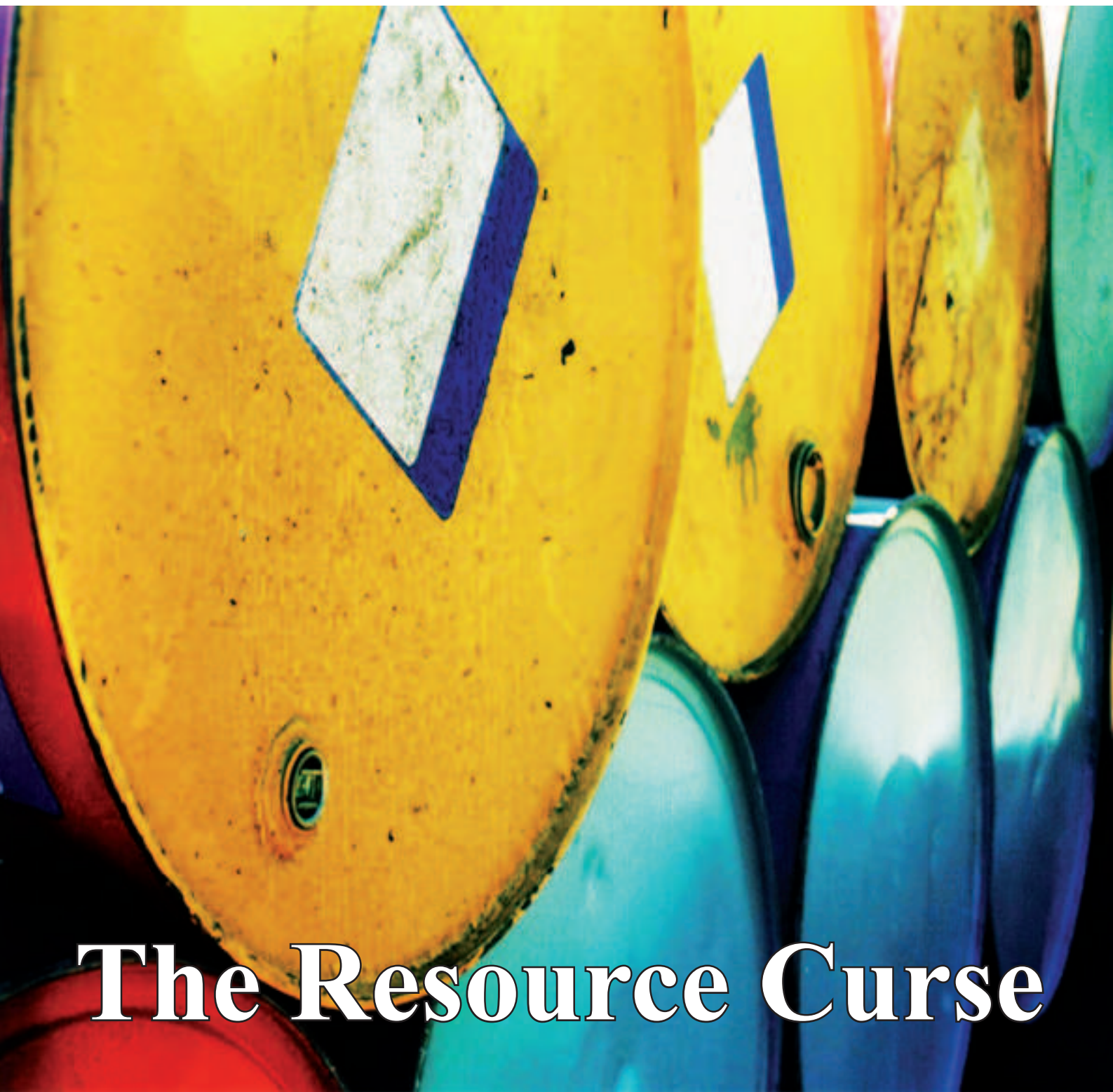


# Development Digest



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## The Resource Curse

Coordination and Design

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# Introduction

## Resource Abundance: A Curse or a Blessing?

by Terry McKinley, Director, Centre for Development Policy and Research

**The publication of CDPR's** first Development Digest comes at a critical historical juncture. A severe global financial crisis has swept across both developed and developing countries and is ushering in a sharp global slowdown of growth. Many governments in developed countries have responded quickly to shore up troubled financial institutions, lower policy interest rates and provide both increased public expenditures and cuts in taxes.

Since many developed countries are now slipping into recession, developing countries are confronting an inevitable slowdown in exports and growth. While just a few months ago commodity prices were on the rise, now they are in clear decline, led by plunging oil prices. There is rising alarm about the probable negative impacts on poorer countries of such calamitous trends.

This Development Digest highlights the development prospects of a range of countries that have enjoyed resource abundance and, until recently, have reaped the benefits of the boom in exports of primary commodities. In development circles, the debate on such prospects has focused on the likelihood of the so-called 'Resource Curse'—namely, a negative impact on long-term growth of excessive reliance on exporting an abundance of primary commodities.

Those analysts who have made Resource-Curse predictions will now, no doubt, underline the drop in export prices and the consequent decline in revenue and national income as confirmation of their warnings. But the ultimate outcomes hinge critically on the policy response of each country.

How countries respond in the short term to the crisis could be decisive. For example, many of the IMF Article IV agreements with developing countries still target rising inflation, not slowing growth, as the chief danger and advocate strict inflation targeting and fully floating exchange rates as the appropriate policy responses. Such policy regimes are likely now, however, to be grievously counter-productive.

### Identifying Viable Policy Options

The overriding concern of the articles in this Digest is to help countries identify

viable policy options that will enable them not only to confront a global slowdown but also continue to capitalise on their resource abundance and chart a viable long-term development strategy.

The Digest's country case studies include Angola and Zambia in sub-Saharan Africa, Brazil, Chile, Trinidad and Tobago, and Venezuela in Latin America and the Caribbean, Yemen in the Middle East and Uzbekistan in Central Asia. Each of these countries recently enjoyed the benefits of an upsurge in revenue from the export of primary commodities, such as oil, gold and copper. Now they are facing the prospect of a slowdown in export demand.

Even when these countries were benefiting earlier this year from rising global commodity prices, many of them still had to adjust to the prospect of the eventual depletion of the natural resources that supported their prosperity. They also had to confront the possibility that in the short term a large influx of export revenues could have jeopardized their macroeconomic stability and slowed growth in their other vital economic sectors, especially manufacturing.

This is why, since the 1980s, a large number of researchers have claimed that having an abundance of resources can often be a curse, rather than a blessing, for developing countries. Many different explanations have been provided for such a 'Resource Curse'. This Development Digest focuses on macroeconomic and structural factors and the related debate on the economic policies most appropriate to counteract any adverse impacts of resource abundance and foster long-term sustainable growth and development.

### The Dutch Disease

One of the most well-known explanations for a Resource Curse is the so-called 'Dutch Disease' phenomenon. Under this scenario, an influx of export revenue would be expected to appreciate the nominal exchange rate and cause higher inflation. These factors could drive up the real exchange rate and undercut the international competitiveness of the other export sectors of the economy.

But a number of contributions to this

Digest dispute the claim that such exchange-rate appreciation is inevitable or that, even if it did occur, it could not be effectively addressed by coordinated macroeconomic policies. For example, the Zambia case study argues forcefully that the government's current preference for an inflation-targeting monetary regime—combined with freely floating exchange rates—does not allow it to successfully manage the real exchange rate. Hence, if Dutch Disease symptoms have arisen, they have been due primarily to inappropriate macroeconomic policies.

The Angola case study also argues against exchange-rate flexibility and endorses the government's management of the real exchange rate as its main stabilisation tool. Also, the case study of Trinidad and Tobago maintains that the recent appreciation of the country's exchange rate could have been tackled by greater coordination of macroeconomic policies, especially monetary and fiscal policies.

**The case studies offer heterodox macroeconomic advice on how to deal with a Dutch Disease.**

The case study of resource-rich Brazil notes that the country exhibits symptoms similar to those of a Dutch Disease although these appear to result from macroeconomic policies rather than improved terms of trade. The study links the prolonged overvaluation of Brazil's exchange rate to the central bank's high interest rate policy and its associated touch stance on low inflation targets.

Combined with a flexible exchange-rate regime and a liberalised capital account, Brazil's high interest rates have encouraged a sizeable inflow of portfolio investment that has kept the exchange rate overvalued. Hence, the study proposes a policy response similar to that recommended for other countries in this Digest—namely, abandon inflation targeting and manage the exchange rate.

In sum, the case studies offer heterodox macroeconomic advice on how to deal

with a Dutch Disease. This is often centred on managing the real exchange rate and abandoning an inflation-targeting monetary regime, and complementing such a policy stance with more regulation of the capital account.

A variation on the ‘Resource Curse’ hypothesis is that a successful exporting sector—whether based on valuable energy, mineral or metal resources—is usually an enclave, having few linkages with, or weak multiplier impacts on, the rest of the domestic economy.

If the exporting sector is capital-intensive—which characterises many energy exporting industries—then it will provide few jobs directly. And because the exporting sector is an enclave, it will also stimulate only limited employment in the rest of the economy.

### **The Lack of Diversification**

This hypothesis also often claims that the government has few incentives to help develop the rest of the economy since its revenues from the export of the abundant resource are plentiful. The private sector is also not motivated to invest in other sectors since the exporting sector provides the biggest profits.

If such dynamics persist, then over time the economy is likely to become more dependent on the export sector rather than less. Hence, the economy will become less diversified, and even more vulnerable to external shocks.

Many of the case studies in this Development Digest focus on this problem and offer recommendations on how resource-abundant countries could diversify their economies. They place a heavy emphasis on using export revenues to finance public investment and stimulate private investment. They also recommend the use of industrial policies to direct resources to economic sectors with the greatest growth and employment potential.

The case study of Uzbekistan offers some instructive lessons in this regard. The country was relatively immune to the recent problems of rising food and energy prices because beginning early in its transition, it used import-substitution policies to build up its own oil exporting sector and eventually became self-sufficient in wheat production.

So, benefiting now from rising exports of gold, energy and cotton, the country has been able to achieve huge current account surpluses. The study argues that Uzbekistan could now mobilise such resources to finance investment that could

help diversify its economy and contribute to sustainable economic growth, even in the event of a global economic slowdown.

The case study of Yemen shows that its development prospects are less promising than Uzbekistan’s, in part because while it has enjoyed an export boom in oil, it has neglected to finance the development of agriculture. Hence, the recent increase in its inflation rate has not been due to a Dutch-Disease appreciation of its exchange rate but to the rising costs of its food imports and persistently low productivity in its agricultural sector.

The case study of Venezuela is noteworthy for underscoring the importance of the political economy basis for a positive or negative effect of increased resource rents—such as from oil—on long-term productivity and growth. It argues, for instance, that during the periods that Venezuela was successful in converting its resource abundance into a ‘blessing’ instead of a ‘curse’, its development strategy was backed by a consolidated state that enjoyed cohesive political support. When such political conditions are lacking, states are often unable to effectively manage resource rents even when they adopt appropriate policies.

### **Public and Private Investment**

Many of the case studies focus on the importance of public and private investment as the means to stimulate domestic demand, expand the domestic supply capacity of the economy and direct resources to the sectors that have the most potential for growth and employment. They endorse a central role for public investment because they believe that it can help stimulate, i.e., ‘crowd-in’, private investment.

However, in some of the case-study countries, such as Yemen, it is clear that financial liberalisation has weakened the domestic banking system so that it is unable to mobilise savings and channel it effectively to private investment. In Uzbekistan, a weak financial system has also led to a marked decline in private investment. So, in the long term, building up the capacity of the financial sector will be critical for mobilising resources for domestically generated growth in such countries.

In the medium term, a number of the case studies call for employing industrial policies to direct resources to strategically important economic sectors. This is the case, for example, in the studies of Brazil, Trinidad and Tobago and Uzbekistan. Key sectors could include those producing either exports or import substitutes. And support could include some time-bound

protection of domestic markets, subsidised credit provided by the financial sector or tax incentives provided by government.

### **Raising Domestic Revenue**

One of the usual presumptions about resource-abundant countries is that since their governments often receive abundant revenues from exporting a high-priced primary commodity, they have weak incentives to raise domestic revenues.

But revenues from such exports are often highly volatile, mainly because of fluctuating international prices. When prices are low, governments are prone to offer international investors many attractive tax breaks and exemptions in order to induce them to help revive the depressed export sector.

When commodity prices soared in recent years, some governments were unable to reap commensurate revenue because of such tax concessions. The article on Chile and Zambia, both of which are significant exporters of copper, highlights the strategic revenue choices that government can make.

Through retaining a significant share of public ownership of the copper mines and carefully managing the resultant revenue, Chile has succeeded in generating ample domestic revenue. In contrast, because Zambia offered lavish tax exemptions to multinational firms when it privatised the copper mines, it received only modest benefits from the recent boom in copper prices.

### **From Boom to Bust?**

It appears clear now that the recent boom in the demand for primary commodities is waning. Some of the case-study countries, especially those enjoying a large stock of foreign-exchange reserves, remain in an advantageous position to weather the storm in the short term. Over the long term, the countries that are able to use export revenue from primary commodities to channel investible resources into diversifying their economies will have the best chance of achieving a sustainable rate of economic growth and employment generation.

The likelihood of bleaker prospects for export revenue in the coming period imparts added weight to many of the macroeconomic and structural recommendations in this Development Digest. These include abandoning unnecessarily restrictive monetary policies, instituting measures to maximise revenue from exports and encouraging, where feasible, continuing public and private investment that can strategically diversify the economic base.

# Angola: Transitioning from Oil-Led to Broad-Based Growth

by Ricardo Gottschalk and Pedro M.G. Martins, Institute for Development Studies

**Angola has had** a remarkable economic recovery since the end of the civil war in 2002. During the period 2003-2007, its annual GDP growth was over 15 per cent. Inflation declined from nearly 100 per cent to less than 13 per cent. By 2006, the country was running large fiscal and current account surpluses, namely, 15 per cent and 23 per cent of GDP, respectively. International reserves had reached 8.6 billion U.S. dollars while the country's external debt had dropped from 73 per cent of GDP in 2003 to only 16 per cent in 2007.

Oil exports and revenue have powered much of Angola's success in recent years. But its economic recovery began, in fact, before its oil boom, based on the advent of peace. Surprisingly perhaps, the non-oil sector of the economy grew at an above-average clip of 17 per cent during 2003-2007. By 2006, growth in the non-oil sector, led by trade, commerce and manufacturing, was about twice as fast as that in the oil sector (see Table).

This success has been due, in part, to the government's ability to maintain some measure of macroeconomic stability and enable its internally displaced population to resettle and revive economic activity.

The priorities also need to shift to generating widespread employment and substantially reducing poverty. While economic growth has been impressive, dismal social trends have confined Angola to the bottom of the global rankings on human development and poverty. Life expectancy, at about 42 years, is one of the lowest in the world while the under-five mortality rate, at 250 deaths per 1,000 live births, is one of the highest.

The latest poverty estimate for the country, which was in the early 2000s, calculated that about two-thirds of the population was poor and over one fourth was extremely poor. So it is imperative to scale up and frontload massive public investments in health, nutrition and education, as well as initiate a cash transfer programme to deal immediately with poverty.

## Realising Angola's Potential

Angola need not remain heavily dependent on oil for its prosperity. It is rich in many other natural resources. Diamonds are also important, for example. Its fertile soils and vast water resources are also major advantages. If the country invested substantially in agricultural development, it could become a prominent food exporter.

will have to undertake large investments in basic economic and social infrastructure. But would such investments jeopardise macroeconomic stability?

Currently, the government maintains a relatively cautious approach to fiscal expenditures. Oil revenues account for roughly four-fifths of total government revenue. So the government has established a reference price for oil and stipulated that any revenue arising from an oil price higher than the reference level cannot be spent, but instead should be deposited in an oil reserve fund for future use.

Some Angolan officials would prefer a stricter rule, namely, that the level of public expenditures per capita that is funded by oil revenue should remain constant for the future. The rationale is that when oil production ends, revenue could still flow from the resultant build-up of financial assets.

However, given Angola's current woefully low level of human development and widespread poverty, such a fiscal rule would impose an unnecessarily rigid limit on government spending, which could not rise even in proportion to oil revenue.

A better legacy to leave future Angolans than such dubious financial wealth is a higher level of economic and social development, based on widespread public investments carried out while oil revenue is still plentiful, instead of when it ends.

While oil revenues last, they should be ploughed into financing an economic diversification strategy that could broaden the future revenue base beyond oil. But some oil revenue would still need to be saved when oil prices are high in order to smooth fiscal expenditures when they drop, as is happening now.

## Maintaining Macro Stability

If macroeconomic policies were properly managed, a scaling up of public investment in critical infrastructure should not be inflationary. The government has already done well in utilising the exchange rate as its main stabilisation tool, instead of the money supply. As a result, CPI inflation had been brought down to low double digits by 2007.

Real GDP Growth, for Total GDP and Selected Sectors

	2003	2004	2005	2006
<b>Total GDP</b>	3.3	11.2	20.6	18.6
<b>Oil GDP</b>	-2.2	13.1	26.0	13.1
<b>Non-oil GDP</b>	10.3	9.0	14.1	27.5
Agriculture, Forestry and Fishing	12.1	14.1	17.0	9.8
Diamonds	20.1	0.6	16.2	30.9
Manufacturing	12.0	13.5	24.9	44.7
Electricity and water	10.0	11.5	17.4	13.2
Construction	12.5	14.0	16.9	30.0
Trade and Commerce	9.9	10.4	8.5	38.1
Nontradable Services	2.0	2.5	13.9	13.0

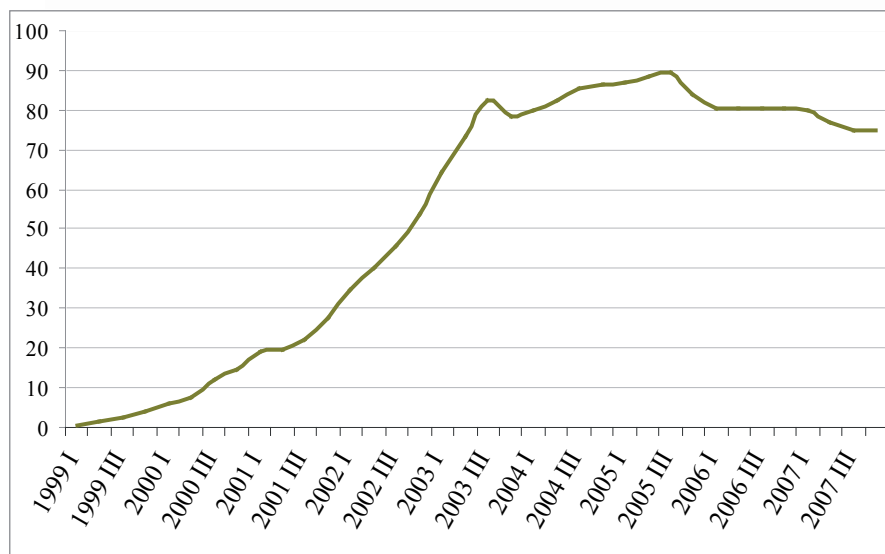
Source: IMF Article IV (2007).

While Angola should be lauded for its success, the crucial challenge now confronting the country is to shift its economy, over time, from oil-powered growth to a more diversified and broad-based pattern of growth.

It could also benefit from developing its fisheries and livestock. In addition, it could use its water resources to become a leading producer of hydroelectric power in the region. In order to realise its vast potential, particularly in its non-oil sectors, Angola

From 1999 to early 2003, Angola's stabilisation programme had continuously depreciated the nominal exchange rate. While continuing to depreciate through most of 2005, this rate has more recently begun to appreciate (see Figure).

**Nominal Quarterly Exchange Rate: 1999 I – 2007 III**



Note: a lower value denotes appreciation  
Source: IMF IFS.

Hence, the government should continue to manage the exchange rate in order to forestall the weakening of the tradable sectors of the economy and the short-circuiting of its diversification plans. Resorting to a flexible exchange-rate regime, as orthodox adjustment policies often recommend, would likely impart more volatility to Angola's currency, and thus greater instability to its economy.

Adopting the orthodox alternative of targeting money supply growth is not likely to be effective either. The Angolan economy is very open, and highly dollarised, neutralising much of the potential effect of monetary policy. Moreover, its financial system remains weak and underdeveloped and the economy as a whole is not well integrated or monetised.

By pragmatically utilising the exchange rate as an inflation anchor, the government has been able to bring down inflation without precipitating a sharp contraction in the economy. It should continue such policies for the foreseeable future.

But in order to maintain a stable currency, the government will also have to correct some malfunctioning of wholesale and retail markets, where oligopoly structures appear to be maintaining an artificially high level of prices. The channels for importing and domestically distributing goods are not operating efficiently. For example, prices for the categories of clothing and footwear have risen sharply in

recent years. However, these are tradable goods whose prices in Kwanza should have tracked the behaviour of the nominal exchange rate, which was maintained fairly stable during this period.

Over the longer term, one of the best medium-term 'hedges' against inflation is greater public investment in infrastructure since the resultant public assets would help provide greater integration to markets across the country, expand the economy's supply capacity and productivity and facilitate economic diversification.

### A Diversification Strategy

A diversification strategy for Angola should be comprised of three major components. One is public investment in economic and social infrastructure, which we have already mentioned. Another is the design of public policies that can stimulate the development of the agricultural sector, which has huge potential.

During the civil war, rural areas were adversely affected by sizeable rural-to-urban migration of the population and the abandonment or destruction of much of the rural infrastructure. Agricultural production bounced back in the aftermath of a peace agreement but it has been constrained by poor infrastructure, such as a lack of transport links and storage facilities.

Productivity remains low due to several factors. Among the most prominent are the lack of financing and the limited availability of rural extension services. Hence, building capacity in these areas is a high priority.

Boosting subsistence farming should be a priority, especially for reducing rural

poverty. But the government should also promote more commercial farming so that the sector can become internationally competitive and take advantage of the strong long-term global demand for agricultural products, reflected, in part, by recent increases in international food prices.

Since the oil sector has little capacity to generate employment, Angola's diversification strategy should prioritise the critical need to create decent jobs. This not only implies building up agriculture, which is labour-intensive, but also construction and manufacturing.

However, since commercial farming displaces subsistence farming over time, agriculture's capacity to generate employment will decrease. Hence, the urban manufacturing and service sectors will have to grow fast enough to absorb the country's growing labour force and provide remunerative employment.

Such a transition will imply more public support to facilitating private-sector development. Maintaining a competitive exchange rate will help, of course. Also, widespread public investment in infrastructure will be crucial. Providing incentives to sub-sectors with clear growth and employment potential could also contribute to success. This could apply, for example, to food processing activities, which could prosper on the basis of Angola's agricultural development.

### Concluding Remarks

The objective of Angola's diversification strategy should be to rely on its sizeable current pool of oil revenue to finance a broader basis for economic growth, productive employment and effective poverty reduction. In the near term, an unconditional cash transfer programme could contribute directly to reducing poverty.

Over the medium term, however, broad-based employment generation is more likely to ensure a sustainable increase in incomes and human development. For this purpose, the government will have to finance increased public investment and provide incentives for private-sector development in those sectors and sub-sectors that not only possess discernible growth potential but also can provide decent employment.

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# Is Time Running Out for Trinidad and Tobago?

by Degol Hailu, International Poverty Centre and  
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**Trinidad and Tobago** is benefiting tremendously from its immense oil and gas reserves. However, a 2007 audit of the gas sector sent panic shocks all around. According to the audit report, current gas reserves will run out by 2019 (Ryder Scott, 2007). The report stirred a debate on the future of the economy and the strategy to follow.

Energy production has been steadily increasing, from 12,612 kilotons in 1990 to 31,399 kilotons in 2005 (see Figure next page). Currently energy exports comprise over 90 per cent of total exports. Tax revenue obtained from the energy sector went up from TT\$ 6,720 million in 2002/03 to TT\$ 24,069 million in 2005/06. By 2004/05, revenue from this sector overtook that earned from the non-energy sector. Revenue from the non-energy sector, as a share of GDP, fell from 26 per cent in 2004/05 to 24.4 per cent in 2005/06.

The value-added of the non-energy sector has also been in decline (see Table). Though Trinidad and Tobago is the manufacturing hub in the Caribbean region, the contribution of this sector fell from 7.3 per cent of GDP in 2000 to 5.8 per cent in 2006. Value added in the service sector also fell, from 49.1 per cent to 37.7 per cent. All in all, the contribution of the non-energy sector to GDP declined by about 24 per cent between 2000 and 2006.

high, averaging nine per cent between 2002 and 2006.

## The Oil and Non-Oil Sectors

The government is trying to counter the impact of the audit report in two ways. First, it claims that the report merely highlights the current stock of gas reserves. Therefore, panic is not warranted as long as further explorations take place.

Second, the government has introduced a diversification strategy. The plan is to start up large-scale farms and encourage the private sector to engage in food production and agro-processing. The strategy has also targeted growth of financial services, information and communication technology, tourism and activities downstream from the energy sector to foster diversification.

**Trinidad and Tobago's energy sector has not been able to create jobs. So the unemployment rate has remained high.**

Will the strategy of simultaneous exploration of energy sources and sectoral diversification work? The audit report estimated, for instance, that 37 trillion cubic feet

Energy experts highlight that the country is reaching its energy peak because of high exploration costs. The easy-to-explore gas and oil fields have already been prospected. The remaining ones could be smaller, further ashore and deeper in the sea. Hence, the big oil companies will need significant tax breaks and other incentives to undertake this expensive kind of exploration.

Also, successive governments have still not worked towards developing the non-energy sector. Potentially holding back such development are emerging signs of the 'Dutch Disease' phenomenon. The country's real exchange rate appreciated against the U.S. dollar by about 10 per cent between 2004 and 2006. This is partly due to depreciation of the U.S. dollar but is also driven by high demand for Trinidad and Tobago's exports and the rise in its domestic interest rates.

The inflation rate also rose from 4.3 per cent in 2002 to 5.6 per cent in 2004 and then to 9.1 per cent in 2006. The appreciation in the exchange rate signals widening price differentials between the country and its trading partners, which could lead to a further deterioration in the non-energy sector.

## A Diversification Strategy

What should Trinidad and Tobago do? Since the discovery of future energy sources is not guaranteed, the country needs to concentrate on a diversification strategy. Policy makers could focus on two areas. The first is an industrial policy to guide the diversification plan. The second is a focus on increasing productivity, especially because of inflationary pressure and real exchange rate appreciation, which restrain the revival of the non-energy sector.

Public policy needs to focus on harmonising a domestic investment strategy with likely niches for Trinidad and Tobago in the international market. This would imply an industrial policy that is concerned with more than just correction of market failures. Such a policy should also go beyond simply indicating the sectors in which to diversify.

It should include: a) protection of domestic markets from competing imports; b)

**Sectoral Value Added (% of GDP)**

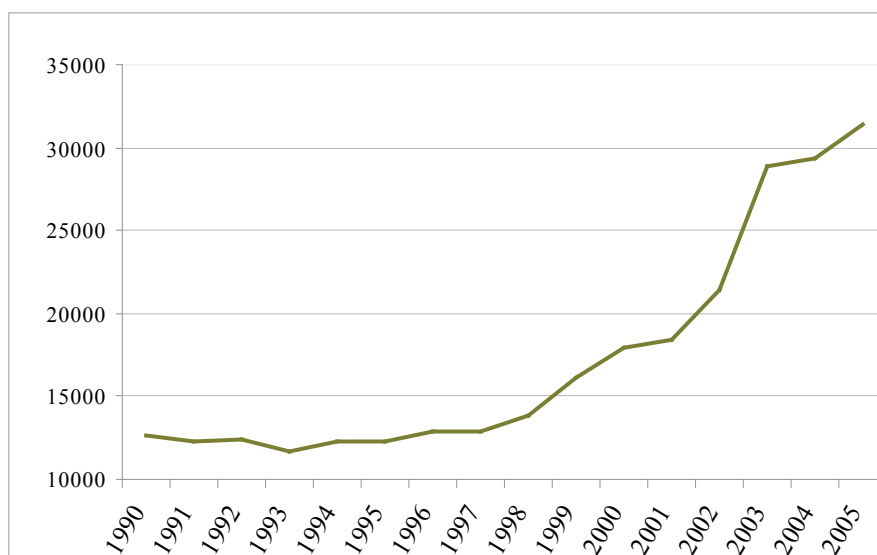
Year	Agriculture	Manufacturing	Services	Non-Energy sectors
2000	1.4	7.3	49.1	57.9
2001	1.3	7.7	51.6	60.6
2002	1.5	8.3	53.7	63.5
2003	1.0	6.6	46.0	53.6
2004	1.0	7.0	43.9	51.8
2005	0.7	6.5	40.3	47.4
2006	0.6	5.8	37.7	44.2

Source: *World Development Indicators* (April 2008).

A central problem is that Trinidad and Tobago's energy sector has not been able to create jobs. The sector remains highly capital-intensive, employing only four per cent of the working population. So the country's unemployment rate has remained

of gas is left to be explored. If, and only if, new oil and gas reserves are exploited might the country gain enough energy to sustain its economy up through mid century. But this assumes a production rate of 4.5 billion cubic feet per day.

### Energy production (kt of oil equivalent)



Source: *World Development Indicators* (April 2008).

encouragement of the financial sector to provide targeted and subsidised credit; c) tax incentives and subsidies for export promotion; and d) policies for technology and skills transfers. While there should be caution about generalising from global experiences, the bulk of empirical evidence indicates that public intervention in the systematic mobilisation and allocation of industrial finance has played an important role in transforming many successful economies.

**Public intervention in the systematic mobilisation and allocation of industrial finance has played an important role in transforming many successful economies.**

The current boom in the energy sector could also be utilised to finance public investments in sectors where significant productivity gains could be made.

Concentrating on increasing gas and oil exploration might appear to be an attractive option. Nevertheless, diversification of the economy, driven by industrial policy and supply-side measures, will lead to more sustainable growth and generate more broad-based and productive employment.

***The views expressed in this article are the authors' and not necessarily those of UNDP.***

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Appreciation of the real exchange rate can be tackled through the coordination of macroeconomic policies. According to the government of Trinidad and Tobago and the IMF, "supply side constraints are one of the underlying causes of inflation" (IMF 2008, p. 7). However, the government's policy response has been a focus on inflation targeting, which has led to an undesirable rise in the policy interest rate from 6.7 per cent in 2003 to 8.25 per cent in 2008. This can contribute to further appreciation.

By coordinating fiscal and monetary instruments, policy makers could stimulate more vigorous supply responses. For instance, lower interest rates could be used to improve access to credit and 'crowd in' private investment.

# Yemen: Caught between Rising Oil and Food Prices

by Khalid Abu-Ismaïl, UNDP Policy Advisor, Beirut, and Terry McKinley, Director of CDPR

**Yemen is a poor country** that appeared in recent years to have the opportunity to escape from its poverty trap through becoming a significant exporter of oil. However, while its exports surely benefited from the recent oil price boom, its imports suffered gravely from escalating food prices. How can Yemen overcome this long-term dilemma?

From 2003 to 2006, because of rising oil income, central government revenue was progressively increasing—reaching a high of about 38 per cent of GDP by 2006. Based on continuous current account surpluses, Yemen's gross official reserves had reached a pinnacle of almost seven per cent of GDP by 2006, equivalent to almost a year of imports. The country appeared to have ample 'fiscal space' to tackle its development problems.

But in 2006 the country also began to face rising prices for imported food. This reinforced an underlying domestic upward trend of food prices attributable to low agricultural productivity. Between December 2006 and December 2007, the price index for food increased by 11 per cent, with the price of imported wheat jumping by 60 per cent. And food prices increased by a further 11 per cent between January and March 2008.

Analysts have argued, however, that this price index seriously understated the degree of increase in the cost of food. For example, a loaf of bread remained the same price while its weight was being cut in half. Violent protests started erupting in 2007 in response to rising food costs, exacerbated by widespread unemployment, which had reached over 16 per cent by end 2006. While the labour force was growing rapidly, the oil-driven economy could deliver only sluggish employment growth.

From 1998 to 2005-6, extreme income poverty in Yemen declined from over 20 per cent of the population to 12.5 per cent and overall income poverty from 40 to 35 per cent. But because of recent consumer price increases, extreme income poverty roughly doubled from 2005-6 to December 2007, i.e., to 27 per cent; and overall poverty increased from 35 to 54 per cent. Over 60 per cent of the population in rural areas was poor at the end of 2007. Since food

prices continued to escalate thereafter, poverty rates are bound to be significantly higher in 2008.

## Reviving Agriculture

How could Yemen have avoided such a severe food shock? About 20 years ago, it was self-sufficient in food. But it has since allowed its food production to decline, and is now 75-95 per cent dependent on imports of key food staples.

Reviving agriculture is vital to boosting Yemen's development prospects. However, a small number of large landowners have appropriated most of the land and monopolised access to irrigation. And instead of growing grains, they have specialised in more profitable crops such as Qat, fruits and vegetables. Encouraged by subsidies for irrigation pumps and diesel fuel, they have been largely responsible for depleting the country's scarce water resources. Qat alone consumes about 30 per cent of all irrigation water.

**In 2006 Yemen began to face rising prices for imported food. Between December 2006 and December 2007, the price index for food increased by 11 per cent, with the price of imported wheat jumping by 60 per cent.**

Agricultural prosperity is crucial to poverty reduction in Yemen since about three-quarters of the poor reside in rural areas, with their livelihoods tied closely to agriculture. But for such prosperity to have any impact on poverty, access to land and water would have to become more equitable.

Government investment in a range of public goods in rural areas would also be essential, particularly in order to raise land productivity. The rise in productivity would contribute to a long-term decline in domestic food prices.

Does Yemen have sufficient resources to finance diversification of its economy? While oil revenue has provided it with a window of opportunity to catapult itself out of least developed country status, this window is currently shrinking. Output is beginning to decline, as are exports. While oil revenue dropped to about 22 per cent of GDP in 2007, it was projected to rebound to about 27 per cent in 2008 because of rising global oil prices (see Table next page).

## Mobilising Resources

However, the country's oil is projected to be depleted by 2018 unless current exploration locates new deposits. This is certainly possible. Moreover, exploitation of new liquefied gas reserves is helping to offset the decline in oil resources.

Meanwhile, typical of resource-rich countries, the government has made little effort to raise non-oil revenue. As of 2007, such revenue represented only about eight per cent of GDP while oil revenue represented 22 per cent. After a long delay, the government finally introduced a General Sales Tax in 2007 but with concessions granted on the valuation of imports.

At the same time, about one fifth of government expenditures have been allocated to maintain fuel subsidies, which disproportionately benefit richer households. So, while the government needs to make more concerted efforts, over the medium term, to raise non-oil revenue, it should also redirect expenditures away from such subsidies.

Such a re-allocation of expenditures could help finance greater public investment in the non-oil sectors of the economy, providing more diversified and sustainable sources of growth and employment. In the short term, public expenditures also need to be urgently re-allocated to the direct provisioning of food to poor households and to general food subsidies.

Donor pledges of US\$ five billion, made originally at the Consultative Group meeting in November 2006, could help Yemen make the investment necessary to revive agriculture and diversify its sources of growth. The disbursement of such an amount could cover, for example, 85 per



cent of the country's Public Investment Program during 2007-2010. Some easing of Yemen's external debt burden could also help its financial condition.

Yemen could also redirect a share of its large stock of foreign-exchange reserves to encourage the import of capital goods as a spur to domestic investment. So, public resources are currently or potentially available to spur development. What is lacking is the ability to mobilise private resources.

While the government has been scaling up its public investment in recent years, financial liberalisation has done little to boost domestic savings or stimulate private investment. The ratio of private savings to GDP has been in marked decline since its peak of over 20 per cent in 1998. And only about a quarter of bank loans are directed to the private sector, with most of them going to trading activities. It is no surprise that private investment has been in sharp decline since 1998, falling to less than 10 per cent in the early 2000s, even as public investment has been on the rise.

So, reforming financial-sector policies and incentives are critical. The government needs to shape the incentives facing the domestic banking system to encourage it to provide loans for private investment to the sectors with growth potential.

### Promoting Diversification

Unable to finance diversified sources of growth, Yemen has become heavily dependent on oil, which has risen to account for about three-quarters of government revenue and over 90 per cent of export receipts. In recent years, oil has tripled its share of GDP to well over one third. Thus, Yemen exhibits some of the classic features of a 'Resource Curse', with the abundance of oil acting, in effect, to divert resources from other productive sectors.

Yemen's geographical position and cultural heritage could help diversify its economy away from a heavy reliance on oil. Tourism and its strategically placed port services could play a role in this regard.

Predictably, agriculture has declined in importance, from over 24 per cent of GDP in 1990 to about 10 per cent in 2005. Manufacturing has also shrivelled, from about 19 per cent to only about seven per cent. A low-paid, low-skilled urban service

### Yemen's Oil Output, Exports and Revenue

	2006	2007	2008 (proj.)
<b>Crude Oil Output</b> (million bbls)	133.3	116.7	113.1
<b>Crude Oil Exports</b> (million bbls)	105.5	82.1	77.0
<b>Oil Revenue</b> (% of GDP)	28.9	22.1	27.3

Source: World Bank, Yemen Economic Updates, 2007, 2008.

sector, increasingly tied to oil instead of agriculture and manufacturing, continues to account for about 40 per cent of GDP—and for much of urban poverty.

In the process, Yemen's rate of economic growth has progressively declined, i.e., from over six per cent per year in the early 1990s to a little over five per cent in the late 1990s and then to about 4.5 per cent in the early 2000s. The growth rate dropped to 3.2 per cent in 2006 and was projected to remain at that level in 2007, due principally to a projected yearly decline in oil production.

But Yemen is not fated to suffer a 'Resource Curse'. If it is politically stable, its geographical position and its cultural heritage could help diversify its economy away from a heavy reliance on oil. Tourism and its strategically placed port services could play a role in this regard. Currently, the most important non-oil sector in the country is the fishing industry, which has been growing rapidly in recent years.

Fostering investment in the domestic processing of fish could generate, for example, substantial additional national income. While manufacturing exports have been confined mostly to a narrow range of food and animal products, processing of fish is an example of how the manufacturing base could be broadened. But manufacturing alone is unlikely to drive economic growth. Yemen's economic strategy should be to stimulate a range of promising subsectors across manufacturing, services and agriculture.

Radical trade liberalisation has made Yemen one of the most open economies in the MENA region, but it has delivered few tangible economic benefits. In response, public investment needs to be deployed to alleviate critical supply-side constraints. If properly designed, such public investment should be able to stimulate private investment, not 'crowd it out', as neoliberal economists often fear.

Yemen is not suffering from some of the macroeconomic symptoms routinely

associated with a 'Resource Curse', such as an overheated economy and a grossly overvalued exchange rate. Because it has widespread unemployment and underemployment, there has been only moderate inflation in non-tradable sectors, such as services and construction. The supply of low-skilled labour can readily respond to any increase in oil-financed demand.

The current increases in inflation, particularly in food price inflation, have their domestic structural roots in the lack of investment in low-productivity agriculture and the intra-sectoral diversion of resources from the cultivation of grains. Channeling public investment to boost agricultural productivity will help Yemen mitigate the effects of a rising food import bill.

Most of Yemen's current problems can be traced to the underlying structural features of its underdevelopment as a least developed country. Its export of oil recently provided it with a windfall of resources to overcome these deep-seated problems. If such resources were strategically managed, a supposed 'Resource Curse' could be turned into a blessing.

But for this prospect to be realized, Yemen's energy resources need to be intensively ploughed into public and private investment. Yemen needs to transform its endowment of natural capital into a rapid accumulation of productive physical capital that will provide a broad and diversified foundation for accelerating economic growth, employment generation and poverty reduction.

**The views expressed in this article are the authors' and not necessarily those of UNDP.**

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# Venezuela: From Windfall to Curse?

by Jonathan Di John, Department of Development Studies, SOAS

**Oil windfalls are generally** considered more of a ‘resource curse’ than a blessing. The growth experience in Venezuela since the discovery of oil in 1920 provides an opportunity to examine the validity of the ‘resource curse’ paradigm. By 1928, Venezuela was one of the largest oil producers and exporters in the world and has remained an important oil economy ever since. But especially in the non-oil sector, its growth has slowed considerably in the post-1980 period (see Table).

twentieth-century Venezuela is not robust. Oil abundance has coincided during the whole period of 1920-2005 with long periods of both rapid growth (1930-1980) and stagnation (1980-2005).

The second main theory for an adverse impact of resource abundance is the rentier state model, which draws on the theories of rent-seeking and corruption. Its main contention is that oil abundance induces overly centralised public authority and

involved two very different strategies over time. The period from the early 1900s to the late 1960s was one of ‘easy’ import-substitution industrialisation (ISI), in which infant industry production tended to be technologically simple and small-scale, and major coordination of investment by the state was not essential for rapid growth.

The post-1968 period is characterised by a switch in the development strategy towards more advanced import substitution industrialisation focused on intermediate goods and heavy industry.

## Growth Trends in the Non-Oil Venezuelan Economy, 1920-2003

(average annual growth rates, %)

	Non-oil GDP	Manufacturing
1920-30	10.2	n.a
1930-40	2.7	n.a
1940-50	9.6	6.6
1950-60	9.1	15.0
1960-70	7.1	7.7
1970-80	5.7	9.7
1980-90	1.1	2.8
1990-98	2.7	1.2
1998-03	-3.5	-5.1

Source: Di John (forthcoming)

Average annual growth did recover in the period 2004-7, with non-oil GDP growing at over 10 per cent and manufacturing growing at 13 per cent. Such high growth rates were the result of dramatic increases in oil export revenues in the aftermath of four years of significant declines in economic growth.

There are two main theories that attempt to explain why oil abundance can harm long-term economic growth. First, ‘Dutch Disease’ models posit that oil booms produce exchange-rate revaluations. This reduces the incentives to invest in manufacturing and generally makes manufacturing output uncompetitive internationally.

While economic models of the ‘resource curse’ are consistent with the co-existence of the slowdown in manufacturing growth in Venezuela during the oil booms in the 1970s and early 1980s, the longer-run correlation of oil resource availability and manufacturing investment and growth in

excessive state interventionism and discretion, which, in turn, causes growth- and productivity-restricting corruption and rent-seeking. However, this proposition is not supported by comparative evidence across countries or the historical evidence of Venezuela itself. Similar levels of state centralisation and corruption have coincided with cycles of both growth and stagnation in Venezuela and elsewhere (Khan, 2006).

### Variations in Performance

Why has the use of oil rents been both more and less growth- and productivity-enhancing over time? The reigning explanations of Venezuela’s growth slowdown do not examine the extent to which different development strategies and stages of import-substitution affect the ability of national policy-makers to implement industrial policies.

The historical evidence on Venezuela suggests that its process of industrialisation

This strategy also involved a ‘big push’ to develop natural resource-based industries. What distinguishes the advanced ISI/big push strategy from the ‘easy ISI’ strategy is that advanced import substitution tends to be more technologically demanding, larger-scale, longer-gestating, and more in need of major coordination of large-scale investments by the state and the private sector.

### The Role of Political Dynamics

This distinction between the two types of development strategy matters for understanding the growth trajectory of the Venezuelan economy. Di John (forthcoming) argues that the more advanced ISI strategies require a polity that is capable of centralising coordination of investments and effectively monitoring the deployment of infant industry subsidies.

This requirement means, in turn, that large-scale fragmentation of political organisations and the state and major disagreements over policy among contending political parties, factions of capital and labor unions are likely to negatively affect productivity and output growth, particularly in the manufacturing sector.

There is, in fact, no reason to expect that the appropriate institutional structure and politics will necessarily emerge to accommodate a country’s stage of development and its changing technological challenges.

So a theory is needed that helps explain how economic performance in Venezuela depends on the extent to which development strategies and political settlements have been compatible over time.

Drawing on the rich political science literature on Venezuela helps us distinguish two broad types of salient polities in Venezuela over the period 1920-2005.

In the twentieth century, Venezuela can reasonably be characterised as a consolidated state in the sense that it has maintained a monopoly over the means of coercion and has been able to maintain political and social order for most of this period. However, the nature of political organisation and competition has changed substantially over the course of the twentieth century.

A consolidated state, as the political literature in Venezuela corroborates, has coincided with two very different types of political organisation and contestation: a consolidated state with centralised political organisations and a consolidated state with fragmented (and increasingly polarised) political organisations.

Consider the growth prospects of polities that are generally characterised by a consolidated state with centralised political organisations. Such a type of polity characterized Venezuela during most of the period 1920-1968.

**The case of Venezuela is relevant for re-thinking the political economy of the 'resource curse' in many export-oriented developing countries.**

Under this type, patronage structures are controlled by the executive in a centralised fashion. The deployment of patronage could take place under a cohesive military regime, under a centralised one-party state or through a high degree of cooperation between two contending political parties.

Generally, these type of polities are most likely to both promote economic growth through the early stage of ISI and meet the political and economic challenges of big push/advanced ISI development strategies.

In contrast, the growth prospects are less sanguine for a consolidated state with fragmented political organisations—a situation that is common in many less developed countries and characterised the Venezuelan polity during 1968-2005. In such polities, patronage structures are less coherent and predictable.

These types of polities may be capable of generating relatively rapid growth when

attempting to implement early-stage ISI strategies. But they are much less likely to successfully manage the more difficult economic and political challenges of big push/advanced ISI development strategies.

### **An Alternative Explanation**

The historical mapping of development strategies and political settlements helps provide an alternative explanation of Venezuelan growth and productivity. During the period 1920-1968, there was rapid growth in manufacturing output and respectable productivity growth because there was basic compatibility between the development strategy (early ISI strategies) and politics (a consolidated state with centralised political organisations).

In contrast, the period 1968-2005 is characterised by rapid declines of growth in non-oil and manufacturing productivity (see Rodriguez, 2006), and by a collapse in growth in the sub-period 1980-2003. The reason is that there was a basic incompatibility between the development strategy (a more advanced ISI and a 'big push' for a natural resource-based industrial strategy) and the country's politics (a consolidated state with increasingly fragmented and eventually polarised political organisations).

In the period 1968-2005, the Venezuelan political system became increasingly populist, 'clientelist' and factionalised at the same time as the development strategy and stage of import-substitution required a more unified and cohesive system. Such a break-down was closely related to efforts by the dominant political parties to preserve democratic rule and prevent a return to the authoritarianism that reigned during most of the first half of the twentieth century.

The resultant coordination failures of the big-push industrialisation strategy were manifested in the low monitoring of state-created rents and subsidies, excessive entry of private sector firms into protected economic sectors, and massive proliferation of public-sector employment and state-owned enterprises in a more decentralised and weakened public sector.

The alternative framework of analysis that is proposed here helps explain why resource abundance can sometimes be a 'curse' and at other times a 'blessing'. The Venezuelan case, far from being 'exceptional', is relevant for re-thinking the political economy of the 'resource curse' in many export-oriented developing countries.

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# Uzbekistan: From Import Substitution to Export Boom

by Terry McKinley, Director, Centre for Development Policy and Research

**Uzbekistan represents** an interesting case of a transition economy that remains reliant on an abundance of primary commodities to drive its economic growth. Yet it is also noteworthy for its strategy of gradual transition from state socialism to a market-based economy and for its extended period of import substitution. This article argues that, as a result, it has greater capacity than many other emerging economies to manage the consequences of an export boom.

Starting in the early 1990s, Uzbekistan has actively attempted to restructure its economy, primarily through substituting domestic production for imports. Early in the 1990s, cotton exports represented about half of its export value while about 60 per cent of its petroleum was imported from the Soviet Union.

Uzbekistan has greater capacity than many other emerging economies to manage the consequences of an export boom.

But the country became self-sufficient in oil within a few years by developing oil resources that had remained unexploited during the Soviet period. It also mounted a campaign to become more self-sufficient in grains, achieving about 90 per cent self-sufficiency by the early 2000s based on converting land from cotton to grain production.

## Setbacks to Trade

Such developments were fortuitous since Uzbekistan began to suffer severe external shocks to its trade in the late 1990s. Cotton production plunged by 15 per cent in 1996 and experienced sharp oscillations thereafter.

The world price of cotton also fell to about 43 per cent of its 1995 level by 2001. The sharp depreciation of the Russian rouble, due to that country's 1998 financial crisis, compounded Uzbekistan's problems by making its exports to its main trading partner much more expensive.

In response, Uzbek policymakers tightened controls on the currency and trade regime and focused on compressing imports in order to maintain a trade balance. Their continuing import substitution policies also succeeded in reducing the country's heavy reliance on cotton exports by laying the basis for increasing non-traditional exports.

During the early 2000s, Uzbekistan experienced moderate rates of economic growth. But its rate of growth jumped from a yearly average of roughly four per cent during 2000-2003 to over seven per cent during 2004-2007. In 2007, its growth rate reached 9.5 per cent (and had been projected to average over eight per cent during 2008-2010).

This acceleration of growth is attributable to an export boom, powered by increases in cotton, energy and gold exports. The country's current account balance reached almost 24 per cent of GDP by 2007. This dramatic improvement has been due to a rise in the world prices for its exports—as well as increased remittances from workers who have emigrated to neighbouring CIS countries.

## Is Uzbekistan Vulnerable?

Is Uzbekistan now vulnerable to the dynamics of a 'Resource Curse', i.e., first experiencing a boom in the exports of primary commodities and then an inevitable bust? The projected slowdown in the global economy, precipitated by a U.S. recession, will surely be an important factor, if mainly indirectly.

Global demand for Uzbekistan's cotton and other primary-commodity exports is likely to slow.

However, the composition of Uzbekistan's exports and imports has been improving. Between the two periods 1995-1999 and 2003-2006, the share of its exports composed of cotton, gold and energy decreased from about three-quarters to less than two-thirds (see Table). While the share of gold rose by about 10 percentage points, the share of cotton exports was cut in half. An encouraging sign was the rise in the share of 'Other Exports' (excluding cotton, gold and energy) by almost 12 percentage points, to about 37 per cent.

Meanwhile, Uzbekistan was able to increase its import share of machinery to about 47 per cent. Most importantly, it was able to more than halve the import share of food, to less than 10 per cent, and to hold the import share of energy to about four per cent.

This signifies that Uzbekistan is in a much stronger position than many other emerging economies. It is not acutely vulnerable to the recent rise in prices of food and energy. Its long-standing efforts to substitute domestic production for such imports have paid off.

## Structural Constraints

In spite of these achievements, Uzbekistan could be adversely affected by the projected global slowdown in growth, particularly through the knock-on effects of a reduction in Russian energy exports.

Shares of Exports and Imports, 1995-1998 and 2003-2006 (%)

	1995-1999	2003-2006
<b>Exports (%)</b>		
Cotton	42.1	20.6
Gold	18.2	28.6
Energy	14.3	13.8
Other	25.4	37.1
<b>Imports (%)</b>		
Food	21.5	9.1
Energy	1.0	4.1
Machinery	42.8	47.3
Other	34.7	39.6

Source: Country Study #12, International Poverty Centre

While Uzbekistan's export-led growth has reached 8-9 per cent per year, such rates were not likely to be sustainable even if favourable conditions had continued. Its levels of investment, both public and private, are too low. Since 2002, its share of gross investment in GDP has remained stuck in the 19-20 per cent range.

The real challenge for Uzbekistan is to channel domestic savings into productive private investment.

Given reasonable assumptions about Uzbekistan's marginal capital-output ratio, its investment to GDP ratio would have to rise to 25 per cent just to sustain a six per cent annual rate of economic growth.

Hence, this structural constraint implies putting a premium on converting the current gains from trade into increased domestic investment. Measured as a ratio to GDP, domestic savings has exceeded domestic investment by 7-10 percentage points since 2002. So Uzbekistan is not constrained by a lack of domestic savings but by an inability to mobilise savings to finance investment.

Uzbek policymakers have to deploy a range of policies to boost domestic investment. Their fiscal policies should focus on augmenting public investment in strategic infrastructure that will help 'crowd-in' private investment. The resources for financing increased public investment are available, e.g., derivable from the resources freed up by the reduction of Uzbekistan's external debt or the redeployment of its large stock of foreign-exchange reserves.

Uzbekistan also has a credible revenue base. Its gains from trade have not lulled it into neglecting the mobilisation of public revenue. While brought down from over 30 per cent in the 1990s, Uzbekistan's revenue to GDP ratio still stood at about 25 per cent in the early 2000s. In recent years, the budget has remained roughly in balance and the country's debt burden has notably declined. The one concern is inflation but it has remained within a moderate range of 10-15 per cent.

The real challenge for Uzbekistan is to channel domestic savings into productive private investment. In the long term, this hinges on reforming the financial system.

But in the medium term, the state will have to play the leading role, such as

implementing an industrial policy to guide the allocation of resources to internationally competitive sectors of the economy that have the potential to both grow and generate productive employment. An investment bank, financed in part by rents from Uzbekistan's natural resource booms, could play a central role in such a strategy.

By adopting such an economic strategy, Uzbekistan could turn its current export boon to its long-term advantage. It has the advantage of a diversified range of exportable commodities (gold, energy and cotton) and could continue diversifying into non-traditional exports. On the import side, its early import substitution policies have allowed it to mitigate the impact of the severe food and fuel price shocks ravaging many other emerging and developing economies.

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# Making the 'Resource Curse' Inevitable in Zambia

by John Weeks, Professor Emeritus, School of Oriental and African Studies,  
and former Director, Centre for Development Policy and Research

**It is generally recognised** that during export booms, resource-rich countries can often face the problem of upward pressure on their nominal exchange rate, which is typically combined with inflationary pressures that worsen the tendency to real appreciation. Both problems require coordinated macroeconomic management to contain such negative effects.

It is also extremely important that fiscal policies be designed to reap the benefits of a boom in revenue in order to finance public investment and support private investment. Too many resource-rich—and otherwise poor—countries have handed out lavish tax concessions in order to attract foreign investors.

Coordinating exchange-rate and monetary policies is crucial. Floating exchange-rate regimes and restrictive inflation-targeting monetary policies are usually counter-productive in such a context. And trade liberalisation and open capital accounts only make matters worse.

Because of the pressure for currency appreciation, managing the exchange rate is particularly important. Also, since expectations of appreciation can encourage short-term speculative capital inflows, a useful policy complement is capital-account regulation. In such a context, raising interest rates to dampen inflation could well intensify such volatile inflows.

Combining deregulation of the capital account and a floating exchange rate with monetary policies that are fixated on maintaining low inflation is a recipe for a Dutch disease disaster. Yet, it is precisely these worst-case options that orthodox macroeconomic policy often insists on adopting.

## The Making of a Curse

Unfortunately, Zambia, which enjoys large deposits of copper, has suffered from the imposition of precisely such counter-productive policy orthodoxy. After 2004, copper prices more than doubled. In response, Zambia was encouraged to have no capital controls, institute low trade tariffs and adopt a flexible exchange rate.

In nominal terms, Zambia's exchange rate appreciated by 30 per cent by the end of the second quarter of 2008 compared to its

level in the first quarter of 2005. This was over 50 per cent in real terms (see Figure).

In Zambia, the IMF and the World Bank made a number of critical mistakes in their policy recommendations. During the 1980s, the country's copper production fell dramatically, almost to zero in the early 1990s. Meanwhile, radical trade liberalisation contributed to the collapse of its domestic manufacturing. With copper employment approaching nil and manufacturing jobs disappearing, urban poverty in one of Africa's *least* rural countries rose dramatically.

During the 1990s, a process of copper privatisation began, managed by the World Bank. The privatisation sales included extremely liberal tax exemptions, implying that any ensuing recuperation in copper prices would generate little revenue for the public sector. However, copper prices did recover, beyond the wildest hopes of the companies, but this occurred in the worst possible context for the government.

## The Predictable Effects

The combination of a substantial appreciation of the Kwacha, as indicated in the Figure, and a liberalised trading regime served to undercut Zambia's agricultural production. Simultaneously, the zealously pursued anti-inflationary policy of the central bank limited access to credit. This constrained growth in the non-copper sectors of the economy and blocked effective interventions in the foreign-exchange market to dampen appreciation.

Moreover, Zambia's government received little initial fiscal benefit from the copper

boom, because of the tax concessions that it had been forced to concede, and thus it had to operate under severe expenditure limits set by the IMF.

If ever there was a failure foretold, it was in Zambia after 1990. A government suffering from a severe revenue constraint was pressed to accept copper privatisation that liberated companies from taxation. Moreover, a country that had an underdeveloped agricultural sector, due originally to the colonial division of labour in British Central Africa, found itself operating with the lowest agricultural tariffs in the region.

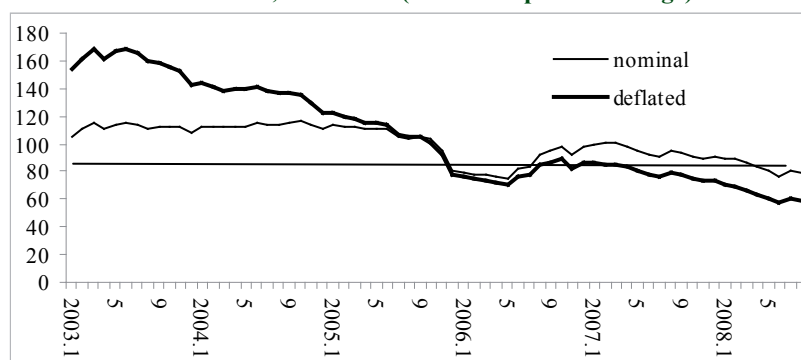
Zambia's high interest-rate monetary policy ensured that productive investments would be unprofitable if financed domestically. And, finally, a rapidly appreciating exchange rate undermined non-copper tradables and substantially reduced the domestic currency equivalent of the major sources of government income, namely, trade-related taxes and official development assistance.

The experience of Zambia suggests that if developing countries endowed with abundant resources suffer from a 'resource curse', the spell is not necessarily cast by inexorable forces, but by seriously misguided economic policies. And for the curse to be lifted, such policies have to be abandoned.

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**Zambian Kwacha, Monthly Indices of Nominal and Price Deflated US Dollar Rate, 2003-2008 (relative to period average)**



Sources: Bank of Zambia. Note: A lower index indicates appreciation

# Comparing Copper Revenues in Chile and Zambia

by Elva Bova, Department of Economics, SOAS

**The economies of both** Chile and Zambia have long been dominated by the production and export of copper. Copper still constitutes 40 per cent of Chile's total exports and 70 per cent of Zambia's. But there are significant differences in how the two countries have been able to reap the benefits of revenue from copper exports. Chile has been able to carefully manage its copper revenues while Zambia has been much less successful.

The ownership structure of copper mining in both countries has been an important factor in explaining the differences in their economic performance. A related factor has been the ability of each country to both raise and manage public revenue from copper exports. In both countries, the copper industry had been nationalised in the early 1970s but the end result for each country in the 2000s has been substantially different.

Despite the coup in 1973, the Chilean state maintained monopoly ownership over most of the copper mines. The share of public ownership was gradually reduced from 85 per cent in the 1970s to 39 per cent in 2006. At that point, large private mines accounted for about half of the ownership while small private mines accounted for the remaining 10 per cent.

But Chile's state-owned company, CODELCO, is still the largest producer of copper in the world and holds about one fifth of the world's copper reserves. It also contributes most of the tax revenue from copper, paying a tax rate of about 29 per cent on the final price. Unfortunately, private mining firms enjoy a very low tax rate of about five per cent. Hence, Chile still loses a lot of potential tax revenue. A rough estimate for the period 1990-2001 calculated a loss of revenue of over US\$ 10 billion.

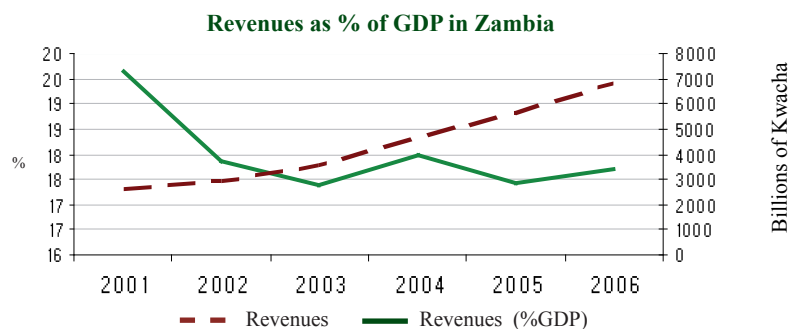
## Loss of Tax Revenue

The loss of potential tax revenue is, however, much more pronounced in Zambia. In the 1990s, as its industry continued to languish because of low copper prices, the country resorted, in desperation, to drastic privatisation of the mines. Between 1997 and 2000, Zambia's state-owned company, ZCCM, was split up into seven different units and sold off to multinationals at bargain-basement prices.

Although the Zambia state has retained

a nominal share in each copper company (which accounted for about 10 per cent of the total industry in 2007), it has, so far, received no dividends from such ownership. Moreover, it had followed the faulty advice of international financial institutions in granting many hefty tax concessions to these companies when the mines were privatised.

A recent study by Fraser and Lungu (2007) has found that the mining firms pay an effective rate of only 0.6 per cent in royalties (although the nominal rate is 2.5 per cent). The resultant loss in royalties in 2007 alone would amount to about US\$ 50 million. Also, the mining firms benefit from being granted deductions of 100 per cent on capital expenditures and being exempted from paying customs or excise duties. In addition, they are allowed to carry forward any losses for 15-20 years and can claim a refund on all the value added taxes that they pay on goods locally purchased.



Source: World Bank, *World Development Indicators* 2008

As a result, although Zambia's copper revenues, in absolute terms, more than doubled between 2001 and 2006, i.e., during the copper boom, its revenues fell as a share of GDP (See Figure). The government was unable to take advantage of the copper boom because of the many tax concessions that it had granted. The opposite has been the case in Chile, where copper revenues rose steadily after 2003 to reach over 25 per cent of GDP in 2006.

Fortunately, having recognised its past policy mistakes, Zambia recently increased taxation of its copper industry, which has been exceedingly profitable, and expects to receive larger revenues in fiscal year 2008.

Fiscal management has differed in the two countries. Zambia has been running fiscal deficits since 2001, in large part because

it has foregone much of the potential revenue that it could have reaped from the copper mines.

Chile deliberately plans for a yearly budget surplus equal to one per cent of GDP, based largely on its projection of medium-term copper prices. The government then channels this surplus, in the form of investment in foreign assets, into an Economic and Social Fund and a Pension Reserve Fund.

## Saving Export Revenue

This mechanism allows the government to save export revenue for future uses, especially in the event of a plunge in copper prices. Such an approach also enables the government to avoid appreciation of its exchange rate—which is a common symptom of the so-called 'Dutch Disease'.

The contrasting experiences of Chile and Zambia point to the desirability of maintaining a significant share of public

ownership of mining industries when they account for a large proportion of a developing country's export revenue. Such ownership has the potential not only of generating greater fiscal revenues than private multinational ownership but also of enabling precautionary saving of such revenue for future use in the event of plummeting international prices.

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# Brazil's Self-Inflicted Economic Wounds

by Antonio Carlos Macedo e Silva and Ricardo Carneiro, University of Campinas, Brazil

**In Brazil, there has been** widespread concern about both the level and the fluctuations of the exchange rate. Real exchange rates oscillate more in developing countries than in developed ones (Eichengreen and Hausmann 2005). Such a pattern concerns heterodox economists because of their belief that an undervalued and stable real exchange rate can contribute to a virtuous circle that links together exports, investment and growth, and is particularly important for investment decisions in technologically more sophisticated sectors, especially in manufacturing industry (see Bresser-Pereira 2008).

The implications of exchange-rate volatility are hotly debated internationally and there is growing support for the view that the level of the exchange rate does indeed matter for growth and development (see Hausmann et al. 2006). Table 1 presents measures of exchange-rate volatility for 20 economies. It shows that the real exchange rate in Brazil has been particularly volatile.

However, it is more difficult to determine whether a country's exchange rate is undervalued or overvalued. Even from the theoretical standpoint, there is no obvious way to define the 'right' level of the real exchange rate. Nassif (2008) chooses 2000 as the base year for judging the comparative level of Brazil's exchange rate. Few economists would doubt that before that year the exchange rate had been overvalued and thereafter a pronounced devaluation helped to improve Brazil's trade account. Using such a base year indicates that Brazil's real exchange rate has been overvalued most of the time since 1989.

The thesis that real exchange rate overvaluation has prompted—along with other factors such as trade liberalisation—a process of de-industrialisation in Brazil has been the subject of a fierce debate. Many heterodox economists in the country believe that Brazil suffers from some of the symptoms that are commonly ascribed to the so-called Dutch Disease.

However, if such were the case, there should be a strong correlation between fluctuations in the terms of trade and the behavior of the real (and the nominal) exchange rate.

A careful look at historical trends indicates, however, that although Brazil's terms of trade have fluctuated (and have risen dramatically both during the period 1994-1997 and the recent period of commodity boom, 2001-2008), gyrations in the real and nominal exchange rates have been much larger, and have been unrelated to fluctuations in the terms of trade. It is thus doubtful that the changes in Brazil's terms of trade could explain its trade balance and, by implication, movements in its exchange rate. Causality appears to run, in fact, in the opposite direction.

## Portfolio Inflows

Since the 1980s, the stabilisation plans adopted in Latin America have involved liberalisation of the capital account and have relied on renewed inflows of private capital. However, most of the inflows have been portfolio investment, 'hot money', which previously had been restricted. When Brazil lifted capital controls and instituted high real rates of interest, the ensuing portfolio inflows led to a strong revaluation of its currency. Even though Brazil began to run record trade deficits, the flood of portfolio inflows was initially celebrated by Brazilian officials.

A general trend toward overvaluation of Brazil's exchange rate has been interspersed with isolated periods of significant devaluation. The first episode, in 1999, coincided with the crisis of the Plano Real and the adoption of a new policy regime that featured the usual neoliberal duo of inflation targeting and flexible exchange rates. The second peak reflected the capital outflow from Brazil that resulted from the 'flight to quality' after 9/11 and the US recession in 2001. Another 'flight to quality' was triggered by the (unjustified) fear of a significant change in policy upon Lula's election. Since then, however, there has been a sustained period of revaluation due, in part, to tight monetary policies and liberalisation of the capital account.

The Brazilian Central Bank has deservedly earned a reputation of being one of the toughest practitioners of an inflation-

**Table 1. Effective Exchange Rate Indexes, Real (CPI-based), 2000 = 100, 1994.7 – 2008.10**

	Maximum	Minimum	Amplitude	Standard-deviation
Russia	193.1	75.8	117.3	30.5
Argentina	107.6	37.3	70.2	25.0
Slovakia	178.0	84.4	93.6	26.5
Indonesia	166.0	52.1	113.9	24.5
Brazil	146.7	59.4	87.3	24.3
Philippines	132.2	82.0	50.2	12.4
Japan	119.4	63.2	56.2	12.0
Hong Kong SAR	117.0	70.3	46.7	11.9
Mexico	114.2	53.6	60.6	11.9
Korea	121.8	66.3	55.5	11.5
Thailand	138.6	77.6	61.0	11.3
Euro area	129.8	95.0	34.8	8.8
Taiwan (China)	108.3	77.1	31.2	8.4
Chile	112.1	79.3	32.8	7.8
China	112.1	71.4	40.8	7.4
United States	108.0	80.6	27.4	7.4
United Kingdom	102.9	79.8	23.2	6.5
Singapore	111.3	91.1	20.2	5.6
India	111.9	88.0	23.9	4.4
Denmark	111.9	98.1	13.8	3.3

Source: BIS.



targeting monetary regime. Recognition that Brazil's state is dominated by rentier interests also helps explain why monetary policy has remained totally fixated on the inflation rate. There is strong evidence that this monetary regime works mainly through the forceful impact of high real interest rates on maintaining an appreciated exchange rate.

The Figure below provides an illustration of the policy of high interest rates in Brazil. It depicts a rough proxy of the covered interest rate differential of financial investment in Brazil. The solid black line in the figure is the result of subtracting from the Brazilian annualised policy interest rate (the Selic) the sum of the Federal Funds interest rate, the Brazilian country-risk measure (the Embi+) and the current change in the nominal exchange rate (see Prates and Farhi 2008).

In spite of revaluation in recent years, Brazil has maintained surpluses on its trade balance and after 2003 even on its current account. This resulted from gains in the terms of trade and, most importantly, growth in the volume of its exports. Moreover, for about two years (from mid 2004 to mid 2006), Brazil even experienced the somewhat unusual combination of revaluations of the real exchange rate and increases in the trade surplus.

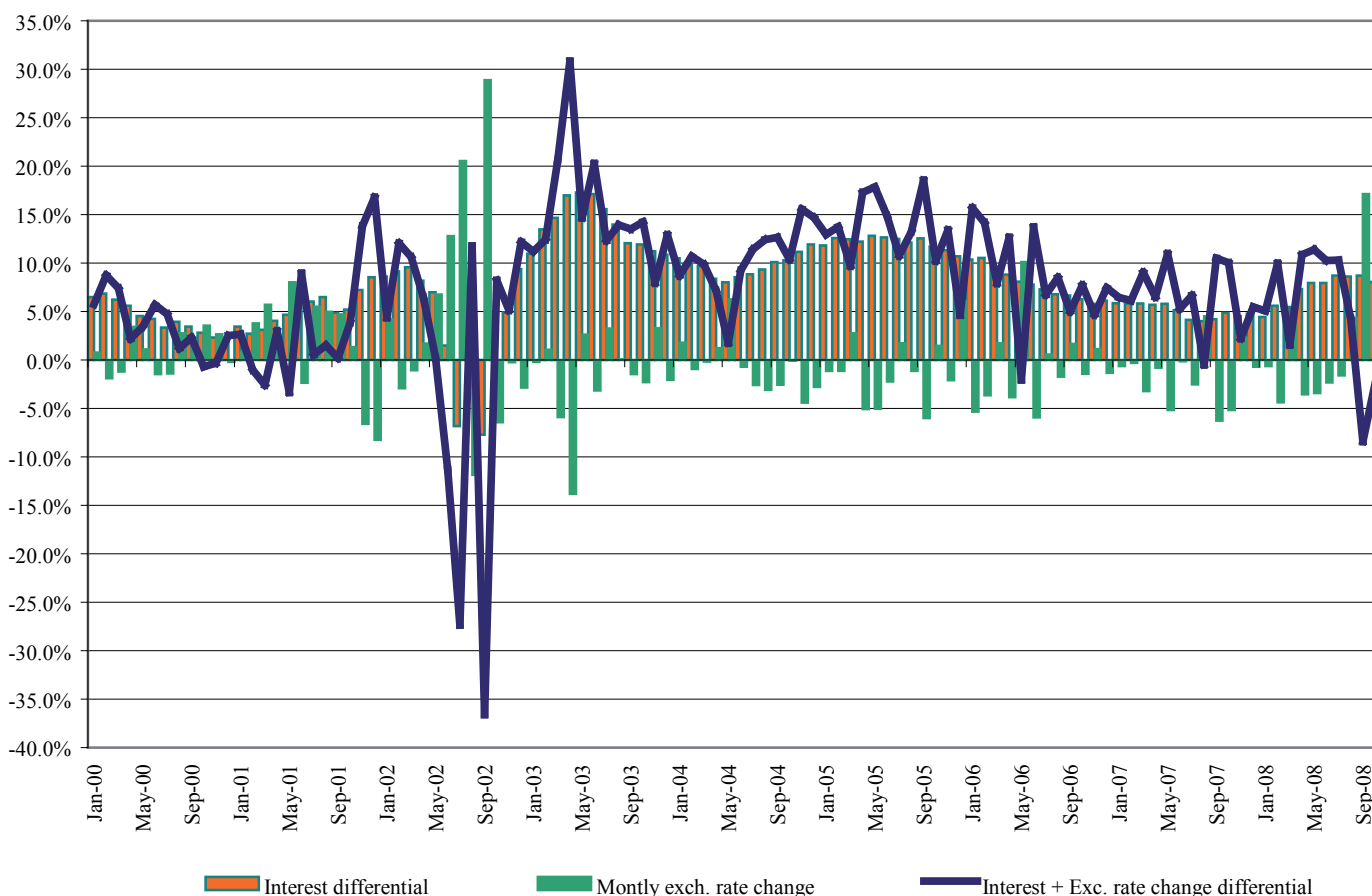
### A New Polemic

Though heterodox economists forcefully warned that this situation could not last – and it didn't – it introduced new elements into the old polemic about the evolution of the Brazilian structure of production and the country's position in the international division of labour. More optimistic economists (who tend to be more conservative)

it had represented 32 per cent of GDP in 1986, it fell to a trough of 20 per cent in 1998 and thereafter climbed back to only about 23 per cent in 2005. But in the last ten years, there has been a more noteworthy process of 'selective' de-industrialisation, in which the sectors more intensive in technology have been losing their capacity to add value, as national production chains have been replaced by global outsourcing (see Comin 2008 and Carneiro 2008).

International comparisons make it painfully clear that Brazil has followed—as have other Latin American countries—a much less promising development path than those pursued by successful Asian countries (Macedo e Silva 2008). Compared to the performance of Latin America, industrial sectors based on high and medium technology have grown at a much quicker pace in Asia.

**The Covered Interest Rate Differential for Brazil, 2000.1 – 2008.10**



Sources: Bacen, the Federal Reserve, JP Morgan.

Since about 2003 this differential, though fluctuating, has often exceeded ten percentage points, and sometimes even 15. This has been extraordinarily good news for financial investors. But when one considers that the Brazilian economy grew at only a mediocre 3.5 per cent from 2002 to 2006, the results of such a tight monetary policy are much less impressive.

quickly concluded that Brazil was finally reaping the fruits of the very long process of structural reforms, which were supposed to purge the economy of the 'excesses' of the period of import substitution.

But during this long period of reforms, manufacturing industry declined. While

Despite the recent surge in commodities prices, there are good reasons to believe that the structure of international trade will remain heavily biased towards medium and high-tech goods.

Table 2 (next page) illustrates how Brazil lags behind in the sectors producing such goods. It shows the technological structure

**Table 2. The Technological Structure of Global Imports (for the most dynamic importers)**

	World 1990	Brazil 1990	World 1995	Brasil 1995	World 2000	Brazil 2000	World 2005	Brazil 2005
Primary commodities	16.5	48.5	15.2	54.0	11.4	46.7	11.4	47.9
Energy goods	11.9	2.7	7.8	0.7	10.7	2.5	14.3	5.5
Labor intensive and resource-based	14.3	13.4	13.1	13.7	11.8	11.9	10.3	10.4
Low skill and technology intensity	5.8	12.5	7.5	10.6	7.2	8.2	7.5	9.2
Medium skill and technology intensity	24.2	12.8	27.2	12.1	27.5	14.1	25.6	15.2
High skill and technology intensity	22.3	8.8	23.9	7.0	25.6	12.8	25.7	9.4
Unclassified	5.0	1.3	5.3	2.0	5.8	3.8	5.2	2.4

Source: COMTRADE.

of the imports by the 20 countries that contributed most to the growth of global imports in 2000-2005. The top five countries were China, Germany, the US, Japan and the Netherlands. The 'World' columns show the composition of the total imports by the 20 countries while the 'Brazil' columns show the composition of *their imports* only from Brazil.

This comparison highlights that Brazilian exports remain heavily concentrated in primary commodities, are over-represented in labour-intensive, resourced-based exports and low-skill, low-technology exports, but are under-represented in the exports with either medium or high levels of both skill and technology. Such structural factors do not bode well for Brazil's long-term growth prospects.

### Summary

In sum, Brazil remains hampered by a long period of high real rates of interest and an overvalued exchange rate, a fragile industrial base and underdevelopment in the most dynamic sectors of international trade.

These problems suggest that Brazil should initiate an economic transformation by adopting policies that are similar to those recommended to countries affected by Dutch Disease symptoms (especially since the recent discovery of huge reserves of pre-salt oil could transform the country into a major energy exporter).

A promising start for such policies would involve taking bolder steps towards the management of its exchange rate and towards promoting the diversification of its structure of production and exports.

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