The Role of the Natural Resource Curse in Preventing Development in Politically Unstable Countries: Case Studies of Angola and Bolivia

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Abstract:

For about three decades now, development economics researchers have consistently claimed that third world resource-rich countries were not developing as well and/or as fast as they were expected to, given that their natural resources endowment was considered a great opportunity for development. The phenomenon of underperformances concerning primary commodity exporters relative to non resource-rich countries has been often referred to as to the "Natural Resource Curse". The authors use an historical and political approach to the manifestations of the curse in the specific cases of Angola and Bolivia, both resource abundant countries, but suffering among the lowest development standards in their respective continents.

In chapter one, the authors make a quick review of the literature explaining both causes and manifestations of the Resource Curse. The authors go beyond the classical Dutch Disease explanations and show how natural resources lead to behaviours of looting, rent-seeking and civil confrontations.

In chapter two, the authors present the framework where they adjust the "African Anti-growth Policy Syndromes" described by Paul Collier to the specific case of the Natural Resource curse. In addition, they add some considerations of the negative effect of natural resource extraction by analysing externalities on environment, education and inequalities.

Chapters three and four analyse the case studies of Angola and Bolivia respectively, emphasizing the role of historical context explaining policy behaviour and the critical impact of unexpected windfalls and sudden price collapses. The authors find that natural resources could sustain long lasting conflicts, but that conditions of fractionalization of society determine the possibility of conflict. A country divided in two rigid political factions is more prone to internal conflict, like in Angola, whether in countries where frontiers between blocks are blurried or the country is multi-polar, like in Bolivia, the risks of long-lasting civil war seem less important. Apart from conflict, the authors show that lack of institutions and inequality make of natural resources a source of political instability that has far more impact on economic performances than other factors.

Keywords: Natural Resource curse, Rent-seeking, Civil War, Angola, Bolivia
JEL Classification: N2, N5, O1.

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Introduction

"All in all, I wish we had discovered water"

- Sheik Ahmed Yamani, former Oil minister of Saudi Arabia

Common sense suggests that the availability of substantial amounts of natural wealth available would be positive for a country's economic and social development. Recent studies seem to prove that, in fact, such wealth tend to hinder development. It is widely reported in the literature that, despite their rich natural resources endowment, several countries did not reach expected social and economic development levels, or even worse, they backtracked from development. This has been the fundamental argument underlying the "natural resource curse thesis" often also called the "paradox of plenty"[1].

Local populations often believe that natural resources are a blessing for countries stuck in underdevelopment and this feeds into the commonly held assumption that massive exploitation of natural resources is the only way out of poverty. The lack of infrastructure, poor financial, social or human capital, coupled with serious technological backwardness and weak political systems are key factors that hamper development efforts of poor countries. Therefore, natural resource endowment seems to provide a comparative advantage for these countries through increased capacity to self finance economic and social development. However, in recent years, this blessing seems to have become a curse, an underdevelopment trap, minimizing chances of progress, leading to a series of adverse economic and political consequences that prevent modernization of the local economies and retarding development of key social sectors such as health, education, and provision of potable water and energy.

Why does this phenomenon happen? Does this curse really exist? How does it manifest itself? This paper attempts to answer these questions with particular reference to Angola and Bolivia – countries with large natural recourse endowments.

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[1] Phrase coined by Terry Lynn Karl in her 1997 book: "The Paradox of Plenty: Oil Boom and Petro-States." University of California Press.

The issue of the effective use of natural resources as an engine of development has been a major source of controversy not only in the development economics literature but across a wide spectrum of social sciences, and it appears that the controversy debate will remain unsettled for many years to come. Notwithstanding the controversial nature of the subject, it is irrefutable to argue that the next generation of economists and social scientists would have to remain committed to the development of practical and theoretical tools to effectively end underdevelopment and poverty. The effective and sustainable use of natural resources is at the core of this difficult process. Environmental and social concerns mandate that natural resource extraction is done in a responsible, modern and efficient way. This is a moral, social, rational and competition-enhancing requirement. At the same time, medium and long term objectives postulate that natural resources stop financing conflicts, authoritarianism and management in a way that promotes further inequality – hence contributing to poverty and underdevelopment in the world.

For all these reasons, we have attempted to explain the extent of the resource curse, its mechanisms, and its internal and external logics, using Angola and Bolivia as case studies. The reason for choosing these two countries is twofold. First of all, there was a personal interest since they are the countries we come from and those we know best. This is not as trivial as it seems. Developing a case study on a country's context best known to the authors makes a difference in terms of understanding the case and prevents one from rushing to unfounded assumptions and raising false impressions. Secondly, Angola and Bolivia provide an interesting match for this paper. The fact that these countries are located in two different continents reveals that the issue of resource curse has a global dimension, i.e. the phenomenon can reach countries situated in different geographical areas with different economic, social, and cultural backgrounds. Its manifestations may differ, but the essence of the resource curse is that there is not a single resource-rich developing country exempt from the risk of falling in it. The shapes that the resource curse takes for undermining development performances are multivariate. We will find, however, some patterns and repeated logics and mechanisms.

These countries may seem profoundly different in terms of culture, history, geography and development, and a comparative study could at first sight seem anything but serious. Nevertheless, important common patterns reveal the pertinence of the comparison. Both countries are among the worst development performers of their respective continents -except for the past five years in the case of Angola- despite the fact that their natural resource endowment is important at least at a regional scale. The size of the countries is comparable, as well as the diversity of opportunities and potential sources of development, i.e. land availability, important biodiversity and abundant forests, diversity of hard mineral and hydrocarbon resources and tourism appeal. Similarities consist also in multi-ethnical composition of the society, and social divides creating important inequality.

A major difference is given by geographical location: Bolivia’s landlocked condition is often considered a factor contributing to the country’s underdevelopment. In addition, the topography of the country hinders mobility with serious consequences for the development of local trade and modernization of the farming sector. On the contrary, Angola has a long coastal area, flatter landscape features and a variety of agro-climatic regions. These conditions offer a strong potential for trade and to diversify the economy. However, unlike Bolivia, Angola has historically suffered from structural problems that hampered both economic and social development. For instance, independence from the colonial regime not only came late (in 1975) but also led to serious disruption of the public service, loss of human capital, and the beginning of a 27 year long civil war. One interesting aspect of this paper is that it attempts to explain whether the civil conflict is a cause, consequence, or just sustained by the resource curse.

These disparities can however be overcome in two different ways. One is to ask ourselves how, given the multi-ethnical composition, revenue disparities, natural resource endowment, and political differences - common features with Angola - Bolivia has avoided a full long-lasting civil conflict, despite high instability, powerful interest-groups and attempts of armed insurrection. The second one consists in a distorted time lecture: Constituent Assembly being held this 2007 in Bolivia is interpreted by important segments of society as “internal decolonisation” of indigenous groups from the Spaniard descendants. However wrong this claim, this process of political transformation could arise people and lead them into a conflict. The presence of natural resources, like in Angola, could encourage the fall into civil war and make it long-lasting in the future. Often it is asserted that Bolivia has more common features with Sub-Saharan Countries than with other bordering Latin-American countries: Proof of this is the recent massive foreign debt relief actions that included several African countries, Haiti, Nicaragua, Honduras and Bolivia.

The paper is organised as follows. Chapter one consists of a review of the literature where we present the main schools of thought regarding the resource curse over the years, the evolution of the theories and the relationships between the most important variables. Even though resource curse theory is relatively recent, the literature on natural resource and development is large. Therefore, we limited the literature review to those publications that made important and pertinent contributions to the advancement of the subject.

In Chapter Two, we explain the underlying principles of our approach to the exercise. We'll define the main concepts used and the hypothesis regarding the resource curse we believe apply to Angola and Bolivia, as well as our methodology. It is basically our framework of analysis, which consists of an extension and adaptation of the description of anti-growth syndromes presented by Collier et al. (2006). The curse manifests itself in several different ways, but a pattern of four syndromes can be identified.

Additionally, we'll see that some symptoms are transversal and manifest themselves in very specific sectors, like education, environment and inequalities issues, that are important when assessing a country's development.

Chapters Three and Four will consist of the case studies. We will start by giving a country overview that sets the geographical, historical and political context of each country. Afterwards, we engage in an analysis that aims at presenting how the resource curse translates into those countries' particular contexts. The principal issues analyzed are those presented in the framework: syndromes are revealed and explained, extended or dismissed.

Finally, Chapter Five presents the conclusions and provides a summary of the most important ideas and findings: the core questions should be answered at this phase.

Chapter 1: Literature Review Concerning the Resource Curse

For about three decades now, development economics researchers have consistently claimed that third world resource-rich countries were not developing as well and/or as fast as they were expected to, given that their natural resources endowment was considered a great opportunity for development. At the same time, resource poor countries, such as some South-Asian countries, were experiencing exceptional economic growth.

Auty (1993) observes in one of his studies about resource abundance and economic development that:

> *"Between 1960 and 1990, the per capita incomes of resource poor countries grew faster than those of the resource-abundant countries and the gap in the growth rates widened significantly from the 70's"*

This phenomenon has been called the Resource Curse, known also as the Paradox of Plenty. Indeed, it seemed that resource-rich countries, which had, in principle, many more resources to boost economic development, were in fact having difficulties to meet economic growth targets.

In this chapter we will distinguish two sets of literature concerning the resource curse, each composed of three sub-sets explaining the different approaches towards understanding the phenomenon. Section 1 reviews the theoretical approaches describing the causes of the resource curse. Section 2 reviews the evidence of the curse and describes the different ways in which it manifests itself.

Section 1: Theory on the Causes of the Resource Curse

Orthodox economists have, prior to the eighties, often assumed that an important endowment of natural resources could not be anything else than an advantage for developing countries. Viewed from the neo-liberal paradigm of the 1960 and 1970's, the rents generated through the process would provide the basis for generating savings, investment and consequently growth and development. Raw material producers should open their markets to the world, and the comparative advantages of natural-resources exporters should grant them a full sustainable development fuelled by the cash inflows, which should create purchasing-power and diversified internal markets (e.g. Balassa 1980, Kruegger 1980).

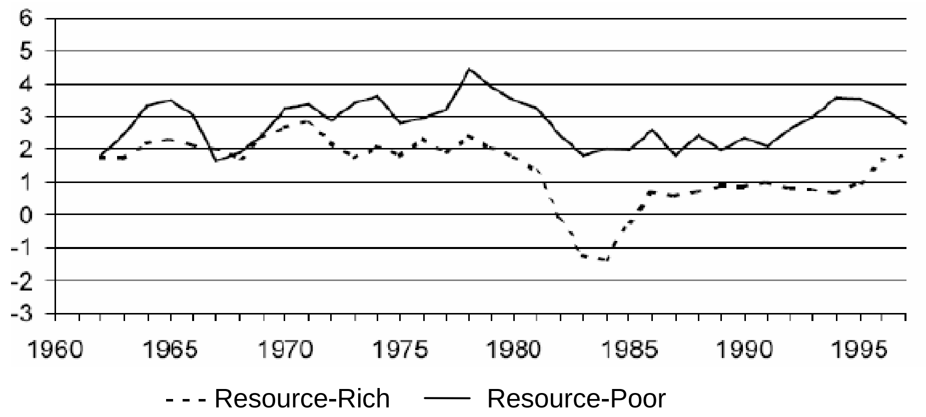
At the other end of the spectrum, there is the structuralist approach led by Raul Prebisch, which argues that relying on simply exporting natural resources and open markets would not allow any development, mainly because of the degradation of terms-of-trade (Prebisch, 1950). From the perspective of structuralism, development would be ensured by major state intervention, administrating the extraction of natural resources and industrializing through the implementation of import substitution policies (ISI). But before the eighties, even though the discussions about effectiveness of natural resource management were already in progress, it never appeared that the high resource endowment could be bad in itself for a country's development.

The term of “resource curse thesis” was first used by Richard Auty in 1993, but speculations on the “paradox of plenty” were already circulating during the eighties, probably as a consequence of the after-commodity boom economies. It is important to note that the increase in prices of commodities during the seventies did allow a resource windfall that ended before the eighties, this driving the recession of resource-rich countries.

Sachs and Warner (1995) ran a series of regressions to prove the consistence of the linkage between resource abundance and under-performances in growth expectations. Controlling for geographic and before-period performances, empirical evidence of the resource curse was found. Quoting this work, Auty and Gelb (2001) states that resource-rich developing countries performed two to three times worse than their resource-poor counterparts. This evidence is not bullet-proof: some primary commodity exporters had good performances and showed the way to development, such as Norway, and at a smaller scale, Botswana.

Figure 1 Median annual growth GPD per capita (const. 1995 USD).

Resource-Rich and Resource-Poor.



Source: Auty, 2001.

If empirical evidence of the existence of the curse seems to reach a consensus among economists, what causes it is a more problematic issue.

Even if structuralism of the fifties blamed underdevelopment on a degradation of the terms of trade for primary commodities in relation to manufactured goods and on vulnerability to external markets, the thesis claiming that resources in themselves were a curse is only a couple of decades old.

1.1 The Dutch Disease Mechanism, Stylized Economic Approaches

The first explanations of resource rich countries' underperformance were attributed to Dutch Disease effects on the economy. The term Dutch Disease was coined in 1977 by The Economist and formalized in 1982 by Corden (1982) to describe the decline of the manufacturing sector in the Netherlands after the discovery of natural gas in the 1960's. The fundamental principle of Dutch Disease is that a natural-resources exporting country allows a major inflow of foreign currencies into the national economy. This implies an appreciation of national currencies (that become relatively scarce), so that national tradable[2] production of the non-mineral sectors becomes uncompetitive in international markets.

[2] The distinction of tradable goods and non-tradables depends on the exportability-importability features of these. Tradables are for example basic consumption goods, non-tradables are human capital or internal transport.

At the same time, the inflow of foreign currencies makes the natural resource exporting sector increase its demand for production inputs, such as workforce, transport and other non-tradable. This makes the local economy allocate most of its non-exportable goods to the resource-extracting activity, shrinking the manufacturer activities. Manufactured goods cease to be exported and become imported by the local economy. However, even if a manufacturing sector is hindered, a well performing resource-extracting activity could outweigh these loses: it doesn't necessarily mean that development is affected. The way shrinking of manufacturing sector hinders growth will be analysed in sub-section 1.3.

Assuming that Dutch disease does harm an economy, it is merely one example of the harm that a high natural resource endowment can cause. Dutch disease can be considered as a short-term consequence of a massive inflow of foreign currencies that might undermine competitiveness of some sectors, but in the long-term the windfall can be either efficiently administrated or, on the contrary, mismanaged. If the inflow of currencies is wisely invested in new productive sectors, the negative effects of real exchange rate appreciation can be overtaken by the positive effects on investment and modernisation. This supposes, however, political goodwill, creativity and social mobility.

1.2 Rent-Seeking Behaviours, Political Economy and Public Choice Approaches

Impacts on development caused by natural resources seem much more complex and multi-causal than the sole Dutch disease effects. Controversy about this point emerges between Auty and Sachs. According to Sachs, estimates from his regression model developed in 1995 throw enough evidence that the largest share of the curse is caused by Dutch disease effects. Auty, since 1993, claims that the resource curse depends on every country's management of a natural resources windfall. His thesis stipulates that a windfall allows lack of fiscal discipline and conservativeness in the status quo of the economy, this avoiding any modernization or integration into external markets.

Theoretically speaking, lack of definition concerning the property rights over resources lead to a classical common-pool problem. Lack of institutions creates confusion concerning the property rights over resources, this makes agents fight to gain control over natural wealth. These agents experience costs (protest, lobbying, organizing a rebellion), but at the end of the day, the keeper of the resources gets the benefits. For each agent, the cost burden is small compared to potential benefits, but on average society overspends in costs linked to control over rents. Because benefits are private, there is an important inefficiency due to expenditures not internalized by the agents which are unjustified relative to rents. Rent-seeking behaviour impregnates any stage of the state and determines the way it functions: institutions, formal or not, are based on clientelism and/or corporatism. In the most extreme cases, Auty claims that the state creates violence surrounding access to natural resources, notably in contexts of polarization: ethnic, territorial or political.

It is a direct criticism to the state-led economies because due to political issues, legitimacy of the government is contested and so are property rights over resources. The corollary of the thesis is that an exhaustion of the windfall leads - after the collapse of the economic status quo - to rapid reform, modernization and integration to global economy. The path for liberalism would be defined by the end of a first commodity boom.

However this hypothesis was launched shortly after the collapse of USSR, and several state-led economies reformed not necessarily because of natural resources or their exhaustion. Any growth collapse not necessarily linked to the resource curse could lead to reform or reform could result from a simple will of the states. The advent of a windfall could also reform the country, either by modernizing investments, or by returning to centralized state logics. A reform of the state does not necessarily mean adopting pro-market policies: a growth collapse could lead to closed economies.

Auty's solution to the resource curse is to adopt pro-market policies and fiscal discipline during the windfall, create a compensation fund sterilizing the windfall to prevent Dutch disease effects and rent-seeking, and using this fund for harsh times and long term investments. The problem is that the common-pool good induces immediate consumption and even demands for credit, since nothing guarantees that the extractor will remain forever in possession of the resources. If these are also extracted by other agents, the fear of seeing the boom fade will lead to inefficient over-extraction.

1.3 Recent Approaches: Relationships between Volatility, Diversification and Trade

Lederman and Maloney (2003) took Auty's findings a step further and seem to be more optimistic regarding resource abundance. Their empirical studies show that resource abundance plays, in fact, in favour of growth when sound open market policies and structures are put in place. By diversifying trade the Dutch disease effects are palliated, since by making most exportable commodities attractive, the appreciation of the rate of exchange depends on all these commodities at the same time, so the relative value of each remains constant. The less effective sectors of the economy are hindered, but a diversity of competitive sectors makes the relative attractiveness of one sector reduced compared to others. In this case, even a windfall of primary commodities don't encourage looting or hindering of other sectors since these are kept relatively attractive for the use of non-tradables. Volatility and vulnerability effects are buffered by the diversity of attractive sectors.Natural resources do improve growth levels in this case. But when there is a concentration on a single export commodity, whether oil barrels or microchips, there will be an increase in price volatility and vulnerability. Stylized models and econometric measures seem to infirm the resource curse thesis when commerce is diversified. This is to say that resources are harmful when exports are too specialized and they are beneficial when the export base is wider.

In the same way, Hausmann and Rigobon (2003) explain that even if resource exporting increases volatility of primary commodity prices and demand for non-tradables, the existence of a large non-resource tradable sector can maintain relative price stability. Any shrinking from the non-resource exporting sector increases potential volatility of relative prices. Dutch disease effects are palliated when non-resource prices remain stable relative to resource prices. If prices asymmetries increase volatility, risk of bankruptcy increases: non-tradables such as credit lines and insurances become relatively more costly and volatile to the already shrinking non-resource sector. Banks and other lending institutions will impose a high interest rate to exporting sectors to compensate for potential losses. This implies a cycle of increase in volatility leading to higher interest rates and fewer non-resource sectors having access to credit. Finally this sector shrinks until it disappears because of lack of credit, and, as seen before, the shrinking of tradable non-resource sector again increases volatility. This way, the economy non-efficiently specializes in resource exporting sectors, and according to Lederman and Maloney's conclusions, resources become harmful to the economy because of the narrow-based trade characteristics.

Hausmann and Rigobon prescriptions require a more proactive action by the State, so as to promote more diversification and development of non-resource exporting sectors. This could be done by ensuring a stable financial system and easy access to credit, persuing access to diverse world markets - both geographically but also in terms of the diversity of goods. Even subsidies are recommended in these studies. The effects of one-sector expansion should be neutralized, and compensation funds resulting from windfall must be used for promoting inventive, modern and competitive private initiative.

Section 2: Potential Consequences and Manifestations of the Resource Curse

More recent literature attributes bad performances on erroneous policy making not only linked to straight economic phenomena. Important rent-seeking and the persue of political influence can lead to conflicts, corruption and mismanagement. Rosser (2006) makes a review of the literature concerning the resource curse, and describes three sets of harmful consequences described by different analysts: poor economic performance, civil war or/and authoritarian regime. These factors can have either individual or compounded effects on a society.

2.1 Poor Economic Performances

Even if a deterioration of the terms of trade and Dutch Disease were partly responsible for bad economic performances, most recent literature considers that under-performances come from poor public administration and inadequate fiscal policy. Auty (1990) was the pioneer considering this fact. Most of his studies on mineral economies consisted in analysing the way the state has administrated the resources and what were the political flaws of it. Rent-seeking and corruption allowed by natural wealth would lead to lack of reform and stillness, thus preventing modernisation of the economy and integration to world markets.

Robinson and Torvik (2005) explain that the resource curse phenomenon is largely founded on instituted political systems and practices. They argue that irrational extraction and mismanagement of the resource is governed by election objectives and powerful interest groups. This way, status quo is brought to bear and modernization of the economy and social development goals are never achieved.

Mehlum, Moene and Torvik (2006) blame the curse on fragile institutions that allow political behaviour to become rent-grabbing rather than channelling the windfall into productive sectors of the economy. Institutional solidity would explain divergences between resource-rich developed countries like Norway, Canada or Australia and resource-rich poor countries such as Angola and Bolivia.

Several methodological approaches paint this rent-seeking political behaviour, from behaviourist to rational acting. Windfall mismanagement can be seen as a consequence of reckless fervour or of stone-cold calculus based on self-interest. History will show if under-performances were based on cynical and rational rent-seeking calculus or on actions limited by prejudice and incompetence. It should be clear that in general it depends on a mixture of both.

2.2 Civil War

In a more advanced phase of the curse, Collier and Hoeffler (2004) claim that resource endowment is a curse because it could lead or at least maintain instability and civil conflicts or wars. Opportunities for rebellion were made easier due to resources, and these would create the incentives to launch an offensive. By calculating regressions of the ratio of primary commodities related to civil wars, they found a curvilinear relationship: risk of conflict at first increased with the dependency and after a certain level (35%), risk was negatively correlated.

However, these results were criticized by other authors like Fearon (2004). He criticizes Auty and Hoeffler's work, especially concerning the methodology and data sets used. Fearon, who is a political scientist, claims that the share of natural resources exports related to GDP does not have much impact on probabilities of civil war. It's rather the weak institutions and lack of proper redistribution channels that encourage the uprisings. Resources do not cause civil wars but can sustain them and lead to weak institutions and rent-seeking behaviour prone to civil war. The risk of war increases at the early stages of development due to resource abundance, but secessionist wars were three times more likely to happen. This depends on the criterion of "lootability" (Ross, 2003), since non-lootable goods, such as oil, natural gas, and transport-costly minerals, for instance, create the conditions for a secessionist war. The risk can be increased if there are ethnic and social differences or territorial disputes, and also if State identity is poorly consolidated. Thus, "non-lootable" natural resource endowment might exacerbate nationalist and separatist tendencies.

On the other hand, lootable resources such as diamonds, coca leaves or heroin create the conditions for a non-secessionist war. Ross argues that "lootable" natural wealth minimizes the costs of organizing a rebellion and uprising, enabling possibilities to grab power, sustain long-term battle and allowing exportability features due to the transportability of the goods. Adverse consequences, usually resulting from resource curse, create inequality, impoverishment and expropriation of land, but also social and environmental consequences that might precipitate an uprising.

Behaviourists would argue that the extremely cynical argument considering that civil wars are engaged by rational rent-seeking (and minerals) is exaggerated. That is, inequality, ethnic differences and general grievance trigger conflicts, more than the natural resources availability.

2.3 Authoritarian Regimes

Easy state access to rents may facilitate a reduction of the fiscal pressure on citizens and lead to populism and authoritarianism by softening democratic pressure. Mismanagement of windfalls functions in such a way that the democratic process is blocked or lacks transparency or institutionalisation. This is due to populist measures engaging major spending just before an election. In the same way, powerful interest groups are brought to heel by redistribution of rent, or "friendly" customer countries can externally sustain an authoritarian regime. Note that contrary to civil war, authoritarian rule could coincide with some good economic performances. The real harm comes to democracy and civil rights. It is, however, often true that authoritarian rule leads to clientelism and corruption, which in turn implies an inefficient use of the resources compared to the true development capacities.

These political implications show the extent to which the resource curse is a multidisciplinary field. Political scientists, sociologists and historians have studied the problem. Recent theories on dependency of producer countries to their wealthier purchasers, environmental issues, external threats, economic and military, prove the diversity of literature concerning the curse by a wide range of authors others than economists.

Recent events have contributed to making the belief in the curse more widespread. Oil is often seen as a factor of war and social instability. This idea was mainly underscored by the American invasion of Iraq in both Gulf wars. Other factors that enhance the general belief that natural resources are a curse include major ecological disasters like black tides and destruction of the environment surrounding oil extracting areas. Rents extracted are also often related to political scandals, covetousness of operators and lack of social responsibility portrayed by major oil and diamond extraction operators. Other natural resource extracting activities are also directly related to phenomena like blood diamonds, cocaine production, opium, and a long etcetera.

Chapter 2: Theoretical Framework

As we have said in the introduction, the aim of this paper is to analyze the relationship between the natural resources endowment and the country's development. In this section, we will define the approach we find most adequate to analyse the situation in both countries. We discuss the methodological tools, the criteria of analysis, and the objective of the study.

First of all, it seems important to define what we understand by development, which is a concept quite difficult to define with precision. Even if one has an intuition of what development means, it isn't always easy to define the specific variables to measure the level of development of a country.

According to the Encyclopaedia of Political Economy, "...development differs from economic growth in being a quantitative, as well as qualitative concept. [...] the concept of development suggests even broader connotations such as "social", "political", or "human"...". The ambiguity of this definition leaves us with no other option than to define our own approach to development goals and how to assess them.

Section 1: The rationale of the approach

In this paper, we will consider that economic growth is only one of the multiple variables that define development and thus, also analyze the social, political and human aspects of it. This refers more specifically to issues such as poverty levels, inequalities, HDI indices, political stability and democracy, peace, education and health, and economic performances.

We do not intend to study the whole phenomena of under-development and associated causes. Our aim is to try to understand the opportunities and capacities that Angola and Bolivia had, and how these opportunities were undermined because of their political choices regarding natural resource endowment. Clearly, our approach is based on principles of political economy, theories of conflict and new theories of public choices, as defined in Chapter 1. Nevertheless, findings from economic research will be used complementarily to explain concrete situations.

As we've seen in the previous chapter, it is hard to have a simple hypothetical deductive cause-effect model explaining the relationship between a country's natural resources endowment and its development. Such an intense diversity of explanations forces us to limit our approach to historical and political observation, explaining mechanisms (general and case specific) in an economic way. Economics, defined as a science, will explain results, at least partly, and above all provide the set of recommendations for efficient confrontation of the curse in the future.

In order to explain the resource curse we will use a "clinical approach" consisting in describing the diverse syndromes that can explain why, under some particular circumstances, resource-abundance might prevent a country's development. We should stress that the aim of the exercise is not to elaborate or present a general hypothetical-deductive model that would apply like a mould to all countries or several clusters of countries.

Our experience proceeds in an inductive manner. By using case studies, our intention has been to penetrate deeply into the inner mechanisms and contexts of each country. Specific history and politics, explanatory circumstances and mentalities may explain a more important part of the resource curse than analysing exchange rates, elasticity of demand or complex mathematical modelling. This does not mean that we will not use any analytical tools from economic science, but they will be used in an important complementary role to understand specific historical and political developments. In general we will use results from the literature, and try to fit them into historical and political context to allow us to have a broader insight into the theme.

The approach is inspired by Paul Collier's work on the natural resource curse. We will show that the anti-growth syndromes used to describe African economies can also apply to Latin-American countries. The fact that we use these syndromes is neither a rip-off nor an easy way out. On the contrary, it is a very interesting and motivating way of arguing that the resource curse can induce similar behaviour despite different contexts. This could confirm or infirm the theory of Bolivia's proximity to African economies' logics. If it is the case, contributions of economists specialized on Africa could prove to be important elements of help and understanding of Latin-American issues.

Obviously, the four syndromes described by Collier need to be extended to the particular case of the resource curse and affined in order to circumvent irreconcilable differences. These modifications should however not gravely perturb the essence of the syndromes, nor their pertinence.

The result is that this new lecture of the anti-growth syndromes is multimodal: it allows us to interpret the effects on the bad performances of development, due to the natural resource endowment. These syndromes do not exclude one another and in fact, they seem to retro-feed between them.

The main questions of the paper will then be the following: **how do the anti-growth syndromes reveal themselves in the particular contexts of Angola and Bolivia? To what extent can they explain the lack of development in these two countries?**

Section 2: Description of the Syndromes

There are four antigrowth syndromes described by Collier: regulation syndrome, redistributive syndrome, inter-temporal syndrome and state breakdown.

2.1 The Regulatory Syndrome (Control Regimes)

This syndrome analyses the distortions caused in the economy due to intensive state intervention. Note that natural resource rich countries tend to have major state participation in the extraction of such resources, which is not a cause for low economic growth *per se*, but explains the major role played by the state in the way resources and rents are allocated.

According to Collier, two kinds of control regimes can be identified: “hard control”, very close to the communist vision of how economies must be regulated; and “soft control” were economic regulation is somehow more moderated. State regulation undermining development and economic performances is expressed in different ways.

Controls on exchange rates for instance create distortions between the official exchange rate and parallel markets. Massive inflows of foreign currencies, due to primary commodities exports, foreign debt and aid, make governments sell foreign currency at under-market controlled prices. This is a way to redistribute rents between interest groups, as some will be able to resell currencies in the black market for higher prices, while others will be receiving under-valued currencies for their exports.

Direct natural resource extraction and dependency on primary commodity exports creates a direct inflow of currencies into public accounts: fiscal discipline is relaxed for some sectors and intensively applied to others. This creates inefficiencies because deadweight losses are multiplied because of narrow-based taxes, and at the same time when the windfall ends, instituting fiscal discipline proves to be a hard task. Besides, if the government does not need diversified taxation to have revenues, it can more easily afford to have a bad public image, and freely continue to finance only interest groups with real political and/or economic power, without caring for the wellbeing of the population at large.

At the same time, controls on prices, output and selective taxes allow the state to create distortions by privileging certain groups: by creating market power for them due to restrictions on production or imports, or by subsidizing their production. Markets cannot function normally, and this leads to inefficiencies due to lack of regular incentives for producing and selling the goods at the market rate. Subsidies and heavy taxing are a disincentive to efficient market functioning.

For example, in a hard control regime, all the major sectors of the economy are nationalized, prices are fixed by the government, as well as exchange rates, investments are subject to licensing, and almost all private economic activities are subject to some kind of regulation. According to this, one can state that the Angolan authorities implemented a control regime from 1975 to 1992, and in Bolivia during the National Revolution of the fifties.

Post-cold war research has generally tended to conclude that state-led economies impeach good market price signalling. Thus, markets do not work properly mainly because of the asymmetries between need and provision, and this lack of satisfaction is not incentive compatible. Such state machinery also leads to heavy administrative costs, institutionalisation of overreaching bureaucracy and counter-efficient public expenditures.

Finally, state-led production needs flexibility for adapting itself to fluctuating needs or to reach determinate objectives. Thus, production can not be led by a rigid political and juridical construct: the state is vowed to break its own rules and norms. Juridical certainty is not granted.

Orthodox development economists favour open markets integrated into world economy, and freedom of prices and exchange rates. State control is often considered a main cause of inflation, bad administration of resources by political interference in production processes, and corruption.

Note that this characterization of the syndrome is highly controversial, and, traditionally linked to the orthodox approach, structuralism would not necessarily agree with these viewpoints. However studying the cases of Angola and Bolivia, we will show that intense state involvement in natural resources extraction causes major distortions in the economy, which does not necessarily lead to social development. Furthermore we will assess the extent to which these distortions really hinder the development of both countries.

2.2 Redistributive Syndromes

One of the main goals of governments' intervention in the economy is to redistribute income between households, usually from the richer to the poorer ones. But, under some conditions, distortions can appear in this process of redistribution of the national wealth. According to Collier, three different forms of distortions can be identified: looting, excessive ethno-regional distribution, and inadequate ethno-regional distribution. In order to adapt this to our context, the ethno-regional notion would be extended to general interest groups; differences might be ethnic and regional, but also political, ideological, corporative or historical.

The redistributive syndrome is highly linked with the previous one. Indeed, by implementing control regimes Governments can easily redistribute wealth among particular groups, by giving them, for instance, a privileged access to foreign currencies or a monopoly over a specific import good, control over state enterprises or natural resource sectors. One of the typical expressions of this is creating huge state bureaucracies, by giving access to a group that manages the state sector. The persons who receive these “privileges” extract considerable rents, which wouldn’t exist if markets operated efficiently. This type of policy, definitely unproductive, is generally used to insure the perennity of the power in place (interest groups policy/looting). This was and is the case in both studied countries.

The attribution of rents promotes rent-seeking. Returns from access to power become very important, especially in a natural resource abundant country. The relative costs of struggle for power diminish. Interest groups have then higher incentives to use non-democratic or anti-institutional means to get access to this rent: protests, uprisings and open battle. This concept is central to our analysis, because it is these symptoms of revolt that are most costly to society.

The redistribution syndrome affects development in two different and opposite ways: redistribution can be harmful for reasons of commission or of omission. Either redistribution to certain groups creates inefficiencies because of attribution of wealth to non-productive or inefficient groups, or lack of redistribution creates unbearable inequalities, that lead to confrontation and struggle.

The impact of this interest groups policy on development can be huge. Indeed, when public revenues are used to benefit a particular group of persons in society, rather than financing productive public goods, the country’s development opportunities are reduced.

The case studies will reveal how redistribution led in Angola to consolidate power positions inside each of the fighting factions, intensifying direct confrontation. In Bolivia, we will see how redistribution led to mismanagement of resources.

2.3 Inter-temporal Syndrome (Unsustainable or Inefficient Spending)

This syndrome concerns the issue of unsustainable growth. Natural resource windfalls are often cyclical or limited in time, which means that there is a before, a *during* and an *after boom* periods that need to be analysed. This syndrome generally starts with a country that is better off during the windfall, but development performance drops dramatically after the windfall effects are gone, leaving the country often even worse off than in the pre-windfall situation.

This means that the government has been unable to transform circumstantial growth into structural growth. The problem is that attractive high prices and important discounting of the future linked to the windfall lead to sumptuous and non-productive consumption, rapid spending and irrational resource extraction. This may be considered as a way to “tax the future”, as basic investments are not performed and there is no long term perspectives for productive and modern development.

Unsustainable spending occurs especially when countries do not have the necessary institutional capacity to ensure equity in the distribution of natural resources rents, and these rents quickly evaporate into consumption. Indeed, if there is no really institutionalized democratic regime, or any other kind of checks and balances system in operation, governments that benefit from huge natural resource incomes are much more likely to engage in unsustainable or inadequate public spending, by using public resources only to strengthen and maintain their power. It is a way to “buy” stability or at least *status quo*. The mechanisms are the same as for the redistributive syndromes. For instance, having the choice between financing public goods or private patronage, public authorities will prefer the latter and will not develop the country’s basic infrastructures or invest in poverty reduction programmes. At the same time, state payrolls can be significantly expanded. This contradiction explains the lack of efficiency. Note that after the boom, state machinery cannot finance its engagements, which leads to severe deficit and creation of conflict.

If the rent extracted during the boom is sufficiently high, and the political context allows it, the incentives for promoting other sectors fade. This includes basic regalian functions of the state. By opting for short-sighted expenditures when deciding the use of natural resources revenues, governments underinvest in social sectors such as education or health. Let’s emphasize education, which is one of the variables that we consider to have an influence on development. Indeed, one of the basic conditions for development is to have people qualified enough to be sufficiently productive. According to Pigou (1928), human capital is thus one of the most important factors contributing to development. If a country invests in education, by sending as many children as possible to school, it increases its own endowment in human capital. The workforce becomes more productive and consequently production increases. Yet, education does not seem a priority in many resource-rich countries.

Moreover, education gives people more political weight, resulting from increased awareness of their rights. This contributes to a more equitable redistribution of revenues, which is generally considered as a base for economic growth, and for broad development.

We need to underscore that financing interest groups may be a way to maintain *status quo*, which can appear as being more important than social development for some Governments.

2.4 State Breakdown

State breakdown is the result of the capture of political power by a minority group. It results in the political alienation of the majority of the population, that feels that it is no more represented by those in power, and large-scale rebellions are likely to occur. This syndrome is highly linked to the others.

State breakdown is described as the worst situation when major political instability is reached because excessively selective redistribution (or no redistribution) creates different kinds of conflicts. They may lead to civil unrest, civil conflicts or even international conflicts. Those are boosted by rent-seeking and sustained by almost unlimited resource extraction, or shortened by exhaustion of resources.

The main difference between Angola and Bolivia lays in this syndrome: conflicts may be shocks that transform the country violently in short periods or on the contrary be long-lasting conflicts leading to civil war, which implies important deteriorations of the situation over time. A shock will reduce human costs but increase state mutation; it is probable that social indicators linked to redistribution will perform better after the shock. Long lasting conflicts are very costly in human and development terms, and indicators keep falling during the years of conflict. Over time, conflict becomes by far the major cause of underdevelopment. At the same time, during this kind of conflicts state reform seems impossible: civil war is often used as an excuse and can prove to be an insurmountable constraint to modernization. The duration of the conflict has also an impact on the degree of violence: it becomes a growing spiral and what began as a protest could over the years transform itself into the worst war atrocities.

We claim that the main difference between long-lasting conflicts and rapid shocks depends importantly on the natural resources endowment and on political redistribution. Inefficiencies linked to poor redistribution of wealth, wellbeing, representation and power create the inequality conditions sufficient to trigger conflict. We can look at this in two different ways. First, during a windfall, lack of redistribution creates conflict on the back of rent-seeking. When this rent exists, the conflict becomes self-sustained and is really releasing a rent for the actors. This is the Angolan case.

Second, if the redistribution system functioned during the windfall, at the end of the boom the state cannot fulfil its commitments and conflicts erupt. However, the lack of wealth resulting from the exhaustion of the windfall makes it difficult to sustain any conflict, and anyway, if there is no rent to be grabbed there will be no interest in engaging in conflict. This is why in Bolivia conflicts are short-lived and have a relative low degree of violence. However, they are really perceived as shocks; the state reforms the economy profoundly after each shock.

The main impact on development comes from the fact that wars represent huge social and economic costs. Military spending, in place of health or education, become the most important destination of public revenues. Livelihoods are disrupted and economic activities decline. People are forced to migrate and abandon their lands; mortality rates increase. These costs often prove persistent and in most cases it takes more than a generation for a country to recover from civil war.

We will - in a very simple manner - model the risks of conflicts related to redistribution performances and windfall cycles, and the nature of conflicts at a geographical level.

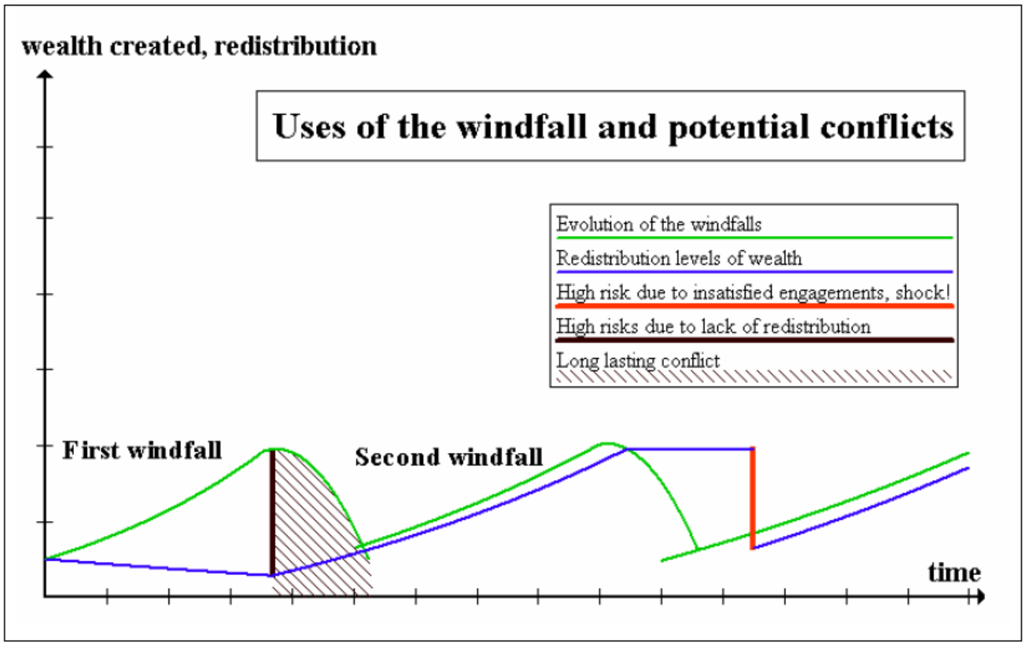


Figure 2. Windfall and political conflict, own elaboration.

We will describe an imaginary country which is resource-rich but divided along political lines. Resources boom and decline over time. The graph shows the relationships between windfall deployments and redistribution. In period one, the windfall is not used properly to reduce differences or inequalities, and risks of conflict are increased. When the conflict breaks out, the windfall allows it to be sustainable, and it goes on until the end of the boom. This creates long term conflicts, as the state and the rebellion can have access to resources that finance the war. By the end of the windfall, the violence spiral is so advanced that even the depletion of resources does not necessarily put an end to the fighting. In period 2, the state decides to follow a real redistribution process, at least to powerful interest groups. The state intervenes massively in the economy to create rents to these “strategic allies”. These groups’ expectations are high and at the end of the windfall, remain high. The state runs into deficits, inflation and stagnation: economic collapse occurs followed by a conflict shock. The conflict is unsustainable because of lack of resources, and the state becomes fragile. Rapid reform is then embarked upon.

Section 3: Impacts of the Resource Curse in Specific Sectors and its Impact on Development

In this paper, our approach consists of the description of macroeconomic impacts of the resource curse, and of theories of the new political economy. We cannot disregard however the more precise impacts of the resource curse in specific sectors of the economy or geographical zones. We will not introduce great formalization, but explain in a general manner how the non-renewable resource endowment affects the performances of sectors that determine the countries' development profile. This section works as a supplementary section, because overall our analysis is based on political economy and takes a general macroeconomic point of view in order to analyse specific periods and contexts of history. As we explained in the motivations of our approach, the inductive method is privileged. Nevertheless, some hypothetical-deductive approach can be used to explain results in specific sectors. Indeed, the aggregated impact in these sectors gravely affects the overall economy, and cannot be neglected. Following this logic, we will explain some general considerations on classical models.

The main resources studied in the case studies, that compose each country's respective main sectors, are the following. The Angolan case focuses on the oil sector as well as the diamond extraction sector. The Bolivian case studies the impact of metals, mostly tin, and hydrocarbons, like oil and most importantly natural gas. The analysis concerns specific sectors undermined by the excess of resources, and their implications not directly concerning aggregated growth, but critical development factors. For this particular section, the nature of the resources extracted is a capital concept. We will focus on hard-minerals extraction and hydrocarbon sectors. We will see that these resources have specific repercussions on factors such as environment and health, education and inequalities.

3.1 Environmental Costs and High Externalities Emissions

Mining and hydrocarbon extraction have demonstrated massive polluting capacities. The Environmental Kuznets Curve (EKC) graphed below shows the de-linkage between growth and pollution emission. Several scholars and empirical research have shown that pollution emissions are more important in emerging markets, where environmental control is too lax, democratic mechanisms do not work well and technology is obsolete. The trade-off between immediate rent and long-term wellbeing tends largely in favour of the first, because of political instability and important discounting of the future. This is part of the inter-temporal syndrome described in the previous section. Note that de-linkage of pollution levels and growth can work in the opposite direction too. Pollution can gravely affect growth by inflicting important externalities to other productive sectors of the economy, so that the path towards development is retarded. Agents tend to start activities that pollute and deliver immediate rents. A vicious cycle of pollution hampering growth and poverty leading to more polluting activities is engaged.

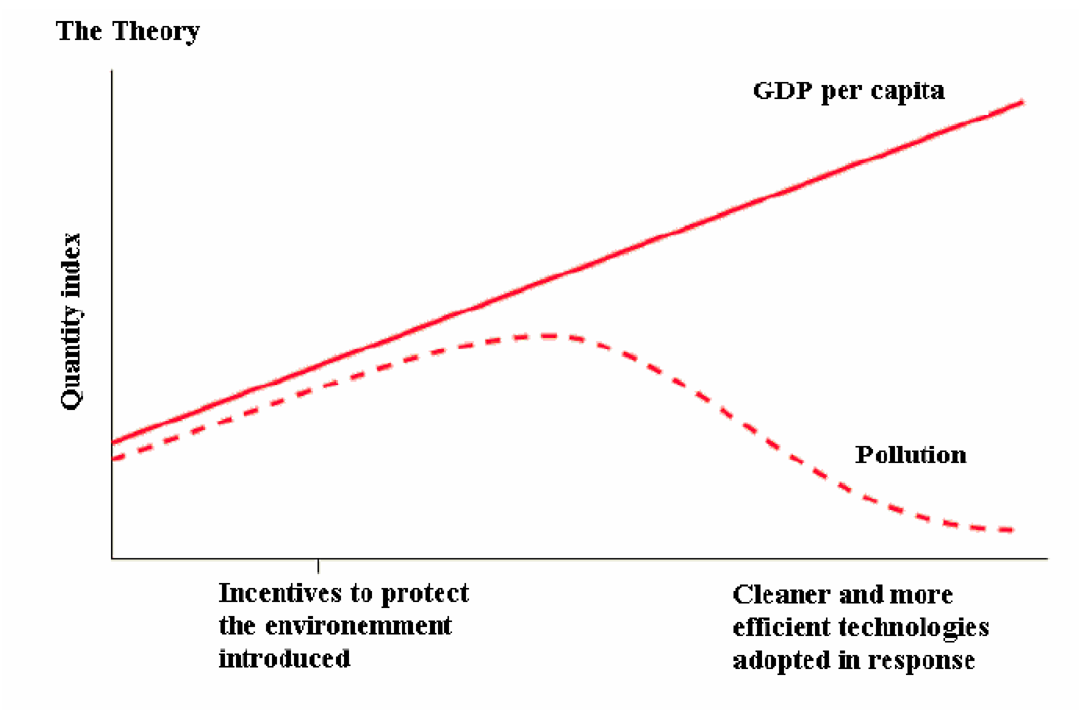


Figure 3: Environmental Kuznets Curve and Growth *Source: own elaboration*

In our specific cases, highly-valued minerals, such as most alluvial diamonds, make extractors divert the natural course of rivers to suit the production system. This has serious consequences to the environment and to the livelihoods of rural population. Low-valued minerals, such as tin or zinc need refining using highly toxic chemicals, for example mercury and lead. Waste and scoria are thrown in rivers, and several reception points located downstream are affected. Sectors that suffer the direct consequences of water pollution are mostly agriculture and fishing, but biodiversity in general is severely affected, mostly by disruptions of ecological systems. At the same time, rivers dry out because of retention or deviation of streams to extract minerals and to make mineral watermills work. Stillwater attracts accumulation of mosquitoes, creating the conditions for diffusion of diseases like malaria and leishmaniasis. Diverting natural flows can lead to erosion, disruption of ecosystems and even desertification. Downstream inhabitants have no access to potable water, and fishbanks and land are polluted by heavy minerals. The population has to resort to stagnant sources of water, which implies low quality of water supplies. Obviously this has serious repercussions on health and sanitary conditions.

Hydrocarbons sectors mostly pollute the surrounding areas of oil and natural gas fields, since waste of processing methods leads to leaking of heavy metals into the soil under poor environmental regulation. These leaks happen because of ruptures of underground storage tanks, uncontrolled spills at extraction, or fissures in pipelines. Dangers also include explosions and firestorms, as well as air pollution linked to extraction, burning of waste, and refining.

Pollution is an externality considered by environmental economists as a socially inefficient cost for society. In practice, environmental regulation in poor countries is scarce, when not inexistent, and poorly applied. There are few mechanisms that allow the state to take into account the costs incurred by downstream receptors; this is because of several anti-institutional factors. Natural resource extracting corporations have generally a strong influence on policy making, mostly because of the dependency of the state on mineral and hydrocarbon rents. In poor countries, in the context of the resource curse, agricultural and non-mineral sectors, as well as environmentalists, have low political leverage. Moreover, when the state owns the extractive companies, incentives to regulate pollution are low, as regulation may limit its resource rent. It is in the interest of governments to keep rents high in order to buy political suport from powerful interest groups. The problem is then that the real social cost is not taken into account, the externality has no market at all and the state, who becomes a polluting agent rather than a social regulator, is vowed to maintain this system. In addition to the Dutch disease phenomena, pollution is a good example of how non renewable natural resources extraction can undermine performances of other productive sectors such as agriculture and fishing. Also it has real short term impacts on development, such as harm to health, disease spread and shortages of water and food. In the long term, biological diversity is lost for future generations, and ecosystems destruction may hinder present and future opportunities for other productive sectors, such as biotechnology, pharmaceutical research, ecotourism and life quality improvements.

3.2 The Issue of Human Capital

Another variable influencing development is human capital. By giving incentives to the poor to invest in the assets they control, which includes human capital, countries can achieve development quicker and in a much more equitable way. We've already argued that an investment in human capital leads to increases in productivity, which favours economic growth, and ensures fewer inequities in the future. This virtuous relation between human capital accumulation and less inequality is, for instance, one of the explanations for the rapid economic growth of East Asian countries.

Besides, education has also a negative effect on fertility rates while increasing child health. There are life quality improvements, due to sanitary knowledge, that increase probabilities of social mobility. Also, this provides demographical changes, which are associated with increasing rates of saving and thus investments.

The problem is that resource rich countries tend to invest less than other countries in human capital. Dutch disease and other related phenomena tend to lower the rate of return of agricultural and human capital investments, decreasing opportunities for the poorest people. The mineral sector generally pays wages far more important than other activities, with little or no qualification requisites. Agents would not invest in education in those conditions and quickly begin working in the mine. This explains also the very low starting age of miners.

For economist Arthur Cecil Pigou "*There is such a thing as investment in human capital as well as investment in material capital. So soon as this is recognised, the distinction between economy in consumption and economy in investment becomes blurred. For, up to a point, consumption is investment in personal productive capacity*" (Pigou, 1928, p. 29).

As we will see, mineral rents are not invested/consumed in education, because this investment seems less lucrative than investing in new explorations and extractions, and generally because the rent is consumed in redistribution to interest groups, sumptuous goods and, in tenser situations, financing of war. Low investment rates are a constant in resource curse cases: again the inter-temporal syndrome comes in. Significant natural resources revenues may lower incentives for governments to finance public goods such as education, and when they do it, it translates often into populist programmes that may achieve quantitative goals but do not provide sufficient quality.

In different contexts, propagandistic education might lead to the exacerbation of nationalist feelings and quick assumptions in political and economic mechanisms: these factors might destabilize openness policies and adaptation to modern markets.

The political choices regarding investments in human capital in our two countries will be discussed in the respective case studies.

3.3 Impact of Inequalities on Growth

We have seen that because of externality effects and Dutch disease effects, complemented with privileges given to rent-seeking groups and capture of the resource rents by influential groups, the resource curse carries great inequalities. The overall GPD of a country can effectively increase due to mineral and hydrocarbon exports, but at the same time poverty levels increase. People employed in the non-mineral sectors represent an important share of the population directly or indirectly harmed by the resource curse. Cornia, Addison and Kiiski (2003) suggest that the greatest share of underdevelopment is explained by inequalities and that the rhythm of leaving poverty is greatly affected by the Gini coefficient of inequality (See Figure 4 below).

With a sample of 72 countries after World War II, the study reveals trends of increasing inequality leading to slowdown of growth, as well as in extremely egalitarian societies, mostly in the developed world. To the left of the abcise of the graph (Gini inequality coefficient below 0.30) we have very egalitarian societies, mostly rich countries that had achieved important growth in previous years and now seem to remain stable (Japan, European Union). This cluster does not concern our study directly. Countries with intermediate levels of inequality (Gini between 0.30 and 0.50) experienced important growth (United States, Costa Rica, India, and Chile). Finally countries with important inequality tend to have very low growth rates. However, the growth rates dramatically improve with reduction of inequality. The inverse relationship seems, nevertheless, not true. In most of the cases, growth implies generally a widening of the inequality gap, at least initially. This was the case of Bolivia and Angola. Notice that the study by Cornias' *et. al.* was conducted over a 50 years period: it assumes that long term growth has reduced inequalities, but that growth levels are far more important in relatively egalitarian societies.

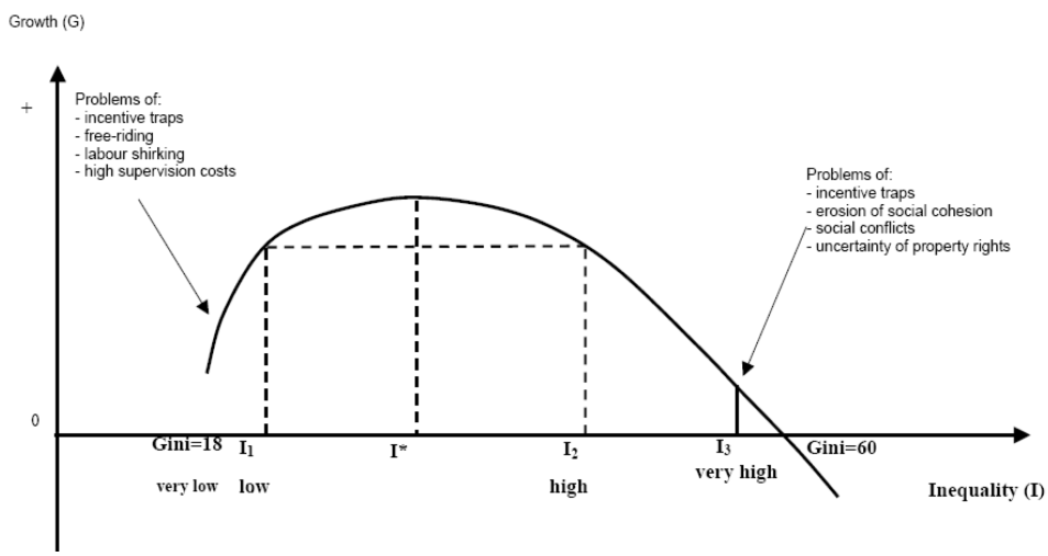


Figure 4: **Non-linear relation between inequality and growth, source: ibid.**

The results cited show that inequality slows down development. This is because of internal tensions, important unrest and the flawed economic mechanisms due to low consumption and purchase power. This issue reveals more macroeconomic theory: Keynesian mechanisms show how low income levels and inequalities on income redistribution put a halt on consumption. Orthodox economists would claim that it is good to restrain consumption, as it leads to saving that turns into investments in productive sectors. However, the mentality in most of the third world is such that unequal redistribution of incomes often leads to sumptuous consumption by the elites. A resource boom might increase the power and wealth of local elites, as well as their credit-contracting capacities. This might lead to unsustainable spending booms. This means that investments which are frequently financed with debt are not socially efficient, and derive in white elephants or non productive activities. This is often because the illusion of natural resources makes one believe that one is going to enjoy wealth forever. These elites, often closely linked to power, feel sure that their rents will be long-lasting.

On the contrary, poor agents reach a consumption ceiling more rapidly and are more willing to invest in small business. Because of their low political representation, distributed rents seem transitory to them, so saving will increase and will be invested in a productive manner, sometimes augmented by means of micro credit. This is not a general truth, and implies political involvement, but empirical data show clearly that growth and reduction of poverty can only happen by the way of reduction of inequality and fair redistribution to all agents of the economy (Cornia *et al*, 2003). This seems irrefutable, if one argues that the best way to develop a country is through peace and stability, which are dependent on fair social conditions.

Policy options regarding investments in human capital in our two countries will be respectively discussed in the case studies.

In sum, the main hypothesis of this paper is that the resource curse is not a destiny for resource rich countries, since the negative impacts of resource abundance are mostly the result of bad policies. Consequently, the differences in the degree of resource curse faced by Angola and Bolivia may be explained by the differences in the policies implemented by those countries' governments. Besides, we certainly affirm that reforms in some key sectors of the economy may reverse the situation in both countries.

Note that the literature also shows that not all resource rich countries face the resource curse, some of them, such as Norway, Australia, Botswana and Chile performed well. The research done shows that a country's institutional and political organization can either prevent or, on the contrary, enhance the resource curse. The reasoning is that some countries with solid institutions have prevented the low growth syndromes described above. Some of these syndromes may prevail in such countries but in balance the natural resources extraction has benefited the development of the country and not played against it (e.g. Robinson and Torvik (2005)).

So, natural resource endowments cannot explain underdevelopment by themselves, since the syndromes do not appear in all resource rich countries. Consequently, we'll try to analyse not only how these traditional syndromes developed in the context of the two countries' contexts, but also which specific social and political conditions triggered the syndromes, and how they influenced those countries' development.

In the case of Angola, we will see, for instance, that these syndromes were worsened and even made possible by a single-party regime, that governed the country through a closed and centrally planned economic model with no sense of accountability at all. It seems important to explain that the 25 years civil conflict is a factor that will differentiate Angola from Bolivia, which is a country that did not witness such a long and intense period of conflict.

Therefore, the roots and impacts of civil war over Angola's development will be analysed more precisely in the case study. It will be an opportunity to further understand how natural resources coupled with some particular political and social conditions may lead to war, or at least, make it last longer.

Chapter 3: Angola Case Study

This chapter consists of the case study of Angola, and the analysis of the relation between the country's exceptional natural resources endowment and its development. Our aim is to see in which particular political, social and historical context natural resources were managed and how this influenced government policies regarding development.

The chapter is organised as follows. Section 1 presents an overview of the country's geography and history. The country's main natural resources will also be presented.

Section 2 describes the relationships between natural resources and the Angolan civil conflict. We will see that even if natural resources cannot be considered as one of the causes of the conflict, they played an important role in it by giving the two belligerent the means to finance their military operations and continue fighting. Furthermore, we will describe the main consequences of this 27-year civil war, and how it may have prevented the country's development.

Section 3 analyses how the civil conflict and the natural resources endowment influenced government choices regarding economic policies and the political regime implemented.

Finally, Section 4 presents the current economic and social context of Angola. We will see that if the Angolan economy can now be considered as "dynamic", social indicators, which give a better image of the country's development, are still very low. To conclude this section we will present the government's present policy choices regarding natural resources management and the way oil and diamonds revenues could be used to develop the country.

Section 1: Country Overview

1.1 Geography, Climate and Population

Angola is a 1,246,700 km² southern African country, bordering the South Atlantic Ocean with a coastline of about 1600 km. The country is bordered by Namibia to the south, Zambia to the east and finally by the Democratic Republic of Congo (DRC) to the North. It is divided into 18 provinces, Cabinda being an enclave surrounded by the DRC. The main cities are the capital Luanda, Benguela, Lubango, and Huambo. The climate is rather tropical with only two seasons: a dry and "cold" season from May to September and a rainy and hot season from October to April. Rainfalls are more intensive from December to March, even if the northern parts of the country and Cabinda enjoy rain for almost the whole year.

Angola can be considered as a "*demographically booming country that has not yet started a demographic transition*".[3] The proportion of young people is, consequently, quite high and such a young population raises two main issues. On the one hand, a very young population means that for the years to come, the pressure upon the active population will be extremely high. Household heads will have to take charge of the young, which can represent a high cost, especially for the poorest ones. This implies that less money will be available for saving and thus for investment. In this way, a high proportion of young people can be seen as affecting development in a negative way.

On the other hand, a young population also represents a significant workforce that can be formed for the future. Here enters the concept of human capital. A high proportion of young people represents as many doctors, engineers, lawyers, pilots, which is to say, qualified workforce, that will be entering the labour market in the coming years. But for this to be true, it is necessary that the government decides to invest in human capital, by developing the national educational system. We'll talk more about education in Angola when dealing with the current situation of the social sectors in the country (section 3 of this chapter).

Regarding its ethnical composition, Angola's population is mainly composed of Bantu ethnic groups, the three main groups being Ovimbundu (37%), Mbundu (25%) and Bakongo (13%). The other ethnic groups account for 22% of the population (Tchokwe, Ngangela, Herero, Ovambo). The only non-bantu group, the Koisan, lives in the extreme south of the country on the border with Namibia. Finally, the country also counts about 2% of mixed race (mulatos) and 1% of European descent.

[3]Multiple Indicator Cluster Survey: Assessing the Situation of Angolan Children and Women at the beginning of the Millennium, INE-UNICEF, 2003

1.2 Natural Resources

Angola's main resources are oil and diamonds. But the country also has natural gas, iron, uranium, copper, gold and bauxite as mineral resources.[4] Other resources such as agricultural land and water resources must also be taken into account in assessing the country's natural resource endowment.

Oil began to be exploited in Angola in the mid 1950's in the onshore Kwanza basin. Exploration and production extension happened in the 1960's when the oil company now known as Chevron-Texaco discovered oil in the Angolan enclave of Cabinda. In 1973, oil became the most important export, exceeding agricultural commodities exports. Since then, its importance in the country's GDP never stopped increasing. After independence, in 1975, the government became implicated in the oil exploration by creating Sonangol, the national oil company, in 1976. The company became the sole concessionaire for exploration and production, though operations remained with international companies.

Today, Angola is the second African oil exporter, behind Nigeria, and it has a significant remaining petroleum potential, with crude oil often considered of high quality. Even if no major discoveries are made, the current oil fields can still ensure a production ranging from 1.5 to 2.5 million barrels a day (MBD) for the next 10 years.[5] Recent explorations show that deepwater and ultra-deepwater reserves are very important.

The World Bank developed different scenarios to estimate Angolan oil wealth. Whatever the scenario considered, the oil revenues are expected to increase until 2010/ 2014 (at this period, according to the base case scenario, the gross oil revenue will be of about US$ 149 millions per year). This period of high revenues may be extended for two or three years if the pending Block 31 and 32 development projects (offshore deepwater blocks) are put into production. After this

[4]For a detailed map of natural resources location in Angola please consult the Annexes

[5] WB Country Economic Memorandum 2006

period will certainly follow another one of decreasing oil revenues, due to the logical depleting of stocks.

Note that, in addition to oil, Angola has considerable natural gas reserves, which were estimated at about 45 trillion cubic feet (TCF) in 2005. The national Company Sonangol and other international companies such as Chevron Texaco are developing projects to convert natural gas from offshore oil fields into liquefied natural gas (LNG) for the international markets. This new commodity could add about more than US$1 billion to Angolan exports at the end of the decade.[6]

Diamond exploitation in Angola began in 1912 in the Lundas provinces (eastern part of the country), where alluvial diamonds are most abundant. The exploitation was done by Diamang, a joint venture between the Portuguese authorities, De Beers Company and other international mining finance interests. It quickly became one of the most important exports of the country: in 1971, Angola was producing 2.4 million carats a year.[7] However, independence and then civil war disrupted mining.

The sector was nationalized by the government in the 1980's by creating Endiama to replace Diamang's monopoly. Production declined and represented less than 100,000 carats a year in 1990. In an attempt to develop the sector, the government decided to liberalize it, but that policy didn't have the expected result. The main consequence of it was the development of artisan mining and illegal exploration. The situation got worse in the early 1990's when UNITA took the control of some of the most diamond rich regions and used diamond production to finance its activities.

In 2004, diamonds represented about 10% of non-oil GDP, but the sector is still considered as underexploited, as many diamond rich areas aren't explored. Nevertheless, the country is considered to be the fourth world producer of rough diamonds.

[6] Ibid.
[7] Ibid.

In addition, other mineral sectors, such as iron, gold, uranium or even copper are beginning to develop. This kind of activity is delayed by the need of de-mining. The same applies to the agricultural sector.

1.3 Brief History

The Colonization by the Portuguese

The Portuguese colonization of Angola is historically considered to have started in the 15th century, and more precisely in 1492, when Portuguese explorer Diogo Cao first established contact with the Kingdom of Kongo. It lasted until 1975, year of the independence. Even if the Portuguese interests on the Kingdom of Kongo were initially missionary, slave trade soon dominated relations after the establishment of the Brazil colony in the 1530's. The slaves' traffic dominated the economy of Angola for more than 350 years.

After establishing relations with the Kingdom of Kongo, the Portuguese then moved south to the Mbundu kingdom of Ndongo and to where is now the capital city Luanda. For almost four centuries, the Portuguese didn't manage to take control of the country and progression towards inner territories was extremely slow.

The end of the slave trade changed Portuguese policy in Angola. The need for alternative sources of revenue made them accelerate the country's occupation and try to secure frontiers, demarcated by European Treaties in the 1880's and 1890's by using a large number of troops.

Until World War Two, Angola had a poor economic activity, except for the coffee plantations in the north. These plantations depended on a system of forced labour that had substituted slavery, which was abolished in 1869 in the colonies[8]. Things suddenly changed when coffee

[8] In 1761 Portuguese prime minister Marquis de Pombal had already abolished slavery, but only in the European territories.

prices rose during the fifties. This commodity boom increased the demand for forced labour as well as Portuguese immigration and land expropriation from the African population.

Portuguese immigration continued to grow during the 1960's but immigrants were mainly peasants, with poor education and skills. Consequently, rather than trying to go to the inner parts of the country, they preferred to stay in the main cities situated in the costal strip, competing for jobs with the Angolan urbanized population. Racial tensions started to increase between Portuguese whites and Angolan blacks and *mestiços* (mixed racial).

These racial tensions were exacerbated by a colonial system that was, politically speaking, extremely repressive. Besides, the system was conceived in such a way that good economic performances only benefited the Portuguese settlers, at the expense of the native Angolans.

The War for Independence

Despite the repressive colonial rule, some native Angolans started to have access to education. By giving them access to education, Portuguese unconsciously created an "elite" of native Angolans, who had access to information and were able to observe major political changes in the World.

Thus, this "elite" started to organize itself in movements who were in favour of an independent Angola. Three independence movements emerged:

- The Popular Movement for the Independence of Angola (MPLA) with links with communist parties in Portugal, URSS and Cuba
- The National Liberation Front of Angola (FNLA) with links with the Mobutu regime in Zaire, and
- The National Union for the Total Independence of Angola (UNITA) which would benefit from United States' and South Africa's support.

From the early 1960's, those movements started an independence war since, unlike France or England, who opted for a progressive transmission of power to the local leaders in their sub-Saharan colonies, the Portuguese regime choose to fight those national movements by sending soldiers to all their colonies, and also by using its political police to persecute the movements' leaders.

Yet the coup of 24 April 1974 in Portugal, known as the "*Revoluçao dos cravos*" (Carnation Revolution) was an important step towards independence for the African Portuguese colonies. Indeed, after this coup, which led to the end of fascism in Portugal, the new Portuguese government announced that African colonies would soon be granted independence. This announcement intensified the rivalry among the three national movements.

On January 25th 1975, the Portuguese government and the three nationalist groups' leaders signed the Alvor Agreement that intended to implement a progressive independence process and stipulated the creation of a national government, where the three movements would be represented. This agreement was never respected. Thus, while November 11th 1975 had been defined as the date for independence, the struggle between the three movements increased, especially in the capital Luanda. Indeed, the movement who had the control of the capital by that date would have a significant advantage over the two others. With the help of Cuban soldiers and Soviet instructors, MPLA managed to take control of Luanda and be the first to declare independence and impose itself vis-à-vis of the international community (except for the USA and South Africa) as the legitimate representative of the Angolan people.

Angola was declared independent by the MPLA leader Agostinho Neto, who became the first President of the country on November 11th 1975.

Section 2: Natural Resources and the Angolan Civil Conflict

In this section we analyze what role natural resources played in the Angolan civil conflict and their effects on the country's development. Ross (2003) identifies four ways in which natural resources endowments can increase the probability for a country to experience civil war: by having a negative influence on a country's economic growth; by giving people, who live in resource-rich regions, incentives to separate themselves from the rest of the country; by making governments more corrupt and thus less accountable, and finally, by financing war.

In the case of Angola, natural resources definitely helped finance more than 25 years of civil war and had an enormous impact on governance. Let us start by trying to identify the roots of the Angolan civil war, prior to the analysis of the role played by natural resources in it and the impact this conflict had.

2.1 Roots of the Angolan Civil Conflict: Ethnicity and Cold War

Causes traditionally used to explain the Angolan civil war are ethnicity and external interventions during the Cold War. We will see that while ethnicity and external interventions played major roles in this conflict, the political choices regarding redistribution of a significant natural resource endowment also are important as explanations of one of Africa's longest war.

Ethnicity

As we saw in the country background, Angola is a multi-ethnical country. Some authors consider that ethnicity, rather than politics, was the main divergence between the three liberation movements and is the main explanation for the civil war that followed independence.

Indeed, MPLA, UNITA and FNLA represented the three main ethnical groups of the country: the Mbundu, the Ovimbundu and the Bakongo, respectively. By imposing artificial frontiers and binding different ethnic groups under one centralized regime, the colonial rule provoked the politization of ethnicity, leading the different ethnic groups to develop a sense of cultural and even political self-preservation. The ethnical differences proved difficult to overcome.

Along with ethnicity, issues like race and class came to worsen the differences between the nationalist groups. As UNITA and FNLA drew their support mostly from inner country peasants, their discourse was mainly based on the exploitation of Angola and Angolans by Portuguese settlers; they also highlighted the fact that MPLA was supported mainly by the urban population and that its leadership was composed of Portuguese descendents and privileged native Angolans. For MPLA, the main argument was class rather than race. It used Marxist doctrines to draw support from the infant proletariat, the urban intelligentsia and the revolutionary mulatos. Its supporters where thus mainly located in the capital Luanda and in the surrounding regions, which is to say in the Mbundu predominance areas.

As the MPLA took power in 1975 and decided to implement a single-party regime, one can interpret the Angolan conflict as the result of the dominant party's "*reluctance to share power and wealth within an inclusive multi-ethnic and multi-racial political system*".[9] Consequently, while ethnicity did play a role, it cannot be considered as the only factor explaining civil war in Angola, and, more generally, in Africa. Indeed, for each ethnically divided country that experienced civil war, as was the case in Angola, DRC or Sierra Leone (all resource rich countries), one can find examples of other equally ethnically divided countries that avoided civil conflicts. More than ethnicity, it is the state inability to perform some of its main tasks, such as redistributing wealth fairly among the entire population, which explains political violence according to Azam (2001). In the case of Angola, the Mbundu supported the MPLA's decision to implement a single-party regime, which resulted in the political alienation of other ethnic groups, who as a consequence didn't have access to wealth. The bad redistribution policy adopted by Angolan ruling elites can thus explain the eruption of political violence.

External Interests and Interventions

The first years of civil war in Angola were tainted by external intervention, which had begun even before independence. The Soviet and Western blocks, South Africa and Cuba, were extremely interested in the results of the struggle for power in Angola.

For the Soviet block, Angola represented an opportunity to reassert its influence in Africa as its position was challenged by the growing influence of the People's Republic of China. The USSR then choose to help MPLA, the most "socialist" of the three movements. With regards to the USA, the challenge was, of course, to undermine soviet ambitions in the context of the Cold War. The intervention of South Africa was clearly linked to the Namibian issue: if political power in Angola remained in the hands of MPLA, a socialist party, it would have an influence over other countries in the region, and especially Namibia. Indeed, when Angola became independent in 1975, the Marxist South-West Africa People's Organization (SWAPO) was still

9 Cilliers and Christian "Angola's war economy: the role of oil and diamonds" 2000

fighting against South Africa’s rule over the country. The MPLA clearly declared that it was its intention to support all independence movements in the region, especially those aimed to implement a socialist regime after independence. Consequently, South Africa had no interest in letting MPLA keep the power in Angola and risk seeing SWAPO gain a precious ally. The South African Defence Force (SADF) launched the so-called “Operation Savannah” on March 25th 1975 and invaded the southern regions of Angola.

Progressively, the conflict turned from an independence war against Portuguese rule into a national civil conflict, exacerbated by external intervention. Indeed, while MPLA continued to benefit from Cuban and Soviet Union support, UNITA was financed by the USA and apartheid South Africa. The FNLA, supported by the Mobutu regime, quickly found itself “out of the game”.

For this first phase, Cilliers and Dietrich (2000) describes the Angolan conflict as a “proxy war”, which seems to be an appropriated term to describe “*the extend to which global players sought to extend their influence and inhibit that of their opponent in far flung battlefields*”.

In the early 1990’s, all external interventions officially stopped. At the end of the Cold War, Cuban and Russian soldiers left Angola (the last Cuban soldiers left Angola in May 1991). Meanwhile, UNITA lost its US support. Almost at the same time, Mandela came to power in South Africa, which then became a democracy, and Namibia finally got its independence.

Unfortunately, despite all this major changes in world and regional politics, Civil War didn’t stop in Angola. After a peace process that led to elections in 1992, the war restarted after Savimbi’s refusal of the elections’ results, which gave the MPLA as the winner.

From 1992 on, we may consider that the Angolan conflict entered its second phase, in which natural resources played a major role in financing the war. Those resources were mainly oil for the government and diamonds for UNITA. The resource war in Angola had begun.

2.2 How Natural Resources Financed Civil War in Angola

Diamonds for UNITA

UNITA's use of non renewable natural resources started well before the end of external intervention in Angola. Since the 1970's, the organization used to sell ivory and hardwood to neighbouring Zambia, Zaire and even Namibia. Additionally, diamond mining revenues were already used to buy specific goods that weren't supplied by the USA or South Africa. Unfortunately, reliable data on UNITA revenues for the 1970's and 1980's are not available (Cilliers and Dietrich, 2000).

In the late 1980's, with external US and South African aid, UNITA managed to take and then keep control of strategic areas of the country where some of the most important formal diamond mines were (specially in the Lundas provinces and the Kuango valley). These takeovers of government-controlled mines not only diminished government's revenues, but allowed UNITA to start large scale mining operations, mostly using material stolen from government. The export of rough UNITA diamonds went through South Africa and Zaire.

After 1992, and Savimbi's refusal of elections results, UNITA extended its control to almost all Lundas territory and the valley of Kuango. Extracting diamonds started in an industrial way and Savimbi managed to implement a very efficient and centralized network that allowed him to control the whole process. He reinforced internal expertise and sent members of its organization to South Africa to be trained in diamond extraction and selling techniques. Extraction itself was done by *garimpeiros* (civilian diggers), who were paid one in five bags of sediments. Finally, foreign operators had to pay him very high commissions to be allowed to participate in the business. UNITA only had to maintain diamond extraction areas under its military control, which was made possible through diamond revenues.

In 1993, the United Nations decided to vote sanctions against UNITA: arm embargoes, interdiction on the sale of diamonds and on the travel of UNITA officials, closure of UNITA offices and freezing of its assets (UN resolution 864 – 1993). However, according to the UN Monitoring Mechanism of Sanctions against UNITA, these sanctions didn't have the expected result, as the organization continued to trade diamonds with companies "with whom it has long-standing business relationships" (Cilliers and Dietrich, 2000).

Thus, despite the end of external interventions and the UN embargo against UNITA, Savimbi managed to finance its movement using illegal diamond traffic, which represented a rent of about 500 million US dollars per year. Because of this huge rent, UNITA was able to buy the necessary weapons in Eastern Europe, specially Bulgaria and Ukraine, and continue the fighting.

Oil for the Government

While Savimbi controlled diamonds, the Government controlled oil extraction, which gave enough benefits to finance the war against UNITA, with revenues estimated at about US$3 billion annual. For instance, the Stockholm International Peace Research Institute estimated that the government military expenditures were US$ 400 million in 1997 and US$ 840 million in 1998 (Cilliers and Dietrich, 2000).

So, even if natural resources cannot be considered as the only cause for this civil conflict, they certainly played a role in it, at least by giving both sides a quite easy way to finance themselves. The Angolan conflict was thus able to be self-sustaining. By allowing the two sides to finance war, natural resources are indirectly linked to the underdevelopment of the country.

2.3 Main Consequences of the Angolan Civil War

War in Angola finally got to an end in February 2002, with the Luena Peace Agreement signed between the Government and UNITA in April 2002. However, the civil conflict in Angola had lasted almost 25 years. During this period, not only were more that one million persons killed, millions of others were forced to abandon their areas of origin and look for security in the country’s main towns controlled by the government forces.

Two years later, about 3.8 million Internally Displaced Persons (IDPs) had returned to their home areas.[10] Among the former UNITA fighters, some were integrated in the regular army and about 92,000 of them were taken with their families to areas they had chosen (Cilliers and Dietrich, 2000). Besides, approximately half of the 450,000 estimated Angolan refugees

[10] UN report 2001 – Monitoring sanctions against UNITA

voluntarily crossed the borders to come back (Cain, 2004). Nevertheless, more than one million people are still displaced, their number changing from year to year, because if some go back to their home areas, some others still prefer the main urban centres, were there seem to be more opportunities.

Impact on Rural Areas

War was much more intensive in the rural areas of Angola, and so were the consequences. Forced displacements had a huge impact on these areas and on the agricultural sector. The rural sector lost its labour force because people were obliged to flee their home areas, and trade between rural and urban areas was almost completely disrupted. Many villages were completely isolated from the rest of the country, with their populations living far below the basic subsistence level. IDPs not only lost the only asset they had, which is to say land, but when moving to other locations they also put under pressure the coping mechanisms of the existing residents of those areas – poor households had to share their income between a larger number of persons. At the same time, traditional community structures were significantly weakened.

Even now that civil war is over, rural Angola is still affected by it. Indeed, IDPs who were able, and who wanted, to come back to their home regions had to face different kinds of problems.

First of all, with more than 25 years of conflict, Angola became one of the most mined countries in the world. Almost five years after the end of the war, mines and UXOs are still killing people and cattle and, most important of all, preventing communities from using land and developing agriculture.

Secondly, in cases when farmers managed to recover their land, they often had lost their capital, which is to say tools, seeds and cattle. This makes them still very dependent on external aid, mostly coming from NGOs but also from the government, through the Ministry of Agriculture. While production is increasing in some areas, it is still not enough to ensure long term self-sufficiency and food security. Indeed, insufficient rainfall during one agricultural season, as was the case in 2006, is enough to generate vulnerability. Because of the war, Angola moved from a food-surplus situation to a food-deficit one.

Impact on Urban Areas

Forced displacements during the civil conflict turned Angola from a mainly rural-based country to one in which almost 60% of the population lives in urban areas, especially in the coastal strip and major urban centres, in cities like Luanda, Benguela, and Huambo.

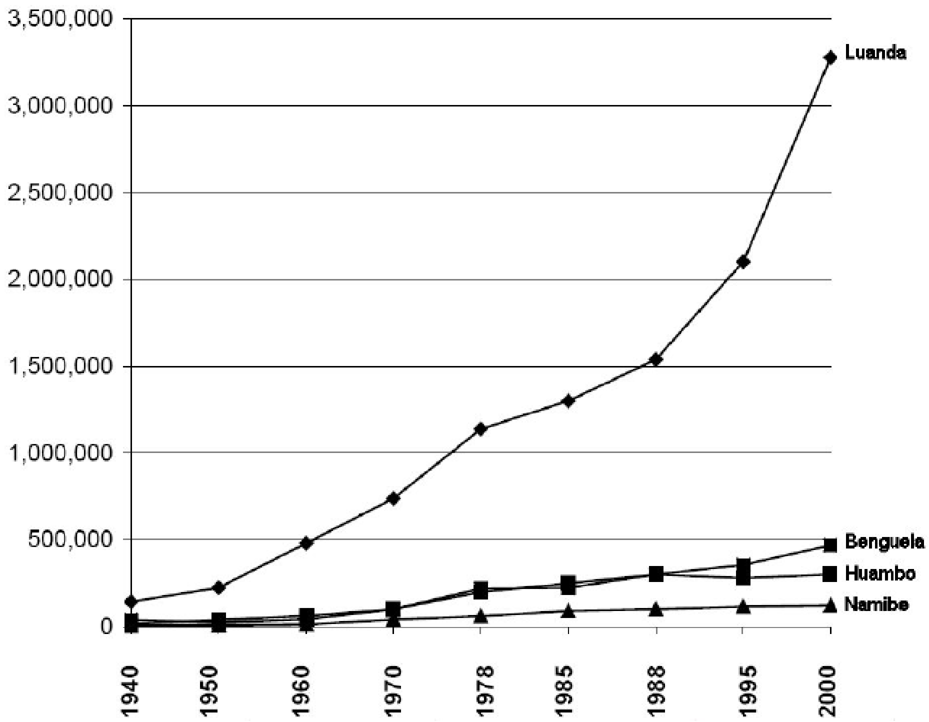


Figure 6: Urban growth in Angola

Source: Allan Cain (2004)

As one can see in the graph above, this extremely fast urban growth didn't give the major urban centres the time to adapt themselves. Consequently, the main cities of the country, and especially the capital Luanda, are today overcrowded and have to face urban violence problems, as well as lack of basic infrastructures and services, such as sanitation and education. The waves of displacements also intensified competition for employment and income-generating activities that were already limited, despite a 15% per annum growth rate in the last three years.

Note that the displacement consequences on the country's main towns are worsened by a high population growth level, estimated at 2.9 per annum.

Regarding urban violence, it seems important to remark that another important consequence of civil war is a high level of militarization of the society, with extensive arming of the civilian population. It is then easy to understand that poverty mixed with armed population leads to situations of extreme violence, especially in overcrowded towns.

Another main consequence of the war, that is present in both rural and urban areas, is "*the fatalism of a population battered by its experiences and for the most part unable to pursue expectations beyond the struggle for day-to-day survival, or fearful of the risks of asserting its rights*" (United Nations, 2002b).

Section 3: Conflict, Natural Resources and Economic Policy

In this section we will analyze the way the resource curse syndromes apply in the particular context of Angola, which is to say, how conflict and natural resources endowment influenced the way economic policy was implemented by the Government, and its political choices regarding wealth redistribution, that ended in the observed underdevelopment.

3.1 1961-1975: The War for Independence

Until 1960 the Angolan economy was composed of a successful commercial agricultural sector, a promising mineral and petroleum production enterprise (remember that oil extraction began in the early 1960's), and an incipient manufacturing sector. The agricultural sector was the most important, with coffee being the main export product. In the early 1970's Angola was the World's fourth coffee exporter. Other agricultural exports were sugarcane, sisal and cotton. Note that, at the time, production was mainly based on traditional techniques and few modern inputs were used. Agricultural goods represented about 56% of total export value.

Although the Angolan economy had started to show strong signs of growth by 1960, most developments were quite recent and precarious. Many of the white Portuguese settlers had come to Angola after 1950 and were thus quick to repatriate when the war for independence became more intense. During their stay, however, these settlers had appropriated Angolan lands, disrupting local peasant production of cash and subsistence crops.

Portugal's incentives to fight Angolans' desire of independence were mainly due to economic factors. Indeed, in 1935, Salazar had instituted an economic system whose objective was to exploit the colonies for the benefit of Portugal only, by excluding or strictly limiting foreign investments, and at the expense of native population. But by April 1965, Portugal had to increase its defence expenditures in order to resist the growing military pressure of the liberation movements, especially from the MPLA. This turn of events forced Salazar to allow the influx of foreign capital, which resulted in rapid economic growth in Angola.

One of the most lucrative foreign investments was made by the Cabinda Gulf Oil Company (Cabgoc), a subsidiary of the United States-based company Gulf Oil (now Chevron), which found oil in the waters off Cabinda. Other economic investments included iron, diamonds, and the manufacturing sector, all of which experienced an enormous increase in production from the mid-1960's to 1974. By this time, Angola had become far more valuable economically to Portugal than Mozambique or any of its other African colonies. Consequently, Angola's economic growth reinforced Portugal's determination to refuse independence.

One of the most damaging features of the Portuguese counter-insurgency policy was the implementation of a resettlement program in 1967. It consisted in grouping dispersed Africans into large villages organized by the military in eastern and north-western Angola. By doing this, the Portuguese hoped to achieve organized local defence against guerrilla attacks and to prevent insurgent infiltration and mobilization among peasants. Outside the fighting zones, the Portuguese used resettlement villages to promote economic and social development as a means of winning African support. The Portuguese further controlled the African population by establishing a network of spies and informers in each resettlement village.

By 1974 more than one million peasants had been moved into resettlement villages. The widespread disruption in rural Angola caused by this program, which failed to stop the insurgency, had profound and long-term effects on the rural population. The breakdown in the agricultural sector in particular was so pervasive that rural reconstruction and development in independent Angola would prove hard to attain.

3.2 1975 – 1992: Civil War and Hard Control Regime

As we already said, by the time of independence, in 1975, MPLA took power. It decided to implement a "one-party socialist regime", based on a centrally planned economy. With the exception of oil and diamonds, all the other economic sectors were completely nationalized and their prices were fixed.

Besides, in 1975 most Portuguese fled the country. This massive "exodus" represented a significant loss of skills for Angola. Remember that only a few Angolans had had access to education, which meant that when Portuguese settlers left the country, there weren't many qualified persons to replace them, neither in the private sector nor in the public administration.

This lack of qualified personnel, the beginning of civil war and the choice of a centrally planned economy had disastrous effects on the Angolan economy. Production in non-oil sectors started to decline and caused chronic macroeconomic instability. The fall in production, especially in agriculture, led to shortages in both urban and rural areas of the country. The situation was so bad that an internal coup d'état was attempted in Luanda, in May 1977. This coup showed that MPLA urban support was declining, which had significant consequences on policies applied. In order to ensure support from urban elites, the government priorities shifted from granting economic stability towards maintenance of urban standards of living (Azam, Collier and Cravinho, 1994). For instance, in 1977 a system of rationing of goods in urban areas was implemented, that benefited public sector employees: each public servant was given a food ticket that gave him the right to acquire a certain amount of basic staples (rice, beans, milk and so on) per month, according to his (her) household composition and his (her) position inside the administration. Basically this ration replaced wages for years in Angola.

With the intensification and extension of civil war, public expenditures, and especially the military ones, increased significantly. During the third party Congress (1990) MPLA officials declared that war expenditures would represent up to 70% of fiscal revenues some years. At the same time, the negative aspects traditionally associated with highly planned economies started to appear: agricultural production fell continually and state-owned firms started to have important financial problems, which had to be compensated by expensive public subsidies. The entire non-mineral sector was negatively affected by the economic policy implemented by social planners, and "*by 1991, the average value of industrial production was only one-third of what it had been in 1975*" (Ferreira, 2006).

Additionally, Angolan authorities kept the value of the national currency (the kwanza) against the US dollar unchanged until March 1991. This decision resulted in an overvaluation of the kwanza that turned importations less expensive than national production. Simultaneously, because it needed additional revenues so as to finance war against the rebel UNITA, the Government asked foreign oil companies to increase their production, which worsened the overvaluation phenomenon. The symptoms of Dutch Disease became more apparent. Indeed, massive oil exports increased the kwanza's value, turning non-oil exports more expensive and imports to the country cheaper, which consequently ruined the non-oil exports sector.

Economic activity was restrained by the hard control regime over prices, exchange rates and margins. But, as is often the case in central planned economies, a parallel economy developed. While the public stores (*lojas do povo*) were empty most of the time, people were able to purchase goods in the informal markets, despite legislation against "economic crimes". The phenomenon became so important that in the mid-1980's public authorities stopped to pretend fighting against it.

It is only in the late 1980's, influenced by changes occurring in the Soviet Union and observing that centralized and planned economy was preventing the country's economic and social development, that the MPLA became aware of the need to reform the national economic policy. In 1987, it adopted an economic reform plan – the *Programa de Saneamento Economico e Financeiro* (Program for Economic and Financial Restructuring). Two other related plans were also adopted but never fully implemented. Nevertheless, the country became a full member of IMF and World Bank in 1989.

During these 17 years, we saw that a significant part of the country's resources were used to finance war. For instance, during the 1980's decade about 40% of the Government budget was used each year to finance military and defence related expenditures (28% of the country's GDP in 1986). This represented that much money not used to develop the country.

Increases in world oil prices in 1973, 1979 and 1990 gave Angolan government significant revenues. The possibility to use oil revenues to finance war and imports of goods, made the MPLA Government neglect its other responsibilities towards the Angolan people.

From the mid-1990's the country witnessed the emergence of an elite which was accountable for the private appropriation of public assets and for its rent-seeking activities. During the whole period, the existence of public monopolies for external trade and internal marketing made it easy to redistribute privileges among MPLA's most influent members, which granted them important sources of revenue at the expense of the rest of the population. An elite had been created to favour interest groups who were clearly implemented by the government to insure its political power.

Nevertheless, the period 1991/1992, was considered as a period of great hope for the country. The end of the Cold War and Nelson Mandela's ascension to power in South Africa created a more favourable context for the resolution of the conflict in Angola. A peace agreement (Bicesse Agreement) was signed and elections were being prepared. At the same time, the public authorities engaged in a process of economic and political reforms. A market economy was adopted as well as a brand new constitution, implementing a multi-party regime and thus, democracy. Unfortunately, civil war resumed in 1992 and froze most of these reforms.

3.3 1992 – 2002: Civil War and Market Economy

This decade was marked by the civil war spreading to the whole country, including towns. Some areas of the country were kept under UNITA's complete control for years. Economically, this unstable situation resulted in an intensive use of public resources to finance military expenditures. Inflation attained 3783 percent in 1995, before decreasing to 116% in 2001. As agriculture and manufacturing continued to decline, crude-oil exports represented 94% of total exports in 1994 and oil money financed 87% of total fiscal revenues in 1999. In 2000, the ratio of total external debt to exports of goods and services was 109%.

The deterioration of the country's economic situation was simultaneous to the transition towards a marked-oriented economy. All public firms were privatized and the Government stopped fixing prices. Unfortunately, this transition only benefited the ruling elite, which received privileged access to credit and to foreign currency (mainly US dollars) at low exchange rates (that they were then able to sell in the informal market, where the exchange rate was much higher).

The "Dutch Disease" phenomenon continued as well as rent-seeking activities. Bad governance, corruption and internal inequities became even worse. The lack of medium and long-term economic strategies prevented economic policies from being efficient. On the contrary, they were more subject to the elites' interests rather than to the nation's. Civil war was then used by the Government as a justification for the country's bad economic performances and also for explaining the extremely bad living conditions of the majority of the population.

Yet, Angola's bad economic performances cannot be explained by the civil war only. Indeed, political choices of MPLA ruling elites were most of the time driven by their own interests rather than by civil war imperatives.

First of all, there was the choice of a single-party regime, which automatically turns almost impossible any kind of political contestation. The process of representation became dominated by interest groups inside the party. At the same time, the electorate narrowed. To keep power, the leaders didn't need to have the support of the majority of the population; the support of the majority of the party members was enough. Thus, the only interests they had to worry about were those of influential party members. In the case of Angola, the natural resource endowment came to worsen this situation. Indeed, since the government could extract significant revenues from oil and diamond exports, it didn't have to tax citizens' incomes and so there was no social pressure on how resources were managed.

The next step after the implementation of the single-party regime was what Collier calls "rule-by-fear" policy (Collier et. al., 2006). This term defines the progressive dismantling of the checks and balances system, not only at national level but also inside the party. This can be done, for instance, by the replacement of powerful (that is to say dangerous) party-members by family members. Note that those who are replaced are aware of what is happening but also know that challenging the leader involves high risks. In Angola, at society level, rule-by-fear resulted into high military presence in urban centres, imprisonment of opponents or forced exile, control of the press and control of displacements. For instance, until 1991 there was a curfew from midnight to 6 AM. At the same time, military and police presence in urban centres was significant. It was then very common to see the police special forces (nicknamed ninjas by the population), heavily armed, patrolling the streets of the capital Luanda.

The rule-by-fear phenomenon seems to be even more likely to happen when neighbour countries apply the same kind of policies. It was the case for Angola’s neighbours, with the regimes of Marien N’gouabi in Congo and Mobuto Sessesseko in former Zaire.

In this context, redistribution of revenues among a little group of powerful persons became an aim of public policy. A control regime was implemented, and every decision was taken in order to increase the elites’ wealth, with little regard for the population’s welfare.

The civil war in Angola officially finished in April 2002, with the signature of a peace agreement between the government and UNITA (Acordos de Luena). The signature of this agreement was possible after the February 22th 2002 ambush and murder of Savimbi by the national army.

Section 4: The Current Economic and Social Situation and Political Choices Regarding Natural Resources Management

The Angolan economy is considered today as one of the most dynamic in Africa. GDP growth is high, the country is enjoying price stability and inflation decreased considerably. The peace process is now consolidated and the balance of payments is positive.

GPD PPP US$	51.95 billion (2006 est.)
GDP growth (annual)	14% (2006 est.)
Inflation rate (Consumers prices)	13.2% (2006 est.)
Exports of goods and services (GDP %)	76.7%
Imports of goods and services (GDP %)	61.8%
Long term debt (US$)	11.24 billion (2006 est.)

Source: CIA country profile

Furthermore, there seems to be some openness at political level. The constitutional reforms adopted in 1992 concerning the implementation of a pluralistic system of governance can now be fully applied, since civil war is over. Moreover, the Government cannot use war anymore as an excuse for the extremely bad living conditions of the majority of the population. Public funds used for military expenditures should now be used for reconstruction and to develop the social sectors. Social pressure may grow in the years to come. An example of this political openness is the process of electoral enrolment of the Angolan population, which is currently taking place in the whole country, in view of legislative and presidential elections that are expected for 2008. To prevent inequities between the different political parties, the government adopted this year a resolution that allocates a financial aid of about US$ 200.000 to each legally recognized political party, to help them financing the electoral campaign (note that opposition political parties recently announced that this aid was largely insufficient and claim a US$ 45 million global aid from the Government).

Another example of this transition towards democracy is the publication, for about five years now, of independent newspapers that freely criticize the ruling elites, without journalists being imprisoned or killed. Additionally, international pressure for transparency in governance has also become more important.

Nevertheless, two important issues still undermine this relatively good picture. First, Angola's booming economy is currently largely financed by the oil and diamond sectors. Even if those sectors are doing well for the moment, this extreme dependence on only two export products may become a problem if international prices fall, for instance. Secondly, the social sectors still resent the effects of more than 25 years of civil war and the country's social indicators remain very low.

4.1 Angola's Dependency on Oil and Diamonds

Despite the fact that, from the labour force employment point of view, agriculture is the most important sector in Angola (85% of the national labour force is estimated to work in the agricultural sector), the country's economy is largely dominated by the oil and diamond sectors. But Angola's dependency on oil and diamond revenues is not a recent phenomenon. Since the independence and the decline of agriculture, the country's economy has been driven by these two sectors only. Even now that the war is over, the Angolan economy is still vulnerable to external shocks in international prices, which is a quite dangerous situation for the economy.

According to Kyle (1999), Angola's dependence on the oil sector is more important than in some other oil-exporting countries such as Nigeria or Algeria, and this poses greater challenges for the management of natural resources and the development of other economic sectors.

Besides, even if the oil sector is driving the economy, it can be considered to be "separated" from the other economic sectors. It employs a highly qualified workforce, being mainly composed of foreigners. Thus, its contribution to the creation of employment in the national formal labour market is limited, since most of Angolan workforce isn't qualified enough. Formal and informal private-sector employment grew after reforms in the late 1980s and the transition towards a market economy, but the non-resource economy was heavily affected by war, economic instability, poor infrastructure and education, weak contract enforcement, corruption and a heavy bureaucracy inherited from colonial and Marxist-Leninist times. At the same time, resource dependence has provoked a "Dutch Disease" effect, while oil revenue volatility also generates uncertainty and damages the economy. Skilled personnel are lured from state institutions and the non-oil private sector by high salaries in the oil and diamond sectors. Individuals in ministries and other government bodies often prefer to lobby for state favours than to focus on productive activities.

Currently, non-resource activities are mostly in government and the import and retail trade, with relatively few productive industries outside agriculture. Construction is large and growing, which is normal after such a long civil conflict, but depends on state contracts. Some small factories produce heavy or bulky products such as beer (Cuca BGI) and cement (Cimangola), for which import costs would be very high and, hence, they are non-tradable cross-border. Nevertheless, a plan announced in January 2005 for a plant to assemble Volkswagen cars in Luanda, and the Coca-Cola plant that is already in production, may be seen as the beginning of change. Other formal-sector activities outside the state's orbit are concentrated heavily in Luanda and in the service sector – restaurants, car dealerships, retail outlets and others. Mobile telephony and retail banking are expanding especially fast, and all over the country, even if costs are high.

After the end of the war the agricultural sector has been growing, despite land mines. Yet production of maize, the main cereal crop, was little more than 700,000 tonnes in 2004 – under half the national requirement (but up from 460,000 t in 2001 and a low point of 250,000 t in 1994). This is striking, given that before independence Angola was one of the most dynamic agricultural producers and exporters in Africa. Most agriculture is small-scale, but big producers are expanding quite fast. Nevertheless, rural population is still, in some areas, quite vulnerable to food insecurity.

4.2 The Current State of Social Sectors

Population	15.9 million (2005 estimates)
Population growth (annual)	2.9%
Life expectancy at birth	41.2 years (2005 estimates)
Births per woman	6.6 children (2004)
Infant mortality rate (per 1,000 births)	154 (2004)
Mortality rate under 5 (per 1,000)	260
Literacy rate (% people over 15 years)	67.4% (2005)

Source: WB Country Data Profile

Policy regarding social sectors is one of the key elements for redistribution of national wealth and reduction of inequalities, and for stability and development. Social sectors were severely affected by war. Not only was basic infrastructure destroyed, but since a large part of the public resources were allocated to finance war, little remained to invest in sectors such as education, health and basic sanitation. During the war period, almost everything that was done in the social sectors, that is to say essentially minimal emergency services, was financed and implemented by international NGOs rather than by the Government.

Although civil war is over for almost five years now and economic recovery seems to be ongoing, the country's social indicators are still extremely low. In the Human Development Index for 2005, Angola is ranked 160th in the "Low Human Development" group of countries, which is contradictory to its relative high GDP. One can conjecture that this means that inequalities are very high and thus, that national wealth redistribution systems aren't working properly.

Difficulties to develop social sectors can be due to the lack of qualified personnel in the public administration. People with capacity were drained by the private sector or just migrated. But these aren't the only reasons. As we saw in the framework (chapter 2), resource rich countries may have incentives not to invest in public goods. In the case of Angola, we already saw in the previous sections that the economy is controlled by the President and his entourage, who exert power through a system of informal and personalised networks. Citizens feel often more allegiance to their social or even ethnic group than to the nation. This favours vertical links, where leaders are more accountable to their “clients” than to the population in general. In this system, all important economic actors are used as elements of the patronage network. The problem is that these kinds of networks are extremely expensive to the state and fail in decreasing the country’s poverty and inequalities. Since those networks require patrons to feed their clients continuously, ruling elites have many more incentives to finance activities that will provide their clients with rents, than to finance long-term development.

Education

Education indicators are very low. This reflects the poor quality of the educational system, the low levels of enrolment and also gender inequities. 44% of the 6-11 years children do not attend primary school; the figures increase to almost 95% concerning those who should be attending secondary school (11-14 years children). Additionally there are high levels of repetition, which means that older pupils occupy the places of the young ones.

Besides, the educational resources are mainly concentrated in urban areas. Almost half of rural population is affected by illiteracy.

A deficient education sector may have huge negative impacts on the country’s future performances. Indeed, Angola already presents a significant deficit in human capital. If the government doesn’t engage itself in reforms to develop this sector, the country will lack a qualified national workforce, able to deal with new technologies, and thus to develop competitive activities. This reduces opportunities for development.

Health

The health situation in Angola is one of the worst in the world. The high rates of mortality show that the population has very poor access to health services. The ECP - Estratégia de luta Contra a Pobreza - document (Poverty Reduction Strategy) indicates that less than 35% of the Angolan population has access to health services in the national health system. But even those who have this access aren’t granted quality care. In rural areas, where most health structures were destroyed, access to health is even more difficult. People sometimes have to walk for several kilometres to be able to see a doctor in a health post.

The more important diseases affecting population are malaria, diarrhoea and acute respiratory diseases. Note that in rural areas, the majority of the population still uses unprotected sources of water, such as rivers, lakes and unprotected wells.

AIDS/HIV is also becoming an important issue. Surveys show a very poor knowledge of topics related to this disease. Besides, the deficient national health system cannot develop effective policies against it. For instance, in 2003 only four locations in the capital Luanda could test and give counselling, although the city's population is estimated to more than 3.5 million. The situation is even worse in the provinces. Government estimates that in 2005 between 638,000 and 749,000 persons were infected and projections are that these figures might rise to between approximately 1.08 and 1.65 million persons in 2010.

Food Insecurity and Vulnerability

Food insecurity is one of the most important consequences of poverty, especially in rural areas. The May 2004 Vulnerability Assessment carried out by WFP/VAM and the 2004 WFP/FAO Joint Crop and Food Supply Assessment Mission (CFSAM) showed that the highest relative poverty and food insecurity levels in rural Angola were mainly due to:

- Generalized poverty and poor productive assets at household level
- Extensive recourse to negative coping mechanisms (sale of charcoal and firewood, hunting)
- Few options for income diversification through income generating activities
- Localized high population density, resulting in limited access to agricultural land
- Impoverished soils, poor farming practices with few agricultural inputs
- High pressure on natural resources
- Livelihoods exposed to various social, productive and economic risks.

In Angola, agriculture is mainly a family-labour activity, with households planting an average 1.5 ha per family, divided in two or more plots. But, as told above, before independence Angola was a food-surplus country, exporting commodities such as coffee and cotton. In 2004, according to the Angolan Finance Ministry, about 94% of the rural population is considered poor (living with less than 392 kwanzas per day).[11]

4.3 Political Approaches towards National Development in Angola

According to the Royal Institute of International Affairs (2006), a dominant vision of how national development shall be attained exists in the ruling structures. It could be described as one of accelerated economic development, with heavy emphasis on external borrowing and public investment to build infrastructure. It is a vision of central planning based on the idea that the state can solve the nation's problems by using natural resources revenues. Higher education and technology transfer, along with a strengthening of the state's efficiency, are central to this kind of vision. The problem is that in this vision, there is little room for the poor, who are often seen as an obstacle, rather than important contributors to national development. Their route out of poverty is seen through their entry into the formal sector. For example, holders of this view argue that large agribusiness projects are preferable to programmes to incentive and develop small-scale farming. A recent speech by President Dos Santos to the MPLA members[12], explaining his vision for development, provides another example. He emphasised national reconstruction through "*the reparation of infrastructure destroyed in the war, the building of new structures, projects, and the most modern institutions*". Note that he failed to mention poverty or the poor even once in his speech.

It would be wrong to say that this vision is uniformly shared by all government members, the MPLA and the presidency. However it explains some of the actions recently implemented by the government, such as the forced removal of poor inhabitants of the Boavista suburb in Luanda, in order to construct modern buildings and projects. To give some examples of big governmental projects, one can mention the construction of an international airport in the south of the country that would become a hub for the air traffic between the Americas and Asia, as well as another international airport in Luanda; the reconstruction and expansion of railroad infrastructure; and the reconstruction of main roads all over the country that has already begun.

[11] "Estratégia de Combate a Pobreza" Ministério das Finanças, 2004
[12] President Dos Santos speech for the meeting opening the MPLA Central Committee Meeting, February 2005

There are several factors that can explain why this theory is quite "popular" among social planners. First of all, the war destroyed so much infrastructure in the whole country that it is easy to think that physical reconstruction is the base for development. Secondly, one may say that it is the first time since independence that Angolan rulers have to think about long-term development strategies. Indeed, shortly after independence, civil war started so no long-term strategy could be applied and the focus was on military issues. Also because policy-makers are pretty much the same persons as 25 years ago, one may think that despite the transition to a market economy, views of a strong state controlling the main sectors of economy still prevail in many ways. Finally, opting for high levels of investment based on borrowing, in sectors such as construction and services, makes it easier to continue to redistribute wealth among interest groups and clients. The logic of the patronage-based system favours current expenditure over future expenditure. "*In a sense, it is easier for Angola's leaders to build bridges or pay for foreign bursaries than to create an effective national health system*" (The Royal Institute of International Affairs, 2006).

This vision also favours Angola's main commercial partners, especially Portugal, China and Brazil, which have managed to win most of the reconstruction contracts. Note that the Chinese presence in Angola is becoming significant (China granted a credit line of US$ 2 billion to the Angolan government in 2005) and that the Chinese government is much less careful than western donors regarding the final use of the credits granted.

Other donors, who include the IMF and World Bank among others, do not share the same opinion of what should be considered a priority in the development process of the country. Instead of launching big reconstruction projects, they advocate for a state intervention more focused on creating the social basis for development by recognizing clear rights of property for occupants, by implementing a system of checks and balances with an independent judicial power, strengthening civil society, and increasing transparency in governance, for instance. The main problem is that, compared to oil and diamonds revenues, donors' contributions aren't important enough to compel the Angolan government to follow their advice. Besides, we already saw that the factional nature of power in Angola implies taking into account interest groups, when dealing with transparency issues. Thus, imposing the western transparency concept in the Angolan context may finally be less judicious that it may appear.

Nevertheless, note that the Angolan government adopted in 2004 a global strategy to fight poverty (Estratégia de Combate a Pobreza – ECP), which main objectives are:

- The return of IDPs to their home areas;
- Ensure citizens' security through de-mining and disarmament of civilians
- Meet food necessities and boost rural economy
- Deal with the AIDS problem
- Erase illiteracy
- Rebuild and expand basic infrastructures
- Invest in human capital and develop formal employment
- Improve public administration's efficiency and implement a checks and balances system
- Attain macro-economic stability

For each of the principal areas of intervention, the document determines goals that are to be attained in the years to come. For instance, regarding basic infrastructures, the ECP expected to increase access to clean water in rural areas up to 76% of the population, in 2006. Concerning health, some of the objectives are to reduce under-five mortality by about 75‰ until 2015. For macroeconomic stability, the government would like to control inflation and continue opening the financial sector, reduce its participation in commercial banks, provide micro-credit and boost non-mineral exports.

The total cost of the ECP is estimated at US$ 3.170 millions and the government counts on oil and diamond revenues to finance it. This document proves that there is some kind of political awareness of the necessity to improve the population's wellbeing and broad development, especially now that Angola is trying to increase its influence at regional and continental level. Natural resources revenues can be used to do it.

In one of his recent papers about Angola, Collier (2006) claims that "*the most useful investment the government of Angola can make is to purchase the entire cabinet two sets of airline tickets: one to Nigeria, the other to Malaysia. See where they are now. And realize that thirty years ago they were where you are now*". He states that Angola not only has the choice but, most important of all, it can learn from the mistakes of similar countries. Knowing what happened both in Nigeria and Malaysia, let us hope Angola will chose the Malaysian path.

Chapter 4: Bolivia

"Bolivia is a beggar seated on a golden throne"

Common Bolivian saying

General overview

Bolivia is one of the poorest countries in Latin America, with an annual per capita income near USD 1019 in 2005. Purchasing power parity brings the GDP figure to USD 2900 per year per person. In recent years, however, because of the high international prices of raw commodities, growth has attained a 4.1% annual rate during 2004 and 2005; the international environment looked favourable to Bolivia's economic development. Domestic prices have been fairly stable since 1986, but the impact of the financial crisis in the neighbouring Brazil and Argentina during the years close to the millennia had a huge impact on unemployment and underemployment, whose levels remain very high. Unemployment reaches 8%, but informal employment, i.e. underemployment, reaches 65%.

Political conditions seem more adverse: in January 2006, Evo Morales, the first indigenous president of Bolivia, was elected by an astonishing majority of 54%, an unprecedented result in Bolivian modern democracy. For the first time, large sectors of the Bolivian society, traditionally excluded from political and economic power by ethnical and class divide, felt represented by the new government. But the indigenous-socialist coalition, close to Fidel Castro's Cuba and Hugo Chavez’s Venezuela, has frightened and surprised international actors and the traditional Bolivian elite by its controversial nationalisation of the hydrocarbon sector and Morales' new way of doing politics. Political tension is at hand; the wealthy and culturally different low-land Santa Cruz, which is at the east of the country, does not feel represented by the Andean regime.

Two thirds of the population are considered poor, and health, education and nutrition levels are low. The nine million Bolivians live in a landlocked territory of 1.1 Million square km, which implies abundant per capita land availability; but land apt for agricultural production is significantly more limited. One third of the country is Andean, which is to say composed of high mountains and high plateaux, and two thirds consist of lowland rainforest, savannas or desert (Fig.2).

High mountains are mostly arid, but rich in minerals. This zone is the most populated of the country and has major native representation of Quechua and Aymara indigenous groups. La Paz stands as the most important city of the highland zone, in terms of population, economics and politics.

The lowlands have an important agricultural potential, and the most important reserves of natural gas and oil. This zone is mostly populated by migrants, European descendants as well as Bolivians from the highlands, who often feel more identified with their new home than with their original departing point. The leading city of this region is Santa Cruz, which in recent years has become the richest and most populated city of Bolivia. This is not without creating rivalry against the administrative capital, La Paz. The southern Tarija region holds the vast majority of the natural gas fields.

Exports consist mainly in natural gas, minerals (mainly tin, silver, zinc and gold) and agricultural products (mainly soybean and sunflower oil). The rest of the economy consists to a large extent of subsistence agriculture and informal commerce and services, with low exportability features.

The natural gas deposits represent the second largest reserves of the Americas, after Venezuela's, with a 24 TCF (Trillion cubic feet) proven reserve and another 26 TCF probable reserves. There is also a proved reserve of 440 million barrels of oil (IEA, 2006).

Gas extraction, production and ownership have been at the core of the political debate in the last ten years. Bolivia has a segmented society, weak institutions, high levels of corruption and low investment levels, and relies heavily on foreign investment and aid. This causes high political instability. In the first six years of the XXIst century, Bolivia went trough six different presidents, all constitutionally empowered, which proves however, the relative solidity of democracy.

Table Current social and economic indicators

Population	9.18 million
Population growth (annual %):	2.01
Life expectancy at birth:	63.9
Births per woman:	3.5
Mortality rate (per 1,000):	7.55
Mortality rate under 5 (per 1,000):	45.6
GDP growth (annual %):	4.1%
Literacy rate (% people over 15 years):	79.99 % (2001)
Inflation (GDP deflator):	4.4 %
Balance of payments (GDP %):	+ 2.7 %
Long term debt (current US $):	4 735 million

Source: L'état du Monde 2006, Dunot.

Chapter description

In this chapter we will try to understand how resource-rich Bolivia has proved to be one of the worst economic performers in the region, compared to other Latin-American countries, and how the syndromes of the resource curse have affected the development of Bolivia. We will also try to understand how Bolivia has been able to escape from civil conflict or important civil unrest, however unstable the situation was.

In the first part we will study the characteristics and implications of the resource curse related to the mineral economy during the last part of the XXth century. We will use an historical approach in this part, as most of the XXth century has been led by the tin sector, and the data are poor and non reliable, so stylized models are hard to introduce. However, chronicles from the period may allow us to decrypt and observe the anti-growth syndromes that appeared during this period, and that may explain the particularities of the Bolivian resource curse. The period studied goes from the beginnings of the 1970's to the collapse of Bolivia's mineral economy.

The second part of our approach will be more stylized concerning the study of the new gas-based economy, that has led and will lead the Bolivian economy for the most important part of the XXIst century. We will insist particularly on the processes of social movements and the evolution of society, which, due to history, is well aware of the existence of the resource curse and expresses the will to avoid it for the years to come. However, simplistic lectures of the resource curse may lead to rent-seeking behaviours, and the fight over the resource curse may only be a devious way to enhance it.

Bolivia: a brief historical introduction until 1952

Since the Spanish colony times on to the present Bolivian Republic, mineral extraction has been at the core of economical, political, social and cultural events that determined the path of this heavily mineral-dependent country.

From the Silver Barons during the greatest part of the XIXth century to the Tin Barons in the first half of the XXth century, mineral wealth has been in the hands of traditional oligarchies. This meant that mineral-exporting Bolivia had no redistribution capacities: the mineral owners would invest their profits mainly in foreign activities or reinvest again in mining activities. The principal export mineral was tin, which was blamed for the creation of inequalities, harsh life conditions in the mines and devastation of the environment; Bolivian authors would call it “the devil’s metal”. The semi-feudal land ownership system and the extremely low human capital levels would hardly incentivate entrepreneurs to develop other activities in Bolivia.

This makes clear the dependency levels of the Bolivian economy. In the 1920’s, over 90% of Bolivian exports consisted of mineral exports. At the same time, 55.3 % of the state’s income came from export taxes and taxing minerals (Miranda Pacheco, 1999).

Other productive sectors just weren’t used to tax pressure or any tax at all, so the state was completely dependent on mineral rent. One of the characteristics of this period was the heavy debt contracting and overvalued national currencies, leading to the traditional de-industrializing effects of the Dutch disease. This trend continued until the end of the 1930's when the fall of prices caused by 1929's great depression led to a collapse of the Bolivian economy.

Political instability due to this depression, including the first Marxist demonstrations and miner’s strikes, would lead President Daniel Salamaca to declare war to Paraguay in 1932, mostly to divert attention from internal divisions. Paraguay was attacked because Bolivians strategists thought it was the only neighbouring country that could be defeated. The Chaco War, fought between the two poorest nations of the continent, ended with an astounding defeat for the Bolivian army. Rockefeller’s Standard Oil would be blamed by nationalists for promoting this war over non-existing oil fields, and was nationalized in 1939, creating YPFB (Yacimientos Petroliferos Fiscales Bolivianos), the first state-owned extracting company. But until the 1970’s boom YPFB would only provide production for the limited domestic consumption.

Between the end of the Chaco war in 1935 and 1952’s Revolution, an alternation of fragile military regimes, with diverse political ideas, struggled for power in a continuous game of palace coups and countercoups. During these regimes, nationalist ideas gained power and protectionism started to become more and more applied. However this didn't really hurt the Tin Baron's interests, who easily corrupted non-democratic regimes. The Bolivian economy was then characterized by cycles of increasing mineral prices, leading to overexploitation of mines, de-industrialization, rents leaving the country and sumptuous consumption.

During price drops, the society would dramatically suffer the effects of being a mono-productive economy, unable to satisfy its own alimentary needs and being completely dependent on foreign income. Wealth inequalities were aggravated, land ownership remained feudal and nationalist and socialist ideas gained audience.

In the fifties tension had become explosive. Revolution broke out on the 9th of April 1952, led by the Nationalist Revolutionary Movement (Movimiento Nacionalista Revolucionario, MNR). The MNR was an unexpected cocktail of ex-Chaco fighters, nationalists, socialists, some members of the police and the military, labour unions, mostly miners and peasants, and ideologists of indigenism, who would try to transform Bolivia into a modern welfare state, with a State-led capitalist system resistant to the effects of the resource curse.

The leader of the MNR, Victor Paz Estenssoro took drastic and fast measures once in office: universal suffrage, reorganization of the army, land reform in 1953 and, more relevant to our study, nationalization of mines in 1952. The expropriation of large mining enterprises led to the creation of COMIBOL (Corporación Minera de Bolivia: Bolivian Mineral Corporation). The whole system had changed from "internal colonialism" towards a state-led capitalist and democratic system. It has been said that with the National Revolution, Bolivia finally entered the XXth century, with a 52-year delay.

Section 1: The end of the "devil's metal" era

1.1 The legacy of the National Revolution

Being probably the most important event of the XXth century, it is crucial to explain the extent and the effects of the 1952 Bolivian Revolution to understand the characteristics of the Bolivian resource curse. At that time, the battle of ideas was worldwide on the side of interventionists in order to modernize the economy.

1.1.1 The Bohan Plan

The revolutionaries were inspired by the development plan written by the American economist called Mervin Bohan in 1942. The report recommended that to end the Bolivian dependency on raw materials and its vulnerability to external shocks, the East low-land fertile part of the country should be developed. The plan insisted on extracting the highest possible rents from the western mineral sector in order to finance the development of the Santa Cruz region. With the construction of the Cochabamba-Santa Cruz road and a network of other roads around Santa Cruz, agricultural structures would be created thanks to access to internal markets. The Bohan plan also recommended to finance infant industries of wage goods and to develop the oil sector and its derivatives.

The first aim of this plan was to substitute imports and diversify the economy, breaking with the Ricardian comparative-advantage logic. Argentinean economist Raúl Prebisch would consider that the decline in terms of trade could only be countered by Import Substitution Industrialisation (ISI) policies, the essence of the Bohan Plan. This plan was to have big repercussions in the future, not only because it showed the path for a more state-led economy but also because it started the development of Santa Cruz, that went from an isolated small town in the 1940's to the nowadays prosperous, biggest city of Bolivia.

The ISI policy was in the short-term a failure, as GDP fell a 2.3% average per annum between 1953 and 1957 (Morales, 1999). The chaos brought by the revolution triggered high inflation levels, recurrent devaluation of the exchange rate and shortages in basic consumption goods. Many of the subsidized enterprises weren’t sustainable and were more costly to society than beneficial.

1.1.2 The Nationalization of the Mines

The MNR revolutionaries created a huge national enterprise, Comibol (Corporacion Minera de Bolivia) to regulate the sector and administrate the most important mines, which had been nationalized. The idea was that the state-owned Comibol would use the mineral rent to finance the ISI policies. But COMIBOL had been assigned two contradictory missions. On the one hand, it had to maximize income for the state and get cheap foreign currency to import the technologies and materials necessary to develop the Santa Cruz department. On the other hand, social demands coming both from within and from outside the government, pressured for higher miner’s salaries and the hiring of new personnel. The latter option was indeed the most likely to happen.

At the same time, non-nationalized mines were more vulnerable to distortions of the exchange-rate policies, due to protectionism, high tax rates and high tariffs in production costs (due to the wages pressure created by the Comibol). Bureaucracy, high social pressure and interference of labour unions and politicians at all productive stages of Comibol made of the state-owned enterprise a poor performer in international markets. Private and public investment and exploration stopped due to these unfavourable conditions: the National Revolution manifested the regulatory syndrome, creating distortions due to issues of rent redistribution.

Even worse, one of the most harmful effects that the nationalisation was supposed to prevent - external vulnerability - had the opposite effect. State involvement on mining was so intensive that the state became even more dependent on the international prices than in the liberal era: any negative shock would have devastating effects on a state depending so heavily on mines, and on the people who were depending on the state.

As mining financed the Revolution and diversification, and at the same time was making losses and becoming less and less competitive, the policy of extracting all of the mineral rent in favour of the state drove this sector to ruin and paradoxically led to a situation where fiscal revenues decreased. In order to hold its promises and to compensate deficit, the state had to resort to money printing, triggering inflation and afterward, hyperinflation.

An enormous process of redistribution started, and the old elite was slowly replaced with a new one, deliberately created by the revolutionaries to enhance a new capitalism of national agro-industrialists. An unprecedented new bourgeoisie appeared in Santa Cruz, mostly agro-industrialist landowners (astonishingly created by those who were redistributing land among poor peasants in the western part of the country). Another sector that would come to soar with the revolution is the oil extraction by the national firm YPFB created in 1939. At the end of the 1950’s, Bolivia was self-sufficient in oil, but not yet an exporter.

1.1.3 Stabilization and modernization plans

In order to stabilize the post-revolutionary economy, in 1956 the MNR applied very orthodox methods, mostly fiscal and monetary restrictions supported by American aid and the IMF. Additionally, the revolutionary government opened the country to direct foreign investment in the oil sector, as it became evident that state investments would never be enough to exploit the newly found reserves.

The 1956 *Código del Petroleo* law allowed the entrance of foreign companies and disposed an 11% royalty and a 19% tax on gross production. This period became “the golden period” of hydrocarbons, even for the state enterprise YPFB. Fourteen oil companies invested in Bolivia, the most important being the Gulf Oil Co. Between 1960 and 1968, production quintupled from 3 to 15 million barrels (Andersen *et al*, 2006). All these elements put an end to the revolutionary fervour and made the most radical elements of the government resign and become part of the opposition. The MNR would be attributed a pro-American image that persists until today. Internal divisions accelerated within the MNR, and at the beginning of the 1960 it was obvious that labour unions weren’t at the side of the third-time re-elected nationalist party. To remain in power, President Paz Estenssoro choose General René Barrientos for vice-president, forging an alliance of the old revolutionary leaders with the military forces, isolating unions and other urban based revolutionaries. The MNR’s popular base would now consist mainly of peasants who had been granted property rights during the 1953 land redistribution. The more radical reforms were stopped and the revolution faded out.

Social conflicts and the international context made Bolivia enter the Latin American model of military dictatorships, when General Barrientos betrayed the president and took power by a coup in 1964. Bolivia became a small scale mirror of the polarisation of the Cold War.

Communist ideas started to gather strength. Miners’ uprisings, traditionally linked to Marxist groups, the Cold War context and the Cuban revolution led to traditional power groups to take a consensus view on an “anti-communist” military government. General Barrientos, whose charisma and capacity to seduce Indians by speaking Quechua allowed him to enter a military-peasants pact, thus divided the countryside unions and the urban/mining labour unions even more. The General, with the help of the American embassy and peasants, had enough power to establish a military dictatorship, even after twelve years of revolutionary democracy. His image would be undermined by the miners’ Massacre of San Juan in 1967 and, in the same year, the assassination of “Che” Guevara. The military government however did not much change the state-led economic logic of the late years of the Revolution. When Barrientos died in a helicopter accident, this model of a “charismatic military” opened a period of high instability driven by coups of left-wing military progressists alternating with coups of right-wing populists.

In 1969, the successes of the direct foreign investments in the oil sector made General Ovando, one of the many unstable military presidents, nationalize the Bolivian Gulf Oil. The nationalization put a temporary halt to production because of disorder, the loss of documents and technicians and the restriction of credits by the World Bank. Eventually, the Gulf Oil Corporation was compensated in barrels of oil. The disorder destroyed the old stabilization plan that started at the end of the fifties, and increased political and economic unrest, making foreign investors flee and getting the military more nervous about the situation. In a context of cold war and active guerrillas, Colonel Hugo Banzer Suarez took power by coup in 1971, installing a dictatorial regime that lasted until 1978.

1.1.4 The legacy

On balance, the National Revolution, that had greatly transformed Bolivia, allowed the creation of a more modern and, at the beginning, fairer although poorer society. The ISI policy had some successes in its first phase: Santa Cruz became Bolivia’s granary and the country’s nutritional needs were at least self-sustainable. Food wasn’t imported anymore, and some basic products were created by local enterprises. But export industries did not appear and the state-owned giant enterprises, YPFB and COMIBOL had to sustain the state even if they were poorly administrated. The redistribution system was far from getting Bolivia out of poverty. However, the revolution has probably prevented a generalised long-lasting internal conflict at a relatively low human cost: land redistribution and the creation of gigantic tough inefficient state corporations created a system of redistributions avoiding major confrontations. It was, however, evident that any rupture of the rent-allocating system to union leaders and workers would create a huge political collapse due to the fragility of the regime, no matter who was in office.

In 1972, Bolivia's old dependency on mineral resources had neither been softened by revolutionary measures nor by diversification towards new sectors like oil and natural gas. But even if this dependency still existed, Bolivia had changed profoundly. Santa Cruz became the country's granary, and a new oligarchy of public functionaries emerged in a monster State administration. It came to the point were 10% of GDP was used in state salaries (Morales, 1999). The state was the main buyer of private goods and services and state owned enterprises diversified to electricity, railroads, foundries and airlines.

In 1972, mining represented 20% of GDP, opposed to the 6.6% Syrquin and Chenery (1989) norm for countries of the same size and level of development. Agriculture represented 17.5% when it should have been 31.7%. Exports were driven by the mineral sector, representing a 77% share of all exports. Also, 44% of the state revenue came from the mines. The Dutch disease index calculates the country effect of shrinking sectors other than mineral; taking into account what should be the norm for a country of the same size and the same endowment of resources, for Bolivia it was 15.8, compared to 5.1 for resource-rich Peru or 5.1 for also naturally wealthy Chile. By the same norms, Bolivia dependency on minerals index equals 47% (Auty, 1993).

Auty (1993) describes two major flaws of the Bolivian administration in the seventies that hindered the reduction of poverty. The first one is absolute dependency of the state on mineral and oil rents. Taxes on any other activity were low, inapplicable or inexistent. As usual in poor, disorganized economies, most of the government income came from taxes on imports-exports, state-owned companies and debt. The second flaw was that these nationalized enterprises where poorly administrated, sacrificing commercial autonomy to subordinate them to political ambitions. Incrustation of the redistributive syndrome in the state-led Bolivian model seemed chronic.

Under these circumstances, we would expect a commodity boom or a mineral windfall to encourage reforms of a fossilized gigantic state, including modernisation of productive sectors, efficient redistribution and stabilization during periods of prosperity. We will see that things happened in a completely different way.

1.2 The mechanism of mishandling a boom

During the seventies, the world economy experienced a series of shocks linked to the prices of commodities. The Arab oil organizations and the OPEC restricted their production as a way to increase prices and punish West economies for their support to Israel during the Yom Kippur War. The rises in oil prices had important consequences on the Bolivian economy, through the creation of a windfall of wealth that was greatly mismanaged. This led to dramatic consequences for Bolivia after the windfall. It seemed that the resource curse thesis was once again confirmed.

1.2.1 A set of positive external shocks trough high prices and easy credits

After the oil shock of 1973, prices of oil were multiplied by four and tin prices by two. In fact, contrary to other raw material exporting countries and contrary to Prebisch's predictions, the terms of trade actually improved 40% for Bolivian commerce between 1970 and 1980. A phase of rapid growth started in Bolivia: 4.7% in 1973, which was a good performance compared to other periods.

For the first time the small oil production of Bolivia, which was mostly used for domestic consumption, started to play a major part in fiscal revenues. During the boom the national treasury was fed at 75% by oil income. Despite high tin prices, the mining sector was loosing its importance for state revenues because of its low productivity and high extraction costs. However it was still a critical support for state finances and mining activity still determined political fate.

The windfall stopped the timid stabilization reforms the Banzer government started in 1972, to return to the highly redistributive logic towards the interest groups of the old revolutionary system. Despite the growth, the fiscal gap widened and the current account deficit increased. As prices of raw materials increased, the massive flow of dollars into the economy led to an over-valuation of the national currency, leading to the de-industrializing effects of Dutch Disease.

The boom was amplified by easy access to foreign credit. The oil shock of the seventies had swelled the dollar accounts of the Persian Gulf oil companies, and their banks were desperately looking for someone to borrow that money. A big piece of these petrodollars went to military regimes of Latin-America. In fact, these developing countries with huge reserves of natural resources and seemingly stable, because they were constrained by hard military regimes, looked like the perfect debtors for international banks.

This inflow of money linked to natural resources into the small Bolivian economy would seem a blessing for such a poor country, and it surely bought sufficient stability to maintain Banzer in office during seven years. But we will see how the mismanagement of this inflow of wealth would transform natural resources into a curse.

1.2.2 Mishandling of the windfall

The disorder resulting from the ball of coups and counter-coups of the late sixties had made the Banzer government try to launch a stabilization program in 1972: this seemed possible, since the windfall broke in, so the government had enough margin to modernize the Bolivian economy. But the opposite happened: the flow of money into government accounts was used to buy consensus and coalitions, making new promises and spending beyond what the windfall was bringing. Most of the windfall went into sumptuous consumption, just like in the 1920's boom, but this time instead of going to the Tin Barons, the redistribution went to vested interest groups living off the state. Overvaluation of the domestic currency due to massive entry of dollars into the economy caused de-industrialization, reduction of agricultural zones and heavy taxation of the mining sector, using the system of double rated exchange rates.

In fact, all of the fiscal pressure was put on the mining sector again, prices of minerals increased by 5.5% during the period, but taxes increased by 6.6%.[13] Comibol, the old state mining company, subject to political ambitions, increased production levels, using the advantage of high international prices, but did not invest on modernization or long term profitability. Over time, Comibol operated with ever higher costs and lower productivity: in 1975 the income per production potential was only 7% of what it was in 1950. The quality of tin mineral had fallen 68% between 1961 and 1972 (Jordan Pozo, 1999). But, since prices were

[13] Jordan Pozo, 1999

high, Comibol insisted on exploiting irrationally[14] and as fast as possible the whole mineral, leaving no chance to Comibol to survive after the windfall. Still, Comibol contributed a large share of the state coffers.

Richard Auty has proposed that the windfall could be used in a more performing way, by sterilizing it trough a creation of a long term investment fund. Money should not have been injected all of a sudden into the economy in order to avoid the Dutch disease syndromes, avoiding rapid appreciation of the exchange rate. This fund should have been used to invest in the infrastructure that Bolivia needed, mostly concerning roads, modernizing the mines and creating a performing agro-industrial sector in the lowlands. It should also had been used as a buffer to undertake structural changes in Bolivia, to reform the old revolutionary model of state interventionism, and to avoid excessive tensions from social sectors by creating development funds towards sectors different from the state.

Instead, the state only increased spending and more spending in poorly profitable sectors, or in immediate consumption to buy consensus. The spending was so huge, that even the windfall wasn't enough to finance it. The government then resorted to debt.

1.2.3 The Bolivian debt and its uses

If at the beginning of the windfall, the fiscal deficit was a low 0.8%, by the end of it in 1978, it jumped to 4.9%. Foreign debt represented 78% of the GDP (Auty, 1993). The fiscal discipline was even more relaxed, except for miners, who had to pay the burden of a state in deficit. One way of taxing miners was to make mandatory the delivery of minerals to national foundries, which paid less than international prices. These foundries were inefficient and didn't start an industrialization process as expected. Tax evasion levels were huge but this didn't lead to a reform of the tax system, as the windfall and the debt were fuelling the state resources.

The Banzer regime wanted to maintain intact the old military-peasant pact to avoid the miners' uprisings. Despite the economic decadence of Comibol, miners could still overthrow any government, no matter how dictatorial it was. To do this, impressive rent-seeking behaviours

[14] One would expect as rational to extract the entire mineral during a windfall, but here irrationality refers to destruction of low-quality mines and waste of mineral due to high costs of refining.

allowed union leaders (even if unions were forbidden) to receive satisfying rents. One of the ways the windfall was redistributed was trough white elephants. Examples abound, like the Karachipampa silver/lead foundry at a cost of 200 million dollars, that never worked because they « forgot » that there were no raw materials in the region (Jordan Pozo, 1999). The most privileged by the windfall were agro-industrialists in the natal region of Banzer, Santa Cruz. Big agro-industrial complexes were subsidized by the state, even if their productivity was low. This strenghted the Santa Cruz elite, so it aligned itself with the conservative right-wing military regime. The most obnoxious subsidy, with perverse wealth distribution effects, was the *de facto* debt forgiveness to Santa Cruz landlords who owed to the banks.

With all these new fortunes being created and the rise of demand for narcotics in the developed world, a good share of the windfall would be clandestinely invested in the most profitable business at the time: cocaine.

The euphoric impulse of the windfall made the national oil company YPFB multiply its efforts on exploration and new perforations, with poor results. But even worse, YPFB which earned substantial benefits due to the high prices, also resorted to debt to finance its explorations.[15]

In 1978, as the prices began to fall, private miners pressured the American embassy to make Banzer resign and call elections. However, after seven years of dictatorial regime, and with unions and political parties having been forbidden, the political vacuum that would result invited chaos. Even if a leftist coalition won the election in 1978, political and military manoeuvres impeded Hernan Siles Zuaso, one of the leaders of the national revolution of 1952, to take office. Between 1978 and 1982 Bolivia went trough nine different presidents, civilians and military, a huge instability and finally economic and social catastrophe. With such instability, the second oil shock of 1978 would have a marginal effect on the deteriorating Bolivian economy.

1.3 The end of the Tin Era

[15] Although a portion of the indebtness made only a stopover in YPFB, as the ultimate user was the government. Since YPFB was a better credit risk than the government, the latter would use the former to obtain credits abroad.

As the windfall came to an end, the political situation became unbearable. The fiscal deficit of the government and the generalised losses of the mining sector made traditional redistribution a factor of high instability for Bolivia. An intense cycle of political and economic crisis would lead the entire system to collapse in 1985. Finally, only a “shock therapy” transforming the Bolivian state-led capitalism to a free market model could make Bolivia a viable country again.

1.3.1 Exhaustion of the windfall

Between 1975 and 1980 public expenditures were multiplied by two, and several social sectors became too accustomed to receive extra income from the state. A majority of the population never learned to pay taxes. When prices started to fall, the state had no way to commit to its social engagements or honour its external debt. During the windfall neither a fiscal reform nor a modernisation of other economic sectors was achieved. Bolivian industry was just not ready to enter in a competitive market, as it was used to state subsidies mixed with high protectionism. In 1982 the fiscal deficit was 6.4%, and the domestic revenues, that started stagnating in the early eighties, dramatically dropped by 1982. Oil prices fell as rapidly as they boomed in the 1970's and YPFB became more a burden for the state than a plus (Jordan Pozo, 1999).

Mining received a series of external shocks, mostly through a dramatic drop in tin prices, since substitutes appeared in the market, like tetra brick and plastics for food conservation; at the same time came a high international competition from alluvial mines and new mining techniques in Indonesia, Brazil and China, which were never applied in Bolivia (Morales and Espejo, 1994).

In 1980 General Garcia Meza took power by a violent coup and his brutal regime isolated Bolivia from the international community. It was a period of extreme political violence and corruption, which included several assassinations and the disappearance of several leftist leaders and other political dissidents. The use of paramilitary groups and torture methods became a common practice. The level of corruption reached historical levels, when it was discovered that cocaine barons and the military regime were closely linked.

In 1981 Bolivia owed more than it produced, and the IMF and World Bank decided to stop lending. Private Banks followed this example. To honour its internal commitments, the brutal and unpopular regime had to resort to money printing, triggering an inflation of 300% in 1982. The fiscal deficit reached 16% (Auty, 1993).

The unsustainable situation, mixed with open revolt of the unions and external pressures, forced Garcia Meza out of power in 1981. His military successors lasted until the second semester of 1982. The elections of 1980 were validated, and after 18 years of confusion and intervals of dictatorial stability, finally democracy returned to Bolivia. But this, sadly, did not halt the economic downward spiral towards collapse.

1.3.2 The downward spiral of hyperinflation

Sachs (1986) has calculated the effect on the credit suspension to Bolivia in 1982, and estimated a 10% GDP loss due to the IMF and WB cuts in 1985. But most of all, the cuts of credits would force the Bolivian state, incapable of financing itself, to resort to inflation and then hyperinflation to meet its commitments, particularly its spending commitments.

In 1982 Siles Zuaso was inaugurated as president, leading a coalition of left-wing and centrist parties. But opposition held more than half of the parliament, and the trade unions that accompanied Siles trough the elections and while he was in opposition and exile expected retributions to specific sectors.

To adjust the situation, the government of Siles launched six different stabilization plans, five of them of a very orthodox nature. But the opposition, unions and popular protests impeded thir implementation. Mineral and hydrocarbon exports still represented 55% of the state revenue. Those were experiencing constant price falls. Still, public expenditures continued on the rise, because of the social pressures of unions, which were publicly legitimized because they defeated the dictatorship and made Bolivia return to the ways of democracy. Because of bad management over 20 years, Comibol was administratively, financially and technically broke. The principal sustenance of the state over the last 30 years now needed subsidies to exist (Jordan Pozo, 1999).

The mechanism of hyperinflation is described by Morales (1999): as fiscal deficit was mainly financed with monetary emissions subsidizing gigantic but broke state enterprises, access to credit being frozen, it was normal that an inflationary process be triggered. But this mechanic became even more perverse since Bolivians, anticipating price and exchange rate rises, would spend their pesos as fast as possible. This increased inflation and created more deficits for the state, as fiscal revenues were losing value by the hour. The state would print even more money, creating an inflationary spiral.

At some point in 1985, inflation reached 20,000%: the middle class was disappearing. Per capita income dropped by 25%, unemployment reached 20% and one out of ten families directly or indirectly worked for the only profitable activity left: coca leaf cultivation. Six hundred million dollars worth of coca left the country: this is more than half the official exports, and far more than the moribund mining sector.

In 1984, Siles Zuazo declared that he was unable to govern Bolivia: the opposition and the unions made impossible one of the most important issues in Bolivian development: the problem of governance. New elections were held in 1985, proving that even if the economy was destroyed, democracy had become a sure value.

1.3.3 The reform: return of the liberals

In august 1985, Victor Paz Estenssoro, leader of the 1952 National Revolution and founder of the MNR became president of the Bolivians for the fourth time, 23 years after his last government. Paz Estenssoro seemed the only sufficiently legitimate leader to stop the economic catastrophe and put a halt to the ravaging hyperinflation. In addition to the already catastrophic situation, adverse shocks worsened the situation. Tin prices plummeted by 60% in international markets. Oil prices did not do better, and even coca prices were descending. And finally a particularly violent “El Niño” climatic phenomenon of 1982 and 1983 had gravely wounded agriculture.

The stabilisation packages proposed just some days after the new government took office were very similar to the orthodox ones proposed by its opponent predecessor, Siles Zuazo, although probably more radical. The policy consisted in two principal orthodox pillars: balancing the state budget by diversifying taxes and cutting government expenditures, and secondly, exchange rate unification through devaluation and free currency convertibility.

The very controversial decree 21060 installed the New Economic Policy (NEP): to decrease government expenditures, public sector salaries were frozen, and the mineral sector was decentralized and rationalized, including massive layoffs. Market prices were liberalized both in goods and services markets including credit. Subsidies were stopped, and price ceilings and floors were removed. Complementarily, the government increased its revenue by diversifying taxes, installing a 10% VAT on the transaction of goods, property and employment contracts. Higher specific taxes were applied to luxury goods and vehicles. A 10% income tax was applied both to workers and to enterprises profits. The government revenue that represented 5% of the GDP before the reform went up to 17% (Morales, 1999).

The peso suffered a devaluation of 1500% with respect to the dollar and free convertibility was applied so the parallel market disappeared. A new currency was created, the Boliviano, to reinforce confidence of Bolivians in these new bills.

Another - less orthodox - way to stabilize the economy was to refuse to pay the external debt. The government said that this “shock therapy” would never work if they continued to honour the debt. It was also a way to legitimize the NEP without giving the impression of being subjugated to the international financial entities. This kept the trade unions relatively calm. Because of its relatively small importance in the world markets and the small size of its debt compared to other countries, Bolivia managed to buy back its debt from international private creditors and negotiate the rescheduling of the debt payments to creditor governments. It only honoured one fourth of what was due. The Bolivian sacrifices in applying the NEP were enough proof of good will to make the international organizations accept to reduce the debt.

The NEP halted hyperinflation, and completely transformed Bolivian economy. The social cost of the reform was perceived as huge, but finally Bolivia started following the path the rest of the world would take. The MNR destroyed the state-led capitalist system that itself created 33 years earlier. The country would now enter in a new phase of apparently solid democracy and liberalism.

1.3.4 The new pact: free markets and democracy

The social cost of the eighties crises and then the neo-liberal reform was huge. After the stabilization plan, growth wasn't at the rendezvous as expected. Unemployment stayed at a 20% level, and informal work was estimated at between 50 and 60% (Morales, 1999). Between 1983 and 1986, the coca leaf production was multiplied by three. The massive layoffs from the mines created the term "*relocalizados*": massive columns of miners who would spread around the country looking for any means of survival. Most converted to coca growing. A new mining code liberalized the sector, opening the mining market to foreign companies, which would benefit from lax labour legislation and the advantageous fiscal regime. Eventually some private mines would modernize and progress, but diversifying their production to other metals. The tin era was truly finished; these mines never accomplished to have enough value added compared to their possibilities.

The traditional unions weakened and were rapidly replaced by the powerful and radical unions of coca leaf growers unions ("*cocaleros*"), which would play a major role in Bolivian politics. The crisis and reforms of the eighties forced Bolivia to modernize the state, giving way to a solid democracy, less dependent on adverse interest groups' wills. However, low grow rates prevailed even after the reform, due in part to low investment rates at the beginning of the eighties and to the slow transformation of large sectors of the economy from state owned monopolies to competitive markets. In 1986, to recover the GDP level of 1980, Bolivia would have to grow at 6% for the next 10 years (Auty, 1993). This goal would only be reached at the beginnings of the millennia. Inequalities also widened.

Note that the reform found an unexpected ally in the cultivation of coca, which produced an inflow of dollars into the economy and created work for lots of *relocalizados*. The fall of the communist block made drugs one of the major preoccupations of the US government, increasing American intervention in the country. Bolivia then received dollars both from the narcotics traffic and from the aid that was supposed to stop it. It's hard to know if the NPE would ever have worked without the buffer that coca represented for the economy. The NPE had other consequences, as the privileged class, the land owners and the speculators, who had contracted debt in now worthless old pesos, became even richer. This, combined with narcotics traffic, made fortunes appear from nowhere, overnight. This phenomenon was much more important in the Santa Cruz region, which had already taken the position of the most rapid-growing city of Bolivia. Finally, the long-term investments made all over the century in Santa Cruz were bearing their fruits, and the region was ready to enter international markets. The massive inflow of *relocalizados* into the region provided cheap labour and created a new culture of "*Camba-kollas*": migrants frustrated by the harsh conditions in the high mountains, who would adopt the tropical culture and at the same time reject Andean mentality. Meanwhile, La Paz was emptying itself from its state-owned enterprises, mines and civil employees. The massive inflow to La Paz of *relocalizados* and peasants who abandoned their arid lands greatly expanded the El Alto city, a neighbouring city of La Paz. Conditions in El Alto were and still are really harsh. Most people live of informal small jobs and smuggling. El Alto is the poorest city of Latin America. As the gap between richer and poorer widened with the NPE, social tensions would not last long before exploding.

Bolivia entered the globalization era with the tools required by the doctrine: free markets, pro-American democracy, little state intervention and the will to push further the privatisation of its companies. The century would end as it started, democratic, liberal, interconnected to the world, but still too excluding of poor majorities to be sustainable.

Section 2. Going towards the "people's gas" era?

In 1989 new elections were held, and because of the particularities of the Bolivian political system, the third candidate on the ballot, Jaime Paz Zamora was elected in parliament by an unexpected coalition of Banzer's right-wing party and the Left Revolutionary Movement (MIR), born in the seventies to fight Banzer's dictatorship. Even if during the elections one of Paz Zamora's promises was to derogate Decree 21060, in fact the new government continued to apply liberal reforms, mostly following IMF and World Bank conditions. Some small state-owned enterprises were privatised and the old loss-making enterprises like Comibol and YPFB signed new contracts that were supposed to take into account economic and financial criteria to grant commercial independence. But these contracts did not restrain the deficits, due to the persistence of political interference and endemic corruption. Paz Zamora's government was mostly marked by immobility and a growing share of issues on drug traffic impacting political and diplomatic life. The 1993 elections marked the return of the MNR to power, under its new leader, Gonzalo Sanchez de Lozada, one of the architects of Decree 21060 and Paz Estenssoro's heir. For the third time in 45 years, the MNR would completely transform the structure of Bolivian economy, pushing the liberal reforms further.

2.1 Reform, capitalisation and new discoveries

The Sanchez de Lozada government launched a pack of reforms to integrate Bolivia into the global economy. Also, the package included measures to smoothly integrate traditionally marginalised majorities. Victor Hugo Cardenas was elected as the first indigenous vice-president of Bolivia. A huge plan of decentralization and redistribution of national income to municipal governments was adopted and an educational reform included the integration of native languages in public education. At the same time, most public enterprises, which included the two major natural resources extractors, Comibol and YPFB, were controversially "capitalized", a *sui generis* form of privatisation.

2.1.1 The capitalization process

In 1996, the Sanchez de Lozada government launched a series of privatizations, called "capitalizations". The name was probably chosen for political reasons. According to the *Ley de capitalizaciones* of 1994 by international invitation to tender, the state offered 51% of the shares of each of its major public enterprises: telecom, airlines, railroads and trains, mines and hydrocarbon operators, foundries and others. To obtain the 51% participation in the property, the capitalizers had to bring fresh capital that would be added to the existing assets. The remaining 49% would be transferred to private pension funds, whose benefits would be distributed equally and freely to all Bolivians who were 21 or older in 1995, once they reached the age of 65. The annuity to pay this non-contributed pension to all Bolivians, 65 or older, would come from the profits and the capital, previously owned by the Bolivian state, in the capitalized enterprises administrated by the private pension funds (Pacheco, 2004). Several regulatory agencies ("*superintendencias*") were created. They maintained a minimal implication of the state in strategic sectors of the economy.

The idea behind capitalization was to integrate Bolivia in the globalization process, by attracting and allowing foreign investments by major multinational corporations. However, the final aim was to diversify Bolivia's economic foundations, lessening state dependency on international markets and allowing multinationals to bear the risks. It meant that the state would have to get rid of the highly inefficient firms, generally loss-making and gangrened by corruption. Comibol and YPFB were no exceptions.

Capitalization was highly controversial, as left-wing parties, nationalists and ultra-nationalists would accuse the government of "selling the fatherland". Union demonstrations, most of them from workers in public services, were aimed to express a rotund refusal to the process. Some analysts have considered that the capitalization was a mistake for many reasons. First, the state paid, or engaged itself to pay, the debts of the state-owned companies before selling them. This meant paying debt for industries vowed to disappear. Secondly, the buying appeal to international investors was minimal because of the obsolence and low productivity of the companies, so auction prices would be gravely affected. At the same time the transparency of the process was often questioned. The questioning was probably justified knowing that whoever the new owner of the companies was, he could be only interested in the resale of existing capital goods and not in providing the service or in production. With regard to transports, these accusations proved to be accurate. The west branch of the railroad system is now mainly inoperative. The airline company was submerged in debt and condemned to stop operating. Finally, it went broke. It is now evident that no matter who owns the companies, corruption continues to exist. Capitalization by itself did not stop it. But capitalization had its successes too, mainly in the telecommunications, mining and hydrocarbon sectors.

2.1.2 The capitalization process in hydrocarbons and new discoveries

YPFB was one of the few state-owned enterprises which granted a cash-flow in the mid-nineties. However, most of these resources were being directly transferred to the state coffers without allowing YPFB to invest or make new explorations. In fact the amount that YPFB was giving to the state was so high that it produced deficits in its internal accounts. The capitalisation/ privatization of YPFB needed a new law. The 1996 *Ley de hidrocarburos* maintained the hydrocarbon deposits in the hands of the state, but exploration, extraction, transportation, distribution, refining, industrialization and commercialization would be exclusive to private operators. Through its privatisation YPFB was broken into three different companies: two exploration and extraction firms (Chaco SA and Andina) and a transportation firm, Transredes. In addition, international companies were invited to purchase concessions and invest in explorations in Bolivia. The government take consisted of a royalty of 50% for already producing fields and 18% for new ones, plus a profits tax and a surtax. The profits tax was at the same rate as the profits tax for all other economic activities (25%). The remittance of profits abroad was also taxed. Still, since the law allowed accelerated depreciation, the companies in their first years of operations paid almost no profit taxes (even less surtaxes). The only binding taxes were the output taxes given by the royalties. Note that this made multinationals switch from old fields to new ones. If in the beginning the government received 50% in royalties, this dropped to an average 30% six years latter (Andersen *et al*, 2006). The royalties were supplemented with usual VAT taxes and income taxes. YPFB became solely a regulator and administrator of contracts.

The new investments and explorations by international corporations were conducive to the gas boom. The certified natural gas reserves (proven + probable) jumped from 4.3 TCF (trillion cubic feet) to 52.3 TCF in 2002.[16] Most fields were discovered in low-land Santa Cruz and Tarija regions, already engaged in economic development, mostly in agro-industrial domains. The gas boom made these regions receive a windfall that caused complementary income plus implying rapid demographic expansion of their cities, due to internal migration.

While the eastern and south regions were booming, in the Andean region mining was declining, except in intensive high-tech exploitations with low labour use. Tax rates for these mines did not move from meagre, dating since the 1985 tin crisis. The Andean zone barely relied on its natural resources. Jealousy would grow between regions, as the appearance of the gas era seemed to promise a new period of prosperity for the non-Andean regions.

[16] Pacheco, 2004; annex , These reserves seem to have been largely overestimated, by September 2007, these estimations fell a 33%.

2.1.3 A full new set of opportunities and adversities

New discoveries made Bolivia the second biggest holder of natural gas reserves in Latin America, after Venezuela. Worldwide, Bolivian reserves represented only a tiny 1% of world reserves, but they had regional importance: Brazil, Argentina and Chile were suffering from energy deficits. Demand for gas was sure to expand as the needs of these emerging countries were constantly increasing. Moreover, clean energies such as natural gas started to replace high polluting forms of combustion. Also, demand for gas from the state of California and Mexico was proposed to Bolivia. Because of the length of the debates concerning what to do with the gas, export contracts were lost to more dynamic competitors. The gas boom was supposed to last for at least 20 years, because of the extent of the reserves, the likely sustained increase in the demand for clean energy by the region, and the relative stability of prices that long term contracts between states give.

Previous booms lasted shorter periods, like the ones from 1920 to 1929, 1940 to 1945, 1953 to 1958 and 1973 to 1978. These booms busted conditioned by several events, and were stopped by several adverse events. For instance, a cheaper substitute was discovered (like in 1890 for the guano business), or the world economy suffered a major collapse (like in 1929). It could happen now that new natural gas reserves are found in buyer countries, or that “fellow” countries decide to stop colluding and flood markets with their own reserves. Note that in the region, Peru and Venezuela are potential competitors to Bolivian exports. Finally, internal conflict and unrest could lead to a stop in providing gas; or bad administration of the reserves and uncompetitive tax rates can make operators flee.

After the liberal reforms, the social cost of capitalization, mixed with the protests and the progresses of nationalist and extreme left-wing movements, discredited the MNR in a great portion of the population. Once again, mines would have an impact on politics as an uprising of miners that occupied private mines ended in tragedy. The Amayapampa and Capacirca massacres caused eleven deaths, ten of them miners. This had a huge impact on Sanchez de Lozada’s popularity and in 1997 the MNR lost the elections. For the first time in Latin America, a former dictator was elected by democratic means. Hugo Banzer Suarez became for the second time president of Bolivians, in spite of opposition of the families of the disappeared in his first government.

Despite the fierce opposition to the Sanchez de Lozada reforms, Banzer, supported by a renewed coalition of nationalists, right-wing members, left-wing and extreme leftist, populists and some indianists continued the liberal reforms. Even some privatisations took place. The new government maintained measures to attract foreign investments to the hydrocarbon sector and signed important new contracts with Brazil and Argentina. But the fragile and diverse political coalition rapidly destabilised itself because of the incoherence of the different parties, but mostly by the sudden appearance of economic recession.

The causes of the Bolivian economic crisis are still unclear. The crisis was caused by a mix of internal and external factors. One of the causes was due to domestic banking scandals. Another cause of the crisis was Banzer's ambitious anti-drug programme, which had an important impact on an economy still widely dependent on coca leaf traffic. Finally, constant civil unrest expressed by protests, road blockades and paralysed urban centres created millionaire losses in infrastructure and opportunities. Externally, the South-East Asian financial crisis of 1997 would spread like a disease all over the world, weakening financial markets. The regional repercussion of this crisis started with the Brazilian devaluation of January 1999. The devaluation led to sudden stops of capital inflows that translated into falls in the price of domestic financial and sometimes real assets, perverse debt dynamics, and currency and banking crises. A few years later, the unprecedented Argentinean economic meltdown would also affect the Bolivian economy. Bolivia withstood the crisis and avoided financial collapse, but nevertheless it was hurt. One of the consequences of the regional crisis was a sharp increase in unemployment.

The fragility of the government, the continuation of liberal reforms and the fierce battle against coca leaves increased the strength of social movements: road blockades, demonstrations and strikes were more and more frequent, as at the same time the economy was approaching a standstill. Many of these social movements blamed the recession on the "neo-liberal model". A perverse cycle of economic crises followed by civil unrest, causing more harm to the economy, which in turn drove more people to protest and so on was triggered. It is hard to know if it really is the liberal model that caused the crisis, but this would be the flag and slogan for the new social movements.

2.2 An emerging new social conscience: idealism or rent-seeking?

Powerful social movements emerged, following the model of the coca leaf growers. The latter were used to fight pro-American policies and the regular army and they became the natural inheritors of the miners' unions to lead social struggle. In fact, traditional unions were loosing grip, and protest movements were now associated with the new kinds of organizations, like neighbours' associations, urban interest groups, and mostly peasant organisations reclaiming economic and political power using ethnic claims.

2.2.1 The social conflicts of year 2000

This subsection does not deal *per se* with the resource curse, but will rapidly present a model for rent-seeking in Bolivia, based mostly in the literature by Bolivian economist Roberto Laserna (e.g. Laserna 2000, 2005). While Banzer's coca eradication plan had already triggered several road blockades and protest, the real trigger for the demise of the liberal Bolivian state was what has been called by the press the "War for Water".

Cochabamba, the third Bolivian city in size, had been experiencing several problems with water supply for many years. Half its population didn't have access to piped water. Water service benefited from a subsidy; this meant that rich neighbourhoods - connected to the city water system - were paying low prices. On the contrary, poor people paid almost seven times more for cistern trucks and bad quality water. The region of Cochabamba was also becoming more and more arid, mostly in the countryside near the city. This caused private well perforation and irrational and unsustainable use of still waters. There was no control over perforations and the consensus was that by "usages and customs" the digger was the owner of water. However, some sources had been traditionally exploited for years, meaning sustainable exploitation, and they belonged to rural communities.

In 2000, the public administration of water was attributed to a multinational consortium, Aguas del Tunari. To provide a full water service of wide coverage, the multinational proposed to raise water tariffs up to 300%. Tariffs would finance the whole system interconnection. A new law proposed the concession to the multinational of all water reserves in rural and urban zones, including not only private wells but even rainwater and traditional sources.

The tariff increase and the new juridical status caused immediate uprising. The cistern truck companies, the bureaucrats of the state company, opposition politicians, countryside inhabitants, middle and high class urban populations who benefited from subsidised tariffs, and extreme-left ideologists and nationalists - traditionally opposed to privatizations - marched against the concession. Demonstrations exploded in such an intense and violent manner that the country never seemed so destabilized since the return to democracy. Several deaths and many wounded proved that the government was not capable of handling the situation. The uprising became generalised. Urban dwellers became sympathizers of the cause and the symbol of the struggle for water appealed to moral sentiments. The rejection of the measure taken by a weak government was aggravated by allegations of corruption, the inability to control the situation and the apparent government's temptations to go back to old military ways, like the use of martial law and even paramilitary groups. The government had to retreat, reject the concession and create a new public water administrator, mainly directed by those who led the protests. Water service today is still as deplorable as it was in 1999. The end of the concession was lived as a victory by these rent-seeking groups, who gained power at low costs. But most importantly, the expulsion of the consortium was diffused as the first worldwide victory for anti-globalization movements. NGOs and other political affiliated groups discovered that very interesting things were happening in Bolivia.

But the "War for water" showed two things very clearly: first, that the government and the political system were weaker than ever and, second, that in this context rent-seeking trough protest and direct action benefited from low risks and easy benefits.

The Bolivian press called the events of later that year "Black September". Given the weakness of the government, many groups took the chance to openly rebel against it. With some legitimacy, coca leaf growers led by Evo Morales continued their protests and road blockades against coca eradication plans. They were really suffering from the loss of their cash crops and no real substitute activity was possible to find. American military aid and cooperation were also seen as a violation of sovereignty; and in a growing context of nationalism and anti-globalisation movements, the coca growers seemed the natural inheritors of the struggle against worldwide capitalism. At the same time, the Lake Titicaca region was also taking advantage of the weak government to put forward their own demands. Even if this region was more prosperous and used to external markets and mercantile logic, demands for modernisation of infrastructures and investments for the countryside were expressed by road blockades. The rhetoric was increasingly marked by a radical indigenous and nationalist discourse. The leader of the peasant movement, Felipe “Mallku” Quispe, using road blockades, placed La Paz under siege for almost a month. Food became scarce in the city, which led to the decline of the image of the protesters in urban area opinions. El Mallku’s discourse was tainted with strong polemic and radical ethnic claims. The double title of leader of the union of peasants and spiritual leader of the Aymaras, mixed with his charismatic tough authoritarian personality, made him the perfect match both against the government and his main political rival, Evo Morales. As predicted, the government had to accept most of El Mallku's demands and the spiral of decline of the old political pact showed how traditional parties were getting exhausted. Nationalism became again more and more influential and the appearance of indigenous identity expanded also. In the 1991 census, 40% of the population saw themselves as indigenous; in 2001 this share had risen to 70%. (INE).

Meanwhile, prosperous Santa Cruz, traditionally conservative, but more open to the worldwide economy and sympathetic with General Banzer, did not experience any kind of blockades or protests. The image of the mountainous part of the country had become one of conflicts, recurrent blockades and unrest. The development gap between the two parts of the country widened, and so did the gap of ideas and, more frighteningly, ideas about nation and ethnicity.

In 2001, tiredness by constant protests, and then a lung cancer that would eventually kill him, ended Banzer's mandate. His successor, Jorge “Tuto” Quiroga governed the country until the elections of 2002. His government was marked mostly by immobilism and by postponing the signature of a controversial multimillionaire contract of selling natural gas to the USA trough Chilean ports.

2.2.2 A Bolivian rent-seeking model

The 2000 social crises aggravated the economic crisis, as constant blockades, protests and direct action undermined Bolivia's stability and caused millionaire losses. At the same time, the state was unable to do anything because of its weakness, and worse, the emptiness of the national treasury. But those who suffered the most were the poor classes: peasants unable to sell their products to the cities because of the blockades, urban workers paid by the day who could not get to their work, small enterprises that had to close because they were unable to honour their contracts. In a context of low risks borne in protest because of the weak state and the great possibilities of benefits linked to direct action, the country would become ungovernable. Laserna (2000) develops a very simple model that we will extend to the resource curse. It's a simple static game with two players, the state and the interest groups. The first player - the state - can choose between high involvement in economic affairs, including subsidies, direct investments and producing and providing goods, or else becomes a regulator, less directly involved but creating general norms and dispositions, defining a legal framework and not substituting himself to the producers. The second player, the interest groups (they can be unions, ethnic groups, communities and also elite and oligarchies with influence on the governments) may choose to get their demands satisfied either by direct action, such as blockades and uprisings, or by institutional ways, like appealing to courts and other institutions. We will introduce a third passive player, which has no decision or action taking capacities, because of lack of social, human and material capital, but suffers the consequences of the other players' decisions. These are, namely, groups that cannot achieve political or union representation, or whose interests are ambiguously defended by interest-groups that use them as "demographic weight".

	Player 1 Interest Groups	
	Direct Action	***Institutional procedures***

Player 2 Government	***Direct Economic Intervention***	***1: Stable equilibrium and high social activity.*** *High presence of the state implies that demands can be solved sector by sector; it creates clientelistic and corporative links and populism. Unions and government are very closely linked. One way the state substitutes to some segments of the economy is by heavy taxation from some sectors and subsidizing others. Protest is frequent but rapidly satisfied. This equilibrium is stable if the state has the necessary resources, like during a resource boom with nationalized enterprises. The passive player may not benefit from this direct redistribution system, and suffers the consequences of Dutch disease. Some members however may benefit from access to key posts, even with low human capital, and benefit from the paternalistic behaviour of the state. (1952-1980 and 2006 -...)*	***4: Unstable disequilibrium: conflicts and inconsistence****.* *The state violates its own norms, because it privileges specific sectors, ignoring regulatory norms that interest groups are used to.* *This is highly inconsistent: as the state violates the institutional norms, interest groups would tend to take direct action to compensate endured losses.* *If this scenario happens (it is possible that during dictatorial regimes population and interest groups expectations concerning institutions were higher than those of the government): ad-hoc actions would be read as acts of corruption and abuse of power.* *The passive player can't benefit from the institutional ways because they're broken and state intervention remains highly arbitrary. (1980-1985)*
	Institutional regulator state	***2: Unstable disequilibrium: tends toward conflicts****.* *Direct Action demands asphyxiate institutional procedures and regulations. There is a dysfunction between norms and the way things are achieved. This can probably mean that the natural resource windfall has exhausted: Interest groups have high expectations that the state cannot provide or interest groups predict a coming windfall, so they want to grab power before it happens.* *In this phase permeability between the two active players' groups is high: the instability of the disequilibrium allows the violation of existing rules. Leaders of direct action integrate the executive power trough frequent elections or important street mobilizations. Instability seems beneficial to the interest groups.* *The passive group is the most harmed: conflict undermines all economic possibilities of the group and its lack of capital makes them dependent on one of the two other players. They lose political representation. (2000-2005)*	***3: Stable equilibrium: conflicts can be processed trough institutions and allows creating redistributive policies.*** *Interest groups agree to abide to norms and formal institutions to achieve their goals: this allows no discrimination between demanding groups, including the passive player.* *If the state is capable of becoming transparent, its functions would shift from producing private goods and services to the production of public goods such as health and security. Private agents benefit from stability, but the growth process and institutionalisation is slow. Corruption may still be persistent.* *A bad administration could lead the situation to quadrant 4. Interest groups are not so interested in direct action or corruption if they know the state has few resources. They may be more interested in developing private activities. The passive player benefits from stability, including low exchange rates and prices. Development of institutions allows them to gain access to some representatively and civil rights.* *This seems to be the case in a non-resource situation, rent-seeking is less important because there is no rent to extract.* *(1985-2000)*

The table explains the logics of rent-seeking in Bolivia, and the incidence of the endowment of natural resources. Auty's thesis on the resource curse claims that a windfall of natural resources leads in pacific countries to clientelistic behaviour and huge state intervention, postponing institutional reforms (quadrant 1 of the table). The corollary is that the exhaustion of the windfall leads to painful reform and institutionalisation.

The 1985-2000 period (quadrant 3) seems to be an example of the slow process of institutionalization and adaptation to world market. Some institutionalization appeared during the nineties, like the creation of an independent electoral court and the law of the independency of the central bank and the comptroller's office. Power was decentralized and municipal power strengthened. The decentralization and the Bonosol were ways of redistribution among all Bolivians. Privatisations and capitalization are more controversial. Some services improved drastically and others didn't, or even disappeared. Corruption did not disappear but the consolidation of the new formal institutions made us believe that corruption would slowly decline. Despite all of this, the temptation for the state to move towards quadrant 4 has always been present: while officially institutionalization was progressing, several public servants would continue using state resources for private means.

In 2000 it is probable that this tendency was strongly felt by interest groups, so they decided to take direct action. The belief of interest groups was that the situation would go from quadrant 4 to quadrant 1, that is, from an abusive state stability to corporatist stability trough direct action. The state resources were overestimated by the social movements, or they anticipated too much the coming natural gas windfall. But in reality, bankrupt Bolivia moved from quadrant 3 to quadrant 2; from fragile institutionalisation to chronic instability, due to the impossibility to fulfill social demands. It would take 5 years for Bolivia to go from quadrant 2 to quadrant 1, and the transition seems far from complete. This transition seemed reinforced by the gas boom, and the resource curse thesis seems to be empirically confirmed in the Bolivian case. In what follows we will explain the transition from a state plunged in social conflicts towards an interventionist state, which is to say the transition from quadrant 2 towards quadrant 1.

2.2.3 The "war for gas"

The 2002 electoral campaign would mark the disenchantment of Bolivians towards politics. In a context of economic and social crisis, no one seemed to have the right answers: the proposals were mostly demagogic and the image of the traditional parties had been severely wounded by the protests, blockades, corruption and absurd and abusive coalition building. Sanchez de Lozada was elected again by a relative majority of 22%. The surprise was given by coca leaf union leader Evo Morales, who came in second place with 21%, boosted by his anti-imperialist image and because of the too controversial image of his direct competitor, Felipe “Mallku” Quispe, in a context of increasing nationalism and indigenous identity. The American embassy also played a capital role in the election, when the ambassador said that the US would stop purchasing Bolivian textile imports if the people voted for Morales. The direct effect of this intervention was an astounding boost for Morales’ campaign.

Once again, a coalition of completely diverse parties, including old enemies, conservatives and reformists, liberals and corporatists gathered to block the presidency for Morales and elect Sanchez de Lozada instead. This coalition was felt by the population as an all-white coalition to block any sharing of power with Indian politicians. This perception ripped out any legitimacy to the amorphous government. In an increasingly nationalist country, Sanchez de Lozada who speaks with a strong American accent and had been the image of liberalism since 1985, was too unpopular to keep power.

A proposed tax reform in February 2003 proved that the weak coalition was not able to govern the country. The reform tried to introduce a modest income tax to supplement the meagre finances of the state. Rebellion exploded immediately. A mass of particular demands flowed all at the same time, from schoolchildren stoning the presidential palace to policemen in open mutiny asking for salary rises. In the context of the police mutiny, civil unrest and the looting of shops, the use of military forces seemed necessary. This led to a confrontation between police and military, both using firearms. For two days, La Paz was plunged in complete anarchy: the state had simply disappeared. Sanchez de Lozada backtracked with his reform. A balance was left of several deaths and wounded as well as major destruction of city shops and state offices.

In October, there were rumours that Sanchez de Lozada had signed a contract to export the new wealth of natural gas to the US through a Chilean port. While known gas wealth was abundant, it wasn't monetized because of the lack of markets, and the sale to the US seemed a good opportunity to do so. Sanchez de Lozada’s low popularity and the nationalist ideas made revolt explode again, like never before. Chile, considered by a good share of Bolivians as the natural enemy, was going to use the annexed Bolivian littoral to sell gas to the “American Empire”. This would be done at low cost, by multinational companies, without any processing or industrialization of the gas. The perfect arguments for open insurgency were there.

La Paz would again be under siege for more than a month, but this time almost every popular social class would directly revolt against the government. Cities expressed their solidarity with the fighting peasants and those who didn’t would be treated as traitors to the fatherland. Trying to make a break through the city siege, military opened fire against (probably armed) protesters. This led to increase the intensity of the protest, and most political allies broke with the president, as well as elected mayors, including the La Paz mayor, and the vice-president, independent journalist Carlos Mesa Gisbert. Sanchez de Lozada had to flee the country. He escaped into exile to the United States leaving the presidency to Carlos Mesa. At least 60 persons were killed during October, and the industrialization and nationalization of the Natural Gas had become a crucial point in Bolivian political agenda. Social movements became a major political force in Bolivia. Hardly any traditional political party had been able to survive the “War for Gas”.

In the Santa Cruz region, in the east of the country and far away from this entire political struggle, the idea that firmly took shape was that western Bolivia was another country.

2.3 The return of the interventionists

Sanchez de Lozada’s overthrow became the symbol of defeat impended to what popular sectors called “the neo-liberal model”. The new president, Carlos Mesa understood that popular fervour was at its culminant point, and decided to leave the fate of natural gas in the hands of the people.

2.3.1 The referendum for hydrocarbons and the election of the new president

The impact of the “War for gas” was so important that it became a critical issue for democracy. As a première in a developing country, a referendum would be held to decide what to do with natural gas. The 2004 referendum consisted of 5 questions: 1) Should the previous law on hydrocarbon be abrogated? 2) Should the state recover the property of hydrocarbons at wellhead? 3) Should YPFB be refunded? 4) Should hydrocarbons be used as a diplomatic tool to gain sovereign access to the Chilean coast? And finally 5) should a new tax be created to tax up to 50% of production value, encourage industrialisation and insure local supply?

Obviously, the questions in this referendum made no sense, even the most educated in a developed country would be confused with what to answer. Evo Morales’ simple instructions were followed by many Bolivians: to answer positive to the first four questions, and negative to the fifth. Evo Morales’ interpretation of the fifth question was that 50% was not enough. This probably corresponded to what was the intention of most Bolivians, even if some among those who answered No maybe wanted multinationals to pay no taxes or were against industrialization.

A new Hydrocarbon law was approved, creating a supplementary Direct Tax to Hydrocarbons (IDH) of 32% to complement the old 18%. Like royalties, the IDH also taxes output. YPFB was refunded as a weak regulation agency and a production company. Few advances were made in the diplomatic issues.

Carlos Mesa built his government without having a political party and having taken his distances from a decapitated MNR. Congress and social sectors entered in a ferocious opposition. Demands for nationalization of hydrocarbons and industrialization became more and more open. The influence of Evo Morales’ Movement Towards Socialism (MAS) in the government was evident and several conservative groups would not accept the way things were turning. The regional demands of Santa Cruz for an autonomic administration grew impressively stronger, reaching in some sectors the boundary of separatist ideas. The Santa Cruz region largely benefited from multinational investments and indirect rents of natural gas. The more interventionist policies followed by La Paz, together with blockades, protests and the emergency of an indigenous power looked as a treat to the tropical side prosperity.

Demonstrations for an autonomic regime were huge and led the president to try to find ways to conciliate a divided country. During 2005, more than 2000 social conflicts exploded all around the country, among them those ignited by the Santa Cruz autonomic movements, who wanted to maintain the economic appeal of the region against centralist-nationalist movements in the high plateaux demanding industrialization and nationalization of natural gas. The idea of calling a Constitutional Assembly gathered strength. The demands changed from natural gas issues to political, class and ethnic claims. Acknowledging his inability to govern, Mesa presented his resignation two times to congress. The first time, the congress refused it by unanimity. The second time, after chaos was again unleashed, because of an issue of redistribution of seats in parliament between eastern and western departments, Mesa resigned again, and this time it was clear that a new election had to be called.

Bolivia was living its fourth year of absence of governance. Traditional parties were completely disowned by social movements, whose political and physical pressure impeded the normal constitutional succession order for presidents. The president of the senate and afterwards the president of the parliament were forced to decline the post. The fourth constitutional successor had to be politically neutral and his mission would be to call in the new election. President of the Supreme Court, Eduardo Rodriguez Veltzé became president and fulfilled his mission in relative calm. General presidential elections took place in December 2005.

The nationalizations of natural resources were at the core of the electoral debate: almost every political party, - more or less credibly - proposed major state intervention in the hydrocarbon sector and the abandoning of the liberal logic of 1985's decree 21060. The future president should also reconcile the indigenous majorities with power, avoid the scission of the country and call into a Constituent Assembly. Logically, the artisans of all these ideas were the ideological inner circle of Evo Morales' MAS, whose political strength seemed unbreakable. His political opponent's image – that of ex-president Jorge "Tuto" Quiroga - was the one of old political parties, liberal policies and pro-American postures. In that context, Morales won easily with 54% of votes. The election of the first Indigenous president and the creation of a socialist-indigenist government were perceived as an upheaval of political life and structures. In parliament, the country's internal division is open: most representatives of the East region are right-wing politicians, claiming for an autonomic regime; those of the West region, are left-wing, and for a centralized administration. They all seemed very interested during the elections in extracting the maximum of possible rents from the oil companies; none seemed concerned with the resource curse issues.

2.3.2 The third nationalisation

By decree 28701 labelled "*Heroes del Chaco*", on the 1st of May 2006, the Bolivian government nationalized the hydrocarbon resources, for the third time in 70 years. Spectacularly, military troops were deployed in the natural gas fields, Bolivian flags hoisted upon the corporations' buildings and slogans proclaiming "property of all Bolivians" were fixed over gas stations. Concretely, the so-called nationalization did not transfer assets from the corporations to the state. The 1990's capitalized companies Chaco, Andina and Transredes were returned to the state: it nationalized, for free, the shares of private pension funds of Bolivians and bought the 1% needed to gain control over the companies. YPFB would take control over distribution and a few minor fields. Nevertheless, taxes would be increased to 82%, once the new contracts were signed. After the first of May, corporations had 180 days to sign the new contracts, but formalities and suspicious errors still made the application of these contracts uncertain.

The new YPFB is experiencing a huge amount of problems, very similar of those of the old YPFB. In the first year of its new life, YPFB went trough four different company presidents, three hydrocarbon ministers and four presidents of the hydrocarbon regulation agency. Several scandals of corruption and oil smuggling have also surfaced. For instance, important delays have occurred in the application of contracts because of annexes filled with gross errors, normally avoidable. Until now, the efforts to construct an efficient and modern state company have been undermined by political intervention, rent-seeking and partisan positions. But the fact is that more money is flowing into the state reserves, but probably not as much as was expected from the nationalization decree.

Andersen *et al* (2006) simulated the effects of the natural gas boom after nationalization in a 12-sector recursively dynamic Computable General Equilibrium (CGE) model. The simulation took into account the characteristics of the Bolivian economy, the new hydrocarbon contracts and the very optimistic assumption that the government would be rational and stable and would invest 100% of rents in public goods. One of the major characteristics of the Bolivian economy is that very important sectors, namely agricultural workers, miners and urban informal workers represent a major share of the working force and their mobility to other sectors is difficult because of poor skills. These populations are also the poorest.

As usual, the simulation predicts that the new inflow of money from abroad would lead to an appreciation of the real exchange rate. All else being equal, privileged sectors, like construction employees (mostly contracted by the government) and services would positively benefit from the new windfall. The poorest segments described above would be the most gravely harmed by the Dutch Disease effects: agriculture and mining would lose competitiveness in markets abroad, leading to a decrease of incomes of two of the poorest quintiles of society. This affects their families living in urban centres: urban informal labour which provides services to poor people mix their income with family salaries from the agricultural or mining sector, and gain rents from smuggling goods through the very porous frontier. The simulation concludes that the new incomes from gas can positively affect overall growth of Bolivia, but also increase inequalities and more importantly, increase poverty. A 10 to 20% income decrease is estimated for these poor sectors in years to come, according to the model.

The result is astonishing and paradoxical, even if predictable. We knew the consequences of the mechanism of Dutch Disease, but it seemed that politicians claiming for the nationalization never imagined that it could harm the poor, who are the political base of the Morales government. One of the reforms that Morales should launch to complement nationalization and the use of the windfall is creating conditions for social mobility, rapid training and skill enhancing of poor and formalization of the economy.

The new rules of the game imply: 1) a narrower base for the economy, 2) foreign investments concentrated in the hydrocarbon sector only, 3) a very brusque inflow of currencies leading to the loss of competitiveness of the poor and 4) an uncontrolled and chaotic expansion of the public administration. Also this transformation of the Bolivian economy was accompanied by a transformation of the political scene.

Epilogue: towards a generalized conflict?

After the nationalization of hydrocarbons, one of the main electoral promises was to call in the election of a Constituent Assembly and organize a referendum about autonomous status of the regions. The 6th of August 2006, Bolivians elected those who are to write the new constitution that should be presented one year later. Again, the Assembly represented a divided country, where low-land regions are represented by right-wing white politicians and Andean regions by the left-wing indigenous ones. The referendum was in favour of autonomic regimes in more the half of the regions, but rejected it at the overall country level. The mandate of mild autonomic regimes should be discussed in the Constituent Assembly. At the same time it should provide a constitutional frame for the definition of the concrete competences concerning hydrocarbons, solve problems of representation of diverse minority groups in political power and try to ensure political stability by allowing re-elections and second electoral turns to avoid absurd coalition building.

Until now, most of the debates concerned the way the Constituent Assembly would function: Morales' majority wanted to approve articles by simple majority while the opposition wanted the two-thirds rule to be applied. The eastern regions feared that the indigenous majority would impose all articles and that it would be the turn of the privileged classes to become the oppressed groups. Tedious and idle debates about the national symbols show the internal divisions between Bolivians, and separatist feelings became more and more exacerbated. Confrontations in the city of Cochabamba of middle and high class urban populations against indigenous peasants in January 2007 provoked two deaths. As the Constituent Assembly is interpreted by radical indigenous ideologists as a way to “internally decolonize” the country, and several government policies go in this sense, mostly in education, the class conflicts and the concerns over hydrocarbons are transforming in direct ethnical confrontation. Racism that was supposed to disappear with the election of an Assembly and a Parliament that represented the real ethnical composition of the country has only become stronger. Santa Cruz’ frustration because of pro-indigenist policies, the freezing of autonomic procedures, along with the flight of foreign investments and centralization of the government has given the separatist ideas more importance. If we consider that those regions that are asking for autonomic regimes hold the vast majority of hydrocarbons, we could speculate that a secessionist war could take place: Michael Ross' model indicates that non-lootable resources reinforce the possibilities for this kind of conflict (Ross, 2003). According to a report presented to the Argentinean Minister of Foreign Affairs, running the Paul Collier and Anke Hoeffler model for calculating probabilities of civil conflict, Bolivia has a 56% probability to endure an internal war. It would, according to the report, represent a cost of 24 billion dollars and Argentina, for example, would have to host 1 million Bolivian refugees (*El Cronista Comercial*, dated from the 19th of September 2006). It is not to be discounted that Morales' image is not well accepted in Washington. Foreign intervention and weapon supplies can come in the hands of United States and Venezuela.

These speculations might not seem very realistic. The fact is that opportunities for conflict were already present in Bolivia long before the gas era. As we will see in the general conclusions, Bolivia has too many fragmented interest-groups to fall into real civil conflict.

With time we might expect that the new majorities will overcome the current ethic cleavage and create a diversified political system where every political tendency includes multiple ethnic groups. If, on the contrary, political positions remain based on sole ethnic criteria, and polarization is pushed further, results could be catastrophic.

Conclusions

In Angola, the main explanation for underdevelopment is the 27 years civil war. This conflict had huge impacts on the country's economy, but also on the state of social sectors. It resulted in high levels of poverty, lack of basic infrastructures, urban violence in overcrowded cities, and economic dependency on the oil and diamond sectors.

Natural resources played an important role in this process. First, after the external interventions in the Angolan civil conflict ended, natural resources were used to finance war. As we saw, the Government used oil revenues to finance military expenditures, while UNITA was able to continue fighting thanks to the sale of diamonds. This is compatible with theses of authors like Ross (2003) who claim that natural resources can prolong conflicts by giving the two belligerents the means to continue fighting each other.

Secondly, endowment of natural resources, by granting the ruling elites high revenues, allowed them not to depend much on fiscal revenues. This lowered the incentive to satisfy the majority of the population. Thus, revenues were redistributed only among close interest groups. Rent-seeking activities, corruption, and bad governance were then made possible. Finally, the Dutch Disease worsened the already bad economic situation of the country.

With regard to Bolivia, the natural resource curse manifested itself in the seventies as mismanagement of the huge opportunity provided by the skyrocketing oil prices. The state-led Bolivian economy seemed, however, mostly driven by unproductive spending, linked to rent-seeking and over-borrowing. The collapse that followed during the eighties, due to the end of the windfall, would lead to the destruction of this interventionist model. Auty's thesis, that the interventionist model tainted with rent-seeking was directly linked to the natural resources endowment, seems confirmed. The corollary stating that the end of the windfall would lead to rapid reform and modernisation seemed even clearer. This is not coincidental; Auty's book in 1993 used in fact the Bolivian example to build his argument. The collapse of the tin era disarticulated the old revolutionary state and Bolivia was transformed into a laboratory for liberal experiments: recipes which afterwards were applied in the post-soviet eastern European countries.

The liberalisation of the eighties and nineties showed some improvements in life standards, like better education and health, consolidation of democracy and some improvements in institution building. However, the liberal model failed to satisfy the expectations of the population concerning growth and reduction of poverty. Moreover, inequality increased. Privatisations harmed powerful interest groups, weakened governance capacities and made protest and direct action the normal way to introduce demands. At the same time the switch of economic power to Santa Cruz, which started in the fifties, created limited polarisation among the population. Prosperous liberalism in the east and conflictive lack of governance in the west made the system instable and highly vulnerable to external shocks, either negative or positive, such as a crisis or an incoming windfall.

Foreign companies' investments at the end of the nineties made natural resources boom again, opening the path for the natural gas era. The new boom seemed to show the way for the return to state interventionism. Unfortunately, it seems that again the expansion of the state led to the inefficiencies linked to corporatism and the weakening of institutions. Mehlum, Moene and Torvik (2006) blame the resource curse on lack on institutions allowing efficient management of the boom. However, Bolivia seems to prove that the windfall in itself disarticulates institutions. In a context of fragile governance, rent-seeking groups dictate the state's behaviour. It is not clear that institutionalisation is a control variable of the government. This is the second political manifestation of the resource curse in Bolivia: the lack of clear definition on the property rights on hydrocarbons and of who should manage it have profoundly destabilised the status quo attained by the liberal reforms.

The return of the interventionist state was made explicit with the nationalisation of the natural gas sector. This process has been criticised on the ground that economic efficiency will probably be far from reached. Yet Bolivia is rapidly changing. The expansion of the state and the control over hydrocarbons might have awakened rent-seeking behaviours, but it also has allowed, contrary to most of the beliefs in the literature, the representation of usually excluded groups. Nationalist and indigenist claims have finally allowed these groups to actively participate in democratic life. This is an important step to slowly insure governance and real democracy.

During the study we saw that the two countries share important characteristics, such as ethnic fragmentation, ideological differences and, above all, resources located in such a way that they were or could be controlled by different and sometimes rival interest groups. However, Angola experienced a long-lasting civil conflict, while Bolivia managed to avoid it. This may be surprising, since intense political instability in Bolivia led to coups, uprisings and revolts, guerrilla adventures and violent opposition, yet never was conducive to a sustained battle and this despite the natural resources endowment.

On the contrary, civil conflict in Angola caused a long lasting political status quo. One of the explanations is that fragmentations in the two countries are radically different. Angola was strongly bi-polarized in two major interest groups. Ethnic differences, political ideology and ability to control at least one important natural resource converged to create two separate blocks. On one side there was the urban Mbundu-based Marxist MPLA that controlled oil. On the other side there was rural Umbundu-based UNITA with pro-American tendencies, which took control of diamond areas.

In contrast, Bolivian fragmentation is more extended. There is a continuum and there are no clear frontiers from group to group. Rivalry between different Indian ethnic groups and leaders and political discrepancies within white groups makes the delimitation of specific factions more complicated. This was reflected in the incoherent coalitions during the nineties. The natural resources windfalls were used to create political consensus, rather than always favouring the same group. Thus, political instability might have, in some way, enhanced democracy by allowing different interest groups to take turns in gaining access to power. The redistribution syndrome made of rent-seeking a way to avoid long-lasting armed conflict, but at the expense of economic performance. Agents were in general more interested in extracting some rent by reaching power than by directly controlling the resources. Besides, permeability between groups is high: from one group to another we find the same persons. This explains the feeble level of identification towards each group.

More generally, we can see that the incidence of civil war due to the resource curse is stronger in the context of highly polarized societies, were delimitations are very clear. We have shown that resources linked to each belligerent party made the conflict sustainable, as was the case in Angola. Conversely, in a multiple-fractioned society, like Bolivia, where groups create fragile alliances according to specific circumstances, there is low probability that stable factions would be established. Instead of forming a solid block around a resource, these groups try to collide to reach power and then use the state as a way to extract natural resources rent. However, these coalitions are fragile, so that the risks of conflict decrease dramatically, even if political stability may be compromised because of lack of governance.

Another main difference between bi-polarized and multiple-fractioned societies is the level at which redistribution is done. In the Angolan case, for instance, we saw that the ruling elites only have to care about satisfying the interests of influent members inside the party. The same logic applied to the rival faction. To maintain himself as the indisputable leader of UNITA for more than 20 years, Savimbi only had to redistribute revenues among those inside the party who were sufficiently influential to represent a threat. Redistribution was done only within each block. In contrast, in the case of Bolivia, those in power had to satisfy a more diversified group of persons, sometimes with different interests. Redistribution had to be done at national level and not only within the party. Consequently, some political power was granted to different groups, which resulted in a certain level of democracy. Note that in both cases, public revenues are used for clientelistic purposes, rather than for development ones. Nevertheless, as in Bolivia, clientelism seems less damaging for development, since redistribution was sometimes done by investing in regions whose elites the government wanted to satisfy. Surely, investments were not highly efficient, but gave rise to some political representation of different groups.

At this point, we seem bound to admit that natural resource endowments is a curse: either because it polarizes society increasing risks of violent conflict, or because it increases political instability and lack of governance in multi-fractioned societies, preventing efficient economic performances. Still, the structure of the society, as well as the level of natural resource endowments cannot explain everything.

These highly deterministic conclusions are only sustained in the observation of syndromes. Constructing a cause - consequence link seems vowed to failure, since at such early levels of development the noise concerning the causes of bad performances is so intense.

We have, nevertheless, observed that allowing permeability between interest groups and avoiding polarization by diversifying them may prevent risks of civil conflict. If in 1975 the

MPLA had opted for a more participative regime that included representatives of other political parties, (as was initially planned) maybe civil war could had been avoided. The earlier choice of Bolivia for democracy, compared with Angola, may explain why the negative syndromes related to the resource curse manifested themselves in a less harmful way. The Bolivian democratic system might not have been perfect, but it allowed diversification of political ideologies and the fragmentation of radical tendencies, which weakened them.

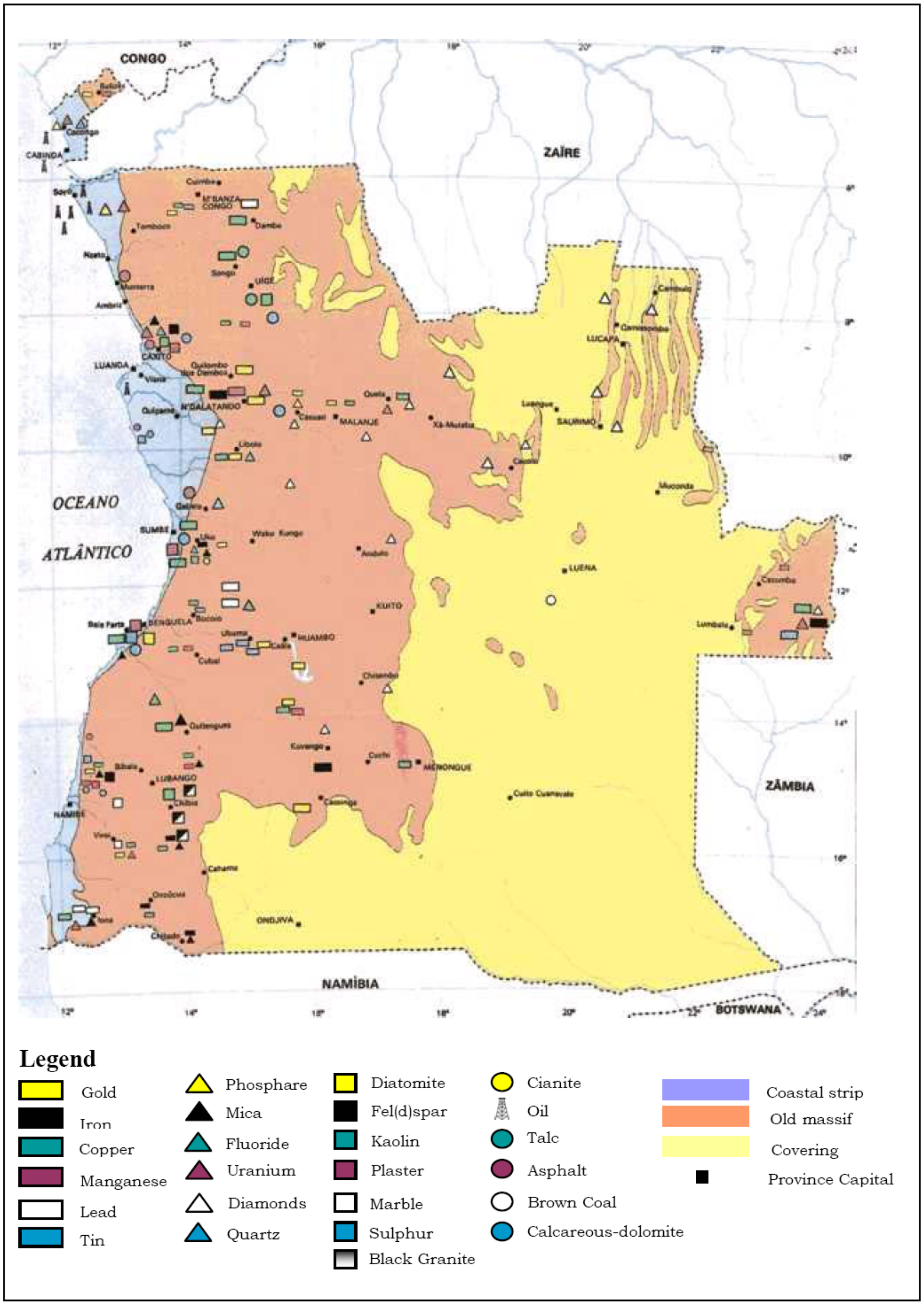
The problem is then that in the context of high fragmentation, economic performance is undermined because different interest groups are willing to reach power to gain control over the resources, thus making society bear rent-seeking costs. It is an issue of common pool resources: a fragmented society might be stabilized by creating multiple-wealth poles.

We can find a common solution to the double issue of Dutch disease and rent-seeking behaviour. As we have seen in the work of Hausmann and Rigobon (2003), diversification solves the problem of over-valuation of non-tradables and of the exchange rate and avoids Dutch Disease. At the same time, diversification creates multiple rent sources that induce fragmentation of interest groups, which as we have seen consolidates democracy and minimizes rent-seeking costs, because there are smaller shares of the society that have to bear them. Notice that rents from several sources divert the attraction of power-grabbing in a highly centralized state, thus ensuring political stability.

Political choices can be achieved to overcome the resource-curse: state action is needed to widen the economic base of the country, and this widening requires being efficient by means of a decentralized administration and the creation of innovative and competitive diversified economies, putting aside the narrow-based economy.

The natural resources endowment ceases to be a curse once it is understood that it is not a blessing. It may contribute to development, but from our study, it seems evident that natural resources by themselves will never solve the problem of poor economic performance. Basing all hope for development on natural wealth could prove indeed as unfortunate as ignoring its potentialities. This wealth needs to be considered as a crucial complement for a more creative economy.

Annex A: Natural Resources in Angola


CONGO
ZAÏRE
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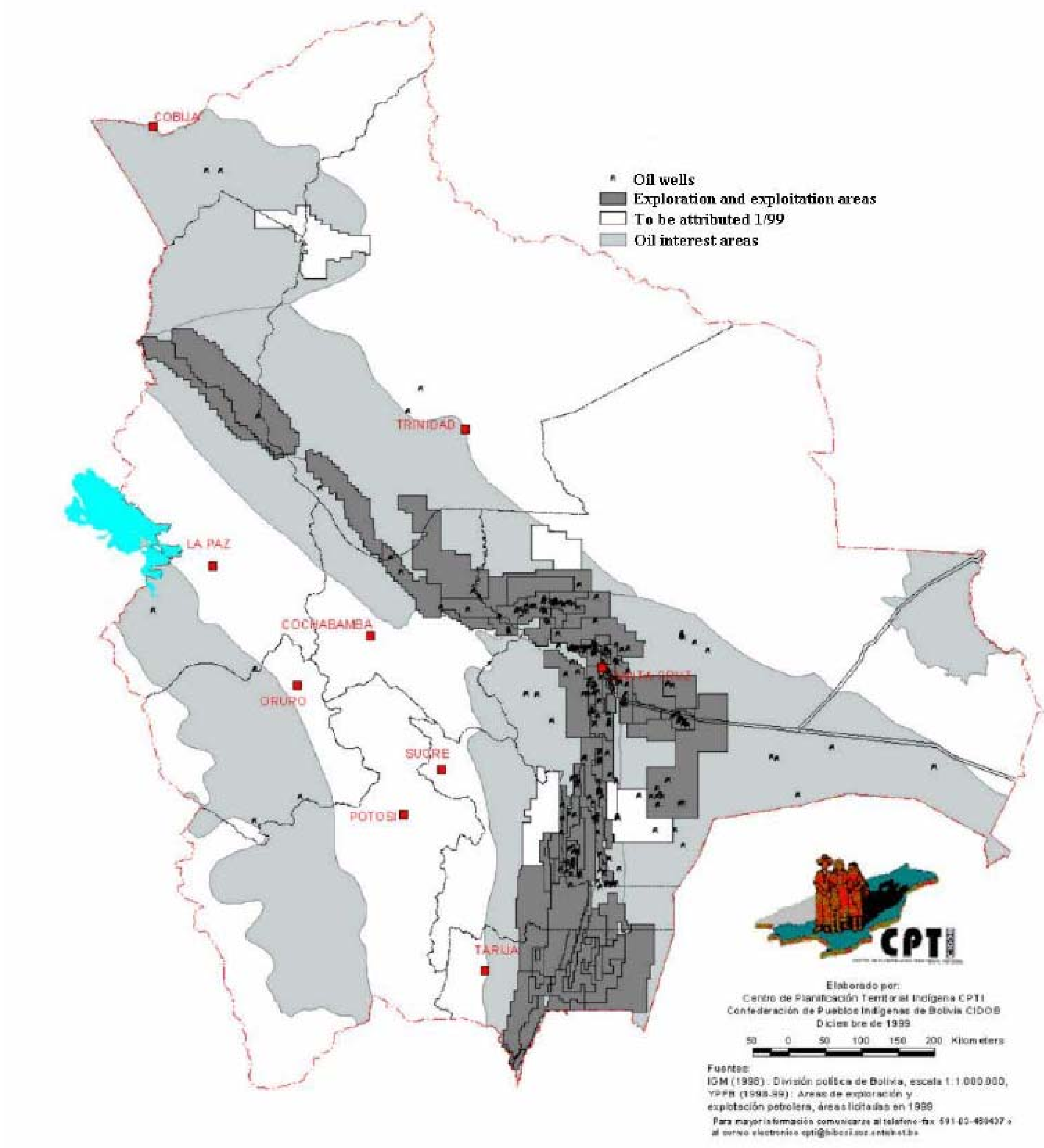
LUANDA
N'DALATANDO
MALANJE
SAURIMO
LUCAPA
LUENA
SUMBE
BENGUELA
HUAMBO
KUITO
LUBANGO
MENONGUE
ONDJIVA
NAMÍBIA
ZÂMBIA
BOTSWANA
Legend
Gold
Iron
Copper
Manganese
Lead
Tin
Phosphare
Mica
Fluoride
Uranium
Diamonds
Quartz
Diatomite
Fel(d)spar
Kaolin
Plaster
Marble
Sulphur
Black Granite
Cianite
Oil
Talc
Asphalt
Brown Coal
Calcareous-dolomite
Coastal strip
Old massif
Covering
Province Capital

Annex B: Areas of Oil exploration and exploitation in Bolivia.



Source: Centro de planificacion territorial indigena.

Lexicon

Banzer Suárez, Hugo (May 10, 1926 – May 5, 2002) was a conservative politician, military general, and President of Bolivia. He held the Bolivian presidency twice: from August 22, 1971 to July 21, 1978, as a military dictator; and then again from August 6, 1997 to August 7, 2001, as constitutional President.

Barrientos Ortuño, René (born on May 30, 1919; died on a helicopter accident April 27, 1969) was a former Vice-President (1964) and President of Bolivia (1964-66 and 1966-69). De facto regime.

Bonosol, Bono Solidaridad, minimum granted allocation for elderly people in Bolivia.

Cabgoc, Cabinda Gulf Oil, Angolan subsidiary of the Gulf oil Corporation.

Capitalizacion, *Sui generis* form of privatization, where 49% of the assets were distributed to all Bolivians in form of pension funds.

Cocaleros, Coca leaf growers

Comibol, Corporacion Minera de Boliva, State-owned mining Bolivian Corporation

Decree 21060, decree creating the New Political Economy, transforming Bolivia in a liberalized economy.

Diamang, Angolan mining company.

Dos Santos, José Eduardo (born August 28, 1942 in Luanda) is the current President (since 1979), Head of Government, Commander-in-Chief of the Armed Forces of Angola and leader of the MPLA.

Endiama, Angolan State-owned mining company.

FNLA Frente Nacional de Libertação de Angola, National Front for the Liberation of Angola is a political movement in Angola; close to Zaire in the seventies.

García Meza Tejada Luis (b. August 8, 1932) is a notorious former Bolivian dictator at the beginning of the eighties. He is now condemned to imprisonment for acts of torture and links with drug trafficking.

Garimpeiros, Angolan diamond miners

ISI, Import substitution industrialization is a trade and economic policy based on the premise that a country should attempt to substitute products which it imports, mostly finished goods, with locally produced substitutes. Even though ISI is a development theory, and not naturally a trade theory, its political implementation and theoretical rationale are rooted in trade theory.

Mestiços, Mixed Africa- European Angolans

MIR, Movimiento de la Izquierda Revolucionaria- Nueva Mayoría, Revolutionary Left Movement - New Majority is a social democratic political party in Bolivia. It was a member of the Socialist International. Often part of government coalitions.

MNR, Movimiento Nacionalista Revolucionario, The Revolutionary Nationalist Movement is the Bolivian political party that led the 1952 national revolution, and in the 80's and 90's liberalized the economy.

Morales Ayma, Juan Evo, current president of Bolivia, Coca leaf union leader and first indigenous elected president

MPLA Movimento Popular de Libertação de Angola - Partido do Trabalho. The Popular or People's Movement for the Liberation of Angola - Party of Labour is an Angolan political party that has ruled the country since independence in 1975. Close to URSS and Cuba.

Neto, António Agostinho (September 17, 1922 – September 10, 1979) was the first President of Angola (1975–1979), a poet, nationalist and Marxist-Leninist, founder and leader of the communist party, the Soviet-line Popular Movement for the Liberation of Angola (MPLA).

Paz Estenssoro, Ángel Víctor (October 7, 1907 - June 7, 2001) was a politician and former president of Bolivia. He ran for president 8 times (1947, 1951, 1960, 1964, 1978, 1979, 1980, and 1985), winning in 1951, 1960, 1964, and 1985. He led the National Revolution of 1952 and was the historical leader of the MNR.

Relocalizados, ex-miners in Bolivia who migrated towards different zones in the country, after the closing of mines during the eighties.

SADF. The South African Defence Force was the South African armed forces from 1957. The SADF was involved in South African Border War and in the Angolan Civil War on the side of UNITA and Angola rebel leader Jonas Savimbi until 1994.

Sánchez de Lozada y Sánchez Bustamante, Gonzalo (born July 1, 1930) is a Bolivian politician (MNR), businessman, and former president (1993-1997 and 2002-2003). He is credited with having engineered the neoliberal restructuring of the Bolivian state and the dismantling the statist model that had prevailed in the country since the advent of the 1952 Revolution. He fled the country after the 2003 events.

Savimbi, Jonas Malheiro (August 3, 1934–February 22, 2002) was a rebel leader in Angola who founded the UNITA movement in 1966, and directed UNITA'S military operations.

Sonangol Group, known as 'Sonangol', is an Angola state-run petroleum enterprise, engaged in the overall management of Angola's petroleum and natural gas reserves.

SWAPO, The South West Africa People's Organization is a political party and former liberation movement in Namibia. Close to Angola's MPLA.

UNITA, União Nacional para a Independência Total de Angola. The National Union for the Total Independence of Angola, is an Angolan political party and was originally an anti-colonial movement which became a rebel force after Angola's independence in 1975, close to the US and South Africa.

YPFB, Yacimientos Petrolíferos Fiscales Bolivianos, is the state-owned petrol company of Bolivia, created in the 30's.

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