostility from local communities leading to severe conflict or disputes? Will current disputes be properly resolved or managed? These are some of the questions yet to be answered.

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South Africa's Total Strategy in the Context of Counterinsurgency (COIN) Theory

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Abstract

There is a great misunderstanding as to what the National Party (NP, South Africa) government's Total Onslaught and Total Strategy entailed, which leads to inaccurate criticisms of this strategy. This article examines the Total Onslaught and Total Strategy against the backdrop of historical and contemporary counterinsurgency (COIN) theory. It is shown that not only was the Total Onslaught an accurate assessment of the nature of the threats facing South Africa during the Cold War, but also that the Total Strategy was a sound countermeasure thoroughly embedded in COIN theory and doctrine at the time, and publications by Kilcullen and current US COIN publications illustrate that this strategy remains valid to this day. It is also argued that Total Strategy was ultimately ineffective because of the lack of international recognition enjoyed by the NP government.

Introduction

All wars are different, and similarly, all counterinsurgencies (COIN) are different, but as the current US Army and Marine Corps Counterinsurgency Field Manual (2006: ix) recognises, "Most insurgencies follow a similar course of development. The tactics used to successfully defeat them are likewise similar in most cases." Because of these similarities, both insurgents and counterinsurgents study previous insurgencies and counterinsurgencies, and apply the lessons of these conflicts to current conflicts. In the case of the so-called Border War (1966-1989) and internal conflict in South Africa in the late 1970s and 1980s, this holds true for both the National Party government and its various enemies.

Lieutenant General Peter Walls, Rhodesian Commander of Combined Operations, remarked about the Rhodesian insurgency, "You cannot win a war like this purely through military means. The military is merely there to maintain law and order and provide a conducive atmosphere for political development" (quoted in Wood 2008: 185). Counterinsurgency is not only warfare, it is a systemic restructuring of a social and

political environment using the entire conflict system, “to include establishing the legitimacy of the government in the eyes of the people, defeating the insurgent forces, providing a basic level of security for the population, and creating the conditions for economic growth” (Corum, 2006: 1). Mazarr (2008: 37) concurs, claiming,

Modern counterinsurgency doctrine rests on the truism that achieving lasting stability even in the face of an armed insurgent enemy depends primarily on nonmilitary actions and tools: building viable political institutions, resuscitating the national infrastructure, spurring the local economy, creating effective police forces, and much more.

The military side of the conflict is thus closely interwoven with the political side in these conflicts, as already argued by Colonel David Galula in *Counterinsurgency Warfare: Theory and Practice* (1964), Sir Robert Thompson in *Defeating Communist Insurgency* (1966), and Carl Schmitt in *Theory of the partisan* (2007[1963]). Indeed, counterinsurgency theory goes back at least to the post-WWI Red Army vice-commissar for defence, Mikhail Tukhachevsky, who claimed, “Banditry cannot be radically overcome without action of a political, national, and economic kind” (Tukhachevsky, 1994: 915). This is a continuation of Von Clausewitz’s theorem that war is “the continuation of politics,” but as Schmitt (2007[1963]: 93) notes, the political dimension became the centre of gravity of conflicts after Lenin – a trend continued by Mao Zedong. Since COIN evolved as a response to insurgency that drew heavily on specifically Mao’s insights, COIN doctrine thus emphasized the political aspect to a greater extent than Von Clausewitz had. The latest US Government Counterinsurgency Guide (2009: 2) stresses the importance of the political element in their definition of an insurgency:

Insurgency is the organized use of subversion and violence to seize, nullify or challenge political control of a region. As such, it is primarily a political struggle, in which both sides use armed force to create space for their political, economic and influence activities to be effective.

This article considers PW Botha’s answer to the Total Onslaught – Total Strategy – to the Communist-inspired insurgencies in Southern Africa within the context of counterinsurgency doctrine. As Scholtz (2006: 119) notes, Botha’s Total Onslaught and Total Strategy have led to much misinterpretation, notably in interpreting ‘total’ as indicative of intensity rather than breadth, as he had intended it. As illustrated in this article, the concepts of both the Total Onslaught and the Total Strategy are well-established principles of COIN.

The Integrationist Approach to COIN: A Total Strategy Facing a Total Onslaught

During war, Mao Zedong advocated a concentration on the population, and General Chang Ting-Chen of Mao's central committee once stated that revolutionary war was 80 per cent political action and only 20 per cent military (The United States Army and Marine Corps, 2006: 1-22) – a statement taken up by many commanders in the South African Defence Force (SADF), amongst others General Jannie Geldenhuys (2007). This integration has become ingrained in COIN theory, as is clear from Kilcullen's (2009: 12) definition of insurgents as members of “an organized movement that aims at overthrowing the political order within a given territory, using a combination of subversion, terrorism, guerrilla warfare and propaganda.”

The Chinese Civil War inspired many Cold War insurgencies, notably also the North Vietnamese insurgency, which in turn inspired numerous other insurgencies (see e.g. Wiest 2006: 24, Bobbit 2003: 59, Kilcullen 2006: 113, and Iron 2008: 173). Because of Mao's emphasis on the political struggle centred on the population, the Vietminh in Indochina divided the conflict into two closely connected sectors, the military struggle or *dau tranh vu trang*, and the political struggle or *dau tranh chinh tri* (Pottier, 2005, p. 126). Whereas the military struggle was modelled on the Chinese three-stage concept pioneered by Mao (see e.g. US Army and Marine Corps Counterinsurgency Field Manual 2006: 1-6, 1-7 and Van Creveld 2008: 223), the *dau tranh chinh tri* “encompassed not only political and diplomatic weapons, but also psychological, ideological, sociological and economic weapons” (Pottier, 2005: 127). Because the political was so closely entwined with the military side of the conflict, both the National Liberation Front (Viet Cong) or NLF in Vietnam and the Peoples' Liberation Army of Namibia or PLAN in Namibia followed the Chinese example of furnishing military units with political officers (Dale, 2007: 204).

This integration between sectors of the modern conflict environment reflects PW Botha's concept of the Total Onslaught: a war that would be waged on a variety of fronts. General Magnus Malan (Carter, 1996: 73-6) defined the Total Onslaught in the following way:

A total onslaught is where you use all your power together to obtain your objective. For instance, if you want to conquer a country you do it through physical power, through economic means, political means, all the means you have to achieve your objective.

PW Botha (2000) claimed, “daar is 'n Totale Aanslag, sielkundig, polities, ekonomies en militêr” [there is a Total Onslaught, psychologically, politically, economically and militarily]. As Botha intended the concept of a Total Onslaught, it referred to the scope of the onslaught, not that it was an extensive onslaught, as Scholtz (2006: 119) writes:

Dié konsep, wat eintlik vir ernstige misverstande vatbaar was, het nie bepaal dat die aanslag totaal in sy intensiteit was nie, maar in sy breedte – ‘n aanslag op elke moontlike terrein, en wat dus op alle moontlike terreine gekoördineerd beantwoord moet word.

[This concept, which is susceptible to serious misunderstandings, did not specify that this attack was total in its intensity, but its breadth – an attack on every terrain, and thus had to be answered on all possible terrains.]

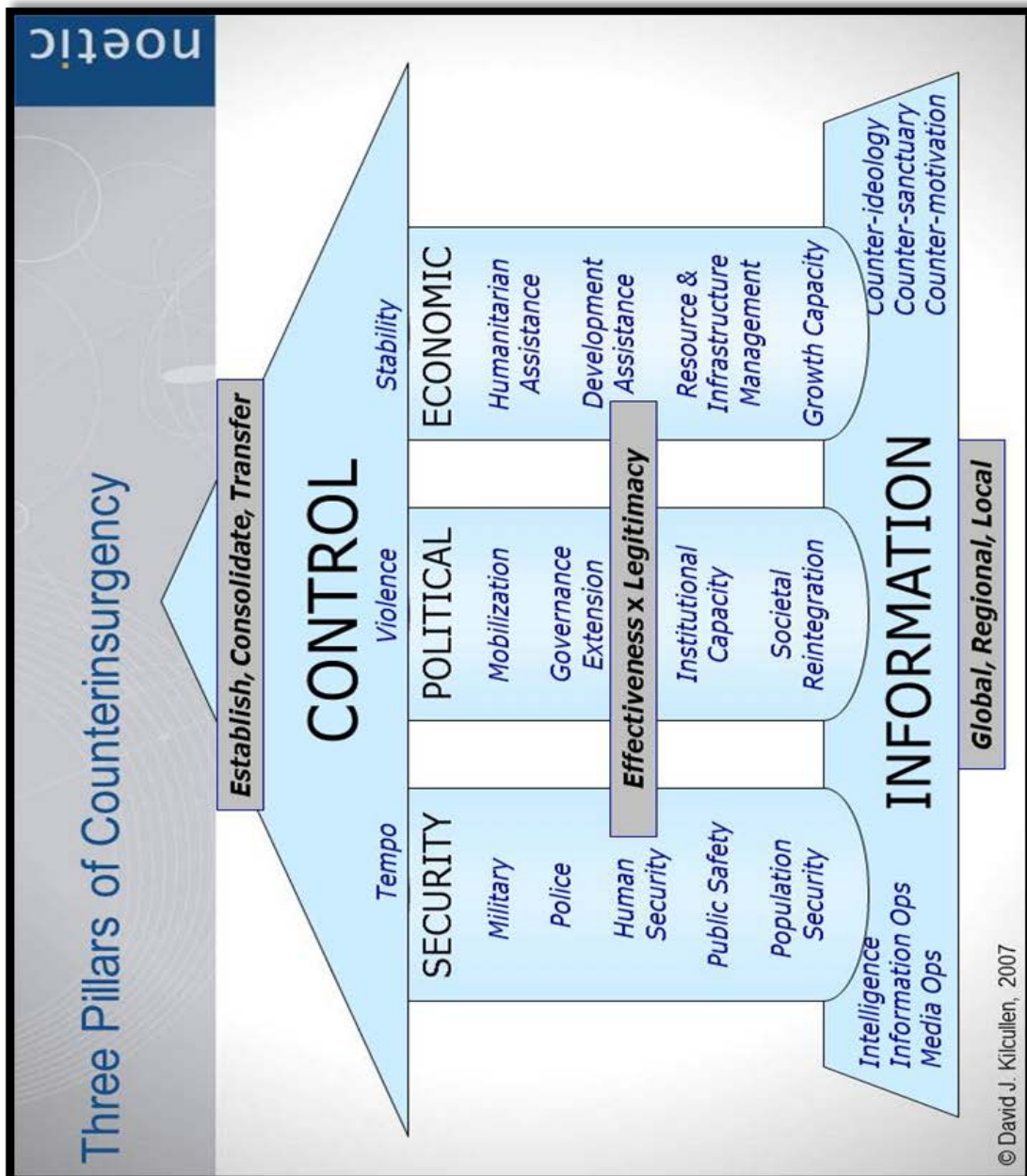
Compare Botha’s Total Onslaught with the following statement in the current US Army and Marine Corps Counterinsurgency Field Manual (2006: 1-1): “Insurgents use all available tools – political (including diplomatic), informational (including appeals to religious, ethnic, or ideological beliefs), military, and economic – to overthrow the existing authority.” A Total Onslaught – as Botha conceived it – is therefore a standard insurgency, which, lacking military strength, utilises every available means to realise their political goals.

The US Army and Marine Corps Counterinsurgency Field Manual (2006: 1-1) continues, “Counterinsurgents, in turn, use all instruments of national power to sustain the established or emerging government and reduce the likelihood of another crisis emerging.” COIN-forces responded to revolutionary war’s principles of an integrated conflict environment. During the conflict in Indochina, the French formed the *Groupement de Commandos Mixtes Aéroportés* (Composite Airborne Commando Group or GCMA) to combat the Vietminh, who were to “bring the struggle to the political and military fields; [to] use as much as possible psychological operations; [to] combine their effects with those of the guerrilla to snatch the population from the Vietminh influence by capturing their imagination, their heart, and their instinct” (Pottier, 2005: 125). In contrast with WWII, the French in Indochina therefore realized that victory would no longer be dependent on military victories on the battlefield, but also on what occurred in the political and psychological spheres. In counterinsurgencies, “[t]actical brilliance [...] translates to very little when political and social context is ignored or misinterpreted” (Marston and Malkasian, 2008: 16). To the political element should be added an economic element to constitute the three pillars of counterinsurgency identified by Kilcullen (2007: 11) as shown in Figure 1.

A successful counterinsurgency integrates these three pillars, like a successful insurgency also integrates the psychological, ideological, sociological and economic aspects. During the Malayan COIN-campaign, Lieutenant General Sir Gerald Templer for instance co-opted all government departments in fighting the insurgency, arguing that administrative, political, economic, cultural, spiritual, and military factors were relevant to defeating the insurgency (Stubbs, 2008: 121). The current US Army and Marine Corps Counterinsurgency Field Manual (2006: 2-1) also recognises,

The integration of civilian and military efforts is crucial to successful COIN operations. All efforts focus on supporting the local populace and HN [Host Nation] government. Political, social, and economic programs are usually more valuable than conventional military operations in addressing the root causes of conflict and undermining an insurgency.

Figure 1. Kilcullen's (2007: 11) Three Pillars of COIN



The SADF studied French COIN doctrine closely (Dale, 2007: 201), as is evident throughout General Geldenhuys's (2007) account of the war. In particular, the work of General André Beaufre and the French experience in Algeria were revered, which were combined with the works of Samuel Huntington, John McCuen, David Galula, and Robert Thompson (the latter two are still prescribed in the US Army and Marine Corps Counterinsurgency Field Manual 2006: viii). John McCuen's *The art of counter-revolutionary warfare* was regarded as a Bible by the SADF (Scholtz, 2006: 120), and thus Lieutenant-general CA Fraser, an SADF officer heavily influenced by both Beaufre and McCuen, writes in the late 1960s:

Military operations ... are, in fact, of limited importance to both sides and are never the decisive instrument in the total strategy. Instead these wars are conducted by the revolutionary (and the government in power – if they learnt how) as a carefully orchestrated dialectic consisting of a series of actions, political, administrative, economic, psychological, supported by military action (quoted in Scholtz 2006: 121).

The Total Strategy thus rested on sound COIN doctrine, as developed during Malaya, Aden, Algeria, and Vietnam. The 1977 South African White Paper on Defence stated (quoted in McWilliams 2009: 32), “the resolution for a conflict in the times we now live demands interdependent and coordinated action in all fields, military, psychological, economic, political, sociological, technological, diplomatic, ideological, cultural, etc.” Compare this statement with the current definition of counterinsurgency as proposed in the US Army and Marine Corps Counterinsurgency Field Manual (2006: 1-1): “*Counterinsurgency* is military, paramilitary, political, economic, psychological, and civic actions taken by a government to defeat insurgency.” Similarly, the US Government Interagency Counterinsurgency Initiative (2009: 12) defines *counterinsurgency* as, “comprehensive civilian and military efforts taken to simultaneously defeat and contain insurgency and address its root causes.” As the theorists that the SADF based its strategy on suggest, Total Strategy was an integrated approach to the entire conflict environment to counter an integrated attack – the Total Onslaught – and remains sound COIN doctrine.

The direct result of implementing a Total Strategy in South Africa was the formation of the Joint Management System or National Security Management System, which aimed at integrating all government departments under one body so governance could proceed while keeping national security in mind (Hamann, 2001: 58). Stemmet (2011: 100) writes, “Strategically it meant the fusion of military, administrative, judicial and legislative powers.” General Malan (quoted in Hamann 2001: 58) argues:

The Joint Management System was one of the best systems we ever had in this country. It allowed us to address a situation like the toilets in Queenstown [intelligence reports said a

major cause of unrest in Queenstown was a lack of toilet facilities in the black residential areas] or the situation in Alexandra, which was at one stage declared a “liberated” area by the ANC. We [the SADF] approached the Public Works Department and told them they had to rectify the situation. They told us they had no money. “We don’t give two hoots,” we said. “Find the money and rectify the situation, it’s affecting the security of the country.” That was the problem. Other departments didn’t realize they were involved in the security of the country. They thought of toilets, full stop. They didn’t think how it affected our security.

Stemmet (2011: 100) notes that the National Security Management System operated on nine separate levels, which can be represented with the diagram in Figure 2.

At the time, the National Security Management System thus reflected COIN practices and insights from previous counterinsurgencies. However, integrating various departments under a single military command was not only implemented in Malaya, but also the current US Army and Marine Corps Counterinsurgency Field Manual (2006: 2-2) argues the merits of this approach:

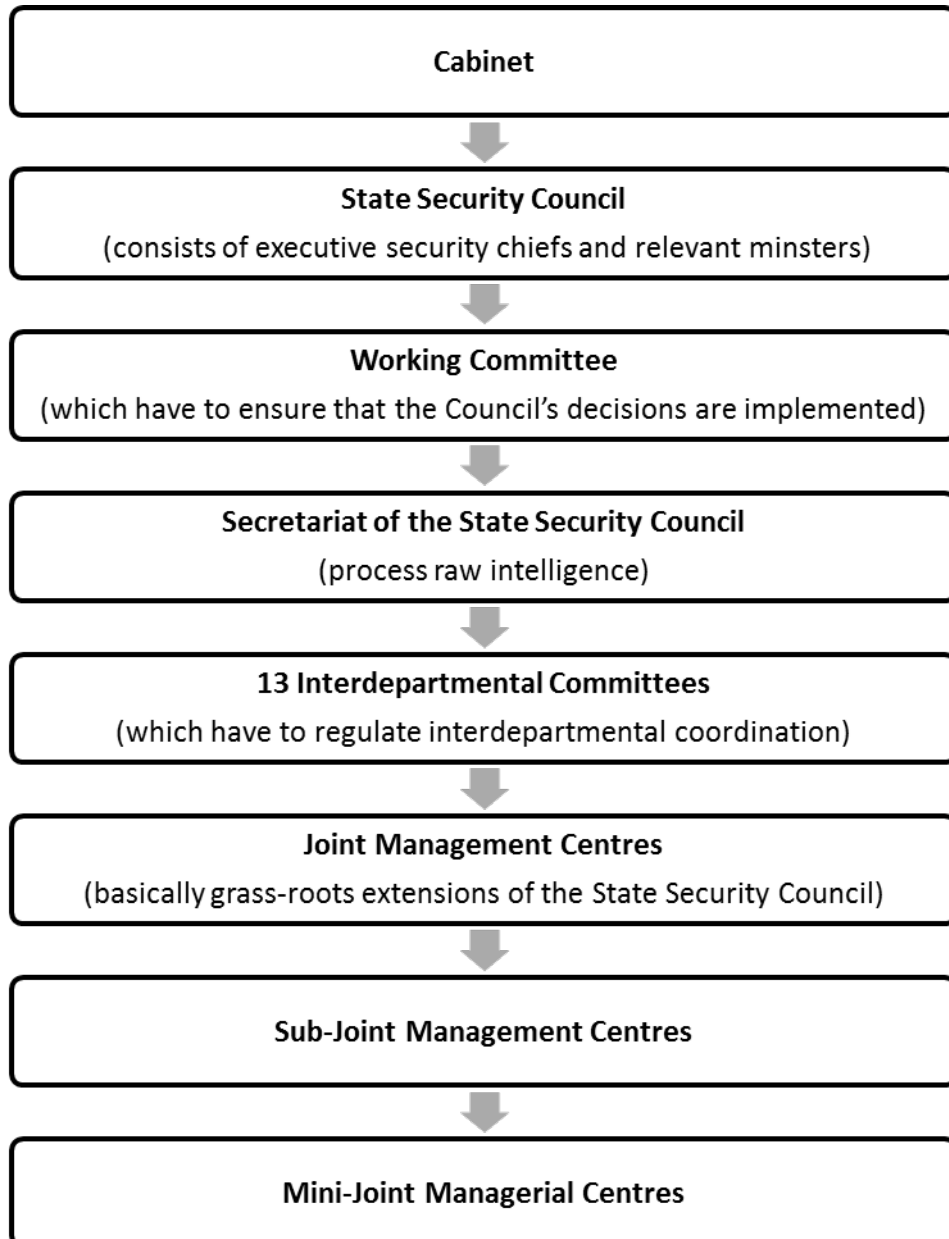
Unity of command is the preferred doctrinal method for achieving unity of effort by military forces. Where possible, COIN leaders achieve unity of command by establishing and maintaining the formal command or support relationships [...]. Unity of command should extend to all military forces supporting a host nation. The ultimate objective of these arrangements is for military forces, police, and other security forces to establish effective control while attaining a monopoly on the legitimate use of violence within the society. Command and control of all U.S. Government organizations engaged in a COIN mission should be exercised by a single leader through a formal command and control system.

This emphasis on integration is also reflected in the latest US Government Counterinsurgency Guide (2009: 50), “Effective counterinsurgency requires multifaceted and integrated operations that apply civilian and military capabilities across information, security, political and economic functional areas.” However, while “Ideally, a single counterinsurgent leader has authority over all government agencies involved in COIN operations” (The United States Army and Marine Corps, 2006: 1-22), it is usually difficult to implement in practice:

An insurgency’s complex diplomatic, informational, military, and economic context precludes military leaders from commanding all contributing organizations – and they should not try to do so. Interagency partners, NGOs, and private organizations have many interests and agendas that military forces cannot control. Additionally, local legitimacy is frequently affected by the degree to which local institutions are perceived as independent and capable without external support. Nevertheless, military leaders should make every

effort to ensure that COIN actions are as well integrated as possible. Active leadership by military leaders is imperative to effect coordination, establish liaison (formal and informal), and share information (The United States Army and Marine Corps, 2006: 2-4).

Figure 2. National Security Management System



The US Army and Marine Corps Counterinsurgency Field Manual therefore suggests “coordination and liaison” as less authoritative means to achieve the same “synergy” (2006: 1-22). In South Africa, however, PW Botha established this unity of command under the State Security Council. Although strikingly undemocratic and authoritarian, Total Strategy in this sense thus belongs firmly within not only Cold War COIN doctrine, but also modern counterinsurgency doctrine. However, such coercive strategies may be effective in the short term, but in the long term, they are fatal to COIN efforts. The US Army and Marine Corps Counterinsurgency Field Manual (2006: 1-21) notes,

The primary objective of any COIN operation is to foster development of effective governance by a legitimate government. Counterinsurgents achieve this objective by the balanced application of both military and non-military means. All governments rule through a combination of consent and coercion. Governments described as “legitimate” rule primarily with the consent of the governed; those described as “illegitimate” tend to rely mainly or entirely on coercion. Citizens of the latter obey the state for fear of the consequences of doing otherwise, rather than because they voluntarily accept its rule. A government that derives its powers from the governed tends to be accepted by its citizens as legitimate. It still uses coercion – for example, against criminals – but most of its citizens voluntarily accept its governance.

By using coercion, the NP government created a situation that could not be sustained. As the US Army and Marine Corps Counterinsurgency Field Manual argues, co-operation is key to integrating the different functions of the state – although coercion may be useful in the short term. In the long term, however, coercion undermined the legitimacy of the NP government, which had to resort to draconian measures to maintain security – using “disincentives” rather than “incentives” to maintain order. However, given the NP’s growing illegitimacy in the eyes of the international public (and foreign governments), nothing done internally could regain its legitimacy.

Hearts and Minds

As General Malan indicates, creating infrastructure is part of *hearts and minds* – a term coined during the British campaign in Malaya (Stubbs, 2008: 113). Unlike conventional warfare, COIN is a carrot-and-stick approach, of which *hearts and minds* constitute the ‘carrot’ section, and military action constitutes the ‘stick’ aspect. Tikhachevsky (1994: 915) already wrote about “incentives” and “repression” as two complementary strategies in the 1930s. Alternatively, in the terms of Botha’s regime, counterinsurgency combines “incentive levers/techniques of persuasion” and “disincentive levers/techniques of coercion” (Davies and O’Meara, 1985: 195, see also Stemmet 2011: 99-100).

Kilcullen (2009: 13) notes, “activities to kill and capture terrorists seem (and are) offensive at the tactical level but are in fact strategically defensive, because they contain the problem rather than solving it.” The SADF recognized this in light of previous failed insurgencies, and General Constant Viljoen (quoted in Hamann 2001: 65) argues that the emphasis was not on achieving a high kill-ratio as in Vietnam and Rhodesia, but rather on *winning hearts and minds*: “In whatever we did we always bore in mind the effect it would have on the general population. We realized, in a revolutionary war it is not a case of how many people you kill but rather the battle for the minds of the people.”

Winning hearts and minds was a major objective of the SADF in Namibia and within SA’s borders. General George Meiring, chief of the Army since 1990 and Head of the SADF from 1993, uses the image of a pot boiling over (Hamann, 2001: 62). If the insurgency is the pot, the security forces provide the energy to force the lid down. However, in order to achieve long-term results, the fire has to be taken away, and that is an economic and political issue. According to Meiring, the SADF always placed the most emphasis on removing the fire – building schools, homes, infrastructure, providing doctors and teachers, and even veterinarians. In the official South African Army Counterinsurgency Manual that was in circulation during the war in Namibia/Angola, it was explicitly stated:

Unless the trust, confidence and respect of the people are won by the government and the military forces, the chance of success is greatly reduced. If the people support the government and the military forces, the enemy becomes isolated and cut off from its supplies, shelter and intelligence (quoted in Scholtz 2006: 40-41).

This standpoint remains a crucial principle of COIN; as the current US Army and Marine Corps Counterinsurgency Field Manual (2006: 1-23) phrases the issue,

Dynamic insurgencies can replace losses quickly. Skilful counterinsurgents must thus cut off the sources of that recuperative power. Some sources can be reduced by redressing the social, political, and economic grievances that fuel the insurgency. Physical support can be cut off by population control or border security. International or local legal action might be required to limit financial support.

Winning hearts and minds was aided by the SADF’s policy of allowing deferment for its national servicemen that allowed it to field doctors, technicians, and teachers (Steenkamp, 2006: 14), and the SADF thus aimed at gaining trust by providing education, infrastructure, and medical assistance.

Note however that *hearts and minds* is often misinterpreted: Baines (2003: 13) for instance believes that *hearts and minds* is “supposed to build goodwill among the

civilian population by distributing food and medical treatment and collecting intelligence so as to root out guerrillas and cadres.” This is a common misreading of the concept. Kilcullen (2007: 52) quotes Shakespeare:

We give express charge, that in our marches through the country, there be nothing compelled from the villages, nothing taken but paid for, none of the French upbraided or abused in disdainful language; for when lenity and cruelty play for a kingdom, the gentler gamester is the soonest winner.

Kilcullen subsequently states, “Pop Quiz: *William Shakespeare was a writer of: (A) Counterinsurgency Theory (B) Fiction.*” The objective of *hearts and minds*, as Templer conceived it, is not to win “goodwill” as Baines and Shakespeare believe, but to convince the local population that supporting counterinsurgency forces serves their own self-interest; “This is about perceived self-interest, not about whether the population likes us. The principal emotive content is respect, not affection” (Kilcullen, 2007: 55). That the SADF believed in *winning hearts and minds* as Kilcullen conceives it – as opposed to Baines’s interpretation – is clear from the abovementioned South African Army Counterinsurgency Manual’s emphasis on “trust, confidence and respect” rather than “goodwill.”

Winning hearts and minds means undercutting the political message of the enemy. Insurgents form a narrative that is to be countered, as Kilcullen (2009: 67) writes, “To undercut their influence you must exploit an alternative narrative: or better yet, tap into an existing narrative that excludes the insurgents.” In Malaya, the British were able to promise independence and establish a legitimate government with the support of the majority of the nation, thus undermining the insurgents’ claim for freedom and independence. In Vietnam, this meant establishing a legitimate government in South Vietnam that carried the support of the majority of the population. This did not happen, and the reputation of the South Vietnamese government – deservedly or undeservedly – of corruption and brutality undermined US efforts and strengthened the North Vietnamese and NLF.

In 1973, Prime Minister John Vorster declared South Africa willing to grant Namibia independence, and the Turnhalle conference was held in 1977 to pave the way towards Namibian independence. Apartheid laws were repealed, and SWAPO was allowed to act as a political party (Scholtz, 2006: 32). Scholtz (2006: 33) writes, “Apartheid, race discrimination and colonial domination diminished as *casus belli*. What remained was SWAPO’s avowed aspiration to convert Namibia into a Marxist one-party state.” The election of 1978 did therefore not bring SWAPO to the negotiating table. South Africa had agreed to the implementation of UN Resolution 435 in 1978, “but withdrew its agreement when SWAPO demanded – and the Secretary-General of the UN Security Council granted – assembly points in ‘liberated areas’ in

Namibia when there were none” (Barlow, 2007: 96). Geldenhuys (2007: 84) also notes that the elections held in December 1978 were free and fair and established a multiracial government, but SWAPO refused to take part. The UN High Commissioner of Namibia, Sean McBride, had already advocated that SWAPO is the only legitimate government of Namibia (Geldenhuys, 2007: 82), despite the fact that the organization mainly represented one ethnic group. Since the UN would not recognize the results of the election, promises of freedom and independence did not undermine insurgent propaganda. *Winning hearts and minds* could therefore only be achieved to a lesser extent in Namibia: whatever gains were made, in the end, international recognition of SWAPO meant that South Africa’s initiatives were fruitless. Neither could South Africa convince the UN otherwise: its status as a pariah state determined that few South African political moves were condoned.

In South Africa, also, the South African government could not undercut the insurgent narrative. In Malaya, the British were able to promise independence and establish a legitimate government with the support of the majority of the nation, thus undermining the insurgents’ claim for freedom and independence. The British campaign in Malaya is often cited as the ‘model’ COIN-operation, a “textbook-quality counterinsurgency campaign” (Joes, 2008: 42), however, “the British had to surrender their role as occupier to defeat the insurgents” (Metz and Millen, 2004: 36). With growing Black Nationalism in South Africa, international condemnation of Apartheid, and the end of the Cold War (thereby removing South Africa’s claim of an ally of the West), very few options existed to undercut the South African population’s support of the nationalist cause. Codevilla and Seabury (2006: 56) write, “fighting wars is really a matter of stripping hope from the enemy's causes – of killing causes rather than people.” As such, under the abovementioned circumstances, there was no conceivable way that the NP government could kill the cause of universal suffrage.

Conclusion

Counterinsurgency is an extremely complex form of warfare. Kilcullen (2010) describes the modern insurgency as a complex system, noting,

Importantly, the argument is not that insurgencies are like organic systems or that organic systems are useful analogies or metaphors for insurgency. Rather, the argument is that insurgencies are organic systems, in which individual humans and organizational structures function like organisms and cell structures in other organic systems (Kilcullen, 2010: 194).

In complex systems, all component parts are interdependent to the extent that the conflict literally takes on a life of its own. Predictability becomes extremely difficult in complex systems, as the outcomes of actions can often not be foreseen. In such a complex environment, “Political and military leaders and planners should never

underestimate its scale and complexity; moreover, they should recognize that the Armed Forces cannot succeed in COIN alone” (The United States Army and Marine Corps, 2006: 1-1).

As this article has illustrated, the NP government, SADF and PW Botha in particular recognised the complexity of the conflicts they were engaged in. Specifically, both the Total Onslaught and Total Strategy were sound COIN initiatives that were not only based on recognised and respected counterinsurgency theory, but the principles of integration (Total Strategy) and the recognition of the multidimensionality of insurgencies (Total Onslaught) remain valid to this day, as can be seen from current US publications on COIN. In the end, Total Strategy was, from a theoretical point of view, a sound strategy, but its legitimacy could not overcome the reality that white minority rule was at its end.

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