



WORKING PAPER NO.9

# Growth Strategies for Africa

Paul Collier





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## About the Series

The Commission on Growth and Development led by Nobel Laureate Mike Spence was established in April 2006 as a response to two insights. First, poverty cannot be reduced in isolation from economic growth—an observation that has been overlooked in the thinking and strategies of many practitioners. Second, there is growing awareness that knowledge about economic growth is much less definitive than commonly thought. Consequently, the Commission’s mandate is to “take stock of the state of theoretical and empirical knowledge on economic growth with a view to drawing implications for policy for the current and next generation of policy makers.”

To help explore the state of knowledge, the Commission invited leading academics and policy makers from developing and industrialized countries to explore and discuss economic issues it thought relevant for growth and development, including controversial ideas. Thematic papers assessed knowledge and highlighted ongoing debates in areas such as monetary and fiscal policies, climate change, and equity and growth. Additionally, 25 country case studies were commissioned to explore the dynamics of growth and change in the context of specific countries.

Working papers in this series were presented and reviewed at Commission workshops, which were held in 2007–08 in Washington, D.C., New York City, and New Haven, Connecticut. Each paper benefited from comments by workshop participants, including academics, policy makers, development practitioners, representatives of bilateral and multilateral institutions, and Commission members.

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The working paper series was produced under the general guidance of Mike Spence and Danny Leipziger, Chair and Vice Chair of the Commission, and the Commission's Secretariat, which is based in the Poverty Reduction and Economic Management Network of the World Bank. Papers in this series represent the independent view of the authors.

## **Abstract**

Over the past four decades Africa has diverged from other developing regions and is now the poorest region in the world. This paper offers an explanation of Africa's slow growth in terms of its distinctive economic and human geography: its high dependence upon natural resource exports, the many landlocked countries, and the high ethnic diversity of the typical state. It discusses how key economic policy choices, especially trade and fiscal policy, and assistance from the international community, need to be tailored specifically to these distinctive circumstances.

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# Growth Strategies for Africa

*Paul Collier*<sup>1</sup>

## 1. Introduction

Africa has evidently not grown as rapidly as other low-income regions. To get beyond this loose statement to actual numbers requires averaging across the growth rates of Africa's 44 countries. There are three ways of doing this averaging and they make a difference. The crude way is to take the simple average across all 44. This is obviously inadequate since it gives the same weight to São Tomé and Príncipe and Nigeria. The way that all the economic statistics are reported, for example, by the IMF, weights by the GDP of each nation. This is the right way if the question concerns the growth of aggregate GDP for the region as a whole. However, this is not usually what people want to learn from African growth rates. Rather, they want a number that at least approximates to the experience of the typical African. Weighting by GDP is highly problematic for Africa because half of the region's GDP is produced in one country, South Africa, which has only 5.24 percent of the region's population. Further, the South African economy has consistently followed a path rather different from elsewhere in the region. The approach I take is to average country per capita growth rates weighting by population rather than by GDP.

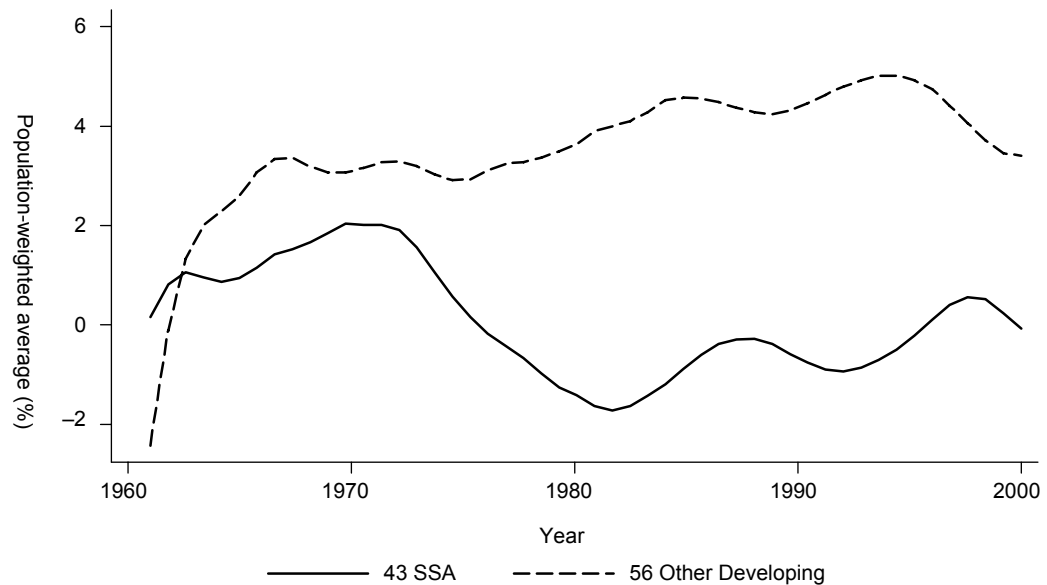
On average over the period 1960–2000 Africa's population-weighted per capita annual growth of GDP was a mere 0.1 percent. In effect it stagnated while other regions experienced accelerating growth. Indeed, between 1980 and 2000 the annual rate of divergence was an astounding 5 percent. The growth rates for 43 African countries and 56 other developing countries, smoothed of year-to-year variations, are shown in figure 1. These are all the countries for which a full set of growth data are available for the four decades.

Part I of this paper sets out an explanation for why this happened and whether it is likely to recur, using the building blocks of economic geography. Africa is distinctive both in its physical geography and its human geography and these have shaped its opportunities.

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**Figure 1: Smoothed Growth Rates of Real GDP Per Capita**  
(countries with full set of observations)



Source: World Bank and PWT 6.1.

Part I has three sections. Section 2 considers the implications of Africa's distinctive physical geography. It accounts for some of Africa's slow growth and suggests how strategies will need to differ radically among Africa's countries. In Section 3 I turn to its distinctive human geography and the political problems that this has created. To a considerable extent these problems recently have been surmounted: Africa's human geography may explain delayed take-off rather than predict persistent stagnation. Finally, in Section 4 I consider three interactions between physical geography and human geography that generate intractable problems that are likely to require both regional action and international assistance in various forms.

Part II uses the analysis of Part I to consider policy options. Section 5 discusses options for African governments. Section 6 focuses on the supporting actions that can be taken by governments outside Africa and by international agencies. Section 7 offers a brief conclusion.

## PART I: THE CONTEXT FOR POLICY CHOICES

### 2. Three Geographic Opportunity Groups

Africa is too large and diverse a region to be treated as a single aggregate. Its defining physical geography is that it is a massive land area divided into 44 countries, with overall a low population density compared with other low-income regions. The aspect of Africa's physical geography that has recently received most emphasis is its climate and disease vectors. I will emphasize two other features that I suspect may be more important for economic performance. Both of these features distinguish one part of Africa from another: it is an enormous region and cannot sensibly be analyzed as a single entity. Because Africa is land-abundant yet low-income, natural resource endowments loom much larger in its fortunes than for any other region except the Middle East. However, these resources are unevenly distributed. Considerable parts of Africa are abundant in natural resources, but other parts are resource-scarce. The other feature of physical geography follows from the fact that Africa is enormous and divided into many countries. As a result, many of its countries are landlocked.

Potentially, these two distinctions create four possible categories: resource-rich and landlocked; resource-rich and coastal; resource-scarce and landlocked; and resource-scarce and coastal.<sup>2</sup> However, the resource-rich coastal countries and the resource-rich landlocked countries can be re-aggregated into a single group. If the resources are sufficiently valuable, being landlocked is not a significant disadvantage to their extraction. Conversely, the coastal countries are generally not in a position to take advantage of nonresource exports because of the effects of Dutch disease on their export competitiveness. Empirically, even at a global level, there is no significant difference in growth performance between those resource-rich countries that are landlocked and those that are coastal, so we can pool them into a single group.

We thus have three categories: the resource-rich countries, the resource-scarce countries that are coastal, and the resource-scarce countries that are landlocked. These three categories have had sharply distinct growth performances globally, and this has been mirrored in Africa. The best-performing category globally has been the coastal, resource-scarce countries, of which there are many Asian examples. The worst-performing category globally has been the landlocked, resource-scarce countries. In between, the resource-rich countries have on average grown moderately but with massive differences both between countries and time periods. The growth rates for each category decade-by-decade are shown in table 1.

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<sup>2</sup> This discussion is based on Collier (2007) and Collier and O'Connell (2007).

**Table 1: Growth Per Capita, by Opportunity Category and Decade**

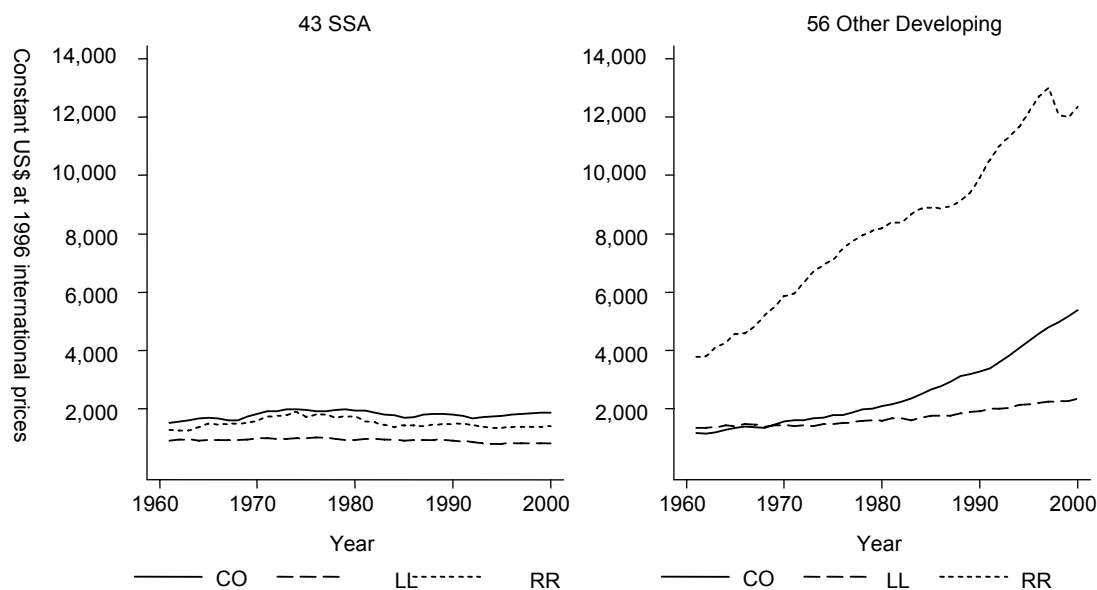
Decade	Overall		Coastal		Landlocked		Resource-Rich	
	43 SSA	56 Other	43 SSA	56 Other	43 SSA	56 Other	43 SSA	56 Other
1960s	1.04	2.29	1.36	2.25	0.16	0.74	2.08	3.85
1970s	0.86	3.23	1.32	3.18	-0.31	1.26	1.42	3.89
1980s	-0.79	4.32	-0.85	4.68	0.14	1.56	-1.67	1.50
1990–2000	-0.46	4.46	0.27	4.74	-1.30	1.91	-0.42	2.47
Total	0.13	3.63	0.50	3.79	-0.36	1.40	0.29	2.89
	Difference		Difference		Difference		Difference	
1960s	1.25		0.89		0.58		1.77	
1970s	2.37		1.86		1.57		2.47	
1980s	5.11		5.53		1.42		3.17	
1990–2000	4.91		4.47		3.21		2.89	
<b>Total</b>	<b>3.50</b>		<b>3.29</b>		<b>1.76</b>		<b>2.60</b>	

*Note:* The sample includes all developing countries with full availability of data. Growth rates are population-weighted annual growth rates. Note that the country composition of the group averages changes as the group composition evolves.

Africa broadly followed this global pattern, with three important differences. First, by far the largest difference between Africa and other developing regions was in the category of countries that are resource-scarce and coastal. In particular, as shown in table 1, the difference opened up massively during the 1980s and 1990s. Since around 1980 the non-African economies in this category have been outperforming their African counterparts by around 5 percent per year. Nor is this confined to the two giant coastal resource-scarce economies, China and India. Even when these two are excluded, there is a severe divergence. The second difference between Africa and other developing regions was in the category of countries that are resource-rich. In this case the difference has persisted ever since the 1960s rather than exploding since 1980. Only in the category of landlocked and resource-scarce countries, which globally have been slow-growing, is the difference modest, though even here it has been widening decade-by-decade. Indeed, thanks to their fast growth they are converging on the developed countries. By contrast, in Africa on average countries in all three categories has stayed resolutely stuck below US\$2,000 per capita. As a result, Africa has been diverging from the rest of mankind.

The third important difference between Africa and the other developing regions is in the distribution of population among the three categories. In the developing world other than Africa some 88 percent of the population lives in the coastal, resource-scarce countries, around 11 percent in the resource-rich countries, and a mere 1 percent in the landlocked resource-scarce countries.

**Figure 2: Simulated Real GDP per Capita**  
(countries with full set of observations)



Source: PWT6.1, World Bank, and authors' calculations.

In Africa the population is approximately evenly spread among the three groups. Thus, the African population is heavily skewed towards the globally slow-growing category of landlocked, resource-scarce, and away from the globally fast-growing category of coastal, resource-scarce. This unfortunate distribution accounts for around 1 percentage point of growth: that is, even if African countries grew at the mean of their category, the distinctive distribution of the population would leave the region with substantially slower growth than other regions.

However, the key importance of distinguishing among the three geographic categories is not that their growth performance has differed, but that their opportunities are sufficiently different that strategies for accelerated growth are likely radically to differ. Hence, I now turn to the opportunities and constraints characteristic of each category.

### Landlocked and Resource-Scarce

The most striking difference between Africa and other developing regions is in the proportion of the population in landlocked, resource-scarce countries. Put another way, outside Africa areas with these poor endowments seldom became independent countries: rather they became the hinterlands of countries that are overall more fortunately endowed. For example, a recent commentary on whether Kurdistan would secede from Iraq noted that "Kurdish officials ... admit secession would be difficult given that Kurdistan is a

landlocked region.”<sup>3</sup> With hindsight, the creation of so many such countries in Africa may have been a mistake, but it is now difficult to change. Indeed, recent political secessions are adding to the number of such countries. The secession of Eritrea turned Ethiopia into a landlocked, resource-scarce country and if Southern Sudan secedes it might join this category. If current political divides in Côte d’Ivoire and the Democratic Republic of Congo hardened into secessions they would result in two further landlocked states. Perhaps the centrifugal political force of “self-determination” needs to be countered more vigorously by the centripetal economic force of viability. This is a matter for leadership: in the words of Nechirvan Barzani, prime minister of Kurdistan, “As the leadership, it is not our role to follow the sentiments and emotions of the street.”<sup>4</sup>

Nevertheless, being landlocked and resource-scarce does not necessarily lock a country into poverty. Globally, there are some obvious examples of success among landlocked, resource-scarce countries, such as Switzerland and Austria. However, these countries have benefited enormously from their neighborhood. In effect, being landlocked has not cut them off from international markets but rather placed them at the heart of a regional market. More generally, the most promising strategy for such countries has been to orient their economies towards trade with their more fortunately endowed neighbors. As the barriers to international trade have come down this has become easier and indeed outside of Africa the growth rates of landlocked, resource-scarce countries have steadily accelerated. The evidence for growth spillovers from neighbors is quite strong. Globally, on average if neighbors grow at an additional 1 percentage point, that raises the growth of the country itself by 0.4 percent. Outside Africa the landlocked, resource-scarce economies on average gain larger spillovers, at 0.7 percent for each additional 1 percent growth of their neighbors. Thus, they are consciously orienting their economies towards making the most of these growth spillovers. By contrast, in Africa, the growth spillover for the landlocked, resource-scarce economies is a mere 0.2 percent for each 1 percent of additional growth in their neighbors. In other words, they are not orienting their economies towards their neighbor.

Paradoxically, to date this failure of regional integration has not really mattered. As shown above, until recently even the more fortunately-located African countries have largely failed to grow. Hence, there has been very little growth to spill over. This suggests that the critical path for the landlocked, resource-scarce countries to succeed is first that their more fortunate neighbors need to harness their opportunities, and only then that the subregional economies need to become radically more integrated.

This implies that the landlocked, resource-scarce countries are triply dependent upon their neighbors. First, and most obviously, they are dependent upon their coastal neighbors for access to the sea. This is an unreciprocated

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<sup>3</sup> *Financial Times*, October 28, 2006, p.9.

<sup>4</sup> *Financial Times*, October 28, 2006, p.9.

dependence: Uganda depends upon the government of Kenya for access, but Kenya does not depend upon the government of Uganda. Coastal countries differ in how seriously they prioritize the interests of their landlocked neighbors. Nuno and Venables (2001) investigated the international transport costs faced by landlocked countries in importing a standard container from the United States. They found that while the average landlocked country indeed faced radically higher transport costs than coastal countries, the costs differed enormously among landlocked countries. They were able to trace these differences to differences in expenditures on transport infrastructure in their coastal neighbors: where the neighbor had prioritized investment in transport infrastructure the landlocked country faced substantially lower transport costs.

The second type of dependence is less obvious but probably even more important. The landlocked have an interest in the economic governance of neighboring countries since if their neighbors continue to forego opportunities this closes off their own opportunities. Again, this is not a reciprocated dependence: the prospects for the economic development of Niger are critically dependent upon whether Nigeria harnesses its massive opportunities for growth more successfully than it has done in the past. For example, a buoyant Nigerian economy would provide the natural market for livestock reared in Niger. By contrast, economic governance in Niger is of virtually no consequence for Nigeria.

The third type of dependence is that it takes two to integrate: the landlocked cannot integrate into a subregional market unless their neighbors implement policies that enable it to happen. The integration agenda is partly a matter of practical policy such as the removal of road blocks and harassment by customs officials. To continue with the Nigerian example, there are more official road blocks per kilometer of transport arteries to neighbors in Nigeria than anywhere else in West Africa (Alaba et al., 2007). It is partly a matter of trade policies: until 2005 Nigeria refused to implement the ECOWAS free trade area agreement, and in the mid-1990s Kenya without warning banned the import of maize from Uganda. Finally, it is a matter of infrastructure: more roads need to be built and above all maintained, not just for access to the coast but for access to the regional market. Again, this dependence is not fully reciprocal. The potential for integration into the regional market matters more for the landlocked and resource-scarce, which have no alternative, than for their more fortunate neighbors.

Between them, these three unreciprocated dependencies create an important question mark over national sovereignty. If the very viability of the landlocked, resource-scarce nations depends upon the decisions of their more fortunate neighbors, they need to have some right of voice in those decisions. This suggests that Africa has a much greater need for a political architecture above the level of the nation than do other regions. I return to this issue when considering policy options.

Landlocked, resource-scarce countries have no single obvious winning growth strategy that will take them to middle-income status. So they need to be ingenious. I now set out nine policies that are likely to be helpful. The fact that there are nine of them is not, however, encouraging. Rather, it is an indication that there is no one obvious thing to do. I start with the three strategies that have already been touched on through the discussion of dependence upon neighbors.

### ***Strategy 1: Increase Neighborhood Growth Spillovers***

What can be done to increase growth spillovers from neighbors? Cross-border trade is primarily a matter of transport infrastructure and trade policy. However, cross-border trade depends upon the transport infrastructure on both sides of the border: so half of the problem is outside the control of the government of the landlocked country. What about trade policy? While the landlocked countries have a strong interest in regional integration, including the elimination of intraregional trade barriers, they also have a strong interest in reducing the external trade barriers of the region. Regional trade barriers generate an invisible transfer from the poor landlocked countries to their more industrialized and richer neighbors as a result of a phenomenon known as “trade diversion.” Within a regional trade bloc the landlocked countries should therefore lobby for the lowest possible trade barriers. But again, that depends on the neighbors. When Uganda recently adopted the Common External Tariff of the revived East African Community, it was required to raise its trade barriers against nonmembers, thereby inadvertently generating a substantial transfer to Kenya.

### ***Strategy 2: Improve Neighbors' Economic Policies***

As discussed, an implication of spillovers is that once economies are better integrated, the economic performance of neighbors matters. The faster neighbors grow, the faster the landlocked country will grow. Not only can the landlocked not afford to make policy mistakes, they cannot afford their more fortunate neighbors to make mistakes. Hence, good policy choices of the more fortunately endowed neighbors are regional public goods and so they tend to be undersupplied through individual national decisions.

### ***Strategy 3: Improve Coastal Access***

Access to the sea is a vital interest for landlocked countries, but the costs of access depend upon the transport infrastructure and policy decisions of coastal neighbors. Since the neighboring governments are providing a regional public good, usually they have insufficient incentive to provide as much of it as is needed.

### ***Strategy 4: Become a Haven for the Region***

Many business services are regionally traded rather than globally traded, for example some financial services. Often these services depend upon a good policy

environment. If one country in a region manages to set policies clearly superior to those of its neighbors it will attract these services and export them around the region. The classic example of such a role was Lebanon, which became a financial center for the entire Middle East. As Lebanon demonstrates, a country does not need to be landlocked in order to become a regional haven. The landlocked have no absolute advantage. However, they do have a comparative advantage. Landlocked countries evidently have fewer alternative strategies than more fortunately endowed countries and so can be seen to have a stronger incentive to sustain necessary reforms. The possibility of becoming the center for those regional goods that are highly policy-sensitive, such as finance, gives landlocked countries a differential incentive to adopt good policies.

### *Strategy 5: Don't be Air-Locked or E-Locked*

It is possible that developments such as e-trade and air-freight that do not disadvantage landlocked countries might offer a new route to global integration. Clearly, the landlocked countries should push these opportunities to the hilt. Being landlocked is not a choice, but being airlocked is largely a matter of airline regulation and competition policy. The policies that produced high-cost monopolies such as Air Afrique were evidently mistaken. Similarly, the twin pillars of e-trade are international telecoms and higher education. Policies that raise the cost of international telecoms, or make access unreliable, and the neglect of tertiary education, are thus costly for landlocked, resource-scarce countries.

The technology of trade has thus to some extent shifted in favor of landlocked countries. Air transport is much more important than it used to be. There are significant economies of scale in air transport and in this respect the landlocked countries are at a disadvantage because they are small markets for air services. However, low costs are possible even at modest scale: the key is deregulation. Nigeria provides a good model of how an open-skies policy can radically reduce the cost of air services and increase their frequency. Possibly these very companies might provide the foundation for a region-wide low-cost air service for landlocked Africa. More generally, the landlocked need cost-cutting companies such as Ryanair, Easyjet and Southwest Airlines. What they have had is staggeringly expensive and badly run state airlines.

E-services now have the potential to deliver rapid economic growth. This is the story of recent economic development in India. Because India is a coastal economy it has many options for global integration. The landlocked do not have such a range of options. E-services are attractive because distance is irrelevant. The twin pillars of being competitive in e-services are having good telecommunications infrastructure and having workers with post-primary education. Good telecommunications depends upon getting regulatory and competition policies right. It is a relatively simple matter to tell when they are wrong: prices are too high relative to global benchmarks and coverage is inadequate.

### ***Strategy 6: Encourage Remittances***

Because landlocked economies have fewer options for growth they are likely to experience substantial emigration. This of course depends upon the willingness of other governments to let in immigrants from the bottom billion, and in any case it leaches out the society's talent. However, emigration can be turned to some advantage through enabling migrants to make large remittances. Maximizing remittances depends upon several steps. One is to educate people so that they are employable in higher-income economies rather than simply as unskilled workers in neighboring countries that are almost as poor. Another is to facilitate the finding of jobs in such economies. A model for such practices is the Philippines, where training is targeted to the needs of high-income economies and the government provides information and embassy services to make hiring of its citizens easy. Another is to encourage emigrant workers to remit part of their incomes. This depends upon banking systems and exchange rates. An overvalued exchange rate taxes remittances and therefore discourages them. A longer-term strategy is to encourage the diaspora to invest in the country, for example, by building homes for family and retirement, and by linking the second-generation emigrants more closely to the country.

### ***Strategy 7: Create a Transparent and Investor-Friendly Environment for Resource Prospecting***

The area of landlocked low-income countries currently classified as resource-scarce is enormous. It seems likely that there are valuable resources in the ground that have not yet been discovered. The main impediments to prospecting are likely to be the risks as perceived by resource extraction companies. Some of these are political, but the more important ones are probably the risk to the reputation of the company should the governance of the resource revenues become manifestly problematic. Not all companies are concerned about the risk to their reputation because not all companies have good reputations to protect. However, this gives rise to what is known technically as an "adverse selection problem": the companies attracted in to the risky environments are those that are not concerned about poor governance and so have no interest in helping to avoid the problems of the resource trap.

### ***Strategy 8: Rural Development***

Because landlocked countries do not have the option of rapid industrialization, the bulk of their populations will continue to be rural for a long time. In turn this implies that policies for rural development should receive higher priority than in other economies. Whereas the policies needed for industrial exports are pretty standard around the world, policies for rural development must be adapted to local circumstances and so require a much larger investment in local knowledge. A further constraint upon rural development is the subsidies that are paid to farmers in Europe, Japan, and the United States.

### *Strategy 9: Try to Attract Aid*

Even with a government's best efforts at these strategies the country is likely to stay poor for a long time. So it should try to be as attractive as possible to donors. Increasingly, donors are expecting (i) a transparent budgetary system, so that they can demonstrate to taxpayers that money is not being diverted into corruption, and (ii) evidence that money is not merely being spent honestly but is being put to good effect—that it is achieving the goals of development. Governments of landlocked, resource-scarce countries that put in place systems that satisfy these two distinct conditions can expect large and sustained increases in aid over the years. Under these conditions it is entirely appropriate that a substantial part of the aid be deployed directly to raise the consumption levels of poor people rather than be confined exclusively to income-generating uses.

Although these countries are the core of Africa's poverty problem I am going to focus on the other two opportunity categories. It is the inability of the African countries in these categories to harness opportunities that has been decisive for the growth problems of the landlocked.

### **Resource-Rich**

Now consider the resource-rich countries. These are increasingly important in Africa, partly as a result of higher commodity prices and partly as a result of resource discoveries. As noted in the Introduction, globally, high commodity prices are a mixed blessing for resource-exporting countries. I first consider the evidence on how commodity prices affect growth, and then turn to policies that might improve on the historical record.

### *Commodity Prices and Growth: The Evidence*

Collier and Goderis (2007) use co-integration techniques to distinguish short-run effects on growth rates from the long-run effect on the level of income. They use global data for the period 1960–2004, and find that Africa is not significantly different from the global pattern. The relationship they find can then be used to simulate the short- and long-run consequences of the recent increase in the world prices of Africa's commodity exports for its resource-rich countries. In the simulation I assume that world prices continue to be volatile but that the whole distribution of prices is permanently shifted up by 85 percent from their previous level, this being the approximate magnitude of the increase in Africa's export prices to date. Obviously, there is no way of telling whether the additional demand for commodities due to growth in Asia will continue to have this effect on prices, but this assumption is surely a favorable scenario. The impact obviously depends upon how important such exports are relative to GDP, and I will take a fairly high case in which they are initially 35 percent of GDP. Collier and Goderis find that for the first five years growth is significantly higher. By the fifth year this faster growth has cumulatively raised constant-price GDP by around 4 percent compared to what would have happened with lower prices.

This increase in the quantity of output is additional to the direct income effect of the improvement in the terms of trade: with exports initially 35 percent of GDP, the doubling of price directly raises income by 35 percent. Thus, by the fifth year the economy is in the midst of a bonanza in which real income has risen by around 39 percent. However, from then on things typically go badly wrong. The full effects take a long time to work their way through: the adjustment to the long-run equilibrium is only at around 7 percent per year. However, after 25 years, the increase in export prices has actually reduced constant-price GDP relative to its counterfactual. The effect is substantial, with constant-price GDP lowered by 44 percent. The effect on income is much smaller because the decline in output is mitigated by the fact that the terms of trade improvement is still directly raising income by 35 percent. Hence, the net decline in income is more modest, at around 9 percent. The massive decline in output is, however, astonishing. The sustained windfall obviously creates the potential for radically higher investment. Cumulatively over 25 years the economy should have achieved enormous increases in output that dwarf the initial direct gain in income. What typically goes wrong and frustrates this potential?

Three processes seem to generate this long-term adverse effect. The first is Dutch disease, which tends to make nonresource exports uncompetitive. For example, in Nigeria oil exports led to the rapid collapse of agricultural exports. There is evidence that Dutch disease can indeed foreclose other export opportunities. In a study that focuses on growth rates industry-by-industry, Rajan and Subramanian (2005) show that exchange rate appreciation indeed reduces the growth rates of labor-intensive industries. However, Collier and Goderis control for Dutch disease and find that, although it has a statistically significant effect, it is only a minor part of the overall explanation. Real appreciation can be a problem and successful economies have tended to maintain depreciated exchange rates. However, the core reasons for the failure to harness resource rents for growth go beyond the real exchange rate.

They find that a more important factor, accounting for around one third of the overall problem, is macroeconomic volatility. For example, as Addison (2007) shows, since the discovery of oil, Nigeria has been among the 10 most volatile economies in the world. Volatility can be detrimental to growth in several respects. One is that it makes investment more risky and so tends to discourage it. Another is that public spending decisions tend to become compromised, with extravagant commitments being made during booms that then force drastic cuts in vital expenditures during troughs.

However, between them, Dutch disease and volatility account for less than half of the overall adverse long-term effects. The most plausible explanation for the large residual is that resource rents erode economic governance and that this deterioration decisively reduces growth. However, the evidence for this is less direct than that on Dutch disease and volatility. One indirect indicator that governance is the key problem is that the world prices of depletable natural

resources have completely different effects from those of the agricultural export commodities: an increase in world agricultural prices has beneficial long-term effects for the countries that export them. An increase in export prices will generate Dutch disease, regardless of the commodity, and the prices of agricultural commodities are approximately as volatile as the other commodities. Hence, the differential effects of agricultural commodities are unlikely to arise due to distinctive Dutch disease effects or distinctive consequences of volatility. However, rents from the production of depletable resources are normally very much higher than for agricultural commodities, so that a far lower proportion of total export income accrues to government. In effect, the bulk of the revenues from depletable resource exports accrue to government, whereas the bulk of the revenues from agricultural exports accrue to farmers. Because government is handling the former but not the latter, issues of governance are likely to be much more important.

Resource-rich societies will inevitably have large public sectors. The resource rents will quite properly be taxed in order for them to accrue to the nation, and the revenues from these taxes will then be spent by the government. Effective public spending is thus critical in these societies because of its scale. Continued improvements in public spending are also directly important for growth: since the public sector is a large part of the economy, its own productivity growth is a key component of overall growth.

Effective public spending depends upon how the government allocates resources and motivates public employees. The most pertinent approach for Africa is likely to be a system in which both the government and its service-providing units are accountable to citizens. This is not, however, the only feasible approach. In some contexts nonaccountable governments themselves internalize goals that lead them to enforce efficient public service delivery: dictators sometimes indeed “make the trains run on time.” As will be discussed in Section 3, there are underlying reasons why the “efficient dictator” model is usually not applicable in Africa. Hence, here discussion will be confined to accountability to citizens.

### ***Building Systems of Accountability for Service Delivery***

The spread of democracy across much of resource-rich Africa during the 1990s might potentially provide the context for such accountability, implying a much more effective use of resource windfalls than during the previous episode of windfalls in the 1970s when dictatorship was the norm in the region. Unfortunately, the statistical evidence suggests that globally, instead of democracy improving the way in which resource revenues are used, resource revenues undermine how democracy works. Collier and Hoeffler (2006) investigate the relationship between resource rents, growth, and democracy for a global sample of countries over the period 1970–2001. They find that in the absence of natural resource rents, democracies tend to grow significantly faster

than autocracies. In contrast, in the resource-rich countries autocracies outperform democracies. Collier and Hoeffler account for this disappointing result by suggesting that in resource-rich countries democracy tends to get corrupted into patronage politics because resource rents substitute for taxation. With low taxation citizens are not “provoked” into scrutinizing government and this weakens the checks and balances upon the use of power. This in turn produces an unbalanced form of democracy in which electoral competition, which constrains how power is *achieved*, is not matched by checks and balances, which constrain how power is *used*. Without strong checks and balances electoral competition drives political parties to resort to patronage: votes are bought instead of won. Collier and Hoeffler test this by introducing a measure of checks and balances into their analysis (Beck et al. 2001). They find that uniquely in the resource-rich societies, checks and balances are significantly beneficial for growth, whereas the remaining aspects of democracy are detrimental. Thus, those resource-rich countries that are democratic need a rather distinctive type of democracy with strong checks and balances. Africa indeed has such a country, namely Botswana. With due respect to the government of Botswana, it has not faced severe electoral competition: despite continuous democracy since independence it has never actually lost power. It does, however, have impressively strong checks and balances, notably rules for public spending. All public spending projects have to pass a dual hurdle of honesty and efficiency. Honesty has been maintained by rules of competitive tendering. Efficiency has been maintained by careful technical scrutiny of the rate of return on each proposed project, with the political support to block all projects that fail to meet a critical minimum return. Unfortunately, Botswana is exceptional, and a more common pattern is illustrated by Nigeria under President Shagari (1979–83). This regime displayed the classic patronage politics of resource rents in the context of intense electoral competition without effective checks and balances. Though democratic, it failed to harness the previous Nigerian oil bonanza for sustained growth.

There are two reasons to be concerned that Africa’s resource-rich democracies lack sufficiently strong checks and balances. One is that many of the resource-rich African democracies are “instant.” As demonstrated by Afghanistan and Iraq, it is possible to establish electoral competition in virtually any conditions, but it is far harder to establish effective checks and balances. There are strong private incentives to participate in electoral competition because this is the route to power. Further, elections do not require continuous effort, but merely a brief period of activity. Although they are expensive, they are sometimes funded by donors. For example, donors provided US\$500 million for the 2006 elections in the Democratic Republic of Congo. By contrast, checks and balances are public goods that nobody has any particular incentive to strive for, and they require continuous effort. Thus, most democracies in resource-rich Africa have not started with effective checks and balances. The second reason to

be concerned is that globally, resource rents tend to erode such checks and balances as do initially exist over time, although the process of erosion is slow (Collier and Hoeffler, 2006). In summary, resource-rich countries need a form of democracy with unusually strong checks and balances, but typically get a form in which they are unusually weak. The leadership challenge is to build and maintain effective checks and balances. This is considered further in Section 5.

### *Saving Windfalls*

I have emphasized the importance of effective public spending and this seems likely to be lie at the core of avoiding the “resource curse.” However, as discussed above, volatility is also a significant and important route by which the potential from commodity exports has not been realized. In tackling volatility the key issue is not the spending process but rather the savings decision. Economics provides a helpful and straightforward framework for thinking through the three critical public decisions that are fundamental to whether a temporary resource windfall is transformed into a sustained increase in living standards. These are the decision as to how much of the revenues should be saved, the decision as to how much of these savings should be invested domestically, and the decision as to how this investment should be divided between the public and private sectors. These decisions are considered in more detail in Section 5.

### **Resource-Scarce and Coastal**

I now turn to the resource-scarce, coastal economies. These are the category that globally has had the fastest growth, but also the category in which African performance has been least encouraging relative to the global norm. The only African country to succeed in this category has been Mauritius, which followed the Asian pattern in transforming itself through exports of manufactures from an impoverished sugar economy into an upper-middle income country and by far Africa’s richest economy.

Whereas in resource-rich countries the state has to be large, in the coastal, resource-scarce economies the state need not be central to rapid development. The core growth process in these economies is to break into global markets for some labor-intensive product. The process of harnessing labor abundance for exporting is extremely “lumpy” in terms of products, time, and space (Venables, 2005). Typically, a country breaks into global markets in only a very narrow range of products: early on, efforts must be focused on making these few products to global standards rather than an across-the-board effort to raise efficiency. Typically, the break-in occurs explosively: until a threshold is reached there appears to be no potential for exporting, and once this threshold is crossed exports go through a phase of extraordinary growth. The new export activities are highly spatially concentrated, typically in a single coastal city. These three lumpy features (products, time, and space) of labor-intensive exporting are not characteristics to be resisted: for example, the government should not attempt to

impose regional diversification upon export locations in the interest of equity. Rather, they are features to be recognized and accommodated. They are the reality of breaking into new export markets.

This process is fundamentally a matter for the private sector. The state may, as in parts of East Asia, actively help it, but it is by no means necessary. Indeed, the essential aspect of government behavior is that it should not actively inhibit the emergence of a new export sector by burdensome regulation, taxation, or predation. Quite possibly the easiest way for the state to “do no harm” in this situation is for it to be small, and concentrated upon essential public services. Thus, the “minimal state” model may well sometimes be appropriate in Africa, though evidently not in the context of resource riches discussed in the previous subsection. The size of the state has too often been derived from ideology rather than from an analysis of the consequences of differences in opportunities.

Prior to 1980 manufacturing and services were concentrated in the OECD economies, locked in partly by trade restrictions but mainly by economies of agglomeration. The concept of economies of agglomeration is that when many firms in the same activity are clustered in the same city, their costs of production are lower. For example, because there is a large pool of skilled labor and suppliers of inputs, individual firms do not need to hoard skilled labor or carry high inventories. Around 1980 a combination of trade liberalization and the widening gap in labor costs between the OECD and developing countries began to make it profitable for industry to relocate to low-income countries. This process is explosive: as firms relocate agglomeration economies build up in the new location and make it progressively more competitive. Unfortunately for Africa, the chosen locations where these new agglomerations became established were in Asia, not in Africa. The factors that determined this choice need only have been temporary and need not have been massive. However, once Asia got ahead of Africa the forces of agglomeration made it progressively harder for Africa to break in. Currently, Africa has no significant advantage over Asia in terms of labor costs while having large disadvantages in terms of agglomeration economies.

### **3. Human Geography**

I now turn to the other important distinctive aspect of Africa’s geography: human geography, both political and social. Africa’s political geography is unmistakably striking: it is divided into far more countries than any other region, while being considerably less populous than either South or East Asia. As a result, the average population of its countries is radically smaller than that of other regions. Africa’s social geography is also unmistakable: despite the division into tiny countries the typical country is ethnically far more diverse than countries in other regions, and with low and stagnant income households have

yet to make the demographic transition to fewer children. Hence, small population, ethnic diversity, and rapid population growth are the three distinctive sociopolitical features of African geography. Each of these creates problems.

### **The Problems of Being Small**

Globally, being small is no impediment to being rich: Luxembourg is as rich as the United States. But in the context of development being small poses substantial problems.

After independence Africa, like other developing regions, plunged into a range of bad economic policies and governance. The process of achieving a sustained and decisive turnaround from such configurations is difficult: despite being economically dysfunctional they were politically rather stable. Chauvet and Collier (2008) consider this process of turnarounds from initially bad policies and governance, analyzing a global sample of countries for the period 1974–2004. They find that globally having a small population and having a population with a low level of education both make it significantly less likely that decisive change will be achieved. They account for this as reflecting scale economies in the social process of formulating a critique of past failure and implementing a strategy for change. For example, scale enables a society to have a specialist press that can conduct economic discussion. Thus, Chinese and Indian society were each able to diagnose failure and implement radical change purely through internal debates, whereas a tiny society such as the Central African Republic has an acute dearth of resident skills. Other than in South Africa, no African society has a sufficiently large market to support specialist economic media. Thus, Africa's political geography has made economic reform more difficult and helps to account for the greater persistence of poor policies in Africa than in other regions.

Fortunately, in the past decade many African societies have succeeded in designing and implementing a measure of economic reform, helped by substantial international technical assistance. Improved macroeconomic indicators are the clearest evidence of this process. Hence, to an extent, the greater difficulty of reform in small countries may account for why Africa persisted with poor policies for longer than other regions rather than be a prognosis for the future. It may take longer to learn from failure if the society is small, but learning nevertheless happens.

Not only is reform more difficult if the population is small, but the risk of state failure is higher. Civil war is enormously costly and lasts a long time. Even once over, the society has a high risk of reversion to conflict. Collier, Hoeffler, and Rohner (forthcoming) analyze proneness to the onset of civil war, globally for the period 1965–2005. They find that the risk that a region will experience civil war increases considerably the more countries into which it is divided. They suggest that this is primarily because the provision of security is subject to strong scale economies: the typical African nation is simply too small for its government

to provide effective internal security. The small size of the typical African state is a major reason why Africa has a much higher incidence of civil war than South Asia. Further, the costs of civil war in terms of reduced growth are not confined to the country at war. More than half the costs typically accrue to neighbors. An analogy is to imagine a city in which each street was autonomous and so could not afford an adequate fire service. Not only would there be a lot of fires, but when one house caught fire a whole district might burn. This suggests that regional and international actors are needed to enhance African security.

### **The Problems of High Ethnic Diversity**

The other sociopolitical aspect of African geography is the high ethnic diversity of the typical country—considerably greater than any other region. Ethnic diversity is not a decisive impediment to development, but it does pose problems if mishandled.

First, although democracy is evidently not always necessary for growth, it is much more important in the context of ethnic diversity. China shows that amazing success is possible without democracy, but China is not diverse. Statistically, democracy is important for growth if the society is ethnically diverse (Collier, 2001; Alesina and La Ferrara, 2005). China can grow under autocracy because it is ethnically unified, but in Africa autocracy has proved disastrous. The likely explanation is that in an ethnically diverse society an autocracy usually rests on the military power of a single ethnic group. The more diverse is the society the smaller is likely to be the share of the population constituted by the ethnic group in power. A minority in power has an incentive to redistribute to itself at the expense of the public good of national economic growth. Ethnically diverse democracies may be messy, but they do force the coalition in power to be large. This in turn increases the attraction of broad-based growth relative to redistribution to the groups in power. Hence, Africa needs democracy more than other developing regions.

A second aspect of ethnic diversity is that it makes collective action for public service provision more difficult in the society. Inter-group trust is normally limited. A corollary is that the boundaries between public and private provision should be drawn more in favor of private provision in societies that are more diverse. This is, indeed, often the case. Thus, the United States, being a diverse society, has a smaller public sector than France, a more unified society. Another corollary is that public spending may be more effective if it is decentralized: at the local level Africa is much less ethnically diverse than at the national level.

A third aspect of ethnic diversity is that it makes a society somewhat more prone to violent conflict (Collier, Hoeffler, and Rohner, 2006). The effect is not massive, but risks are significantly higher controlling for other characteristics. There may appear to be a tradeoff here between size and homogeneity. Larger societies may be safer for a given degree of diversity, as discussed above, but

they are liable to be more diverse and so more at risk from this perspective. However, Africa is estimated to have some 2,000 distinct ethno-linguistic groups, and so even its smallest nations are usually diverse. Further, there is some evidence that having one ethnic group that is in a small majority—that is, “ethnic dominance”—is particularly problematic, and this is more likely to occur in small societies.

### **The Problems of Rapid Population Growth**

The demographic contrast between Africa and China is as striking as that in economic growth: the Chinese population has stabilized whereas that of Africa continues to grow more rapidly than any other region. Ironically, with its exploding demand for an industrial labor force, China is in the better position to cope with rapid population growth without threatening living standards.

Demographic growth is problematic for Africa not merely because of its pace, but because the twin pillars of Africa’s economy—agriculture and natural resource extraction—both utilize assets in fixed supply. Hence, population growth inevitably reduces the per capita endowment of these assets, unlike in industry where population growth can be fully accommodated by sufficiently rapid capital accumulation. China currently has extraordinarily rapid capital accumulation, and so could easily accommodate rapid population growth. Africa’s key factor of production is land. Even to consider this as being in fixed supply in fact exaggerates Africa’s future prospects. In respect of agricultural land, the supply is being reduced both by desertification and by urbanization, which is more rapid in Africa than any other region as a result of its population growth. In respect of natural resources, supply is being reduced by depletion: for example, Cameroon has almost exhausted its oil endowment. I first consider these two changing endowment ratios in turn.

The decline in the ratio of agricultural land relative to the agricultural population inevitably produces a tendency towards falling labor productivity. While this can be countered by technical progress and by capital investment in agriculture, it constitutes a drag on the growth of per capita income that has no counterpart in industry or services. The process can be seen at its most acute in Africa’s most land-scarce societies, Rwanda and Burundi. Being landlocked and resource-scarce, these countries have lacked other opportunities for rapid growth and so much of the population growth has necessarily had to make a living in agriculture. The comparison of agricultural household surveys done over the years reveals that the declining per capita land endowment has fully offset all the other sources of growth in agricultural incomes. In this sense it is reasonable to conclude that agricultural incomes have stagnated *because of* population growth.

The decline in the ratio of depletable natural resources relative to population is the most evident income-reducing consequence of population growth: the same rents have to be divided between more people. One potentially very serious consequence of such a decline is that countries that are initially landlocked but

resource-rich gradually become resource-scarce. The key instance of this in Africa is Zambia, where government revenue per capita from copper mining has declined catastrophically from its peak in the 1970s, partly due to depletion, partly to lower prices for copper, and partly to rapid population growth. Even before societies reach the point at which rents per capita have dwindled away, they can encounter problems. One example is South Africa, where rapid population growth is shifting the defining feature of the economy from resource abundance to resource scarce and coastal. South Africa's economic future is likely to depend upon whether it can harness its growing abundance of labor for new export opportunities in manufacturing and services. A consequence of this need to reorient the economy is that much of South Africa's infrastructure, though excellent, is fundamentally in the wrong locations. The resource extraction economy is located several hundred miles from the sea, whereas to harness labor abundance for exports, major new agglomerations will be needed in the coastal cities.

A third problem generated by rapid population growth is that the society has a disproportionately high share of its population made up of youth. One of the factors that makes a society much more prone to violent conflict is having a high proportion of its population being young men (Collier, Hoeffler and Rohner, 2006). This is the group within society that constitutes the natural, and indeed, virtually the exclusive, recruitment base for rebel movements.

A final problem generated by rapid population growth is that it puts a considerable strain upon the society's education budget. Necessarily, education budget resources have to be skewed towards primary education. As a result, resources for secondary and tertiary education get squeezed, as has happened across Africa over the past two decades. A corollary is that the society gets trapped into a low level of education. Not only is this directly costly in terms of levels of skill, it rebounds upon the ability of the society to conduct an informed political process. Democracy functions better when citizens are educated. There is recent statistical support for this proposition. For example, Besley et al. (2004, 2005) find that in India education reinforces political accountability: it improves public service delivery at the level of the local state, and Chauvet and Collier (2008) find that when the citizenry is educated the pace of policy reform is more rapid. Indeed the idea has been recognized for a long time. When Britain democratized as a result of an extension in the franchise in the 1880s, in a celebrated comment a leading politician declared "now we must educate our masters." In Africa this process of education has been truncated by the budgetary pressures due to population growth.

## 4. Physical and Human Geography Interacted: Africa's Dilemmas

I now bring together physical geography with human geography. The interaction of the two creates four acutely difficult problems for African economic development.

### **Resource-Rich and Ethnically Diverse Societies**

Africa's big economic opportunity is its natural resource rents. Not only does a disproportionate share of Africa's population live in resource-rich countries, but for the foreseeable future commodity prices are going to be high and discoveries will be skewed towards the region. As set out in Section 2, large resource rents imply a large state and hence the central importance of effective public spending, but also make democracy radically less effective in the growth process. Sadly, it seems that the typical resource-rich country might grow faster under autocracy. However, as set out in Section 3, Africa's high ethnic diversity makes autocracy damaging. Africa's resource-rich countries do not have the option of growth through autocracy.

Further, ethnic diversity weakens the ability of the society to hold public services accountable. Because such collective action is more difficult, an ethnically diverse society is best-suited to a relatively small domain of the state. However, resource-rich Africa does not have the option of a small public sector: resource rents inevitably accrue to the government and will largely be spent by it.

Finally, resource-rich societies face a particular difficulty during export booms. Recall that these are the times when good policy decisions have the highest payoff. If the boom opportunities are badly managed then the periods of low prices will be difficult to manage even with good policies. Hence, if policy and governance is initially poor, it is during booms that there is the highest premium on policy reform. Unfortunately, the global pattern is that export price booms significantly chill policy reform (Chauvet and Collier, 2008). Most probably, those parts of the elite that are reluctant supporters of reform out of necessity if times are bad, decide that reform can be avoided if times are good. Hence, societies that have painfully realized that rapid reform is necessary, such as has been the case in Nigeria since 2003, may find that boom conditions remove the sense of urgency from the reform agenda and indeed divert political attention to the contest for spending. Thus, the very conditions in which good policies have their highest payoff may tend to undermine the political process of achieving them.

So what sort of political system would best serve a resource-rich and ethnically diverse country in the early stages of an export boom such as is currently common in Africa? Autocracy is irredeemably dysfunctional in the context of ethnic diversity, but democracy is not irredeemably dysfunctional in

the context of resource rents. The form of polity that appears to be best suited to ethnically diverse societies with resource rents is a democracy with unusually strong checks and balances and decentralized public spending. How the government can *use* power needs to be heavily constrained, rather than simply how it *attains* power. Botswana demonstrates both that this combination is possible in Africa and that it is massively effective in delivering development in resource-rich societies. For many years Botswana was the fastest growing economy in the world. Yet currently Botswana is exceptional. Most resource-rich states have unusually weak checks and balances, not unusually strong ones. The key challenge currently facing Africa's resource-rich societies is to build such polities.

To counter the twin dangers of patronage politics and populist politics, there is a case for enshrining some economic decision-making processes in the constitution, as did Indonesia in the aftermath of its hyperinflation. Most developed countries now handle monetary and exchange rate policies through independent central banks. While this may also be appropriate for resource-rich countries, the core decisions are not monetary but fiscal. Further, unless a government has reasonable confidence that future governments will not squander any savings, there is little incentive to forgo consumption in the first place. In effect, resource-rich countries need "fiscal constitutions" that set out the rules to be followed both by the present government and its successors for saving and spending resource revenues. The advantage of constitutional provisions is that, while they can always be overturned, as is essential in a democracy, the act of doing so is unlikely to be casual and ill-considered. Constitutional provisions would thus make it more difficult for a brief period of populist or patronage politics to cash in on the prudence of previous governments.

International actors have a role to play in supporting the struggle to build effective checks and balances. To date the clearest example of such assistance is the Extractive Industries Transparency Initiative (EITI), launched by the British government in 2002 and promptly adopted by the Nigerian reform team that entered government in 2003. While the EITI demonstrates how useful international "templates" can be in the management of resource rents, in its present form it covers only a small part of the vital issues. Unfortunately, there is a danger that far from the EITI constituting a modest first step, even the present version would be eroded were the Chinese authorities to be reluctant to adopt the new international standards of conduct.

Between national actions such as a fiscal constitution and international actions, lie regional actions. The regional institutions have a unique potential to promote good economic practice, being of the region but above the national level political fray. They have the authority and neutrality to inform African citizens of the key priorities that would enable opportunities to be harnessed.

### **Resource-Scarce Societies with Small, Poorly Educated, Diverse Populations**

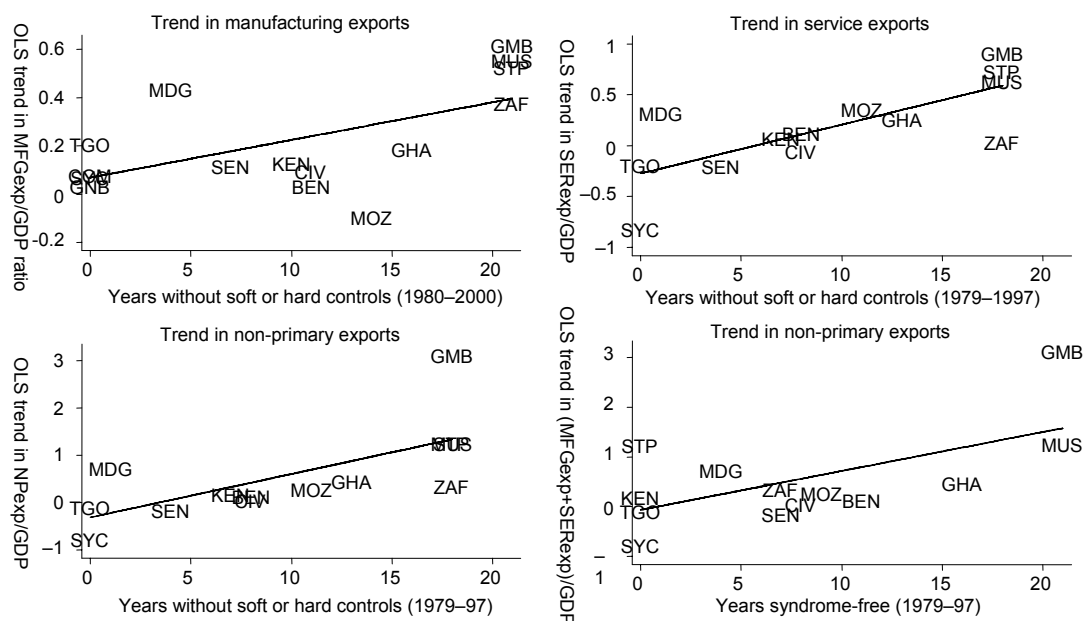
The second problem generated by the interaction of physical geography and human geography is that coastal, resource-scarce Africa has missed the opportunity to diversify into new labor-intensive exports: it has missed the globalization boat.

What were the critical factors that decided firms against an African location in the 1980s?

Proximately, the factors differed among countries. In Francophone Africa the growing overvaluation of the CFA franc effectively excluded the subregion from exporting. For example, an incipient garment export sector in Côte d'Ivoire was wiped out. Lusophone Africa was beset by civil war. South Africa was in the late stages of the apartheid regime. Among the other coastal, resource-scarce countries, Ghana, Tanzania, and Madagascar were in crises as a result of experiments with socialism, and Kenya was beset by the ethnic politics of redistribution. Mauritius was the only coastal, resource-scarce country not precluded from manufactured exports by such misfortunes. However, as discussed above, Africa was prone to these disparate syndromes due to the problems generated by its distinctive human geography. Its societies were too small, ill-educated, and diverse to provide the public goods of security and good economic policy. Africa has substantially succeeded in surmounting these problems: its human geography inflicted prolonged but not permanent disadvantages. Indeed, *all of the specific misfortunes that impeded coastal Africa from entering global markets are now over.* The CFA Franc was sharply devalued, Lusophone Africa is now at peace, South Africa had a successful regime change, socialist policies were abandoned, and the Kenyan regime of ethnic patronage was defeated in elections. Yet Africa has still not decisively broken into global markets. This is in part just a matter of time: statistically, as shown in Figure 3, the longer a coastal African country has been free of any of these policy syndromes the higher are its nontraditional exports as a share of GDP.

However, the most probable explanation for the slow pace of export penetration is that Africa missed the boat. The policy mistakes happened to occur at precisely the critical time when Africa could otherwise have broken in on level terms with Asia. Now, Asia has huge agglomeration advantages and so freedom from the policy syndromes is not enough. When will Africa be able to repeat Asia's success? I fear that the logic of the new economic geography is that Africa will have to wait until the wage gap between Africa and Asia is approximately as wide as that between the OECD and Asia at the time when Asia broke into OECD markets. If this is right then Africa will have to wait for several decades. International action is needed to bring the boat back sooner and this is discussed further in Section 6.

**Figure 3: Syndromes and Export Diversification, Coastal SSA, 1979–2000**



Note: See Table 18.

### Slow-Growing Economies with Small, Young, Diverse Populations

The final problem generated by the interaction of human and physical geography is a relatively high risk of violent internal conflict. Many African countries have characteristics that globally make a country prone to such conflict. As discussed above, the key consequence of Africa's distinctive geography has been slow growth and hence the perpetuation of low income. Yet globally, slow growth and low income are both important risk factors making violent conflict more likely. This is compounded by dependence upon natural resource exports which again globally makes violent conflict more likely. The core social characteristics of the typical African country, a small but ethnically diverse population, are also globally important risk factors. As discussed above, rapid population growth has skewed the composition of the population towards that group most likely to join rebel movements and hence substantially added to the risk of violent conflict. Finally, globally civil war tends to be recurrent: post-conflict situations are typically fragile. Africa's tendency towards these risk factors accounts for why the region has had so much civil war. Since civil war is itself hugely damaging both to the countries directly affected and to their neighbors, enhanced security is an important issue within economic development. Just as the award of the Nobel Peace Prize to Mohammad Yunus recognized that economic development promotes security, so the converse must be recognized: violent conflict radically impedes economic development.

## Regional Fragmentation: Neighborhood Effects

The final problem is that because Africa is fragmented into so many countries an unusually high proportion of its problems are attributable to spillovers between countries. That is, decisions taken by one government have adverse effects for neighboring governments, which the first government does not take into account. In the language of economics, neighborhood *externalities* are unusually important.

I have already discussed some of these neighborhood effects in the context of the landlocked, resource-scarce countries that are dependent in a nonreciprocated manner on their neighbors. However, neighborhood externalities are considerably more extensive than this.

One important externality is in respect of violent conflict. Not only does civil war directly damage the economy of the country directly affected, it significantly reduces the growth rate of neighbors (Murdoch and Sandler, 2002; Chauvet, Collier, and Hoeffler, 2006). Although the cost to a neighbor is obviously less than the cost to the country itself, the typical African country has four neighbors, each of which is adversely effected. As a result, around half of the total economic cost of a civil war accrues to neighbors. There are also evident social costs of conflict that spread across the neighborhood. For example, civil war produces waves of refugees who move into neighboring countries. Along the route they pass through areas where they have low resistance to disease and they bring these diseases with them, infecting the receiving population (Collier et al., 2003).

A related adverse neighborhood externality is military spending (Collier and Hoeffler, 2007). If one country increases its military spending—for example as the result of a coup d'état, which routinely leads to such an increase—this extra spending tends to get emulated by the neighbors. While this is a global phenomenon, Africa's peculiar problem is that each country has a different set of neighbors and there are so many countries that coordinated reductions or limitations on spending among a small group of neighbors is not feasible, unlike some other regions. In effect, coordination could only be at the level of the entire region.

An evident adverse neighborhood policy externality is restrictions upon international trade. Although the typical African country no longer imposes high restrictions, because the region is divided into so many small entities, neighborhood trade flows that would be entirely free of restrictions in China or India face barriers in Africa. The formal border controls are compounded by informal tolls along transport arteries. Trade flows are also impeded by the costs implied by the multiplicity of national currencies. Not only are flows of goods impeded, but so are flows of people. Many African governments impose visa controls on the citizens of other African governments, indeed making it considerably more difficult for Africans to travel around their own continent than for non-Africans to travel in it. The difficulties of moving goods and people between countries evidently reduce the magnitude of the flows. In turn, this

rebounds upon the costs of transport: the market for intercountry transport is too small to support the density of connections found in other regions. This is at its most striking in air transport, the provision of which is particularly sensitive both to the volume of traffic and to government regulation. Often, the only way to travel by air between African countries is via Europe. An indication of the dampening effect of Africa's national borders on air traffic is to contrast the extremely low density of intercountry flights with the high density of internal flights in the region's largest markets, Nigeria and South Africa.

Electricity is a further important example of a service that is largely confined to national markets and that incurs higher costs as a consequence of the small scale of these markets. It would be more efficient both to generate electricity in larger-scale plants in fewer locations and trade it, and to meet unsynchronized peak demands around the region by trade. However, not only would this require the physical infrastructure of transmission lines, it would also require enforced agreements to prevent each country free-riding by leaving it to others to install peak generation capacity. Only in Southern Africa is there such an agreement.

A further, more speculative externality concerns international reputation both with investors and tourists. The typical African country has an investor risk rating that is systematically worse than is explicable in terms of its own economic fundamentals (Ul Haque et al., 2000). Because the typical African country is so small, foreigners tend to know little about it and infer part of what they need to know from their more general knowledge about the region. As a result, bad news from one country can affect the entire region. For example, terrorist attacks in Kenya and Tanzania seem to have reduced tourism across the entire region. In a large country this is not true: an event in Vietnam or Thailand is not extrapolated into expectations about China because it pays foreigners to take the trouble to find out about the country itself.

Despite a plethora of African regional and subregional institutions, African governments have not, in practice, been prepared to pool sovereignty in any of these spheres. It is only in the early stages of developing architecture for regional security: for example, Africa has no equivalent to NATO. It has no trade agreements remotely comparable to NAFTA, or the EU, and, other than the Franc Zone, no regional institutions comparable to the European Central Bank and the European Commission. Indeed, the typical African government has retained considerably more sovereignty over economic policies than the typical European government, despite being responsible for an economy that is only a tiny fraction of that for which the typical European government is responsible. A case can be made that the typical African government has retained excessive sovereignty (Collier and Rohner, 2006).

## PART II: POLICY OPTIONS

In this Part, I consider in more detail the policy choices that are appropriate given the specific African economic context described above. In Section 5 I consider specific policy instruments that are pertinent for an African government. In Section 6 I consider the supporting policies that might be provided by governments outside Africa. In Section 7 I turn to issues of coordination, both between policies and between governments.

### 5. Policy Options for Africa

Policy choices matter. Consider three contrasting experiences. The government of Botswana has made an enormous success of diamonds over the same period that successive governments of Sierra Leone, with the same resources, have reduced their country to the bottom of the Human Development Index. The government of Mozambique has succeeded in rebuilding both the economy and the society after a long and bitter civil war, whereas the government of Sudan, having finally ended a prolonged civil war in the South, has plunged directly into one in the West. The government of Uganda, having inherited inflation of over 100 percent, has brought it down to single figures and in the process more than doubled the size of the economy; over the same period that the government of Zimbabwe has taken inflation to over 1,000 percent and nearly halved the economy.

In one sense, the mistakes made by the governments of Sierra Leone, Sudan, and Zimbabwe, though catastrophic, are relatively easy to avoid. It is, for example, very well understood both that very high inflation is economically damaging, and that it is caused by a particular range of policies. Collier and O'Connell (2007) assess the various policy stances of each African government over the period 1960–2000, and pick out those episodes when policies transgressed into the range in which economists would normally expect them to be highly dysfunctional. They classify these episodes of dysfunctional policy into four “syndromes. One is the gross mismanagement of windfalls, which has evidently been common in the resource-rich countries. The second, common in the same group of countries, has been redistributive strategies that, for example, favor the ethnic group in power at the expense of other groups. The third is excessive regulation, often centered round trade restrictions, which has been particularly common in the coastal, resource-scarce countries. The fourth is state breakdown, which has been particularly common in the landlocked, resource-scarce countries. They show that while avoiding these syndromes does not guarantee growth, it does guarantee against economic decline. Hence, an important inference for African governments is that by whatever political means is most feasible, they need to commit both themselves and their successor

governments to avoid these syndromes. The political strategies that defend against catastrophic economic policies may vary from place to place.

One defense is an informed society, and this is an important role for the economists within a society. Episodes of economic disaster can be put to good use if the society at large properly understands why things went wrong. Often, whereas the fact of the economic disaster is self-evident, its cause is not. This is particularly the case with the mismanagement of resource booms because the consequences of mismanagement are heavily lagged: chickens do not come home to roost for several years. As a result, the society can easily misread its own history. An example is the failure of Nigerian governments to harness the oil boom of 1974–86.

During the boom consumption, both public and private was high, and so living standards were temporarily high. The catastrophic failure of public policy was that the windfall was not transformed into a higher level of *sustainable* consumption. Indeed, on the contrary, policy during the windfall ensured that future consumption would be lower. This was because during the boom instead of investing in productive assets the government borrowed very heavily to finance consumption. When the boom came to an end this borrowing stopped because the country was no longer creditworthy and a start had to be made to repay the accumulated debt. As a result, in 1986 Nigerian society faced a double shock: the world oil price crashed from US\$30 to US\$18, and there was a swing from borrowing to repaying. The debt shock was as large as the oil shock. Between them these two shocks roughly halved per capita real expenditure. Inevitably, the living standards of ordinary people crashed: on average they more-or-less halved. Had the boom been well-managed, there need have been no shock to living standards at all: both government and private spending could have been protected from the decline in the oil price by a smoothing rule. As it was, poverty inevitably exploded. In one of the greatest public relations follies of all time, the World Bank chose this moment to trumpet a set of coping policies labeled a Structural Adjustment Program (SAP). Unsurprisingly, Nigerians blamed the SAP for the appalling increase in poverty. As a result, economic reform came to have a bad name and this legacy of misunderstanding has handicapped the society ever since. The SAP was, in fact, a straightforward set of coping policies centered round devaluation: they were policies that the Indonesian government, faced with the same decline in oil prices, had done as a matter of course. Indeed, they were remarkably successful. Nigerian GDP—production—grew more rapidly during the SAP than it had during the boom. Unfortunately, production is not the same as expenditure. More production produced less income because the crucial oil was worth so much less, and the income supported less expenditure because it was offset by debt repayment instead of being supplemented by borrowing. No authority with credibility with Nigerian citizens wanted to explain this to them, preferring the blame to be lodged with international agencies, and so the myth of the SAP has persisted.

Often, however, societies do learn. An example of gradual learning is the disappearance of the “political business cycle” from the OECD economies. Thirty years ago it was still an effective electoral strategy for the incumbent government to run a fiscal deficit in the year before the election, creating a temporary boom that led to inflation only after the election was over. As electors learnt that they were being “bribed with their own money,” this strategy began to backfire and governments no longer attempt it. The speed of such learning again depends upon whether economists within the society explain the underlying issues, and whether the media are able to communicate them to voters.

A second defense against gross policy errors is constitutional. For example, 30 years ago in the OECD societies very few governments had ceded powers over monetary and exchange rate policies to their central banks. Now almost all of the OECD governments have ceded their powers, recognizing that the benefits of being subject to credible restraints outweigh the loss of government discretion. In Africa other than in the Franc Zone the process of ceding power to central banks has started but is less advanced. Indeed, it is currently at stage that minimizes the benefits relative to the costs. The Zambian experience provides an example.

Since around 2004 the Zambian government has de facto adopted a policy of not interfering with the central bank. Hence, the government has been incurring all the costs that arise from a loss of discretion. However, because it has not made a credible public commitment to this strategy it has been forgoing much of the benefits. A credible commitment would shift expectations of inflation downwards since citizens would know that the preference of the central bank for low inflation would prevail regardless of day-to-day changes in government preferences. This would have been particularly useful during the 2005–06 period, when the central bank was pursuing a policy of disinflation, bringing down the growth of the money supply from around 25 percent to around zero. In the event, expectations of inflation were slow to adjust, probably because people saw the disinflation as merely one more temporary policy that would not change the rate of inflation in the longer term. As a result, the disinflation had the unintended consequence of driving up real interest rates, and this appreciated the real exchange rate. In turn, the high real interest rates and the appreciated exchange rate wrong-footed the private sector and arrested what had been an encouraging process of export diversification. Had the government made a credible commitment to an independent central bank, these costs might have been avoided.

A third defense, which will be taken up in Section 6, is to pool certain aspects of sovereignty, a strategy that has been common in the OECD.

The avoidance of gross policy errors through the construction of long-term defenses, as discussed above, is an important aspect of economic reform that has been rather neglected in Africa. Excessive reliance has been placed upon international agencies, notably the IMF and the World Bank, as external agencies

of restraint against bad policy. The history of program interruptions demonstrates that such arrangements are not a credible long-term substitute for more conventional restraints.

However, while creating a system of defenses against gross policy errors is vital, it is evidently only a beginning. An ambitious government will quite properly aspire to do better than this. I now turn to two major areas of economic policy that each have powerful implications for growth: trade policy and fiscal policy, advice on both of which are within the remit of the World Bank. Many aspects of each of these policies are generic: for example, good fiscal policy will have some common features in any context. These generic aspects of policy lie beyond the scope of this paper. However, policies need to be tailored to context and African contexts are distinctive and differentiated. Hence, my focus is on those aspects of each policy area that an African government is likely to need to tailor to its own circumstances rather than simply applying textbook knowledge.

## **African Trade Policies**

### *Trade Policy in the Coastal, Resource-Scarce Economies*

Getting trade policy right is most important for the coastal, resource-scarce countries. Recall that for these countries the vital opportunity is to break into export niches for a few manufactured products. Trade policy is important because it has the potential completely to frustrate the objective of export diversification.

Some aspects of economic policy are quite straightforward, but others are not. Unfortunately, trade policy is profoundly counterintuitive. Policy makers who are not well-trained in international economics are likely to reach seriously wrong conclusions unless they take expert advice. Here is a very important example: an import tax has effects that are equivalent to an export tax. This result, known as the Lerner Equivalence Theorem, was first rigorously established in economics in 1942. To understand counterintuitive economic results it often helps to take an extreme example. Imagine that the government is so hostile to imports that it imposes prohibitively high import duties and effectively enforces them on a permanent basis. Hence, the society never imports anything. But in these circumstances what is the value of exporting anything? The exports directly generate foreign currency, but the foreign currency could only be used to purchase imports and imports are so heavily taxed that nobody wants to buy them. If there is no demand for imports, there is no value to exporting. In effect, the tax on imports falls on exporters, so exports collapse to zero.

In less extreme forms, this is what happened in much of coastal Africa during the 1970s and 1980s. Exporters, usually peasant farmers, were in effect being heavily taxed to finance government spending. The political economy of this process was first articulated by Robert Bates (1981). It is one reason why

Africa lost market share in all its traditional agricultural export markets. However, its key importance is for export diversification into manufactures.

In the case of manufactures the overall effects of the Lerner Equivalence Theorem as a tax on exports are compounded by a further complication known as “effective protection,” a concept attributed to Corden (1971). Effective protection shows how much higher costs of production can be as a result of a tariff system. The concept is particularly important in a world of trade in “tasks,” as now applies to global manufacturing, since each firm adds only a small percentage to the value of the final product. Effective protection takes into account tariffs on inputs, which tend to reduce the effective protective rate. Evidently, export manufacturing does not benefit from protection on the goods that it produces, since these goods are sold abroad at world prices. However, exporting firms do have to pay tariffs on imported inputs. As a result, even modest-sounding levels of tariffs can decisively raise costs of export production above world levels and close off the opportunity of generating thousands of jobs. There are essentially three ways around this problem. One is to permit exporters to import inputs free of all duties as long as they are used exclusively in exports. This concept is known as “export processing zones,” because often it is confined to a particular designated location. Mauritius used this approach to get its export manufacturing started, though the government designated the entire island as an export zone. The second approach is to operate a “duty drawback” system, in which exporters pay the import duty but are able to claim it back once the inputs are re-exported embodied in manufactured goods. This process can become extremely cumbersome, inflicting high operating costs on exporting firms. It tends to give too much discretionary power to customs officers. The third approach is to eliminate tariffs on inputs. If this is not matched by a more general lowering of tariffs, the overall rate of effective protection goes up for import-substituting firms, and so has effects similar to an increase in tariffs, further taxing exports. Whether governments can afford to forgo the tariff revenue from lowering tariffs depends upon how effectively they are able to tax other activities. Imports are administratively very easy to tax because most of them come into a single port, and this suggests that until the economy has formalized some taxation of imports is likely to be appropriate. As development proceeds governments gradually shift away from trade taxes to other forms of taxation.

In conclusion, the sort of trade policy that is likely to be appropriate for a coastal, resource-scarce economy is one that does not handicap exporting, particularly manufactured exports that depend upon imported inputs. Export processing zones, combined with moderate tariff levels for the rest of the economy, look to be the most promising option.

### *Trade Policy in the Resource-Rich Economies*

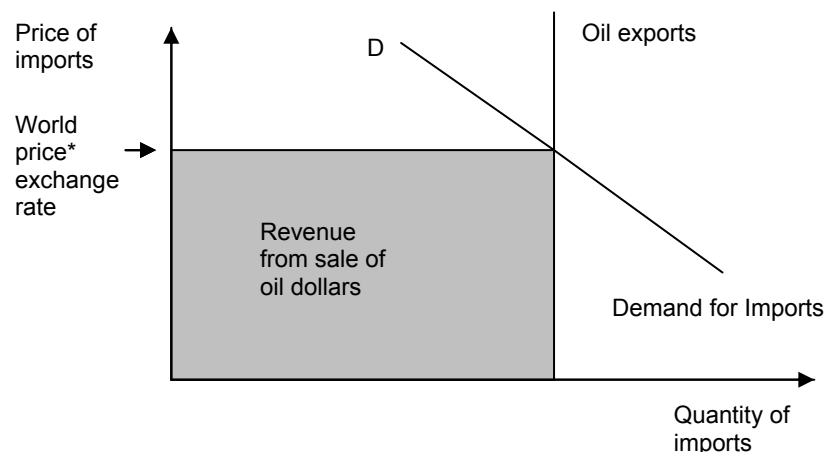
In the resource-rich economies, trade policy has a further highly counterintuitive result. Although tariffs appear to raise revenue for the government, in reality this

revenue is illusory. This is because in a resource-rich economy, the government gets its revenue not just from tariffs but also from taxes and royalties on natural resource exports. The direct effects of tariffs on revenue are undone by indirect effects of tariffs on these government natural resource revenues.

Before understanding why tariffs are actually costly in resource-rich economies, briefly consider the implication. It is that if revenue is the main consideration that motivates tariffs, which is usually in practice the case, the appropriate trade policy for a resource-rich country is free trade. There are other reasons why free trade might be beneficial, but these are not particular to resource-rich countries. Now I set out why in resource-rich countries tariffs actually reduce overall government revenue.

To see these effects first consider a simple, stylized depiction of government revenue in the absence of any trade restrictions. The government receives an income in dollars from exporting natural resources, say oil. It then sells the dollars to citizens who use them to purchase imports. The value of the revenue in local currency, say Naira, thus depends partly upon the dollar income, which we will treat as fixed, and partly upon the exchange rate, which is determined by the demand for imports. This is shown in figure 4, which simply shows the demand curve for imports—demand is higher if the Naira price of imports is lower—and the fixed total supply of imports, which is given by the fixed total value of oil exports. Government revenue is the shaded area—the Naira price of imports multiplied by their quantity. The price of imports in this case is simply the exchange rate—how much a dollar costs in terms of Naira. Government revenue is determined by how much Nigerian importers are willing to pay for the amount of dollars that the Nigerian government is selling.

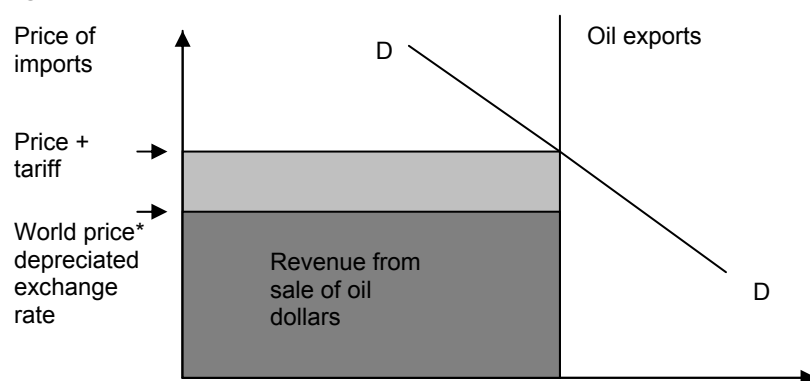
**Figure 4: Government Revenue in the Absence of Tariffs**



Now introduce import restrictions into the analysis as a uniform tariff, say of 20 percent. This does not change the price at which the demand for imports equals their supply. The only difference is that now the price that importers have

to pay for imports has two components—the exchange rate at which they purchase dollars, and the tariff rate they pay when importing goods. Hence, as shown in figure 5, the exchange rate appreciates to offset the tariff. The government gets the same total revenue as in the absence of tariffs, but now it raises it more laboriously, partly through the sale of dollars as before, but now also through a customs administration. Even if the customs administration is completely efficient and costless it raises no net revenue. To the extent that it is corrupt or costly it ends up reducing overall revenue.

**Figure 5: Government Revenue with a Uniform Tariff**



If tariffs are not uniform the analysis is more complicated but the core message remains in tact: revenues are essentially illusory (Collier and Venables, 2008).

### *Trade Policy in the Landlocked, Resource-Scarce Economies*

The landlocked economies face a further set of considerations that should influence their trade policies.

First, trade taxes are not as administratively convenient as for a coastal economy where the vast bulk of imports come by sea into a single port and so can easily be taxed. Imports to landlocked economies come overland and so can readily be smuggled to evade tariffs. This places a ceiling upon the height of tariffs that can be administratively implemented. However, the landlocked, resource-scarce economies lack any major source of tax revenue, and so may well need to spread the tax burden lightly around the economy. Thus, it is unlikely that the best trade policy is to adopt complete free trade. Rather, the implication is that trade taxes should be kept fairly low.

Second, as discussed in Section 2, landlocked countries have a strong interest in maximizing trade with their neighbors. As a result they should want to establish reciprocal free trade with their neighbors. However, not all trade with neighbors is necessarily beneficial. If the price of free trade within the neighborhood is a high common external tariff then this is likely to generate an inadvertent income transfer from the poorer members of the trade bloc to the richer members (Venables, 2003). Paradoxically, whereas in high-income regions

a trade bloc advantages the least rich countries in the bloc, in low-income regions it has the opposite effect. The explanation is that a trade bloc always benefits those members whose income level is closest to the global average, at the expense of those whose income level is most different. Thus, in a rich-country trade bloc the lowest income members are closest to the global average, and so benefit, whereas in a poor-country trade bloc the highest income members are closest, and so benefit. Hence, while the European Union has enabled its poorer member countries, such as Portugal, to converge on the richer members, neighborhood trade blocs in Africa tend to have the opposite, unequalizing effect. This is another instance of where a casual approach to trade policy is dangerous: it might seem that it would be a good idea simply for Africa to imitate European trade policy, but the results would not be as benign.

Thus, the sort of trade policy that seems best-suited to a landlocked, resource-scarce country is one in which within the neighborhood there is reciprocated free trade, while externally there is a low but positive common external tariff.

#### *Trade Policy in Nigeria and South Africa*

Two of Africa's economies are far larger than the rest: Nigeria and South Africa. Scale potentially makes temporary domestic protection viable as a device for encouraging clusters of firms. However, there are several caveats. One is that the political pressures for protection are likely to transform it from a strategic use to a form of patronage. Both Nigeria and South Africa are far more democratic than the East Asian autocracies at the time of their strategic use of trade policy and so the chances of a purely technocratic approach to protection being credible are not high. A second caveat is that the market is not large and being distinctively low-income it is not necessarily a good preparation for export markets. The danger is that industries become established which need permanent protection in order to survive and which thereby realize that survival depends upon investments in lobbying power rather than productivity. Were domestic protection literally to be merely a pump-priming exercise analogous to that in OECD markets, then the garment industries of Nigeria and South Africa would already be viable since there were protected for many years.

Whereas scale does not seem to constitute a good case for domestic protection, both countries are also resource-rich and have severe problems of a lack of employment. This gives a further possible basis for protection or at least preferential policies. One possible strategy is to use part of the resource revenues to finance first-class infrastructure for manufactures so that this public spending offsets the reduced competitiveness brought about by the appreciation of the real exchange rate. Helped by supportive public spending, Indonesia and Malaysia, which are also resource rich, have succeeded in developing a range of export industries. In South Africa, where the social opportunity cost of labor is far below the wage, there is also case for "second best" policies that offset high wages by

protecting the most employment-intensive sectors. The Nigerian labor market is less affected by unionized wages and so the case for such protection is weaker.

## **African Fiscal Policies**

### *Fiscal Policies in the Resource-Rich Economies*

Governments of resource-rich economies are fortunate in having a ready source of taxation. Depletable resources generate rents and, as long as the activity remains profitable, these rents can be taxed without altering the production decisions of the resource extraction company. Taxation is thus the first distinctive aspect of fiscal policy in resource-rich countries. The second distinctive aspect is that there is a need for fiscal rules that both smooth spending from volatile revenues and offset the depletion of the resource. The third distinctive feature arises from the conjunction of low levels of nonresource taxation and high public spending: there will be a particular need for systems of scrutiny. I consider these three aspects of fiscal policy in turn.

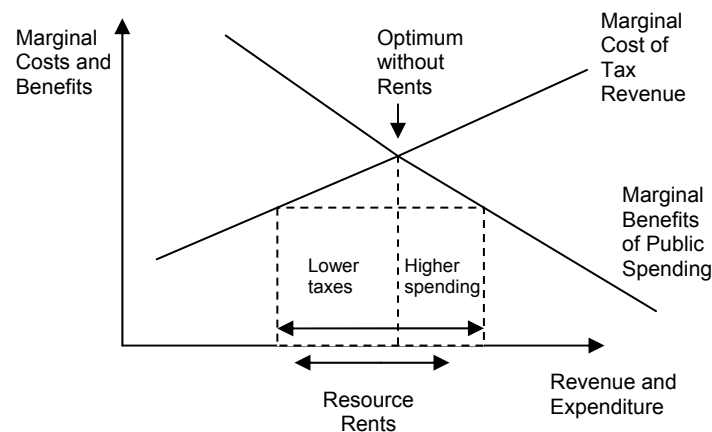
### **Taxing Rents and Other Activities**

The design of a tax system that maximizes revenues from resource rents while not discouraging production is a complex and specialized matter. Governments can tax the profits of resource extraction companies and they can also levy a royalty on the resources extracted. A disadvantage of relying too heavily on the taxation of profits is that companies then have an incentive to inflate production costs. Generally, African governments are not in a good position to scrutinize the accounts of these companies. A problem with levying a royalty is that, unless carefully differentiated, it discourages the extraction of the less accessible deposits. Further, rents are often very heavily geared upon world prices, so that a flat rate and even an ad valorem royalty risks bankrupting firms during periods of low prices while leaving them with excessive profits during periods of high prices. A tax regime appropriate for African conditions is likely to involve a royalty geared to the world price and differentiated according to verifiable geological characteristics of the extraction process, combined with moderate profits taxation. However, strategies for the taxation of natural resource extraction evolve over time, and so there should be an expectation that taxes will change. A sensible benchmark to which a government might commit itself is not to get out of line with global practice.

The large revenues from natural resource rents have implications for other taxes. I have already discussed this in the context of trade taxes where the peculiarity is that such taxes do not generate net revenue. Because taxes are costly to collect and have disincentive effects, a sensible use for some of the resource revenues is therefore to tax other activities more lightly. Since governments should raise taxation from the least costly forms of tax first, the generation of tax revenue is subject to increasing marginal costs (including

disincentive effects). Conversely, since government should prioritize the most valuable forms of public spending first, public spending is subject to diminishing marginal benefits. Comparing two countries that are identical except that one has natural resource revenues and the other does not, how then should their governments set other taxes and hence levels of spending? The answer is illustrated in figure 6. Both governments should aim to equate the marginal costs of taxation with the marginal benefits of public spending. However, because the resource-rich government has revenue from resource rents, it should set other tax revenue lower, and public spending higher.

**Figure 6: The Apportionment of Revenue for Resource Rents between Lower Taxes and Higher Spending**



Hence, households and firms in the resource-rich economy benefit from the resource rents twice over: from higher levels of public spending, and from a low-tax environment.

In extreme cases the public revenues are so large that they should indeed not all be spent by the government even allowing for medium-term smoothing of booms. Even in the high-public spending societies of western Europe, public spending does not exceed 50 percent of GDP and this places a likely ceiling on the share of GDP accruing in resource rents that a government should seek to retain for its own uses. Beyond these levels, even if public money is well-spent, it produces an imbalance in which people are consuming too many public goods relative to their consumption of private goods. A few societies are fortunate enough to have resource rents well in excess of these levels. In sub-Saharan Africa this applies to Angola, Gabon, and São Tomé and Príncipe.

In such cases it is appropriate to complement the government's role as a custodian of savings with the redistribution of some of the resource revenues directly to citizens. The task is not to accumulate assets on behalf of citizens, but rather to empower citizens to raise their private consumption by transferring income to them. If the needed scale of income transfers is substantial then it will be worthwhile incurring the administrative costs of registering the population so

as to get a definitive list of eligibility: otherwise, since borders are porous, public provision of private unearned income will induce explosive immigration. In more modest cases of imbalance there are administratively simple means of transferring resource revenues to ordinary citizens. Probably the most credible mechanism by which low-income countries can redistribute income directly to households is through the schooling system: children could receive bursaries as is already done through the *Progresa* system in Mexico and Brazil. Studies in non-African situations have shown this to be highly effective both in increasing school attendance and in directly reducing poverty. A sensible approach would be to experiment through properly evaluated pilot schemes to get an accurate assessment of their effects in particular African contexts.

### **Savings Rules**

I will take the example of oil, but the same considerations apply to other commodities such as copper. Oil in the ground is a valuable asset. As it is brought out of the ground, how much of the resulting revenue should be consumed and how much saved? The appropriate rate of savings out of oil revenue depends upon two distinct assessments about global oil prices: their long-term trend, and whether they are currently above or below that trend.

Because oil is a depleting resource there is some expectation that over the long run it will gradually get more expensive. In the simplest framework, over the long term the world price should rise by around the world rate of interest. More sophisticated analyses must take into account extraction costs and tax incentives for oil companies. While these complicate the picture, what remains is a reasonable expectation that the world oil price will tend to rise in real terms albeit along a very volatile path. To see why this matters, suppose that on average it rises at the modest rate of 1 percent per year. This implies that even the oil in the ground is an asset that is yielding an income and this can finance consumption on a sustainable basis.

The share of the revenue from oil extraction that can be consumed on a sustainable basis depends upon the extraction rate. Specifically, it is the expected rate of increase in the world oil price, divided by the extraction rate. If, for purposes of illustration, the expected increase in the oil price is 1 percent, and the extraction rate is 3 percent, implying that there is sufficient oil to sustain around 33 years of extraction at the present rate, then one third of the revenue from oil extraction can be consumed. This can be thought of as *the long-run savings rule*. If the remaining two thirds are saved in assets that yield more than the 1 percent that would have accrued had the oil been left in the ground, then as these savings build up, consumption can increase further.

The world oil price is extremely volatile. At any one time it is therefore likely to be either well above or well below the level implied by its long-run path. Just as some judgment has to be made as to the rate at which oil prices can be expected to rise in the long term, so the savings decision has to be influenced by

a judgment as to the current deviation in the price from the long-run path. Income generated by a price judged to be above the long-run path needs to be saved. This can be thought of as *the medium-run oil price smoothing rule*. Thus, if the current world price is US\$60 but the normal price is judged to be US\$35, then the above-normal US\$25 per barrel should be saved. Unlike the savings generated by the long-run savings rule, these savings are intended to finance subsequent consumption during periods when the oil price is below its long-run path. There is thus a strong case for holding these assets in liquid form, which implies the acquisition of financial assets abroad.

An important consequence of holding these temporary savings abroad and then bringing them back at times of low prices is that this will dampen the volatility of the real exchange rate. Thus, the strategy has both a fiscal aspect and a foreign exchange market aspect—when times are good the government runs a fiscal surplus and the central bank accumulates foreign exchange reserves. The reduction in exchange rate volatility is directly beneficial to the private sector, from large businesses to small farmers. Hence, not only does it enable the government to smooth its own expenditures, with a payoff in terms of a higher quality of government spending, but also it makes the environment for private activity less risky. The smoothing of government spending and the smoothing of the exchange rate are two sides of the same coin. It is not possible for the central bank to smooth the exchange rate unless the government is also smoothing its spending. Conversely, if the government tries to smooth its spending but the central bank fails to smooth the exchange rate, the result will be to inflict massive volatility onto firms and households.

The oil price smoothing rule can only be introduced when the prevailing world price is above its expected path. This enables savings to build up, which can then subsequently finance a period of dis-saving. If the rule were introduced at a time when the world price was judged to be below the world price there would be an initial period of borrowing, and such behavior would be indistinguishable from straightforward fiscal irresponsibility. For credibility, a fiscal rule has to start with the politically more challenging decision of saving.

Now bring together *the long-run savings rule* and *the medium-run oil price smoothing rule*. I will continue to use the same numbers for illustration: the normal price is judged to be US\$35, the oil price is judged to be rising at 1 percent per year, and the depletion rate judged to be 3 percent. With these judgments, one third of the US\$35 per barrel, namely US\$11.33, can safely be used to finance government consumption. The other two thirds, namely US\$22.67, should be used for long-term asset accumulation, so as to sustain consumption once oil revenues decline. But with the current price at US\$60, the remaining US\$25 per barrel should be put into more liquid assets, namely financial assets abroad, so that they can be spent on sustaining both consumption and investment when the oil price is below trend. Thus, around 19 percent (US\$11.33/US\$60) of current oil revenues would be used to finance government

consumption, around 38 percent (US\$22.67/US\$60) would be used for long-term savings and investment, and around 42 percent (US\$25/US\$60) would be saved in liquid form. Note that this illustration is simplified to abstract from any production costs of the oil. In reality, of course, when the oil price is US\$35, the government does not get US\$35 of revenue per barrel since costs of production, including reasonable profits of oil producing companies, must be deducted. However, the core ideas remain unchanged by this additional complication: some of the oil revenue can be consumed, some should be invested, and some should be saved temporarily and therefore kept liquid. The division between these three components reflects judgments about oil prices and depletion.

These judgments are almost certainly going to be wrong. There is thus a need both to allow for the likelihood of error and to enable revision of judgments as information builds up. The consequences of errors are not symmetrical between excessive optimism and excessive pessimism. If the judgment of the path of the long-term oil price is overoptimistic then the entire consumption strategy becomes unsustainable: the government runs out of money in circumstances of crisis. If the judgment is too pessimistic then all that happens is that assets accumulate more rapidly than would otherwise be the case. Hence, given the inevitability of error, it is wise to err on the side of caution, assuming a “normal” path for the oil price that is probably lower than that which is likely. As assets accumulate faster than “expected,” the decision rules can gradually become a little less cautious.

I now focus on the second decision, where savings should be placed. In the case of depletable resources such as oil this decision only applies to that part of the revenues that need to be saved long-term. In the illustration above this is 38 percent of the oil revenues. The rest of the oil revenues are either consumed or saved in liquid form because they are only being saved temporarily. However, in the case of savings out of price spikes of renewable commodities all the savings are appropriately deployed for long-term investment.

The 38 percent that is going to be saved long term could either be invested in the acquisition of foreign assets or in domestic capital formation. Note that if the money is used to acquire domestic financial assets the question must be pushed one stage further: what lies behind these financial assets? If the money that is put into domestic financial assets is used for consumption then it is not ultimately being saved. If it is put into foreign assets then that is its ultimate use, and if it is put into domestic capital formation then that is its ultimate use.

The decision as between foreign assets and domestic investment should hinge upon the rate of return. Since the rate of return on foreign assets is known and stable, the key issue is the rate of return on domestic investment. This depends upon four factors: the initial stock of capital, the investment climate for the economy, the magnitude of savings from oil revenues, and the decision procedures of the government.

In a capital-short economy in principle the rate of return on capital should be much higher than the world return. Thus, domestic investment should generate a higher sustainable income than the acquisition of foreign assets. However, one reason why the economy is short of capital might be that the investment climate is so poor that returns are very low. Even if the investment climate is satisfactory, if too much extra investment is attempted in a short period then the rate of return on domestic investment will be driven down. One reason for this is that during periods of boom the cost of those capital goods that can only be produced domestically gets driven up. This manifests itself as a construction boom, during which construction costs are unusually high. It therefore makes sense to defer some investment expenditures until the construction boom has abated. By deferring these domestic investments the construction cycle is smoothed and public investment gets better value for money. Thus, at times when the overall savings from oil revenue are atypically high, a greater percentage of them should be temporarily saved abroad until construction costs have eased. These financial savings abroad can be thought of as *the short-run construction price smoothing rule*. In effect, the expansion of the construction sector needs to be planned so that it is reasonably orderly, rather than boom-bust. The government of Botswana, which managed its resource revenues brilliantly, actually had a plan-within-a-plan specifically for the construction sector, ensuring that demand and supply were broadly matched. Public investment projects were deferred if there were signs of congestion, and the emerging bottlenecks in the construction sector such as skill shortages were identified by consulting the industry and tackled.

Although both the *construction price smoothing rule* and the *oil price smoothing rule* involve temporarily saving abroad in financial assets, the uses to which these savings are then put when they are run down are distinct. The savings accumulated under the *construction price smoothing rule* are used to finance domestic investment involving construction when conditions in the construction sector are calmer. The savings accumulated under the *oil price smoothing rule* are used to finance both investment and consumption to prevent them from being reduced when the oil price is below trend.

The final decision concerns the balance within domestic investment between public investment and private investment. A core distinction in investment is between “structures” and “equipment.” The two are complements: roads are an example of structures, and trucks are an example of equipment. Roads only have a good rate of return if there are trucks to drive on them; trucks only have a good rate of return if there are roads to drive on. Very obviously, the decisions to invest in roads and trucks are taken by different economic actors: investment in roads is undertaken by government, investment in trucks is undertaken by private firms.

Revenues from depletable commodities such as oil directly accrue to the government. By contrast, revenues from renewable commodities such as coffee generally accrue directly to private actors, notably farmers, unless taxed. Each

actor only controls one type of investment: the government controls investment in roads, or more generally, in structures, whereas private actors only control investment in trucks, or more generally, equipment.

Consider the problem facing the government of an oil economy. To make investment in structures productive requires that private firms also choose to invest. This does not happen automatically. How can the government increase the prospects that during the current windfall private actors will match the government investment boom in structures with their own complementary investment boom in equipment? The government does not directly control private investment and so it can only work indirectly. The government does, however, control to an extent the assets that the private sector holds. In particular, currently the private sector holds substantial claims on the government in the form of public domestic debt. If, through the central bank, the government uses oil revenues to repurchase this domestic debt, then the private sector has to switch into other assets (Collier and Gunning, 2005). In aggregate, if public domestic debt is reduced, the only choices open to the private sector are to increase domestic investment, and to increase savings abroad. Since the private sector can be relied upon to do whichever of these choices is likely to be most profitable, it will indeed increase investment in the economy as long as the domestic investment climate is sufficiently good. Hence, a comprehensive investment policy out of oil revenue would be for the government to devote part of the savings to increased public investment, and part to the repurchase of its domestic debt, while simultaneously working to improve the investment climate. Potentially, beyond running down public debt, the government could also accumulate claims on the banking system, becoming a net depositor. The banking system could then on-lend this money to the private sector.

In extreme cases such as Botswana the public revenues are so large that they should indeed not all be spent by the government, even allowing for medium-term smoothing of booms. However, in such cases it may be wise to complement the government's role as a custodian of savings with the redistribution of some of the resource revenues directly to citizens. This is evidently the situation when per capita resource revenues are very high relative to private incomes so that even effective public spending would yield an imbalance between the provision of public and private goods. For example, this seems likely soon to be the situation in Angola. The most credible mechanism by which low-income countries can redistribute income directly to households is through the schooling system: children could receive bursaries as is already done through the *Progres*a system in Mexico and Brazil. Studies have shown this to be highly effective both in increasing school attendance and in directly reducing poverty.

While schemes that transfer income to households are a good way to redress poverty, they are less effective in generating jobs. Potentially, the construction sector has the scope for generating many jobs for manual workers: it supplies the nontradable capital goods that should indeed be produced in far greater

quantities in response to the resource income. One policy for expanding the construction sector is therefore to use the revenues to finance private sector demand for construction. The greatest potential is likely to be in increasing the demand for housing by means of an expansion in the availability of mortgages for middle-income wage earners. A mortgage-driven house-building program was in fact central to employment expansion in several postwar OECD economies. In the African context the design of a mortgage scheme becomes critical because strong defenses are needed to prevent both opportunistic borrowing against nonexistent collateral and capture of mortgage finance by elites. However, potentially, mortgages of limited size secured against standardized housing designs in designated urban zones have the scope for massive and productive job creation.

### **The Scrutiny of Spending**

The scrutiny of public spending is itself a public good, and hence liable to be undersupplied. There is good historical evidence that what has tended to provoke citizens into supplying the public good of scrutiny is taxation. People dislike parting with their money and demand that the government demonstrate that it is spending it well. Evidently, in resource-rich economies, because taxation is atypically light, citizens will be less provoked into scrutiny. Hence, a central dilemma for such societies is that whereas they need more scrutiny, because public spending is atypically large, as a result of light taxation they actually get less. One proposed solution to this problem (Sala-i-Martin and Subramanian, 2003) is to distribute all the resource revenues to citizens and then have the state tax it back again. Regardless of the administrative difficulties in such a distribution, this seems to be politically off the agenda and so I do not consider it further. A second approach would be for the state to tax at the same rate as other states. This does not seem to be a very appropriate response: the state would end up with exceptionally large public spending. A more reasonable alternative is to recognize that the society needs to pay particular attention to constructing systems of scrutiny, so that these efforts compensate for the lower provocation of light taxes.

Scrutiny, or checks and balances, can work in multiple ways simultaneously. Partly, scrutiny is designed to achieve honesty, and partly, it is designed to achieve efficiency. Current discussions of “good governance” tend to conflate governance with honesty, which is clearly insufficient. A second distinction is between systems designed for ex ante scrutiny, which is basically about how decisions get authorized, and those designed for ex post scrutiny, which is about evaluation. A third distinction concerns who is performing the scrutiny: some top-level authority, citizens or their representatives, peer groups, or the worker himself, disciplined by insider norms (Akerlof and Kranton, 2006). The four types of distinction are brought together in table 2, which gives examples of each of the sixteen resulting mechanisms of scrutiny.

**Table 2: A Classification of Monitoring**

<b>Purpose and timing of scrutiny</b>	<b>Top-down</b>	<b>Bottom-up</b>	<b>Peer Group</b>	<b>Internalized</b>
Honesty: ex ante	International competitive tendering required for public investment projects	Civil society scrutiny of public spending in Chad through the <i>College</i>	Ethical norms set by an association of doctors	Opportunities for corruption resisted due to integrity
Honesty: ex post	Audit by Auditor General	Exposure of public corruption in the media	Peer group disciplinary processes in professions	Guilt and regret induce confession and restitution
Efficiency: ex ante	Cost-benefit analysis of proposed projects	Parliamentary approval of budget, and PRSP consultations	Presentation of spending plans by ministers in cabinet	Pride in skill induces high effort
Efficiency: ex post	Evaluation of completed projects	Comparison of benchmarked performance of service delivery in media	Comparison of examination results among headmasters	Failure induces an effort to learn from mistakes

A well-functioning system of public accountability has all of these mechanisms. However, the balance between them can vary according to the needs and opportunities of each situation. The schema provides a checklist against which an actual system can be evaluated for gaps and strengths.

If there is more than one principal, monitoring is a public good. In this case all these mechanisms are subject to the standard collective action problem: there is an incentive to free-ride. The problem is most severe with bottom-up scrutiny, since this requires citizens to organize together, and least severe with internalized norms and top-down scrutiny.

Both the government and civil society in a resource-rich country can use such a checklist to identify where scrutiny could feasibly be strengthened.

### ***Fiscal Policies in the Coastal, Resource-Scarce Economies***

Two aspects of fiscal policy in the coastal, resource-scarce economies are sufficiently distinctive to warrant separate discussion.

### **Taxing the Formal Economy**

Over the past two decades many of Africa's coastal, resource-scarce economies have been gradually rectifying two inherited fiscal errors. One of these was the accumulation of excessive fiscal deficits, resulting in unsustainable levels of indebtedness and high inflation. The other was excessive reliance on trade taxes which, as discussed above, amounted to the heavy taxation of export agriculture.

The correction from both of these errors required increases in nontrade forms of taxation. For a period, this was encapsulated in simple rules of thumb such as an annual increase of one percentage point of GDP in tax revenue while trade taxes were reduced. In turn, this led to a focus upon improving the system of tax collection. Often, the civil service was recognized to be too degraded to be entrusted with the task of revenue raising, and so the function was transferred to independent agencies, termed Independent Revenue Authorities. However, while these corrections were necessary, it is important to recognize that the typical resource-scarce African economy has severe structural limits to taxation. The private formal part of the economy is typically tiny, and indeed has often been a declining share of total economic activity. The informal economy is extremely difficult to tax, which is indeed a major reason why it is so large. There is a tradeoff between the incidence of taxation and the rate at which the economy formalizes. Hence, the only viable road to a substantial share of tax revenue in GDP is likely to be a long one. There will need to be a prolonged phase of low taxation, in which the taxable base of the economy is built through formalization, before this base can actually be harvested for taxation.

These considerations are over-and-above whatever tax regimes are required to pump-prime the diversification of exports into manufactures. While African governments commonly receive advice stressing the importance of a “level playing field” for all economic activity, this ignores the threshold nature of entry into new manufacturing activities, and also the reality of international tax competition for footloose manufacturing activities. As with the taxation of resource rents, the best guide is likely to be practice in competitor nations.

### **Managing Agricultural Booms**

Like the resource-rich economies, the coastal, resource-scarce economies have experienced commodity export booms. Periodically, the world price of some agricultural commodity spikes. How is the savings decision different if the commodity is coffee instead of oil? Opportunities for increased production of a particular crop are not limited in the same way as depletable resources, which depend upon the discovery of sites. As a result, crop production expands to the point at which in normal times there are no significant “rents,” or abnormally high profits, from cultivation. Hence, for the renewable commodities, the *only* opportunities for significant savings occur during the relatively brief periods when world prices spike. There are indeed such episodes. Global production sometimes drops, for example due to frost that periodically hits coffee production in Brazil, and sometimes these drops in production are sufficient to exhaust accumulated stocks. These “stock-outs” are the times when prices spike. Quite how long such spikes persist is not usually amenable to forecasting. These are, however, relatively rare episodes: for example, the major peaks in global coffee prices were in 1976–79 and 1994–96. Because these peaks are infrequent and unpredictable, the case for smoothing agricultural prices at the national level

through price stabilization funds is not strong: there is a danger that the fund will be exhausted as occurred in Côte d'Ivoire. Rather, the brief peaks are opportunities to finance long-term investment. In effect, the society does a disproportionate amount of its investment in the years following these price spikes. Consumption is smoothed through the returns on the long-term investments made during these spikes, rather than by accumulating liquid assets and then running them down, as with an oil price smoothing rule.

### *Fiscal Policies in the Aftermath of State Breakdown*

Governments in post-conflict situations, of which there are currently several in Africa, face a particularly difficult set of tradeoffs. Typically, their inheritance from the period of conflict is of fiscal policies that have sacrificed the long term for the short term: governments finance conflict by monetized fiscal deficits. Hence, the post-conflict government does not start from a sustainable fiscal position. Further, systems of public spending have usually degenerated, so that there is little accountability. I consider these problems in turn.

### **Post-Conflict Deficits**

Recent research on inflation and capital flight in post-conflict situations suggests that it is important to reduce reliance upon seigniorage. The demand for money is gradually eroding as a result of the overuse of the inflation tax during the conflict, and to restore sustainability this demand needs to be rebuilt by a period of low inflation (Adam et al., 2006). Further, during periods of state breakdown there is massive capital flight. In the post-conflict period capital flight typically continues, but this is not inevitable: for example, Uganda succeeded in reversing it, receiving inflows that in some years exceeded exports. Davies (2007) shows that in post-conflict periods, capital flight is unusually sensitive to inflation. Hence, since the reversal of capital flight is a first-order economic opportunity, investing in low inflation is a priority. Unfortunately, this priority collides with the need for public spending on reconstruction. Both these priorities suggest that revenue raising is likely to be important. There may also be some political value to demonstrating to citizens that the proper role of government includes the raising of taxation for public spending. However, the formal economy is typically so savaged by state breakdown that the scope for revenue generation is modest. The relief of these harsh tradeoffs is an important role for aid, an issue discussed in Section 6.

In the absence of adequate aid, the reconciliation of the tradeoffs is likely to involve a curtailment of the increase in overall public spending. Partly this is because the administrative capacity to spend public money is likely to be very limited, despite evident needs. Further, there is considerable scope for changing the composition of public spending away from military uses. The typical post-conflict government takes only a very small peace dividend, maintaining military spending at virtually the same level as during conflict. While the

rationale for such high spending may seem self-evident in view of the high risks of conflict reversion, statistical evidence of its effect finds that, uniquely in post-conflict situations, high military spending significantly increases the risk of reversion to conflict (Collier and Hoeffler, 2006a). The best strategy, both for future peace and for financing reconstruction, is to reduce military spending very substantially, as was successfully followed by the government of Madagascar.

### **Spending Processes**

The need for large increases in spending, combined with the evident collapse in systems for managing such spending, and the possibility of attracting large aid inflows if only donors can be persuaded that spending systems are sound, suggests the need for a radical approach.

At present, four different approaches coexist in different post-conflict African countries. In Liberia spending systems were manifestly so degraded that a dual-signature process has been adopted whereby Ministry of Finance authorizations of spending are only valid if countersigned by a designated donor. In the Democratic Republic of Congo donors channel money through their own project implementation units. In Angola donors have created Social Funds which channel money for capital expenditures on social projects directly to communities. In Chad two systems coexist. The majority of the oil revenues are channeled through a College that provides a degree of civil society scrutiny on how money is used, but this was substantially weakened when the government changed the rules of what expenditures were eligible. Additionally, the College does not assess whether spending achieves its purpose. In contrast, some donors have decided that despite fears of the diversion of funds, needs are sufficiently great that their aid is provided as budget support. Unfortunately, a recent tracking survey of public spending in Chad found that less than 1 percent of the money intended for rural health clinics was actually reaching its destination, suggesting that budget support is unlikely to be very effective in addressing social needs.

None of these approaches seem to have the minimum characteristics necessary for effective public spending. The model of the Independent Revenue Authorities, adopted because of the need for revenue in circumstances in which the civil service had ceased to function adequately, provides a useful model. A corresponding concept would be for an Independent Service Authority (ISA). A possible structure for such an organization is that it would be responsible for incremental social spending in post-conflict situations. Rather than build a duplicate civil service, however, an ISA would channel government and donor money only by contracting with service delivery agencies, such as local governments, churches, NGOs, communities, and private firms. The contracts would cover and finance the regular supply of the service rather than merely the capital costs of infrastructure. The ISA would use multiple channels of delivery

because, other than contracting, its core task would be to monitor and evaluate comparative performance, with resources at the margin continually being shifted from less cost-effective to more cost-effective channels. While the relevant government ministries would be represented on the supervisory board of the ISA, and would set the overall parameters of operation for service delivery such as minimum standards of service and maximum charges (which might be zero), civil society and donors would also be directly represented, with no one group in a majority.

Such an ISA would have several advantages over each of the present systems. First, compared with both the dual signature process and project implementation units, it has the scope to evolve into something that is sustainable. For example, donor representation on the supervisory board could gradually be reduced and indeed phased out. Second, unlike social funds, it would finance both capital and recurrent expenditures. The social fund model is built on the unrealistic presupposition that in the post-conflict context of desperate poverty and collapsed social trust, communities can take up the organizational burden of sustainable financing of services that even in less unpromising situations are financed by the state. Third, it would provide verifiable evidence of effectiveness, enabling donors rapidly to scale up financing for post-conflict social provision. In effect, it would provide a governance structure in which budget support for social provision could be effective.

## 6. Supporting Policies Outside Africa

### Aid

#### *Is Aid an Instrument for Decisive Change?*

What is the role of aid in decisive change? As Doucouliagos and Paldam (2006) have recently demonstrated through a “meta-analysis” of aid studies, depending on which studies one selects most positions can be defended. I will group the variety of positions into a spectrum of four. At one end of the spectrum of possible positions, a sufficiently large increase in the quantity and delivery of aid would itself constitute the decisive change, or directly trigger it. At the other end of the spectrum, aid is the critical inhibitor—big aid to Africa explains why Africa has failed to grow. In between these extremes, a third possible position is that aid is marginal—a sideshow to the true determinants of change. A fourth position, which is the one both Paldam and I find the most likely, is that aid is conditionally important depending upon the circumstances, but may also be conditionally detrimental.

The first of these positions—that big aid alone will achieve decisive change—faces a substantial credibility problem due to four pieces of evidence. The first is that the weight of the aid effectiveness literature finds that the

contribution of aid to growth has been at best modest. The second is the admittedly casual evidence from the past failure of the growth process in Africa: *prima facie*, aid has not delivered growth in Africa. The third is the evidence for diminishing returns that most studies of aid effectiveness tend to find, and that is indeed an implication of much, though not all, economic theory of the growth process. Hence, even if aid in past volumes was successful in raising growth substantially, additional aid might have a significantly smaller incremental effect. The fourth is the analogy with the large windfalls to African governments that have periodically accrued from natural resource booms. On the whole these windfalls have not generated sustained growth. They provide something a little like a natural experiment for big aid.

The second position—that aid has prevented Africa from developing—has some empirical evidence to support it, but is mainly dependent upon two theoretical analogies. The empirical evidence is essentially the casual inference from the juxtaposition of Africa having received more aid than other regions and having grown more slowly. However, one major weakness from such casual inferences is that they implicitly assume a counterfactual. In this case, the implicit counterfactual is that without aid Africa would have grown much the same as elsewhere. There are strong reasons to doubt this. Once it is allowed that Africa's counterfactual, without-aid performance, need not have been that of other regions, it is sadly entirely possible that aid has contributed considerably to African growth despite the region's overall lack of growth. The two theoretical analogies that provide some support for the argument that aid has been counterproductive are with low-income households trapped in welfare dependency, and with governments that are oil-rich. The former, though the bedrock of conservative hostility to aid, cannot survive serious scrutiny as a general proposition. To the extent that the dependency trap is a genuine phenomenon for poor households in rich countries, it is because implicit marginal tax rates for welfare households are often of the order of 75 percent. For low-income countries, not only is aid a much lower percentage of income than are welfare payments for poor households, but it shows remarkably little tendency to decline as income rises (Collier, 2006a). Hence, the implicit marginal tax rate upon growth arising from aid dependence is negligible, typically less than 1 percent. The latter theoretical analogy, that aid generates the same problems as oil, is plausible *a priori*, but the empirical evidence is against it: in econometric studies of the growth process, aid and oil do not “pool” (Collier, 2006b).

The third proposition—that aid is irrelevant to decisive change—is at least on the face of it the most reasonable interpretation of the aid effectiveness literature: aid in general simply does not appear to have decisive effects one way or the other. This view is systematically underrepresented in policy debates because there is no interest group that finds it an attractive position for advocacy. I believe that on the basis of our present knowledge it cannot be dismissed and

should be given more weight in policy formulation. The implication for governments of developed countries would be to pay more attention to possible instruments for intervention other than aid. At present, the development agencies are simply not constituted in a way that is conducive to this rethinking: in reality they are not *development* agencies, they are merely *aid* agencies. I think we need development agencies in which aid is merely one branch of the tree of activities.

The fourth proposition—that aid is conditionally decisive for good or ill—is my own current assessment of the evidence. In case this should be misunderstood for the thesis that aid works conditionally upon good policies, I should state explicitly that this is not going to be the argument. I indeed think that this is *sometimes one of the circumstances* in which aid is effective, but much of what I have to say will be in charting out a much more complex pattern of conditional circumstances. The very complexity may be why no robust yet simple (reduced-form) statistical relationship has been found between aid and growth.

On my assessment, the econometric evidence is most consistent with the hypothesis that without aid Africa would have experienced absolute decline. Taking the recent study of Clemens et al. (2004) as an example, using the coefficients estimated in that study, the scale of past aid to Africa would imply that it has raised the growth rate by something between one and two percentage points. This is quite a solid study, but it is towards the top end of the range of estimates. As Doucouliagos and Paldam (2006) note, generally aid seems to be less effective in the growth process in Africa than elsewhere. My own sense of the likely numbers is that over the long term the contribution of aid to African growth has been of the order of one percentage point per year. If this is accepted it has a disturbing implication: although with aid Africa has barely grown, without aid it would have experienced severe cumulative decline. Over the long term, aid has probably been decisive in keeping many African economies afloat, even if it has not managed to transform them. Were Africa around 25 percent poorer than it is today, its problems would be correspondingly more severe. This is not a fashionable thesis: indeed I have never seen it proposed. The anti-aid lobby does not want to grant this much credit to aid programs, and the pro-aid lobby, structurally characterized by overoptimism, has shied away from the bleakness of the implied underlying economic and political forces at work in Africa. Nevertheless, as a description of the past it seems to me the most credible position, although not the only one that the data will sustain.

If, indeed, aid has raised growth rates by something of the order of one percentage point, it might seem that doubling it would offer some real promise, especially if African economic governance has now improved to the point at which the counterfactual is no longer absolute decline. Unfortunately, the econometric evidence for diminishing returns to aid is sufficiently strong that the presumption should be that a mere scaling-up of aid would not have much

additional impact on growth. Thus, while the challenge is to make aid *more* effective than it has been in the past, the likely base-case for expanded aid is that it will be significantly *less* effective. This is why it is imperative to find ways of increasing aid effectiveness.

In wanting to make aid better it is important that changes do not inadvertently achieve deterioration. As I have noted, however limited the success of aid, it has been markedly more effective than oil in the growth process. Since oil is merely aid minus aid agencies, the comparison of aid and oil provides a neat estimate of the value-added generated by the aid agencies as organizations. Any reasonable assessment of aid versus oil will lead to the conclusion that the aid agencies collectively have much to be proud of: they have added a lot of value to the financial transfer that they have managed. This should be borne in mind in present critiques of donor behavior. Although there are some obvious design problems with aid delivery, some of the proposed transformations, such as further sweeping debt relief and long-term budget support, risk turning aid into oil: unconditional finance for governments.

Hence, there is a dilemma. Past aid has not been decisive for growth, but it may well have been decisive in preventing collapse. Quite possibly, that role was only a phase during which African governments were learning how to manage their extremely difficult economic environments, and African societies were learning how to hold their governments to account so that the past counterfactual of decline no longer applies. Thus, aid-as-usual would make growth rates significantly positive instead of preventing them from being significantly negative. However, aid to Africa is in the process of being scaled-up. This is both the likely outcome of existing political commitments, and the inevitable outcome of economic success in the rest of the developing world: other regions will neither need nor want aid and so it will be redirected to Africa. If this incremental aid is used simply to scale up aid-as-usual, the likely consequence is that it will encounter severely diminishing returns: the extra aid will deliver much less than past aid. The onus is thus to “reform” aid: ways must be found for incremental aid to be more effective than were it simply used to scale up. Yet many of the political pressures for the “reform” of aid are dangerous. The past practices of the aid agencies have substantially added value to the financial transfers and so it would be easy inadvertently to make aid *less* effective.

I think that the way out of this dilemma is to leave aid systems broadly as they are for the existing volume of aid, but to find opportunities for using aid that have to date been missed, to which the additional aid can be directed. By that I do not mean to say that no reform of existing aid modalities is desirable. There are some evident weaknesses with existing modalities, notably the lack of harmonization. But such reforms are not in themselves likely to be decisive in raising absorptive capacity.

Thus, I turn to opportunities for aid that have been neglected. To date, the main focus for incremental aid has been the “global funds.” These are dedicated to specific, high-profile needs, such as HIV/AIDS. They have the power to mobilize a lot of interest from OECD electorates and as such offer a constructive mechanism for increasing aid volumes. However, they suffer both from being rather distant from country-led strategies, and from being targeted on social rather than more directly economic objectives. While the global funds have a role to play in how additional aid should be raised and spent, they should not be the whole story. I am going to argue that there are indeed new opportunities for aid to be used more strategically in the growth process. These opportunities come from an interaction of the differences in underlying geographic endowments within Africa and the choices that its governments make.

### *Aid and Growth Opportunities in Africa*

If the opportunities are not there, as in resource-scarce landlocked economies with bad neighbors, even the best choices by governments will not deliver growth to middle-income levels. However, where the opportunities are there, they can be frustrated by sufficiently bad government. But bad government can take different forms. Just as it is useful to distinguish between three opportunity groups, so is it useful to distinguish different types of bad government. The donor interventions that are appropriate depend not only on the fact that government is bad, but on the reasons that it is so.

One group of countries that have had manifestly bad government and that has been important in Africa is those that have suffered state breakdown from violent internal conflict. Among other states that have had bad governance but have not been broken by conflict, there is a central distinction between those that are due to failures of political choice on the part of the government, and those that are due to failures of capacity on the part of the civil service. While the three *opportunity* groups are exclusive—at any one time a country cannot be characterized by more than one of them—the three types of bad government can coexist: a society may have violent conflict, its government may have chosen not to develop the economy, and its civil service may lack the capacity to implement the policies necessary for development. In such a situation no strategy will work and there is therefore little incentive for change. I put such discouraging environments to one side and focus instead on those environments where only one of these three possible constraints is binding at any one time.

### **Failures of Political Choice**

Now consider those badly governed countries where the failing is one of political choice on the part of the government. Often in donor circles this is described as a lack of political *will*, but this term is misleading. Why might a government decide not to implement policy and institutional changes that would enable the economy to develop? There are three distinct sets of circumstances. First, the

government might be controlled by an elite that benefits from bad governance even though the society as a whole is damaged. While in this case the elite indeed lacks the volition to change policies, the underlying problem that needs to be addressed is not the volition itself but the structure of power that makes this volition entirely rational. A second circumstance in which political choice is dysfunctional is when a governing elite is so badly informed about economics that it mistakes its own interest, choosing policies that are not only damaging for the country but bad for itself. Third, the government might not be controlled by an elite, but the wider society that does control it may similarly be so badly informed as to mistake its true interest. In each of these cases the government would choose not to implement socially beneficial change. The role of aid is likely to be radically different in these three situations.

In the first case, the corrupt elite, there are two different ways in which aid might be effective in inducing change. One is the well-worn model of policy conditionality: the donor tries to change the payoffs, making reform worthwhile for the elite. The accumulated evidence suggests that while this approach may have had occasional successes, it was largely a failure. Recent analysis on the role of aid in decisive policy reform in badly governed countries strengthens this conclusion. Chauvet and Collier (2008) analyze policy and institutional change in a comprehensive set of such countries globally. They find that once there are signs of incipient reform both donor finance and an improvement in the terms of trade have a *reform-chilling* effect. They interpret this as indicating that elites are sometimes driven to implement reform by shortage of money, and that windfall finance obviates this need. These are the situations in which the conservative model of welfare dependency is probably correct: financial aid at these times inadvertently traps countries into poverty. The other way in which aid might be effective in inducing change is if it attempted to change power structures, weakening the dominance of the elite. This is part of what I term “governance conditionality.” The main reason to expect that it might be more effective than the tried-and-failed model of policy conditionality is that it is far more legitimate. With policy conditionality the donor is seeking to hold the government accountable to the donor, whereas with governance conditionality, the donor is seeking to hold the government accountable to the society. This greater legitimacy can make donors more united and this in turn can enable them to be tougher and more consistent.<sup>5</sup>

While governance conditionality is more legitimate, there is as yet a major knowledge gap before it could be adopted as a practical strategy. Evidently, before donors could attempt policy conditionality they needed a reasonably clear idea as to what policies would be conducive to development. By the 1980s the

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<sup>5</sup> Of course, even if a recipient satisfies governance conditionality it may from time-to-time adopt policies that are so dysfunctional that donors should indeed withdraw funding. However, the rationale for such a withdrawal is essentially that the money would be better spent elsewhere, rather than that the act of withdrawal will induce the society to change its mind.

donor governments had themselves struggled through the disastrous economic conditions of the 1970s and so had learnt a lot of lessons on economic reform that they then applied, albeit sometimes inappropriately. There is no equivalent donor knowledge base on building accountability to citizens in low-income societies. Unfortunately, it is manifest that “democracy,” interpreted merely as multiparty elections, is often not enough to ensure effective accountability. Governance conditionality would need to go beyond free and fair elections, while avoiding the obvious pitfall of nitpicking and arbitrary detail. There is of course plenty of evidence on the detailed mechanics of effective accountability in low-income countries, most notably 60 years of Indian politics. But donor agencies have not studied this evidence in the same depth as they have studied the design of economic policy. In particular, the explicit *exclusion* of “politics” from the mandate of the World Bank is a major impediment to such learning, and one that is wholly anachronistic. Even by the time that the international community decided to establish the European Bank for Reconstruction and Development (EBRD), there had been a sea-change in understanding: in the mandate of the EBRD the institution is explicitly *required* to take the political system into account. The World Bank, by far the foremost development agency, finds itself in the curious position that its skill base is appropriate for the design of economic policies, which is now firmly and properly in the domain of government choice, whereas it is discouraged from the design of accountable governance, which should be firmly in the domain of donor conditionality. This implies that governance conditionality is therefore at best something that will evolve gradually.

Now consider the two situations in which the constraint is knowledge: either the elite or the wider society misunderstands its true interest. Chauvet and Collier (2008) find that both new leaders and post-conflict situations enhance the chances of reform, and these are both circumstances in which there is some change in the composition of the elite. These changes in composition might change elite understanding, although they could also change the true interest of the elite. Chauvet and Collier also find that countries with only a small population and a lack of secondary education are less likely to achieve decisive change. These characteristics are reasonable proxies for the knowledge of the society as a whole. One reason why China and India were able to rethink their economic strategies, learning from failure, might well be that they were such large societies. Size ensured that each had a critical mass of knowledgeable people and the related scale-dependent knowledge infrastructure such as specialist media. Whatever the critical mass might be, it seems to me likely that the Central African Republic does not have it. Where knowledge is the constraint, what can donors do? They can transfer knowledge through capacity building, most notably building up local tertiary education, think tanks, and specialized media. The “education for all” priorities of the 1990s, by transferring resources from tertiary to primary education, may have inadvertently retarded

poverty reduction in these knowledge-constrained societies. Although Africa's primary schools were producing more children with a smattering of education, its universities were producing fewer doctorates.

### **Lack of Capacity**

Finally, consider the case in which change is constrained by a lack of capacity in the civil service. The government wishes to reform, and has perhaps implemented those few reforms that do not require much competence within the civil service for their implementation. Reform is then stalled by the incompetence of the civil service. What can donors do in this situation? They have an instrument, technical assistance, which is intended directly to break this constraint by augmenting civil service capacity. Chauvet and Collier find that technical assistance early in the reform process has a significant and substantial beneficial effect, and that the result is robust across different specifications and proxies for governance reform. Technical assistance has become somewhat unfashionable: recipient governments would rather have money, and such assistance is easily criticized as being inconsistent with "ownership." However, in the process of a decisive turnaround from bad policies, institutions, and governance, it is technical assistance rather than money that seems to be effective.

### *Achieving Decisive Change in Africa*

The classification of opportunities developed in Section 2 can now be combined with this simple classification of governance to present an account the scope for aid to be decisive in change. Evidently, the starting point is that for some reason or other development has not occurred, or at least not a rate commensurate with needs. The different reasons why development has stalled—the binding constraints—can now be set out.

### **Opportunity 1: Recovery from Violent State Breakdown**

Once a violent conflict is underway, aid during conflict probably has little role in bringing it to an end. Indeed, by reducing aid there is more scope for a credible aid-for-peace dividend. However, *post*-conflict situations are one of the conditions under which aid seems to be particularly effective in the growth process (Collier and Hoeffler, 2004). This is not surprising: these were the conditions for which aid was originally designed, hence the name International Bank for Reconstruction and Development. Further, growth is effective in post-conflict conditions in bringing down the risk of reversion to conflict (Collier, Hoeffler, and Soderbom, 2008). Indeed, in post-conflict conditions economic growth appears to be far more effective than the political strategies such as elections that donor governments have emphasized. Since post-conflict conditions face a high risk of conflict reversion, and such reversions account for around half of all civil wars, aid post-conflict is a key instrument for conflict

prevention. However, economic growth takes time: the reduction in risk that it gradually achieves occurs over the course of a decade rather than just two or three years. Historically, donors have not provided sufficiently large and sustained aid flows in these situations: aid has tapered out, just as it should have been tapering in. This is therefore an important opportunity for incremental aid.

### **Opportunity 2: Transport Corridors for the Landlocked**

The logically prior category is where there are no credible opportunities to take the economy to middle-income level at reasonable speed. This is the group of resource-scarce, landlocked countries surrounded by poorly performing neighbors. Outside of Africa such countries account for only a negligible share of the population of the developing world. Within Africa they are important. For these countries neither governance nor aid is the binding constraint. The task within the country for the donor community is a holding operation until more fortunate neighbors harness their opportunities. As discussed in Section 2, although the landlocked, resource-scarce countries are highly dependent upon the economic choices made by their neighbors, this is evidently not reciprocated. This implies that there is little scope for bilateral bargaining between African governments. Whereas the governments of the landlocked countries cannot do much about this problem, the donors can readily resolve it. In effect, aid programs to coastal countries must be top-sliced to finance transport corridors for the landlocked. The governments of coastal countries will, of course, prefer to spend their aid money on other priorities, but this is a case in which “country ownership” is not appropriate. Hence, the entire aid program to a coastal country should be conditional upon its acceptance of that part of the program designed to assist its less fortunate landlocked neighbor. This is not quite the same as the more comfortable notion of “regional public goods” that can also be financed by aid. The essence of regional public goods is that all countries benefit, and the rationale for aid is merely to assist the coordination needed to overcome free-riding. The problem of transport corridors is deeper: there is a radical asymmetry of interest between countries so that they cannot be negotiated by governments themselves based on mutual advantage. Aid for transport corridors directly alleviates the problem of the landlocked, resource-scarce countries in a way that they could not do themselves, and so is an important opportunity for aid. The decentralization of aid to country-based programs and the emphasis on country ownership in the design of these programs has inadvertently destroyed the scope for such aid. It will need to be recreated through the introduction of top-slicing.

### **Opportunity 3: Supporting Accountability Systems in Resource-Rich Countries**

I now consider the third substantial donor opportunity: this arises in the resource-rich countries. Such countries do not need substantial additional finance

to augment public spending: donor finance is likely to hit diminishing returns. Thus, any opportunity for donors to support decisive change must be strategic.

For the resource-rich opportunity group making “big government” effective is critical. Systems of public spending are complicated and demanding of the civil service and so its capacity is likely at some stage to become a constraint. Appropriately designed technical assistance can break this constraint. Three factors combine to make the large-scale importation of skills essential in all but the long term. These are the increasing technical sophistication and professionalization of government, the growing shortage of Africans with doctorates, and the widening gap between the incomes such people can earn internationally and in their own civil services. For example, the new head of an important technical unit within the Nigerian civil service took an 85 percent cut in salary simply in moving from the Nigerian private sector. In principle, resource-rich countries could use their revenues to import technical assistance without aid. Such a choice is evidently difficult politically: spending money on expensive foreigners is hardly likely to be popular. Only one resource-rich African country has actually made this choice on a large scale and over a prolonged period: Botswana. The government of Botswana consciously eschewed concerns about “Africanization” and systematically hired foreigners into senior civil service positions. The astounding success of Botswana, in marked contrast to all other resource-rich African countries, is testimony to the efficacy of foreign technical assistance. Despite this evidence, the brute reality is that such a use of government revenues is not normally politically feasible. Thus, even where revenues are abundant and where the government is willing to use foreign technical assistance, it can only happen if financed through aid.

The constraint of political will is also likely to be binding at times. Given large resource rents accruing to government, if the elite controls the government it has an intrinsic conflict of interest with the wider society: its interest is to capture the rents for itself. Hence, in such societies a necessary condition for harnessing the opportunity presented by resource rents looks likely to be that power should be broadly diffused. Aid has only a limited role to play in ensuring that government is accountable to citizens. However, the practices that make aid more effective than resource revenues do constitute a model. The specifics of why a million dollars of aid is more effective than a million dollars of oil can only be due to some combination of the greater honesty and greater efficiency that determine how aid is spent.

Historically, across Africa aid agencies have probably neglected the building of accountability systems. Worse, among African countries they have systematically neglected the resource-rich, which are the countries that need accountability the most. The reason for this neglect is the obvious one that donors have primarily been concerned with building accountability systems for their own aid money. Since aid is quite appropriately systematically lower in the

resource-rich countries, accountability has been less of a priority. The current resource booms across Africa make a shift in priorities an urgent matter.

#### **Opportunity 4: Turnarounds**

Occasionally, in situations of poor governance, the government itself makes a serious attempt to reform. Even in the landlocked, resource-scarce economies this can provide an opportunity for growth as demonstrated by the past turnarounds in Burkina Faso and Uganda. However, it is the turnarounds in the resource-rich and the coastal, resource-scarce states that constitute donor opportunities for truly decisive intervention. The evidence from the analysis of turnarounds suggests that while donors can do little to initiate change, they can do a lot to strengthen it once it is underway.

It is difficult but not impossible for donors to spot a turnaround in its early stages. Three distinct indicators are a useful guide. One is a change in the leadership: as discussed above, a change in leadership signals the possibility of a change in political will, and the statistical evidence suggests that this commonly occurs. A second easily visible opportunity is the ending of a civil war. Post-conflict situations are highly fluid in terms of policy and governance and have the scope to absorb both technical assistance and money. Although the starting point is typically very bad, during the first post-conflict decade the norm is for rapid improvement. The third opportunity is more difficult to detect: this is where reform is already underway, but still in its early stages. In our work, Chauvet and I measure such incipient improvements both through the World Bank measure, the Country Policy and Institutional Assessment, and using a commercially available index, the International Country Risk Guide (ICRG) (Chauvet and Collier, 2008). Both produce the same result: donor interventions following incipient improvements are particularly useful. In all these cases the type of donor intervention that is useful is technical assistance. As the constraint of political will is broken, the constraint of capacity fairly rapidly comes to be binding. Except in post-conflict situations, donor money at this stage appears to have adverse consequences, probably because it reintroduces the constraint of political will as elites find that it is no longer necessary to reform. The post-conflict situation is exceptional perhaps because political change is likely to have been atypically profound, and because needs are atypically acute.

In the resource-rich countries incipient turnarounds reinforce the case for the donor strategy discussed above, namely the strengthening of systems of accountability for public spending. In the absence of turnaround much of this work will necessarily be done with limited cooperation from government, whereas turnarounds provide the opportunity for a much more cooperative and substantial effort. In effect, reformers in the government themselves face an acute principle-agent problem in trying to get their own civil service to deliver public services. The interests of such reformers and donors in strengthening accountability are therefore coincident.

In the resource-scarce coastal group of countries, although a “developmental state” is surely not necessary, sufficiently bad government can clearly foreclose growth opportunities. Hence, for those countries in this group that currently suffer from bad governance there may be little point in donors providing the infrastructure for private sector export development. However, incipient turnarounds provide an opportunity for donors with enormous potential. If only these economies can break into the global markets for new exports they can grow virtually without limit. In breaking into these markets the first step is the reform of policies and institutions at least to the point at which the state and its employees are no longer predatory on export activity. Thus, at a minimum, the customs service, the administration of taxation, the operation of the ports, and the regulation of production must all function to international standards. Beyond this, some infrastructure for export activities is likely to be necessary, and donors can usefully finance it. However, large *sustained* aid flows may be problematic due to Dutch disease. There is much more reason to be concerned about Dutch disease in the context of attempts to achieve growth through diversified exports than in other contexts. Evidently, it is the push-for-growth strategy in the coastal, resource-scarce economies where the potential adverse impact of aid on the exchange rate matters most. Even in these contexts aid can be designed in such a way as to minimize its impact on exchange rate appreciation. The government can adopt an active policy of trade liberalization, and public spending can be shifted towards activities with a high import content.

Thus, what seems to be appropriate for donors is a sequence. In the first phase, once there is an incipient turnaround or good reason to expect one, such as a change in the leadership, the donor should provide large-scale technical assistance. In the second phase, once reforms have proceeded to the point at which government is no longer an impediment to exporters, donors should fund a big push on export infrastructure. In the third phase, aid should be harmonized with trade liberalization and a shift in the composition of public spending, and if the government does not adopt these strategies that are complementary to a large aid inflow, aid itself should be scaled back in order to avoid real appreciation frustrating export diversification.

Historically, donors have not adjusted technical assistance very much according to country circumstances. It has been excessively supply-driven, tailored neither to shifting political opportunities nor to fundamental differences in economic opportunities. The provision of technical assistance needs to be reorganized to be more responsive to change, analogous to emergency aid, and more informed by economic potential. Infrastructure is again becoming fashionable having been badly neglected, but where there is the political and geographic potential for export diversification it should be targeted on this objective. This will usually require agencies to accept that in the short term this will have a smaller impact on poverty reduction than other uses.

## **Opportunity 5: External Shocks**

Africa's exports are dominated by primary commodities, the world prices of which are volatile. This volatility creates a further important macroeconomic opportunity for aid, namely to be delivered in such a way as to reduce volatility. Although there has been much IMF-initiated concern about aid as a source of Dutch disease, and as a source of macroeconomic volatility, the general tenor of that concern has been to try to discredit aid as a development instrument, as part of the larger, and I believe mistaken, thesis that domestic revenue must be raised in order to reduce "aid dependency." At present aid is either not conditioned on macroeconomic conditions, or that conditioning is perverse, with "good" macroeconomic performance inducing higher aid. Evidently, "good" macroeconomic performance as measured by inflation and budget deficits is likely to be correlated with improvements in the terms of trade, so that inadvertently such conditioning risks that changes in aid will amplify rather than offset external price shocks. Africa faces the most risky external conditions in the world and so aid should, as a matter of routine, be designed so as to be contingent upon shocks. Since world prices are very readily observed, such contingent aid flows can be integrated into budget support so that changes are virtually contemporaneous with the shocks themselves. Such a redesign of aid would help to stabilize both budget revenues and exchange rates. In effect, this would add the value of a macroeconomic insurance premium to the payoff from aid. While in principle governments could purchase such insurance on derivatives markets, in practice none do so. Insurance through aid is the only realistic option. Although to date aid has not been so designed, sometimes random changes in aid have indeed inadvertently had an insurance effect. Collier, Goderis, and Hoeffler (2006) use these random variations in aid to investigate whether they are effective and found that aid so used had a significant and substantial insurance benefit over-and-above its normal effect.

## **Trade**

To date, international trade policies towards Africa have taken two approaches. One has been to exempt Africa from obligations to liberalize trade. The other has been to introduce preference schemes designed to raise the price of Africa's agricultural exports. The "Fair Trade" movement is a variant on this second objective.

The former approach has resulted in a degree of marginalization from trade negotiations. In an environment of bargaining, the stance of offering no liberalization tends to result in being offered very little. Even if the Doha Round is implemented, Africa will not be a significant beneficiary. The latter approach, of preferences, has yielded a small income transfer to Africa, but at the cost of reinforcing the region's dependence upon its existing exports. Neither of these approaches is pertinent to the region's key need, which is to enable its coastal, resource-scarce economies to surmount the threshold entry barrier constituted by

its lack of agglomeration economies in labor-intensive manufactures. Africa needs temporary protection from Asian competition in OECD markets.

While this might sound radical, in fact Africa already has such protection. It was critical to the success of Mauritius, which benefited from the Multi-Fibre Agreement. Currently, the United States gives Africa such preferences through the Africa Growth and Opportunity Act (AGOA) and the EU through Everything but Arms (EBA). Indeed, a variant of this special protection was part of the failed “Hong Kong offer” for least developed countries (LDCs). The principle of protection has thus already been conceded. However, as with all trade policy the devil is in the details. All these schemes fail because, for different reasons, the details of the schemes limit their effectiveness.

The EU scheme of EBA gives duty-free and quota-free market access for LDCs in all goods except rice, bananas, and sugar, for which transitional programs are in place. Despite its breadth of product coverage, the scheme is marred by a number of restrictions. Some of these are product-specific regulations, while the most important are to do with rules of origin. These are product specific and in many cases complex and restrictive. For example, African clothing producers who use imported fabrics from Asia are generally unable to receive EBA preferences. EU imports of clothing from African LDCs were actually lower in 2004 than they were in 1996, prior to inauguration of the scheme.

The United States extended its trade preferences to Africa in 2000 under AGOA. This offers duty-free (although not quota-free) access for a wide range of products. Importantly, AGOA is not restricted to LDCs, and is currently available to 37 African countries, including Kenya, Nigeria, and South Africa.<sup>6</sup> As with EBA, numerous conditions have to be met for products to be eligible. However, there are important differences in rules of origin, particularly for apparel. Initially, imports of apparel were subject to restrictive rules of origin (having to come from the United States or other AGOA countries), but the “special rule” clause relaxes rules of origin for apparel imports. Making up fabric into apparel is sufficient to confer origin, so countries can use fabric imported from third countries in their apparel exports to the United States. This special rule is temporary (and has been renewed under a series of waivers) and now applies to 23 African countries. It has facilitated a large increase in exports of apparel from several African countries to the United States (see Collier and Venables, 2007).

Table 3 below lists some the main characteristics of these schemes. It also outlines the “Hong Kong offer” put forward by OECD countries in 2005. While this calls for “simple and transparent” rules of origin, it fails to specify how generous these should be, is restricted to LDCs, and allows developed countries to exclude 3 percent of tariff lines, potentially including key sectors.

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<sup>6</sup> For details of eligibility see [http://www.agoa.gov/eligibility/country\\_eligibility.html](http://www.agoa.gov/eligibility/country_eligibility.html).

**Table 3: Current and Proposed Trade Preferences for Africa**

	<b>EBA</b>	<b>AGOA</b>	<b>Hong Kong offer</b>
Importing countries	EU	US	Developed countries (with voluntary participation from non-LDC developing countries)
Exporting countries	LDCs	37 qualifying SSA countries	LDCs
Commodity coverage	All except rice, bananas, sugar	6,400 tariff lines (expand GSP that was covering 4,600 lines)	3% of tariff lines excluded
Preference margin	DFQFMA	Duty free Some aggregate quotas	DFQFMA
Time/bindings	Unlimited but unbound	2015	Unlimited
Rules of origin	Product specific: Often complex: Often restrictive	Product specific: Restrictive on many goods but liberalized on apparel	"Transparent and simple" (Hong Kong declaration)
Standards and regulations	Restrictive	Restrictive	None
WTO waivers required	No, covered by GSP under GATT enabling clause	Yes, as not extended to all developing countries.	No by definition

Trade preferences are valuable for a wide range of developing country exports. However, the fundamental importance of trade preferences is that they can give countries a window of opportunity in which to develop capability in new sectors with a potential for rapid expansion and substantial job creation. Growing such sectors from scratch is difficult, and requires a wide range of capabilities that are hard to acquire simultaneously. African producers typically do not have the advantage of a cluster of related firms that share knowledge, provide specialist inputs to each other, and draw on a pool of experienced labor. The difficulties of coordinating interdependent decisions make it difficult for such clusters to become established, and create threshold entry-barriers that inhibit African diversification.<sup>7</sup> The key role of trade preferences, together with supply-side support such as Aid for Trade, is to give countries the opportunity to overcome these startup costs.

An example is apparel, a sector that has driven rapid growth in many countries. Even in this relatively straightforward sector, producing goods from scratch requires capability in production of cotton and other materials, in transforming them into yarn and fabric, and in assembling them into garments, together with design and marketing skills, and so forth. Granting preferences simply for the export of garments is of little value unless either (i) the country already has a substantial proportion of these capabilities or (ii) is able to import

<sup>7</sup> See, for example, Henderson, Shalizi, and Venables (2001).

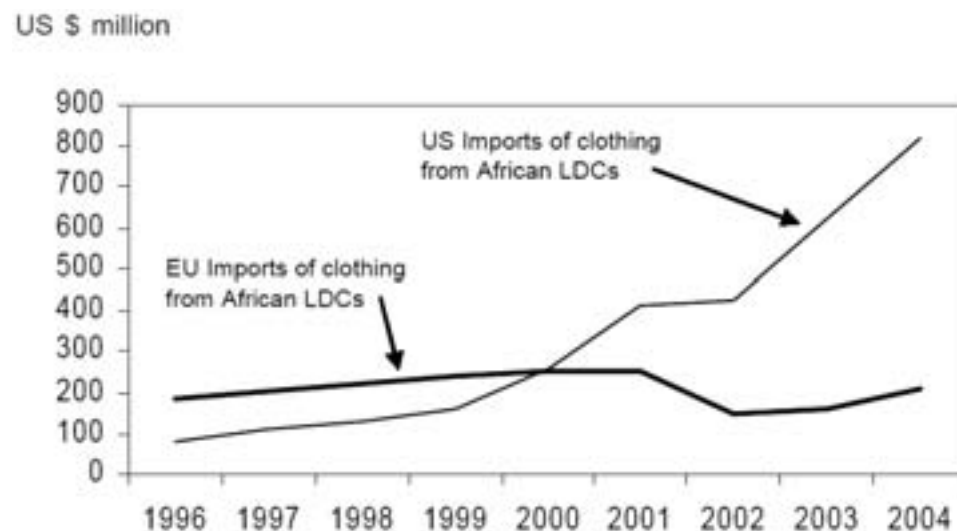
many of the inputs to the final product, rather than undertaking all these stages domestically. Too often preference schemes have closed off these options. Preferences have been restricted to LDCs that do not have the complementary capabilities, and restrictive rules of origin have removed the option of using imported inputs.

Important lessons about the importance of rules of origin come from comparison of the performance of apparel exports under the EBA and AGOA schemes. Figure 7 compares African LDCs' exports of clothing under the two schemes, and illustrates the benefits of AGOA's more relaxed rules of origin, under which garment firms were able to import fabric and textiles from third countries, particular from Asia. The figure indicates AGOA imports increasing 10-fold, while EU imports stagnated.

Of course, it is possible that U.S. imports of clothing surged for reasons unrelated to AGOA. However, a careful study concludes that it did have large effects.<sup>8</sup> The African export response occurred despite flaws in AGOA (uncertainty about the duration of easier rules of origin and the exclusion of South Africa), and in the absence of substantial aid targeted at trade support.

The following proposal raises no issues of principle: the principle of the proposed preferences is already well-established through AGOA, EBA, and the Hong Kong offer. However, in trade policy details matter and the proposal modifies the details of these three schemes, taking a blend of features already found in each of them. It aims at an integrated approach that is likely to be more effective. It has five key aspects.

**Figure 7: The Impact of AGOA and EBA on African Exports**



Source: USITC Dataweb and EUROSTAT.

<sup>8</sup> Frazer and van Biesebroeck (2005).

### ***1. Rules of Origin***

Rules of origin are central to any preference arrangement. If they are too lenient the consequence is trade deflection.<sup>9</sup> Trade deflection would defeat the objective of generating significant new value added in Africa. Conversely, if the rules of origin are too restrictive, no new activities become profitable and the scheme is ineffective. The growth of apparel exports under AGOA as a result of its “special rule,” and the failure of EBA, demonstrate the importance of more relaxed rules of origin. These should form the basis for an integrated scheme, with the example provided by the “special rule” being extended beyond apparel.<sup>10</sup>

### ***2. Countries***

The coverage of countries concerns both markets and beneficiaries. The coverage of markets should be pan-OECD, based on the coverage proposed in the Hong Kong offer. At present, the most effective scheme is AGOA, and this needs to be extended to other markets.

Since the purpose of the scheme is to bring sub-Saharan Africa over the threshold of entry into diversified export activities, this proposal defines the coverage of beneficiaries. Most Asian economies are already over this threshold and so the region does not warrant pump-priming preference, but this is not the case for any mainland African economy. The scheme should therefore cover, and be restricted to, the entire region of sub-Saharan Africa. This is already virtually the coverage of AGOA. It should not, at least initially, be restricted to LDCs because the African countries that are currently best-placed to break into new global markets are, almost by definition, not LDCs. This is an important aspect of the failure of EBA. There would be some benefits from the inclusion of South Africa. Enhanced employment generation is evidently critical for the continued stability of that society and there are major spillovers from South African growth for the rest of the region.<sup>11</sup>

### ***3. Duration***

To include the non-LDC countries will require a WTO waiver (like AGOA) and for these cases it would be appropriate to make the preferences time-limited: for example, they could be linked to the date for attainment of the MDGs, 2015, as is AGOA.

The introduction of a time limit has two important advantages over the present schemes and indeed represents a compromise between the very different timeframes of AGOA and EBA. AGOA currently lasts to 2015 with a three-year time limit on the rules of origin waiver. The three-year time limit is too short to

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<sup>9</sup> Trade deflection occurs if imports are merely transhipped through a country that receives preferences, with minimal processing occurring in the country.

<sup>10</sup> See for example Brenton (2006).

<sup>11</sup> Arora and Vamvakidis (2005) find that each 1 percent growth in South Africa leads to an increase in growth in the rest of Africa of 0.5–0.75 percent.

justify fixed investments by exporting companies and so weakens the effectiveness of the scheme. EBA has no time limit. For those countries that are not LDCs unlimited preferences would be inappropriate. A time limit would help to create a sense of urgency on the part of both beneficiary governments and donors to coordinate complementary actions that will be necessary for export diversification. Further, as these countries succeed in getting over the entry threshold, the phaseout of preferences will concentrate the preference advantage on the African LDCs. Over the next decade both governments of these countries and donors can therefore focus on bringing the economies to the point at which they would be able to benefit from such exclusive preferences.

#### *4. Product Range*

The coverage of products should ideally be wide, as already established by EBA. In particular, the scheme should not confer on OECD countries the rights to specify on an ad hoc basis product exclusions since this would create market uncertainties that might make the scheme ineffective. However, the core purpose of the scheme is to enable Africa to diversify out of its existing major exports. Thus, it would be better to exclude any critically sensitive agricultural products rather than accept more generalized limitations that might weaken the effectiveness of the approach in respect of other products.

#### *5. Aid for Trade*

African countries also require support for improving their trade-related infrastructure and business environment. The approach could be complemented by implementation of existing aid-for-trade proposals.

### **Security**

Recall that Africa has characteristics that make it particularly prone to insecurity. For various reasons discussed above—the small scale of the typical country, ethnic diversity, low income, slow growth, dependence upon natural resource exports, and the high risk of conflict reversion—it is very difficult for African governments, either individually or collectively, to provide adequate security to their populations. This should be of concern to the international community for three important but distinct reasons. The first is that insecurity is immensely costly to economic development. The second is that the natural response to the problem by individual African governments, namely to spend resources on the military, is to a considerable extent inadvertently financed by donors. The third is that whereas the provision of security is very difficult for African governments, international actors are able to use strategies that have demonstrated effectiveness. I take these issues in turn.

### *The Costs of Insecurity*

Most large-scale organized violence in Africa takes the form of civil war. The overall economic costs of a typical civil war in a low-income country have been estimated at around US\$60 billion (Collier and Hoeffler, 2004a). The cost is depend upon the duration of the conflict, but civil wars last more than 10 times as long as international wars and are particularly long in low-income countries. Further, since the recovery from civil war is typically slow, many of the economic costs of civil war occur after it is over, in the form of a level of income considerably below its likely counterfactual. As discussed above, civil wars also spill over onto neighboring economies, so that around half of the costs accrue collectively to neighbors. With so most of the costs of a war accruing to neighbors to the post-conflict future, and to noncombatants within the society, it is highly likely that the social costs of violence are not fully internalized by those who perpetrate it. Hence, peace-promoting interventions have the potential, subject to their effectiveness, to be very valuable purely in economic terms.

Africa has been spared many international wars. However, as with civil war, many of the costs are somewhat hidden, accruing long after the conflict is over. For example, military spending typically remains persistently and substantially higher, presumably because of the fear of further conflict (Collier and Hoeffler, 2007). For example, following the international war between Eritrea and Ethiopia, military spending has not reverted to its pre-conflict level in either country.

Another important manifestation of large scale violence that has been common in Africa is a coup d'état. The aftermath of a coup d'état is, typically, a sharp increase in military spending, presumably as military officers reward the themselves and their supporters (Collier and Hoeffler, 2006b).

Even without an actual outbreak of violence, the fear of it incurs costs. The risk of civil war induces governments to maintain a higher level of military spending as a deterrence, and the risk of a coup induces governments to buy the military off (Collier and Hoeffler, 2007, 2006b).

### *Aid and the Finance of Military Spending*

Except in rare instances, donor governments explicitly exclude military spending from their development assistance. Nevertheless, it is extremely difficult to prevent aid from financing expenditures beyond its intended purposes. This need not involve any improper diversion of funds. Aid is well-understood to be fungible within budgets. There are other, less direct, ways in which aid augments government revenues. For example, by augmenting the capacity to import it increases revenues from trade taxes. A recent global estimate of the typical rate of overall leakage is that 11 percent of aid finances military spending (Collier and Hoeffler, 2007). This is not high, but in the context of Africa it would imply that around 40 percent of military budgets were inadvertently aid-funded. Since donor nations are thus paying for such a substantial share of African military

spending, this also gives them a reasonable basis for concern over providing security in a less costly manner.

### *The Effectiveness of External Security Provision*

There is now evidence that international security interventions can be effective. One form of intervention is post-conflict peacekeeping. Around 40 percent of post-conflict situations revert to civil war within a decade. Collier, Hoeffler, and Soderbom (2008) analyze 66 post-conflict situations globally, investigating a range of possible means of reducing the risks of further conflict. They find that international peacekeeping substantially and significantly brings down the risks, and is indeed by far the most effective short- and medium-term strategy. Yet post-conflict situations in Africa have typically attracted far fewer international peacekeepers than those of other regions for obvious reasons of geopolitical interest, and troops are withdrawn after only short periods. Even with successful post-conflict economic recovery, the risks of reversion to conflict take around a decade to come down to manageable levels. Hence, there is a strong case for both larger and longer-term peacekeeping.

A different form of security intervention is to provide guarantees of military assistance to governments. This is, of course, the basic principle of military alliances such as NATO. One particularly pertinent form of guarantee would be to protect democratically elected governments from coups d'état. Not only are coups costly in themselves, but they significantly increase the risk of civil war. An important recent instance in Africa was in Côte d'Ivoire in December 1999, where a coup d'état initiated a costly political downward spiral. Collier, Hoeffler, and Rohner (forthcoming) analyze Africa's main experience of an international security guarantee in the context of a global study of the risks of civil war. They find that for the 30 years of 1965–95 during which France provided informal security guarantees to Francophone Africa, these countries had an incidence of civil war onset only one third of that which would otherwise have been predicted, an effect that is statistically significant. Following the Rwandan atrocities of 1994 France abandoned this policy of guarantees, although the policy has now been adopted by Britain in Sierra Leone.

Since both peacekeeping and guarantees are currently being deployed in Africa, no issue of principle is involved in their extension. However, the present scale of their deployment is probably considerably below that which would be justified as part of cost-effective assistance for African growth.

### **Governance**

The international community routinely uses international standards and codes as a means of coordinating and raising standards of governance. Sometimes they are voluntary and sometimes mandatory and often this distinction is not critical. Mandatory standards can be evaded unless there is an effective enforcement

mechanism, whereas even purely voluntary standards can often generate considerable pressure for compliance.

However, most of these standards are designed for either developed or middle-income economies. An important instance of neglect is the management of natural resource rents. Developed economies are net importers of natural resources, and so are engaged in the generation of resource rents largely through the ownership of firms in the extractive industries. They therefore have had little incentive to promulgate standards and codes that are appropriate for the governments of resource-exporting countries. Below, I set out the basic elements that a charter for natural resource revenues, presumably voluntary, would need to cover.

### *A Charter for Natural Resource Revenues*

Africa currently has a major opportunity to growth through harnessing natural resource revenue booms. However, the precedents are not encouraging: the typical pattern has been for these revenues to be misused. International standards are likely to be the most effective way of helping reformers within Africa to raise standards of economic governance of these windfalls. Clear international standards are also probably the best chance of getting China to conduct its African resource extraction in a reasonable fashion. The Extractive Industries Transparency Initiative has made an important start to this process, and indeed was adopted promptly by reformers in Nigeria. However, it currently addresses only a very limited range of the likely problems. There is an urgent need for a more comprehensive charter. There are five steps between resources being discovered and the revenues spent, and each deserves attention.

#### **Step 1: Awarding Contracts**

The first step is the award of contracts to get the resources out of the ground. Historically, some companies have bribed their way into contracts that are lucrative for them and for the bribed politicians but not for the country. An oilfield in a developed country is auctioned off in a transparent process. This should be a basic requirement of an international charter on resource extraction. Since the design of auctions is complicated and apparently transparent processes can still be corrupt, a charter could usefully spell out some of the key features of an effective process.

#### **Step 2: Risk-Sharing**

The second step is what the contracts say—in particular, who bears what risk. At present, price risk is borne by governments, not by companies. Tiny countries, with governments that lack basic competence in economic management, are expected to cope with boom-bust cycles. Part of this volatility could better be borne by the financially sophisticated companies at the other side of the contract. For example, oil companies could bear at least part of the price risk by

undertaking to set a quantity of oil production at the world price averaged over several years, thereby stabilizing a component of the country's total oil revenue.

### **Step 3: Revenue Transparency**

The third step is to make all payments of revenue transparent. This has been the focus of the Extractive Industries Transparency Initiative and of its precursor, the Publish What You Pay campaign. It was the right place to start. Unless citizens know what money is coming in, they have little hope of scrutinizing how it is used. All companies must be included, most especially the national oil companies that are sometimes governments within governments. There is also a need for some honest broker to collate the individual company information into a coherent picture of flows into government. For example, in Angola there are 34 foreign oil companies and a state-owned national oil company. It is a skilled job to make sense of the information supplied by each individual company. The broker would act merely as an accountant, not a police officer, converting a confusing morass of information into knowledge that citizens could use.

### **Step 4: Expenditure Transparency**

The fourth step four is transparency in public expenditures. In the resource-rich countries effective public spending is the vital route to development, and this is not going to happen without transparency. Whereas transparency in public spending is always desirable, in the resource-rich countries it is vital. And so there is a need to set out minimum standards of transparency.

### **Step 5: Expenditure-Smoothing Rules**

The final step is a set of rules for smoothing public spending in the face of revenue shocks. The history of resource revenue shocks is that booms have often been the prelude to crises. There are as yet no simple international smoothing rules: for example, in 2003 Ngozi Okonjo-Iweala, then the new Finance Minister of Nigeria, had to invent an ad hoc rule system from scratch. Now that she has gone it is an open question whether this system will survive. A guideline does not have to be so sophisticated in order to be an improvement on what has gone on in the past. An international standard would make smoothing arrangements easier to introduce and harder to remove. It is important to distinguish between smoothing out shocks, which is a medium-term strategy, and accumulating financial assets for future generations.

## **7. Conclusion**

Africa currently faces its best opportunity for growth since the commodity boom of the mid-1970s. In the intervening period African economic performance has been worse than that of any other region. The explanation for this is not that

African economic behavior is fundamentally different from elsewhere, but rather that African geographic endowments are distinctive. Considerable attention has been given to the climatic aspects of African geography and the consequent hazards for health. While not wishing to question this analysis I think that the emphasis upon health has underplayed other features of African geography that may be both more important and more amenable to policy.

Both Africa's physical geography and its human geography are distinctive. In respect of physical geography Africa is not only distinctive but its countries are differentiated. The greater share of Africa's population in landlocked, resource-scarce countries as opposed to coastal, resource-scarce countries alone accounts for one percentage point off Africa's regional growth rate compared to other regions. Further, because opportunities differ across the region strategies need to be differentiated. This applies both to what African governments should see as critical priorities and to what external actors can do to assist: undifferentiated pan-African strategies will fail. In respect of human geography Africa is distinctive but not so differentiated. Almost all African countries have small populations and yet are ethnically diverse. A corollary of small countries is that Africa has found both policy reform and the maintenance of internal security more difficult than other regions. Fortunately, Africa has made progress on both of these problems: hopefully, the small-country problem merely helps to account for Africa's troubled recent past, not its future. A corollary of ethnic diversity is that democracy is more important for economic performance than other regions, and that the domain of the public sector should probably be kept small and decentralized. Again, these may be problems of the past. The region has substantially democratized over the past decade, and also reduced the size of the state and decentralized spending.

Hence, recent developments are hopeful: in some respects Africa's distinctive geography may be more important in explaining its past than in predicting its future. However, the interactions of physical and human geography have created three intractable and important problems that have yet to be addressed and that probably need both regional and international action.

One is how to manage resource rents in the context of ethnic diversity. The most appropriate polity is a design that such countries tend not to have: strong checks and balances on how governments can use power and decentralized public spending. This is a political challenge for the resource-rich African societies and one in the international community can assist through standards and codes, and through greater transparency in the international banking system. The Extractive Industries Transparency Initiative is an important start.

The second problem is how to compete with Asia despite having let Asia get decisively ahead. Although African governments can do much to make some coastal cities more competitive platforms for exports, it seems likely that international action will be needed, temporarily leveling the playing field

through preferential market access that offsets Asian economies of agglomeration. This may need to be an African demand in trade negotiations.

The third problem is proneness to violent internal conflict. Because of the large regional economic spillovers this is intrinsically an issue beyond each individual nation. There is a long and successful international history both of assistance for economic reconstruction, and of directly enhancing security through peacekeeping and guarantees. This global experience is currently particularly applicable to Africa.

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**Paul Collier**, *Professor of Economics, Oxford University*

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