African Department

Building Resilience in Sub-Saharan Africa's Fragile States

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Fragile states—states in which the government is unable to deliver basic services and security to the population—face severe and entrenched obstacles to economic and human development. While definitions of fragility and country circumstances differ, fragile states generally have a combination of weak and non-inclusive institutions, poor governance, low capacity, and constraints in pursuing a common national interest. As a result, these countries typically display an elevated risk of both political instability (including civil conflict), and economic instability (through a low level of public service provision, inadequate economic management, and difficulties to absorb or respond to shocks). Crises in such countries can also have significant adverse spillovers on other countries. In contrast, resilience can be defined as a condition where institutional strength, capacity, and social cohesion are sufficiently strong for the state to promote security and development and to respond effectively to shocks.

Given the multiple sources of fragility and the reinforcing interactions among them, fragile countries find it very difficult to build resilience, and many seem to be caught in a "fragility trap," a closely interlinked circle of underdevelopment, political instability or conflict, and ineffective state capacity (Figure 1.1). This makes the transition out of fragility neither simple nor rapid: for instance, it is estimated that of 26 sub-Saharan African countries identified as fragile, only 12 could be expected to become more resilient by 2039 (Cilliers and Sisk 2013). The transition process seems to involve a number of intermediate phases ranging from state failure and conflict to less extreme symptoms of weak governance and institutions, with each phase entailing different challenges.[1]

In the early 1990s, much of sub-Saharan Africa—20 out of 44 countries—could be regarded as "fragile." But the period since then has seen several important changes: in some countries, societies and leaders have moved toward an agenda based on peace and development; the end of the Cold War has put an end to surrogate conflicts, producing a global "peace dividend"; the world economy and the demand for natural resources have grown strongly; the international community has written off most of the debt of the poorest countries

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[1] According to the g7+ (2013), these phases could be crisis, rebuilding, transition, transformation, and resilience.

through the Heavily Indebted Poor Countries and the Multilateral Debt Relief Initiatives; and various initiatives have sought to enhance and redirect aid to respond better to recipient country needs and to build domestic capacity.

Figure 1.1. The Factors Behind Fragility

Lack of common vision and inclusiveness	Weak governance and ineffective institutions
Underdevelopment, lack of education and employment opportunities	Conflict and political instability
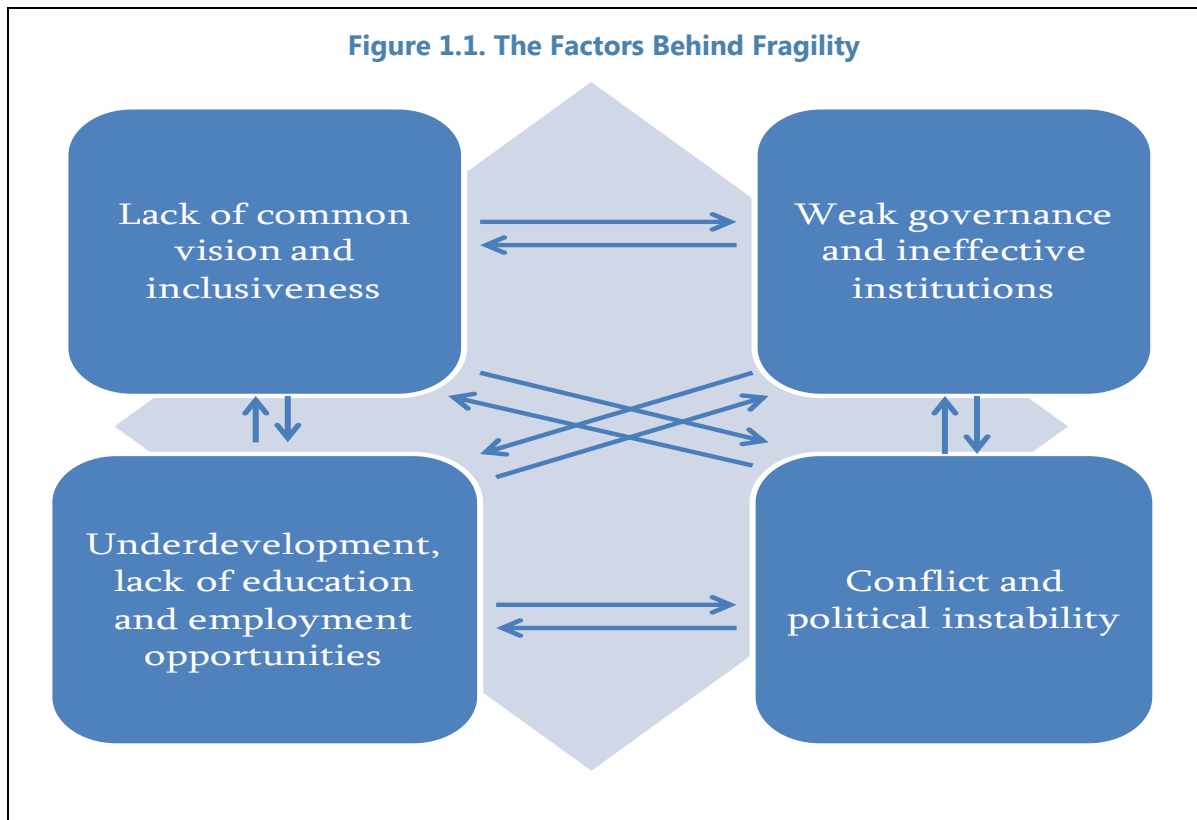
In particular, seven countries—Cameroon, Ethiopia, Mozambique, Niger, Nigeria, Rwanda, and Uganda—have made relatively more progress in building resilience. These countries, two of which have benefited from a natural resource windfall, have been able to adopt more inclusive political arrangements, strengthen their institutions, and foster investment. They have also been able to maintain macroeconomic stability and increase domestic revenues to support higher levels of public investment and improved social services. However, several other countries have not been able to make similar transitions and some even regressed (e.g., Côte d'Ivoire, Malawi, Zimbabwe).

While it has long been recognized that the transition from fragility is complex and long, what can be inferred from the experience of sub-Saharan African fragile countries? What were the main drivers of progress in those that managed to build resilience? Why have not more countries taken advantage of favorable external conditions, a decline in the incidence of major conflicts, and in some cases commodity booms that raised GDP and provided fiscal space even in the absence of effective revenue administrations?

This paper seeks to analyze the challenges of building resilience in fragile states in sub-Saharan Africa by examining these questions. It highlights the persistence of fragility and

that multiple dimensions of state weakness are simultaneously at play. This also applies to a number of resource-rich countries that, despite windfall export and fiscal gains in recent years, have not been able to translate those gains into development outcomes and build inclusive societies.

This study proceeds with an overview of the analytics of fragility and conflict and international engagement with fragile states (Chapter 2). This sets the stage for assessing the state of fragility in sub-Saharan Africa and the progress made in building resilience (Chapter 3). Chapter 4 looks at the role of fiscal policies and institutions, while Chapter 5 analyzes growth accelerations and decelerations. Chapter 6 has an analysis of seven country cases—three of which were able to build resilience—identifying more concretely some key factors at play, and the diversity of paths followed, while Chapter 7 draws similar conclusions from the more successful cases with emphasis on the sequencing of reforms. Chapter 8 concludes with a summary of the main findings and policy implications.

2 The Analytics of Fragility

THE ROOTS OF FRAGILITY

Why are some countries fragile? An extensive theoretical and empirical literature has highlighted several factors that contribute to (or are, more generally, associated with) fragility. Initially, fragility was mainly seen as proclivity to (or a legacy of) internal conflict, but more recent approaches highlight other aspects of fragility that are not directly related to, or even associated with, violence, and can be retraced to the weakness (and lack of legitimacy) of government institutions, a poor and unstable economic environment, and a divisive and non-inclusive political context. There are thus many sources of fragility that reinforce one another and trap fragile states in a vicious circle of underdevelopment.

Greed and grievance

The earlier research on fragility focused mainly on the causes of civil wars and on the factors that increase the probability of conflict. These studies have examined the motivations and institutional shortcomings that induce opposing groups to resort to violence to improve their welfare ("greed") or redress injustices ("grievances"), identifying several important factors that can make a country more prone to conflict or facilitate sustained peace (Box 2.1).

Unsurprisingly, these studies found that poverty can encourage conflict by lowering the opportunity cost of fighting; less intuitive was the finding that an abundance of natural resources can have the same effect by providing rents that can be appropriated by fighting and a source of revenue that can be used to finance insurgencies. Although conflict could in principle be avoided if governments were able to credibly commit to reallocate power and wealth, such commitment may not be possible in societies with weak institutions and major constraints to enforce contracts. By focusing on conflict, however, this research has given less prominence to other economic and institutional factors that affect fragility. It has also underemphasized how moral values and ethical norms can make a country more or less fragile (although some studies have analyzed the role played by education, e.g., Breidlid 2013; Østby and Urdal 2011).

Box 2.1. Overview of the Literature on Civil Conflict

Insights

The earlier literature on fragility focused on the causes, facilitating factors, and resolution of conflict under the assumption that the parties involved behave rationally. Conflict was seen as the outcome of rational decisions, even though these decisions often stem from imperfect information and other "market failures" and are often morally questionable. The studies investigated both the rational considerations that motivate the actors to use violence and the institutional failures that prevent the achievement of a less costly and peaceful outcome.

In a game-theoretic perspective (e.g., Hirschleifer 1991; Walter 1997), conflict can be described as the outcome of an interaction between opposing groups willing to engage in violence in order to appropriate some resources (the "prize"). Since conflict is costly and its outcome in principle can be replicated at lower cost by a negotiated agreement, its occurrence signals the presence of institutional failures that prevent the parties from reaching a peaceful agreement that can be credibly enforced. In particular, asymmetric information may bias the perception of the rival's strength and fighting capacity, and commitment and enforcement problems may prevent a party from believing that its rivals will implement a proposed—or existing—agreement.

Looking deeper, the incentives that induce the parties to take arms have been related to the categories of "greed" (using violence to achieve better living standards) and "grievance" (using violence to redress an actual or perceived injustice). These explanations are largely complementary and both types of factors can be at play in a given conflict, albeit their relative influence may change at different stages. Moreover, some variables (such as inequality or a lack of education) can be linked to both greed and grievance.

Another valuable insight is that most of the factors that lead to conflict tend to be symptoms of a low level of economic and institutional development, and that they become weaker as development takes hold, particularly if economic growth is inclusive. Development increases the opportunity cost of violence and provides better alternatives to improve one's living standards; as income rises, the urgency to redress grievances through violence also recedes while institutional improvements provide new ways to resolve such issues peacefully.

Empirical Findings

A number of cross-country and microeconomic studies have tried to identify the factors that contribute to the start, continuation, or intensity of a conflict. Despite methodological difficulties concerning identification, the direction of causality, and subnational differences (see Blattman and Miguel 2010), these studies highlighted that:

Conflict tends to be persistent. Countries that experience conflict are more vulnerable to a renewed outbreak of hostilities, although this risk declines over time (Collier and Hoeffler 2004; World Bank 2011b). This persistence stems from greed and/or grievances: in an economy devastated by war, former combatants and impoverished civilians have few opportunities to find a peaceful and reliable source of income (e.g. Walter 2004), and there are several victims of violence and injustice who seek redress and—quite often—revenge.

The likelihood of conflict is higher in countries where poverty or underemployment is pervasive, both because people have little to lose by starting, or joining, a rebellion, and because they are more likely to have grievances from unrealistic expectations or perceived injustices. Hence, poverty and inequality interact with conflict and can help define fragility: high rates of unemployment, low growth, low per capita income, a "youth bulge" that cannot be easily absorbed by the labor market (Cincotta, Engelman, and Anastasion 2003; Mesquida and Wiener 1999), and poor development indicators. "Horizontal" inequalities (uneven access to economic and political resources by citizens depending on their ethnic, religious, or other group identity or on their area of residence), when not properly addressed, can also lead to grievance-motivated conflicts (Stewart 2002; Østby 2008; Østby and de Soysa 2008).

Natural resource abundance tends to foster conflict. Natural resources provide both a "booty" that can be captured through violence and a source of revenue that can be used to finance the rebellion. Countries abundant in natural resources are also more vulnerable to shocks arising from unexpected falls in commodity prices, which increases fragility.

Poor access to education can also contribute to conflict, as people without education may lack the skills to resolve their disputes peacefully and may nourish grievances that can lead to conflict (Dupuy 2008). The quality of education is also important, as a poor-quality education can raise unrealistic career expectations that generate frustrations and grievances (Inter-Agency Network for Education in Emergencies 2011), and some forms of education that should perhaps be more properly described as "indoctrination" can promote values that encourage hatred and violence (Østby and Urdal 2011).

Lack of inclusiveness may also foster conflict (and fragility). In such situations, parties may even be allowed to voice their discontent but are excluded from the political process (Hegre et al. 2001; Staveteig 2005). This situation may fail to create "a sociopolitical order that protects [the citizens] against corruption and expropriation" (Wantchekon and Neeman 2002).

The role of ethnic and religious diversity is less clear. While ethnic fractionalization has been found to be negatively correlated with long-term growth (Alesina et al. 2003), a relationship between ethnic fractionalization and civil wars is hard to establish, and may disappear when one controls for other variables, such as per capita income (Fearon and Laitin 2003). Still, there is some evidence that the incidence of civil wars tends to increase at intermediate levels of ethnic fractionalization, when average income levels are low and ethnic fractionalization in one ethnic group is numerically or politically dominant and can thus, potentially, exclude the others from access to resources (Elbadawi and Sambanis 2002; Collier, Hoeffler, and Söderbom, 2004).

Fragility is multidimensional

In the more recent research, the focus of attention has shifted from the causes of conflict to the multiple dimensions of fragility (where conflict is a possible outcome with feedback loops into other aspects of fragility) and to how weaknesses along these dimensions interact and reinforce one another in a vicious circle. This approach is currently embedded in the work of the World Bank and other institutions that identify countries as fragile on the basis of a variety of indicators that combine measures of economic performance, governance, political stability, and institutional quality.

This analysis seeks to understand the incentives and processes by which groups in society invest in the state, including issues such as the legitimacy of political processes and the capacity, authority, and legitimacy of the state. Critical in this work is the dynamic relationship between policies, institutions, and governance.

The new approach starts from the recognition that countries that are considered fragile suffer from significant limitations in not just one, but several dimensions, forming a weak "development cluster" typically characterized by low income, violence, and constrained state capacity (Besley and Persson 2014; Maier 2010):

➢ The economies of fragile countries are weak and vulnerable to shocks, there are large internal disparities in income and wealth and in access to services, prices and exchange rates are often volatile or subject to controls, fiscal balances are in deficit, and high debt often encumbers economic prospects.

➢ Institutions are impaired to provide a stable and fair environment, and the rule of law and enforcement of property rights are weak amid corruption and an ineffective judicial system.[1]

➢ Controls on executive power are also ineffective, as the legislative branch of government, the press, or civil society struggle to hold the government accountable.

➢ In a post-conflict or near-conflict environment, rebels may threaten violence and extortion and militia groups may impose their own "law."

➢ At a social level, ethnic, linguistic, or religious divides may undermine the development of a national conscience and an awareness of shared interests, while education, health, and social security systems are poorly organized, underfinanced, and unevenly accessible.

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[1] In the four decades before 2010, the annual per capita GDP growth of fragile countries was 0.6 percent, significantly less than the rate of growth of non-fragile countries (1.7 percent) and their debt-to-GDP ratio was, on average, three times as large compared to non-fragile countries (IMF 2011b).

Fragility traps

Following these considerations, a number of studies have highlighted how weaknesses in these areas are mutually reinforcing and keep countries in a "fragility trap." For instance, there are two-way links between insecurity and violence, weak enforcement of contracts and property rights, corruption, and government capture by vested interests (Andrimihaja, Cinyabuguma, and Devarajan 2011). In addition, a lack of institutional and technical capacity can also lead to what is called "*isomorphic mimicry*," whereby fragile states may set up organizations and institutions that on the surface resemble those of a well-functioning state but in practice—and in that specific sociopolitical environment—are dysfunctional and perpetuate the country's weaknesses (Pritchett and de Veijer 2010). Viewed from this angle, fragility also weakens a country's resilience to shocks—natural disasters, economic downturns, and outbursts of violence—and these shocks, when they occur, produce a more lasting impact in fragile than in non-fragile countries.

WHAT CAN HELP COUNTRIES BUILD RESILIENCE

While researchers are still striving to reach a full understanding of the factors that drive fragility, an approach that focuses on peace, inclusive politics, and effective governance seems to offer a viable route to overcome fragility. As noted earlier, the process is not rapid and fragility is persistent, and, after conditions have been improving for a while, the risk of temporary or lasting reversals is high.

Post-conflict stabilization

In post-conflict situations, international peace-keeping efforts can play a critical role. Often backed by a military presence on the ground (such as UN peace-keeping missions), such efforts have in many, although not all, cases proved effective at preserving stability (Collier, Hoeffler, and Söderbom 2008). One critical step in post-conflict stabilization is to reintegrate combatants into civilian roles; achieving it in practice can be particularly challenging, as many former combatants may feel powerless and marginalized and may even have to face public reproach and the fear of retribution (Barker and Ricardo 2005). A second critical step is to create enough political consensus to enable a stable and peaceful transition.

For what concerns the economy, it is critical to restore stability and find ways to engineer a rapid economic revival that can increase employment. This normally requires channeling government efforts and aid progressively away from restoring peace toward reconstruction and, increasingly, toward development. Complementary reforms to foster economic stability

may require liberalizing prices and exchange rates, implementing prudent fiscal and monetary policies, and removing obstacles to trade.[2]

Reaching a common vision

Over time, the critical ingredient to achieve resilience seems to be a political arrangement that facilitates the adoption of policies and reforms that promote economic stability and improve governance, ultimately increasing the capacity and legitimacy of the state. An early emphasis on economic stability, reforms, and reconstruction will enable the country to reap some initial dividends that could in turn pave the way to the adoption of more ambitious reforms.

Still, fostering development to achieve sustained improvements in livelihoods through an inclusive growth process is a long-term endeavor that requires patience and vision. Over time, stability can be promoted and development achieved by mobilizing domestic revenue to finance government services and public investment.[3] In addition, other measures are often needed to improve contract enforcement. In countries with abundant natural resources, an immediate concern is to introduce institutions that ensure an effective and transparent management of the natural resource wealth, complemented with improvements in public expenditure management.

And in the longer haul, the focus needs to be on stronger capacity and institutions and improving the environment for private investment. Private investment, necessary to sustain high growth, requires business-friendly, effective, and legitimate institutions. In this respect, it is critical to ensure the proper and regular enforcement of private property rights and to expand access to credit. International trade—also necessary for growth—can be facilitated by strengthening relations with current and prospective trading partners and by working with partners to take advantage of existing multilateral initiatives and trade agreements, including preferential bilateral arrangements.[4]

Institutions and state capacity

Since institutional weaknesses lie at the root of fragility, a strategy to escape fragility must include the adoption or development of institutions that foster good governance and

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[2] Establishing a sound monetary and exchange rate regime is critical to restore trade competitiveness (United Nations Development Programme 2008).
[3] Effective tax reform in fragile states is hampered by severe capacity constraints, but these constraints can be circumvented to some extent by focusing on smooth and efficient procedures that are comparatively easy to administer, such as simplified tax rates and a strengthened customs systems (Organisation for Economic Co-operation and Development 2014) and the establishment of large taxpayers units.

[4] Trade agreements help countries boost competitiveness, increase their returns on investment, and attract foreign direct investment (European Report on Development 2009).

economic growth.[5] North, Wallis, and Weingast (2006) conceptualize development as the transition from a "limited access social order" to an "open access order." Limited access orders (the most common, which the authors also call the "natural state") are characterized by non-inclusive institutions that create rents and give the elite discretion on how these rents should be distributed, thereby providing the elite the means to perpetuate its power. In contrast, open access orders entail competition and more inclusive institutions, which encourage the formation of more complex organizations, the establishment of the rule of law, and secure property rights. According to this view, open access orders provide more favorable conditions for sustained economic growth, human capital accumulation, and political stability.

It should also be noted that social orders and institutions (defined in a broad sense to include lasting constitutional arrangements and persistent social norms and habits) are slow to change, while the needs for fragile states to build resilience require a more focused approach. Institutions and their transformation are driven by long-term processes that involve several actors and often impersonal factors and large social groups, leading to a slow pace of change subject to various forces, some of which cannot be easily controlled even by a benevolent national authority.

For fragile states seeking to build resilience, it may therefore be important to focus in the near term on more "narrowly defined" institutions that can be reformed within a decade or so through the action of a well-identified authority. One notable case is that of fiscal institutions, which include the tax code and the structure, organization, and powers of tax-collecting agencies together with the spending apparatus of the state.

The effectiveness of fiscal institutions has indeed been linked to the concept of state capacity. While initially the government was considered primarily a supplier of public capital which needed to be financed through taxes, more recent research has emphasized how public (nondefense) expenditure can build stability by reducing insecurity and poverty and by signaling that the government is committed to enhancing the welfare of its citizens.

The interaction between taxes, public expenditure, and development (including stability) is complex. In a series of studies[6] culminating in their 2014 book, Besley and Persson (2014) helped highlight how political institutions, economic development, and the state's capacity

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[5] In a long-term perspective, Acemoglu, Robinson, and others have argued that economic institutions are shaped by the groups that hold political power, which are in turn the product of political institutions and of the distribution of resources. Political institutions are highly persistent because they are also shaped by the groups that hold political power, but can change when new groups acquire de facto political power through the accumulation of wealth (Acemoglu, Johnson, and Diamond 2004).

[6] See also Besley and Persson (2011) and Besley, Ilzetzki, and Persson (2013).

to raise taxes and to support and extend the role of the market (or, more generally, "state capacity") mutually interact:

➢   State capacity promotes development through several channels: it expands the financial resources available to provide public goods and services (including security, justice and law enforcement, health and education, and infrastructure), it strengthens the government's stake in the country's economic development (which brings in a larger tax revenue), it encourages a shift away from inefficient forms of redistributions based on the creation and allocation of rents toward more efficient mechanisms based on taxes and public expenditure, and it increases the government's incentives to develop other forms of capacity, such as the enforcement of rights ("legal capacity") or the provision of undersupplied public goods ("collective capacity") (Besley and Persson 2011). Furthermore, a stronger and transparent system of tax collection encourages citizens to hold the government accountable for the way in which revenue is used, thereby promoting development through better governance and the rule of law (Organisation for Economic Co-operation and Development 2014).

➢   State capacity is an intangible form of public capital, which is accumulated by investing resources in its development. The costs involved, and the incentives to make such investments, depend on political factors and on the level of economic and institutional development. Improving state capacity expands the set of feasible policy actions (such as the level of public expenditure that can be sustainably financed) and enhances their economic impact (Besley and Persson 2009). Hence, governments can drive the development and stabilization process not only by investing in physical capital like infrastructure, but also by increasing state capacity.

Improving public financial management

Public financial management reforms (including revenue management in resource-rich countries) are critical as they can build the legitimacy of the state by increasing transparency, accountability, and efficiency. Manuel, Gupta, and Ackroyd (2011), and Fritz, Hedger, and Fialho Lopes (2011) have stressed that the sequencing of reforms in public financial management depends on the specific conditions of the country and that these reforms should be kept in line with the capacity of these countries.

What are the priority areas for improving public finances in fragile countries with limited capacity? The main goals typically are to (1) improve budget execution to establish credibility in the budget and actually execute development programs; (2) enhance transparency and accountability, especially through the regular publication of fiscal revenues and expenditure data, including at the local level where services are delivered; and (3) strengthen financial management in line ministries and subnational governments. In some environments, a two-track approach can be considered whereby public services are promoted by the government but initially supervised or delivered by qualified

nongovernment entities such as civil society groups or in some cases the private sector, while expenditure management and revenue administration reforms are implemented over time alongside other improvements in state capacity (this strategy was adopted, for instance, in South Sudan, where donors financed private sector agents and nongovernmental organizations to deliver essential health and education services in remote rural regions).

The above policies and reforms, however, need to be adapted to the specifics of each situation with due regard for an analysis of the causes of fragility and the priority needs of the country as well as of its capacity to implement such reforms. To explore how reforms can be tailored to specific country situations, Prati, Onorato, and Papageorgiou (2013) have analyzed in detail the effectiveness of various types of reforms in post-conflict countries and found that, while both real and financial reforms are associated with higher growth, this relationship is "highly heterogeneous and is influenced by a country's constraints on executive power and by its distance from the technological frontier."

What role for external actors?

Much research has also been devoted to examining the extent to which external actors—foreign governments, aid agencies, international financial institutions—can contribute to the process of building resilience. In addition to longstanding political economy concerns on the role of outside parties in national development and the effectiveness of aid, donor engagement with fragile states almost by definition faces a dilemma: fragile countries have a strong need for external assistance but they are less capable of using it effectively, at least compared to the standards of the monitoring and oversight systems required by many donors. When donors allocate aid on the basis of a country's performance, fragile states are placed at an unfair disadvantage (e.g., Guillaumont, Guillaumont Jeanneney, and Wagner 2010).

Taking a long-term view, it can be argued that aid to fragile states promises high, if uncertain, returns because if it enables these countries to overcome the fragility trap it can place them on a sustainable growth path (Andrimihaja, Cinyabuguma, and Devarajan 2011). With absorptive capacity constraining aid effectiveness, several authors have argued that donors should focus their initial efforts at enhancing capacity (Feeny and McGillivray 2009), especially by providing technical assistance (Chauvet and Collier 2008), and since absorptive capacity appears to improve significantly after about five years since the end of hostilities, donors should scale up their aid at this time rather than providing it immediately after the end of the conflict and then scaling it down (Collier and Hoeffler 2002).[7]

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[7] A number of proposals have also been made on how external aid can be adapted to the specific needs of fragile states: for instance, Feeny and McGillivray (2009) warn that aid should be provided in a way that avoids competing for scarce implementation capacity with activities not funded by aid; others have argued that aid effectiveness can also be improved by focusing on specific measures that are aligned with the economic and social structure of the recipient country, such as providing subsidized insurance to farmers whose livelihood is

(continued)

International organizations and aid agencies engaged in the development and stabilization of fragile states have accumulated a body of expertise that has been incorporated in publications specifically dedicated to the problems of fragile states. These documents—for instance, United Nations Development Programme (2008), World Bank (2011b), IMF (2011a), and Organisation for Economic Co-operation and Development (2013, 2014, 2015)—generally aim at identifying the ingredients of a successful international effort ("engagement") to promote stability and development in the affected countries.

To help fragile countries address their challenges, these studies argue that a successful engagement of the international community requires concerted and long-term efforts to foster improvements in different areas, including economic conditions, on the basis of an analysis of country-specific characteristics.

External actors can play a critical role in enhancing the legitimacy of the state by helping the government to deliver visible results (also referred to as "quick wins") that address some immediate needs of the population. Early successes in areas such as security, economic stability, employment, the availability of inputs for agriculture, health services, or training programs for ex-combatants, can strengthen state legitimacy and bolster support for a national development agenda. Over time, a legitimized government is also better placed to enact policy measures that can further strengthen resilience and promote development.

However, international engagement with fragile states is fraught with risks arising from unsettled local politics, lack of capacity, disputed legitimacy of various institutions, and/or economic instability. Engaging on an effective, long-term basis thus requires a high degree of risk tolerance. To some extent, these risks, once identified and understood, can be managed and mitigated by devoting efforts and resources to this purpose, including by providing technical assistance aimed at building implementation capacity and by supporting domestic processes in the design of a national reform agenda (Box 2.2).

In sum, effective international engagement with fragile states must take a multidimensional approach centered on a nationally owned strategy to rebuild capacity and promote peace and development. To be successful, it must support progress on factors that promote security, enhance the supply of key public services and infrastructure, improve institutions and governance, and encourage private sector activity and foreign investment.

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vulnerable to adverse weather shocks. In post-conflict cases, a better understanding of the nature and identity of the actors that engage in violence can enable donors to target their aid in a way that is more effective at enhancing stability (Blattman and Miguel 2010); for instance, donors could consider targeting their aid to those who are more likely to be targeted for recruitment by the rebels.

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Box 2.2. Principles of International Engagement

Local ownership. Engagement efforts should be aligned with local priorities and encourage national actors to take the lead in the recovery process.

Calibrated pace of reforms. Overly ambitious reforms can backfire by engendering unrealistic expectations that can harm the legitimacy of the state. Reforms require political will, which, depending on the environment, could take time to materialize. Beyond that, the pace of reform should be calibrated to local capacity constraints and allow reforms time to yield results.

Balance among objectives. While focus is needed to address immediate needs, long-term reforms should address the root causes of fragility.

Understanding the political economy. The engagement strategy should be based on the understanding of the local situation, the key political actors, and a proper assessment of risks.

Multidimensional approach. The links and trade-offs between political, security, and development objectives should be identified at the initial phase of engagement.

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Takeaways

What lessons can then be drawn from the literature in terms of strategies for exiting fragility? Since there is no single or common cause of fragility, in light of the variety of individual country circumstances, there can be no single template for building resilience. Still, some steps that are part of a long-term vision (because resilience takes a long time to achieve)—with adequate tailoring to the specifics of each situation—are usually necessary to build resilience. Such steps aim at strengthening security; fostering inclusive politics; implementing selected and well-sequenced legal, governance, and economic reforms; and building capacity.

At least in the near term, inclusive politics does not necessarily entail elections, which in some cases may be premature and lead to grievances and instability, but rather entails implementing a political arrangement that can broadly satisfy the most essential interests of the various components of society and help deter violence. In this respect, reforms aimed at improving governance and accountability are important.

Over time, reforms to support the development of the private sector are also critical, particularly reforms that promote a better enforcement of property rights and facilitate access to credit. In many post-conflict cases, targeted policies are typically needed to promote employment or improve social conditions. For instance, embarking on priority reconstruction projects can be very useful to promote employment and jumpstart the economic recovery, and assisting demobilized soldiers to reintegrate into peaceful activities after the end of a conflict can be critical to ensure peace and security.

In the end, building resilience involves a mutually reinforcing interaction between state capacity, governance, and growth: income growth (and the structural changes that support it, such as the development of markets) provides the resources and a demand for improving the legal and fiscal capacity of the state (including taxation, checks and balances, delivery of services, public investment), which in turn bolsters a virtuous circle of growth-enhancing structural change.

3 Measuring Fragility, Economic Performance, and Social Outcomes

This chapter assesses developments in 26 sub-Saharan African countries that are deemed to have been fragile in the 1990s and investigates their performance in terms of a number of macroeconomic, fiscal, and social outcomes to identify patterns of progress.

Countries are classified as having been in a condition of fragility in the 1990s if they had either an average rating of 3.2 or less on the World Bank Country Policy and Institutional Assessment (CPIA) or if they had experienced a major conflict (Box 3.1).[1] This approach is similar to that used by the World Bank and the African Development Bank. The CPIA rates countries on a set of criteria grouped in four clusters: economic management, structural reforms, policies for social inclusion and equity, and public sector management.

Assessing progress

To assess progress, countries are grouped into those that remained fragile or regressed in recent years and those that became stabilized or built resilience. In the former, the average CPIA score has remained or dropped below 3.2 or there has been an international peace-keeping or peace-building mission in their territories in the most recent three-year period, whereas in the latter the average CPIA score has increased above 3.2 and there has been no major conflict or international peace-keeping or peace-building mission. As the sample also includes countries where the average CPIA score has remained above 3.2 and there has been no conflict since the early 1990s, a third group deemed non-fragile is also identified as having remained "stable" throughout the whole period.

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[1] Papers that use the CPIA score to define fragility include Bertocchi and Guerzoni (2010) and Chauvet and Collier (2005). There are several other indices measuring fragility, using somewhat different indicators and aggregation methods (Mata and Ziaja 2010). As noted in Box 3.1, using other classifications would not lead to meaningful changes in the country groups.

Box 3.1. Gauging Fragility in Sub-Saharan Africa

The complex, multidimensional, nature of fragility does not lend itself to a simple measure. Even for single dimensions, such as institutional strength, the assessment requires a county-specific identification of the most relevant features. A further complication is that most dimensions of fragility (e.g., economic foundations, political instability, capacity constraints) are measured along a continuum, which requires establishing a threshold to identify fragile states.

Despite these challenges, donor agencies and international financial institutions have developed various operational criteria for measuring and identifying fragility. The World Bank and the African Development Bank regard a state as fragile if it either has an aggregate Country Policy and Institutional Assessment (CPIA) rating of 3.2 or less, or if it has been hosting a UN or regional peace-keeping or peace-building mission. The CPIA assesses the quality of a country's economic and institutional framework and the 3.2 threshold corresponds to the 40th percentile of the distribution. Anchoring the assessment on the CPIA score places a great weight on a country's economic and institutional framework but does not capture the political dimensions of fragility. Other indices—such as the Organisation for Economic Co-operation and Development (2013) and the Brookings' Index of State Weakness—place more weight on political variables. However, since most indices aim at measuring the degree of state impairment, most countries identified as fragile in one list appear as fragile in the other lists (e.g., the correlation between the CPIA and the Brookings' Index of State Weakness is about 0.8).

The analysis in this chapter broadly follows the approach of the World Bank and African Development Bank, with data on CPIA ratings and on conflicts used to identify fragile states in sub-Saharan Africa before 2001 and in the 2011–13 period (the decade between 2002 and 2011 is taken as a transition period).

- Classification of countries before 2001. A country is deemed fragile if its average score on the CPIA ratings during the period 1991–2000 was 3.2 or less, or if it experienced "significant conflict," defined as either five or more years of lower-level conflict (less than 1,000 casualties per year) or two or more years of severe conflict (more than 1,000 casualties per year). The classification is based on conflict data compiled by Uppsala University (there are no data on the presence of UN forces for that period).

- Classification of countries in the most recent period. A country is considered fragile if its average score on the CPIA ratings in the three-year period after 2010 was 3.2 or less, or if it had hosted a UN/regional peace-keeping or peace-building mission during the past three years (the results are the same using a five-year average).

- Countries that were identified as fragile in the 1990s but not in 2011–13 are deemed to have "become resilient," and those not identified as fragile in either period are considered to have "remained stable."

Table 3.1.1. Classification of Sub-Saharan African Low-income Countries during 2011–13

Remained or became fragile	Fragile, but progress made	Became resilient	Remained stable
Burundi +	Angola + ◎	Cameroon + ◎	Benin
Central African Rep. +	Congo, Dem. Rep. of + ◎	Ethiopia +	Burkina Faso +
Chad + ◎	Congo, Republic of + ◎	Mozambique	Cabo Verde
Comoros +	Liberia + ◎	Niger +	Gambia, The
Côte d'Ivoire + ◎		Nigeria + ◎	Ghana
Eritrea +		Rwanda	Kenya +
Guinea + ◎		Uganda +	Lesotho
Guinea-Bissau +			Senegal
Madagascar +			Tanzania
Malawi +			Zambia ◎
Mali +			
São Tomé & Príncipe			
Sierra Leone + ◎			
Togo +			
Zimbabwe +			

Sources: IMF staff, based on data for the CPIA ratings, the Uppsala conflict database, and information on UN/regional peace-keeping or peace-building missions.
+' OECD DAC considered these countries to be fragile in 2014.
◎' Resource rich countries.

Using this methodology, out of 26 countries considered fragile in the 1990s, 11 countries managed to improve their average CPIA rating in the past decade (Figure 3.1). Seven of these countries (Cameroon, Ethiopia, Mozambique, Niger, Nigeria, Rwanda, Uganda) made enough progress to be classified as "resilient" or "stabilized" (Box 3.1 and Table 3.1) and four others, while still displaying features of fragility, also show improvements (Angola, the Democratic Republic of the Congo, Liberia, the Republic of Congo). Nevertheless, nine countries have not made progress and six countries have regressed (Côte d'Ivoire, Eritrea, Madagascar, Malawi, Mali, Zimbabwe).

Figure 3.1. Building Resilience in Sub-Saharan Africa

Sources: IMF staff calculations, based on data for the Country Policy and Institutional Assessment ratings, the Uppsala conflict database, and information on UN/regional peace-keeping or peace-building missions.
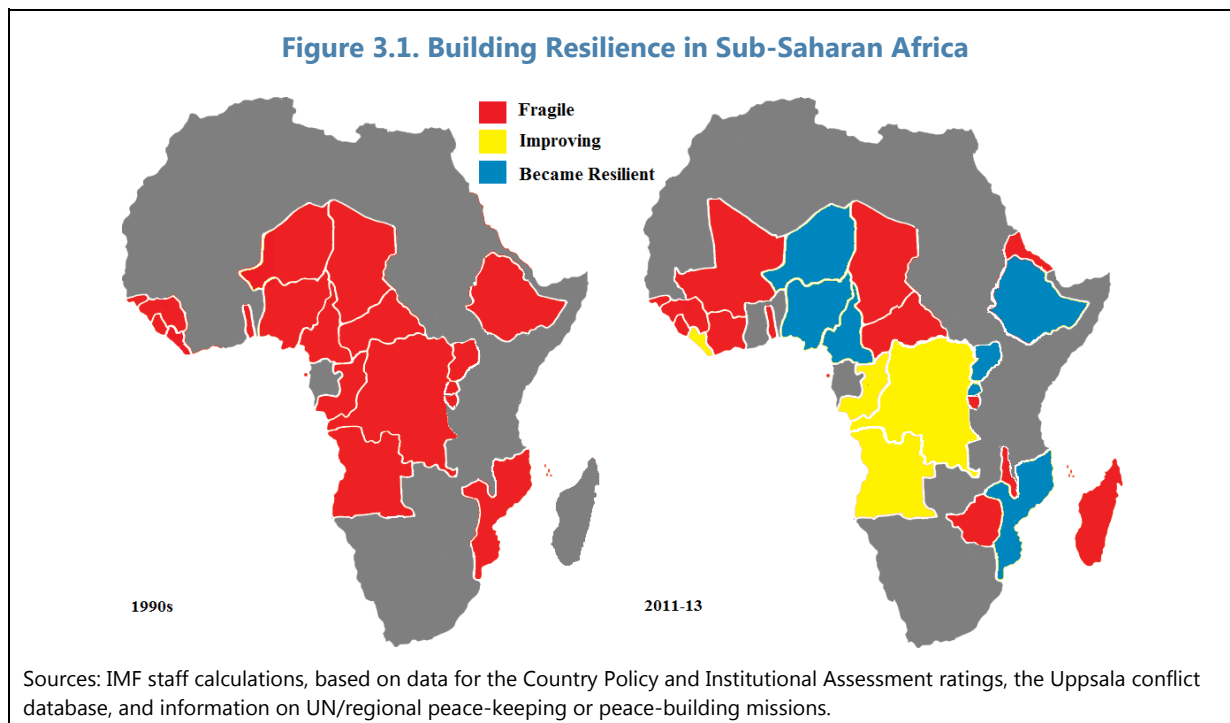
How did countries that built resilience perform relative to those that remained or became fragile on features of institutional strength and macroeconomic and social indicators? Since the categorization of countries, based on the CPIA index, is correlated with these factors, the analysis below simply aims at taking a closer look at the different aspects that have enabled or prevented countries to gain resilience. Resource-rich fragile countries are treated as a distinct group because the commodity boom that many sub-Saharan African countries have experienced between 2000 and 2008 raises the question of whether these countries' economic fortune has helped them build resilience.[2] Resource-rich countries are defined as those whose primary commodity rents exceed 10 percent of GDP.[3]

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[2] There is an extensive literature discussing the association between resource abundance and poor economic performance (Dutch Disease and volatility), weak institutions and governance (associated with the opportunities for rent-seeking), and inferior social indicators (Crivelli and Gupta 2014; Collier and Hoeffler 1998; Sachs and Warner 2001).

[3] See the April 2011 *Regional Economic Outlook: Sub-Saharan Africa* (IMF 2011c).

Looking at the evolution of the CPIA, those countries that built resilience had experienced volatility in the 1990s but started to diverge markedly and consistently from the other groups after 2001. The countries that have become "resilient" in recent years have made steady progress in all CPIA clusters, achieving macroeconomic stability and building institutions (Table 3.1).[4] Their CPIA rating has followed a rising trend and has remained consistently above the 3.2 threshold.

Some fragile resource-rich countries have also shown a consistent improvement in recent years, while other countries (including non–resource-rich ones) had a lackluster performance after the mid-1990s. Several countries, however, hampered by inadequate capacity and other constraints, have remained in a state of fragility. Among them, those rich in natural resources have not fared much better: while four of them did make some progress, especially in the area of macroeconomic stability, further progress is clearly required on institutions to build resilience.

Table 3.1. Average Change in Country Policy and Institutional Assessment Scores by Country Groups (Units)

	Overall CPIA [1]	Economic Management [2]	Structural Policies [3]	Policies for Social Inclusion/Equity [4]	Public Sector Management and Institutions [5]
			(Units)		
Resilient	0.41	0.43	0.26	0.37	0.23
Fragile resource-rich	0.40	0.29	0.17	0.33	0.31
Improving	1.01	1.24	0.85	0.76	0.71
Other	-0.21	-0.42	-0.33	0.00	0.01
Fragile nonresource-rich	-0.33	-0.20	-0.28	0.12	0.00

Sources: World Bank; and IMF staff calculations.

[1] Changes are measured as the difference between average scores in 2011-13 and 1991-2001.

[2] The economic management cluster includes monetary and exchange rate policy, fiscal policy, and debt policy.

[3] The structural policies cluster includes trade, the financial sector, and the business regulatory environment.

[4] The policies for social inclusion and equity cluster includes gender equality; equity of public resource use; building human resources; social protection and labor; and policies for environment sustainability.

[5] The public sector management and institutions cluster includes property rights and rule based governance; quality of budgetary and financial management; efficiency of revenue mobilization; quality of public administration; and transparency, accountability and corruption in the public sector.

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[4] The CPIA methodology has changed over time. After 1997, coverage was expanded to include governance and social policies, and the ratings scale was changed from a 5 to 6 point scale. In 2004, a second revision streamlined the evaluation criteria. For the analysis in this chapter and to allow for comparisons over time, the CPIA scores were rebased to a 6 point scale for the whole period under consideration.

CONFLICT AND POLITICAL INSTABILITY

The incidence and severity of conflicts in sub-Saharan Africa have declined gradually since the early 1990s. While about 10 countries experienced conflict in any given year in the 1990s, about 7 countries experienced conflict in any year after 2000. The incidence of severe conflicts (more than 1,000 deaths per year) has also fallen, from an average of three countries in any given year before 2000 to no more than one afterwards. The greatest gains in this area are observed among fragile resource-rich countries and countries that became "resilient" (Figure 3.2).[5] Notwithstanding this general trend toward peace and improved security, localized but disruptive threats have emerged in recent years as violent groups, some external to the countries affected, have threatened stability in a number of countries, most notably in Mali, the Central African Republic, Nigeria, South Sudan, and, on a more limited scale, in Kenya and Mozambique. These security threats are increasingly impacting neighboring countries.

In parallel with the gradual improvement in security, political stability also improved, especially in countries that have become resilient and in fragile resource-rich countries. For example, between 1996 and 2012, the World Bank index of political stability has increased on average by 14 percent and 42 percent, respectively, in the groups of resilient and fragile resource-rich countries, and has declined by 47 percent on average among fragile non–resource-rich countries.

As noted in Chapter 2, a country's capacities to escape conflict, build institutional strength, and grow are mutually interdependent. The positive association between political stability and the CPIA highlights the importance of the former. In addition, the negative correlation between conflict and resilience (measured by the CPIA) shows that conflict tends to occur in countries with institutional weaknesses and vice versa (Figure 3.3). As expected, there is also a negative correlation between conflict and economic growth. These associations appear to be stronger in resource-rich countries, possibly because in these countries the incentives to engage in rent-seeking in the absence of institutional constraints are higher. Furthermore, the data also show persistence in conflict, fragility, and political instability: the longer a country stays in conflict, the longer its CPIA remains low.

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[5] All charts and tables in this chapter are based on simple averages for the country groups, unless otherwise noted.

Figure 3.2. Incidence of Conflict by Country Groups
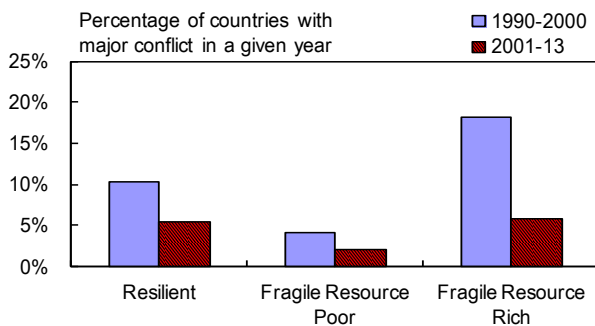
Percentage of countries with major conflict in a given year

Legend: ■ 1990-2000 ■ 2001-13

Categories: Resilient, Fragile Resource Poor, Fragile Resource Rich

Sources: IMF staff calculations, based on Country Policy and Institutional Assessment ratings, the Uppsala conflict database, and information on UN/regional peace-keeping or peace-building missions.

Figure 3.3. Contemporaneous Correlations between Conflict, Resilience, Political Stability, and GDP Growth, 1990–2012
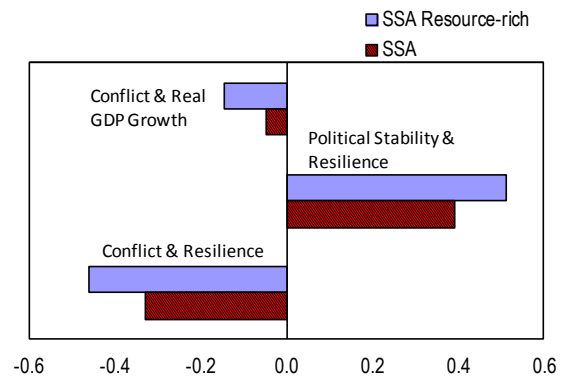
Legend: ■ SSA Resource-rich ■ SSA

Categories: Conflict & Real GDP Growth, Political Stability & Resilience, Conflict & Resilience

Sources: IMF staff calculations, based on Country Policy and Institutional Assessment ratings, the Uppsala conflict database, and information on UN/regional peace-keeping or peace-building missions.

MACROECONOMIC PERFORMANCE

Since the early 2000s, different country groups have exhibited a markedly different growth performance. Countries that have become resilient and resource-rich fragile countries have displayed stronger growth compared to non–resource-rich countries that have remained fragile or regressed (Figure 3.4).[6]

The countries that became resilient, most of which are not heavily dependent on commodity exports, have a reputation for having implemented good economic policies and reforms, over time supported by a more favorable regulatory and institutional environment. This, in turn, seems to have contributed to higher investment, including better access to credit. The resilient group has also experienced a marked decline in inflation, which has fallen from above 20 percent per year in the early 1990s to single digits in recent years. This was achieved by strengthening the capacity of central banks and developing effective monetary and exchange rate policy frameworks. Furthermore, these countries also managed to strengthen and develop their domestic financial sectors (IMF 2014a, Chapter 3).

Fragile resource-rich countries have benefited from a sustained improvement in their terms of trade (which have risen at an annual rate of 4 percent between 2000 and 2014), contributing to a steady expansion of exports (from about 30 percent to 45 percent of GDP on average). However, only four of these countries have seemed to have improved their fiscal institutions. Moreover, private investment in these countries has not shown signs of picking up.

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[6] Per capita incomes have also increased substantially in countries that have become resilient and in resource-rich countries. For these groups, the pace of growth of real GDP per capita has accelerated from under 1 percent per year in the 1990s to 3½ percent to 4 percent during the last decade, while non–resource-rich fragile countries have barely grown during the past two decades.

Figure 3.4. Macroeconomic Indicators

Gross Domestic Product Per Capita
Constant 2005 US$, Weighted by Population

Inflation
Percent

Terms of Trade
Index

Exports
Percent of GDP, 5-year average

Registering Property and Getting Credit
Index, Average 2011-2013

Private Investment
Percent of GDP
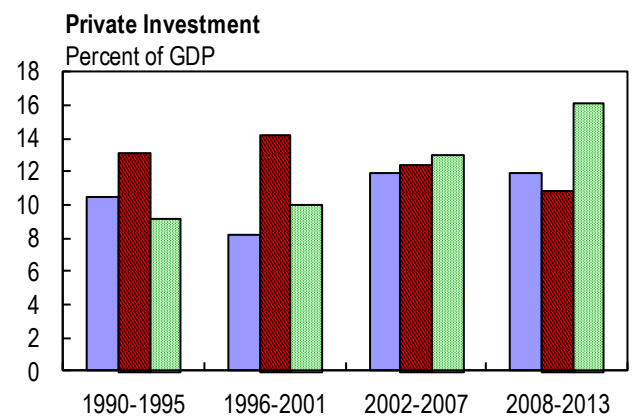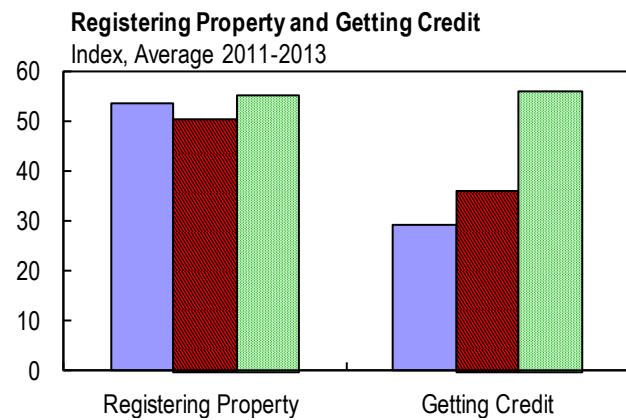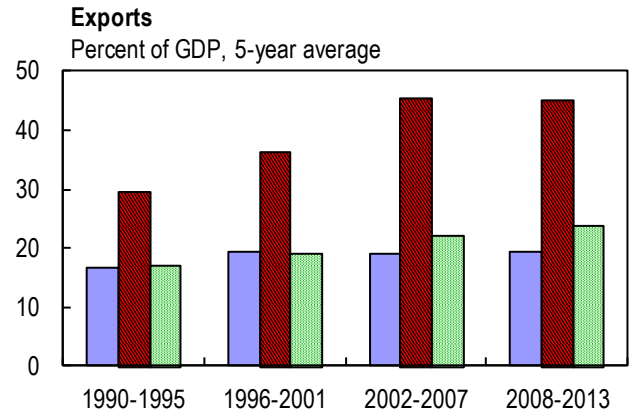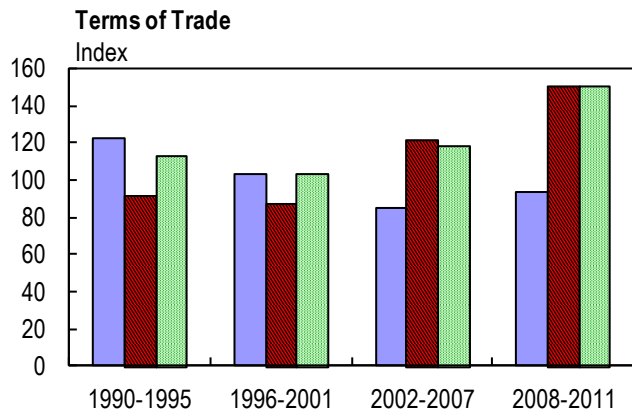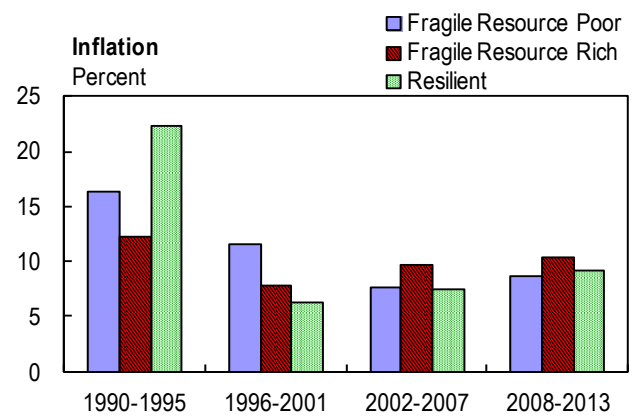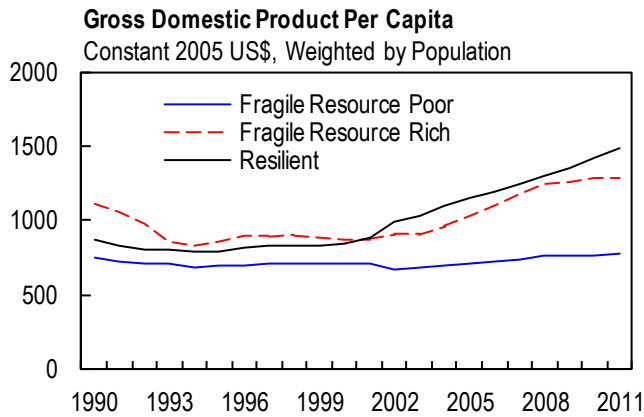
Sources: IMF, World Economic Outlook database; University of Pennsylvania, World Penn Tables; World Bank, World Development Indicators and Doing Business Indicators databases; and IMF staff calculations.

On the other hand, non–resource-rich countries that have remained fragile or regressed have experienced an average annual decline of 2 percent in their terms of trade, which excerpted negative pressure on their trade balances and is likely to have contributed to their inability to overcome fragility.

Aggregate fiscal indicators also point to progress in both resilient and resource-rich fragile countries, with both groups of countries controlling their fiscal deficits better than other fragile countries (Figure 3.5). Even though countries in all three groups have benefited substantially from debt relief during this period, non–resource-rich fragile countries have received this relief somewhat later, partly because of their slow pace in reaching the Heavily Indebted Poor Countries completion point.[7] Furthermore, countries that became "resilient" also lowered their dependence on aid flows, while fragile countries were less successful than other countries in raising public investment.[8]

Figure 3.5. Fiscal Space Indicators

Legend: Fragile resource-poor, Fragile resource-rich, Resilient

Fiscal Balance — Percent of GDP

Public Investment — Percent of GDP

Government Debt — Percent of GDP

Tax Revenue — Percent of GDP

Sources: IMF, World Economic Outlook database; and IMF staff calculations.

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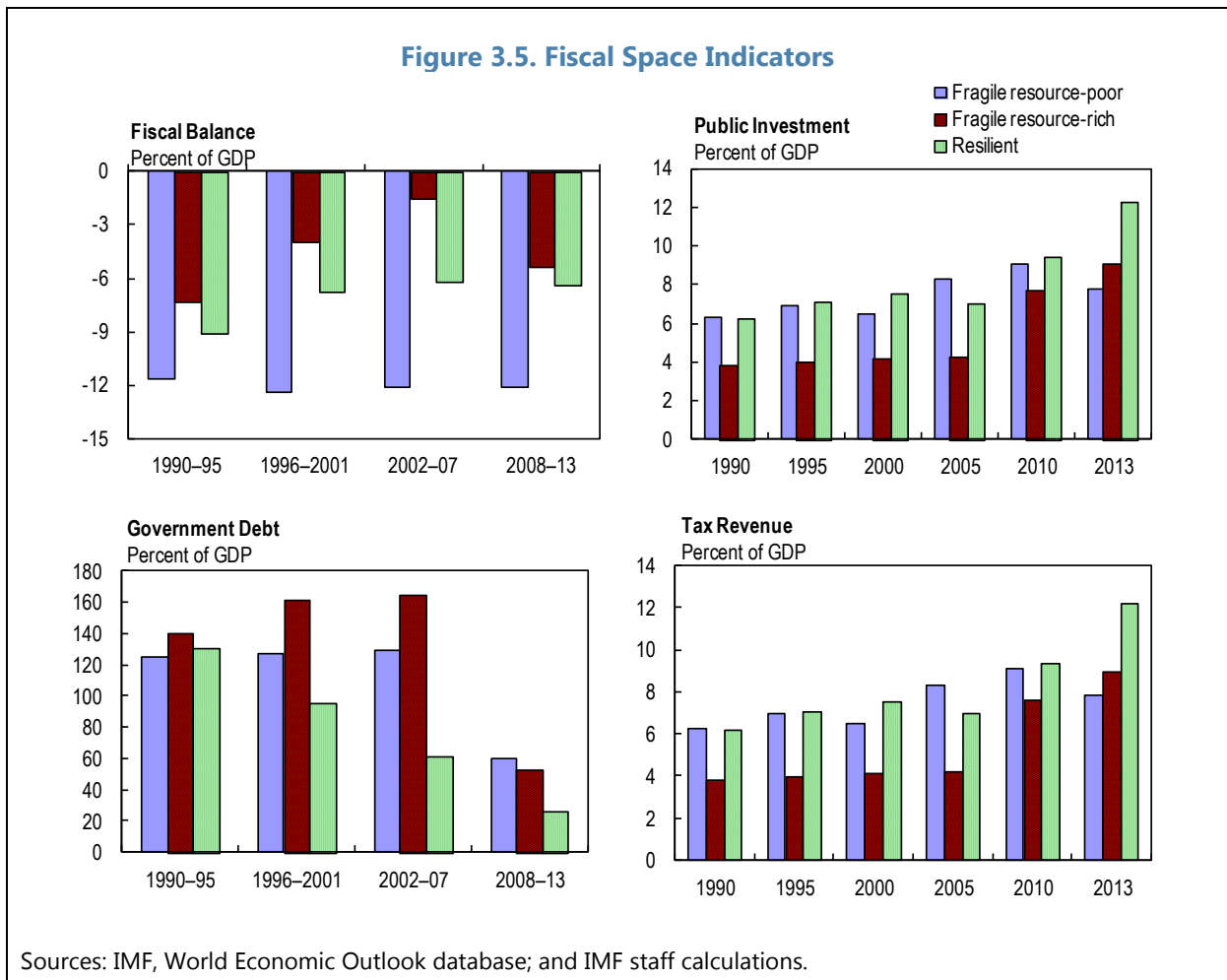
[7] As noted in Chapter 6, the effectiveness of debt relief seems to be tied to the ability of countries to convert the additional fiscal resources into improved economic and social outcomes.

[8] Fiscal issues are further analyzed in Chapter 4.

Social Outcomes

Despite the paucity of data on social indicators, there is evidence that most countries have made significant progress toward the Millennium Development Goals, although in a number of fragile states this progress has been quite modest. Under-five infant mortality rates and primary enrollment rates have improved less in fragile than in resilient countries (Figure 3.6). The countries that have become resilient reported the highest infant mortality rates in the early 1990s but have managed to reduce them drastically by the late 2000s.[9] Other countries also made progress, but at a slower pace. Countries that have become resilient have also raised their primary school enrollment rates faster than countries that have remained fragile or regressed. Progress in expanding access to improved water has been similar across all country groups.

Figure 3.6. Social Indicators

Sources: World Development Indicators database, World Bank; and IMF staff calculations.

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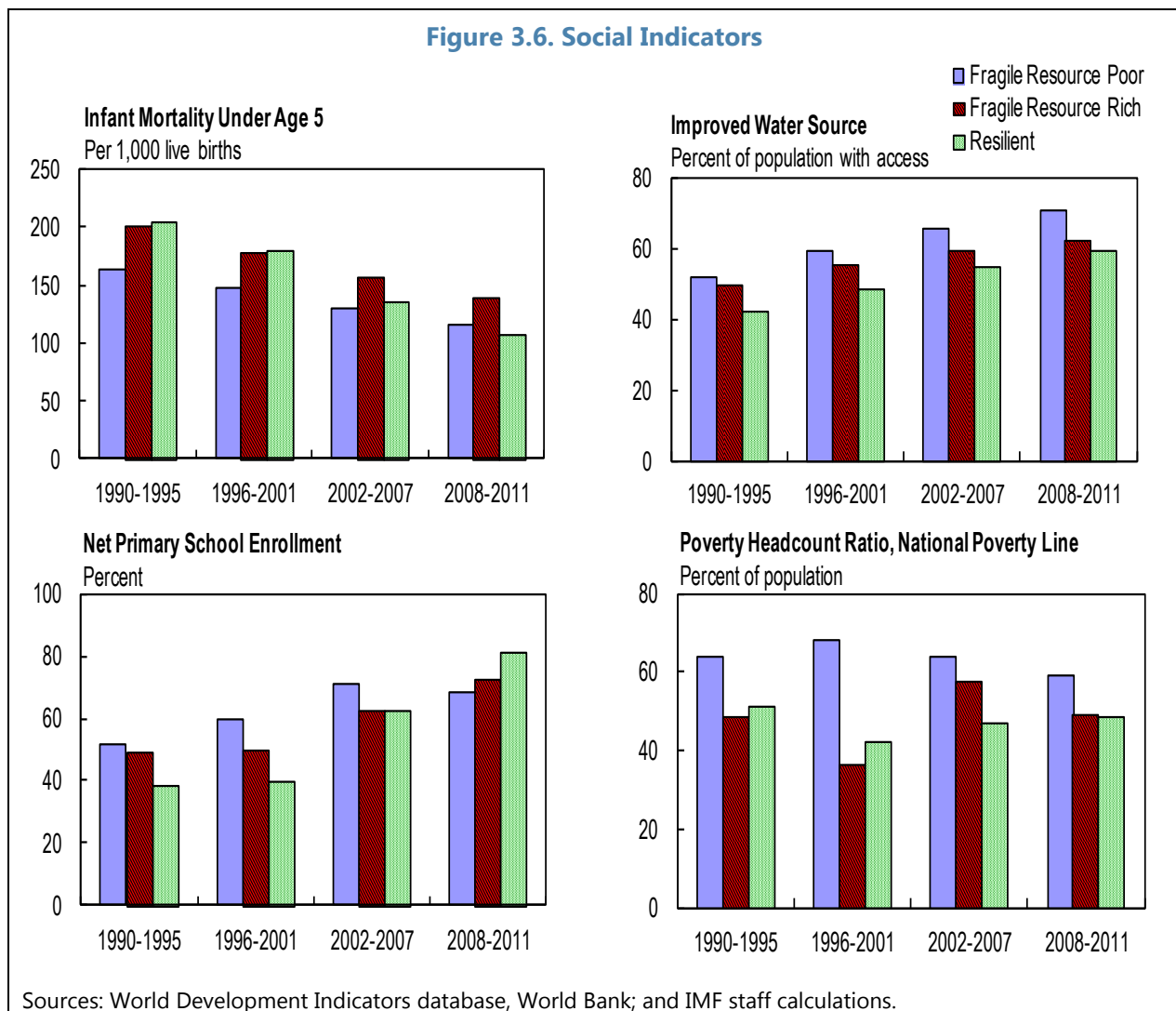
[9] This is consistent with the case studies in the next section, which find that resilient countries such as Mozambique and Rwanda were able to significantly increase poverty-reducing expenditures.

The evidence on poverty reduction is somewhat mixed, partly because of data scarcity and other measurement problems. While poverty rates are consistently higher in the group of fragile countries compared to countries that became resilient, they have remained relatively high in all country groups since the 1990s. Resilient countries and some of the resource-rich fragile countries show improvements in the social inclusion/equity cluster of the CPIA, but many countries have yet to achieve a decisive reduction in poverty rates.[10]

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[10] Since the early 2000s, social safety nets have been developed in a number of countries (e.g., Cameroon, Mozambique, and Rwanda). Although the scale of these programs is not large, they constitute a promising tool to reduce poverty.

4 The Role of Fiscal Policies and Institutions

OVERVIEW

This chapter studies the role of fiscal policies and institutions in building resilience, looking at the relationship between measures of the quality of fiscal institutions, indicators of fiscal space, the composition of tax revenue and expenditure, and building resilience.[1] Strong and high-quality fiscal institutions are associated with better fiscal outcomes, while the composition of tax revenue and public spending is critical for improving development outcomes, including reducing conflict incidence.[2] As in Chapter 3, reflecting their very specific revenue opportunities and broader macroeconomic challenges, resource-rich fragile countries are treated as a distinct group.

Fiscal institutions, fiscal space, and resilience

Fiscal institutions cover the entire range of entities responsible for public resource management: revenue collection, budget preparation, budget planning, expenditure execution, procurement, reporting, and oversight. Several studies have found that, among low-income countries, including in Africa, better fiscal institutions are associated with better fiscal outcomes and, hence, a wider fiscal space (Alesina et al. 1999; Dabla-Norris et al. 2010; Gollwitzer 2011). Fiscal space—stronger government financial positions, favorable debt dynamics, higher revenue-raising capacity, and expenditure flexibility—is critical in fragile states as it provides room to meet pressing development needs as well as the ability to respond to adverse shocks by running expansionary fiscal policies and therefore smoothing or cushioning the impact of shocks on the population.

Available data do suggest that, among the countries that were deemed fragile in the 1990s, those that have become "resilient" have generally managed to build stronger fiscal institutions and to widen their fiscal space (Figure 4.1).[3]

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[1] All charts and tables represent simple averages of the country groups, unless otherwise noted.

[2] See Crivelli and Gupta (2014), Singh, Bodea, and Higashijima (2014), and Taydas and Peksen (2012) for surveys.

[3] As mentioned earlier, a more general definition of institutional quality is an important component of the Country Policy and Institutional Assessment (CPIA), making it difficult to establish clear causality.

Fiscal space is generated both through sound policies and institutions, including higher tax revenue–generating capacity and the ability to effectively control spending, leading to manageable fiscal positions and sustainable public debt. Broadening the tax base also increases the population's expectation for public service delivery, highlighting the need for spending efficiency and accountability, including at the local level. The willingness and ability of the state to provide public goods, enhanced by a wider fiscal space, can in turn demonstrate the government's commitment to its citizens' welfare and help strengthen social cohesion.

Figure 4.1 Quality of Budget Institutions and Fiscal Space

Quality of Budget Institutions Index, 2006–09
Average index score

Fiscal Policy Space Index, 2012
Number of countries

Source: Gollwitzer 2011.

Note: Index scores for budget institution quality are obtained from Gollwitzer (2011). The overall scores used here consider the three stages of the budget process: negotiation, legislative approval, and implementation. At each stage, the quality of the budget process is measured along five criteria: centralization, rules and controls, sustainability and credibility, comprehensiveness, and transparency.

Source: IMF staff calculations.

Note: The overall fiscal policy space assessment (high, medium, or low) is based on four criteria: debt dynamics, government financial position, revenue-raising capacity, and expenditure flexibility (see IMF 2013a, Chapter 2).

As noted in Chapter 3, aggregate fiscal indicators show significant progress in all country groups, but most remarkably in resilient and fragile resource-rich countries. All three country groups have experienced a steady increase in tax revenue as a share of GDP, and some decline in current spending. More importantly, domestically financed capital expenditure has increased significantly in resilient and resource-rich countries, but remains low in non–resource-rich fragile countries (Figure 4.2).

Composition of tax revenue

Empirical studies suggest that the composition of tax revenue is linked to development outcomes, although they have not explicitly considered the link with fragility.[4] In a sample of 31 sub-Saharan African countries, Skinner (1987) shows that revenue-neutral shifts from import, corporate, and personal taxes to a sales/excise tax encourage growth. These findings are broadly consistent with evidence for advanced economies, showing that indirect taxes are less distortionary and more growth-friendly than direct taxes (Acosta-Ormaecha and Yoo 2012; Arnold et al. 2011).

Fragile states with significant natural resource wealth face special challenges. The presence of an easy and quick revenue source provides an important opportunity to rapidly expand fiscal space to address the most pressing social and infrastructure needs. However, this also provides opportunities for graft and reduces incentives for building a broad-based tax system, contributing to weak fiscal capacity and fragility given the volatility of resource revenues. For example, Crivelli and Gupta (2014) find that domestic tax revenue declines by about 30 percent for each additional percentage point of GDP in resource revenue.

The urgent need for revenues may also influence the terms of contracts

Figure 4.2. Dimensions of Fiscal Space
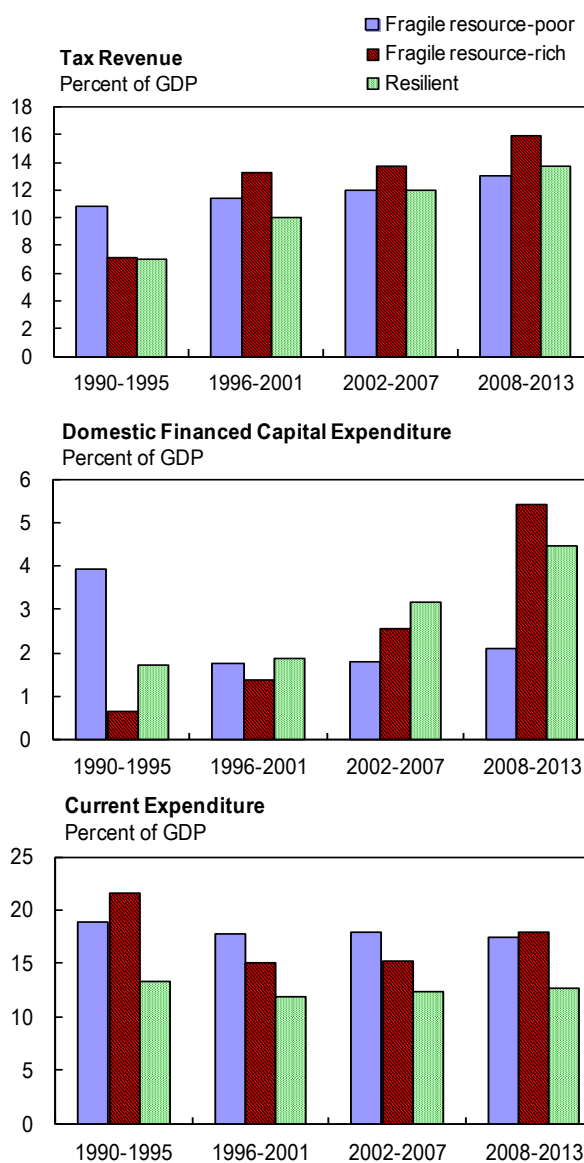
Sources: IMF, World Economic Outlook and African Department databases; and IMF staff calculations.

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[4] A number of papers have explored the relation between different categories of taxes and growth as well as inequality (Crivelli and Gupta 2014; IMF 2014a, Chapter 3; Siebrits and Calitz 2007; Skinner 1987).

negotiated by governments with foreign mining companies, where the initial contracts may provide generous returns to the foreign investors (and in some cases to domestic elites) but little benefits to the governments.[5]

Looking at the data, with the exception of fragile resource-poor countries, the composition of taxes seems to have become more growth-friendly. In all three groups of countries that were deemed fragile in the 1990s, the increase in tax revenues between the 1990s and the 2000s has been mostly driven by substantial increases in indirect taxes on goods and services and in direct taxes on income and profits (Figure 4.3).[6] The share of trade taxes in total revenue has declined in all but fragile resource-poor countries, while the share of domestic indirect taxes on goods and services has increased in the first two groups and has fallen in the group of fragile resource-poor countries. Although tax revenue in fragile resource-rich countries has increased the fastest because of the windfall in resource revenues (Figure 4.2), the composition of tax revenue in these countries is still less than optimal in terms of the breadth and diversification of the tax base and of the strength of fiscal institutions.

Figure 4.3. Composition and Evolution of Tax Revenue

Sources: World Development Indicators, The World Bank; IMF staff calculations.

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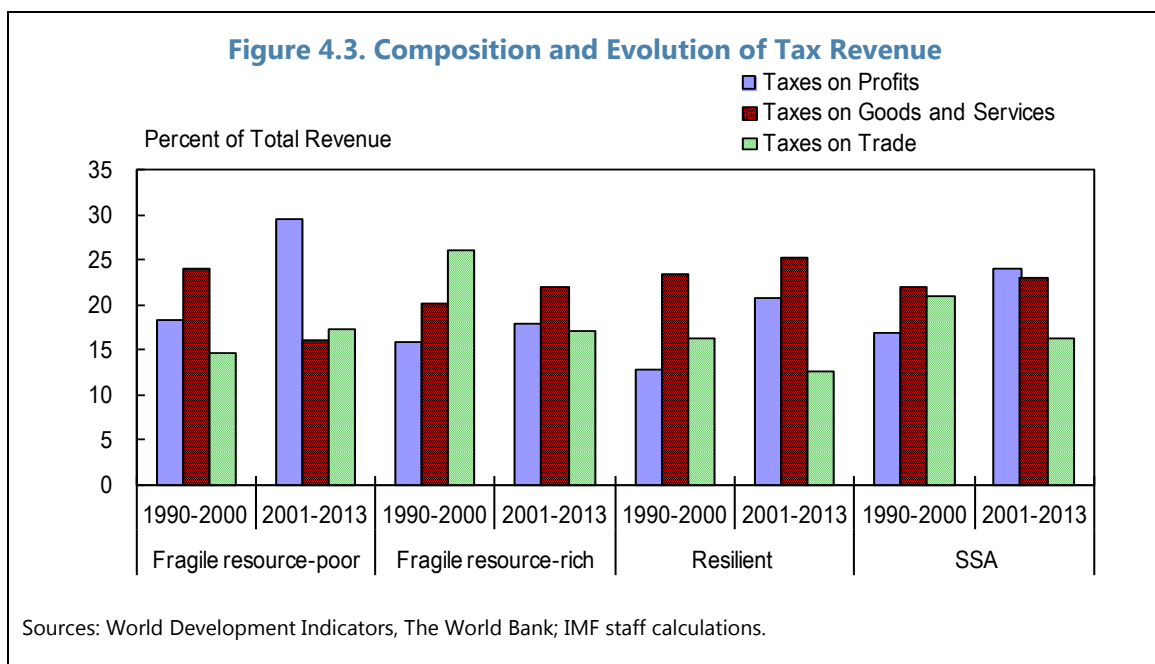
[5] See IMF (2014a, Chapter 2) for a discussion on the challenges faced by developing countries on international taxation.

[6] While reliance on direct taxation is not recommended to sustain growth and move forward in the development ladder, countries with weak capacity may, in a transition period, trade off these efficiency gains against administrative simplicity.

Composition of expenditure

As noted in Chapter 2, public spending can play a positive role in fostering stability and preventing conflict. Specifically, Taydas and Peksen (2012) argue that welfare spending, defined as spending on health, education, and social security, contributes to sustaining peace by signaling the commitment of the government to its citizens' well-being. Empirically, they find that welfare spending is negatively related to the incidence of conflict.

Spending on health and education has also been found to be positively associated with reductions in factors contributing to state fragility such as economic insecurity, poverty, and inequality; and positively associated with increased social mobility and labor opportunities (Burgoon 2006; Chu, Davoodi, and Gupta 2000; Gupta et al. 2003; Gupta, Verhoeven, and Tiongson 2001; IMF 2014a, Chapter 3; Thyne 2006).

A priori, the effect of military spending on resilience is ambiguous considering that such spending could be linked to either conflict or the ability of the government to maintain security. For instance, Singh, Bodea, and Higashijima (2014) find that higher levels of military spending are associated with a lower risk of conflict in oil-rich countries, whereas in oil-poor countries the relationship between military spending and conflict is positive, as in Taydas and Peksen (2012). This may reflect the ability of oil-rich countries to defend resource-related rents from potential aggressors. The authors argue that the potential benefit of oil wealth has been generally overlooked, including the option of increasing public spending to buy off citizens, or by increasing state legitimacy through the provision of basic services and strengthening the security apparatus.

In countries deemed fragile in the 1990s, military spending has declined in recent years, while health and education spending has increased in all country groups (Figure 4.4). This trend is consistent with the decline in the intensity of conflicts noted in Chapter 3, particularly major conflicts.

Figure 4.4. Composition and Evolution of Social and Military Spending

Sources: World Development Indicators, The World Bank; IMF staff calculations.
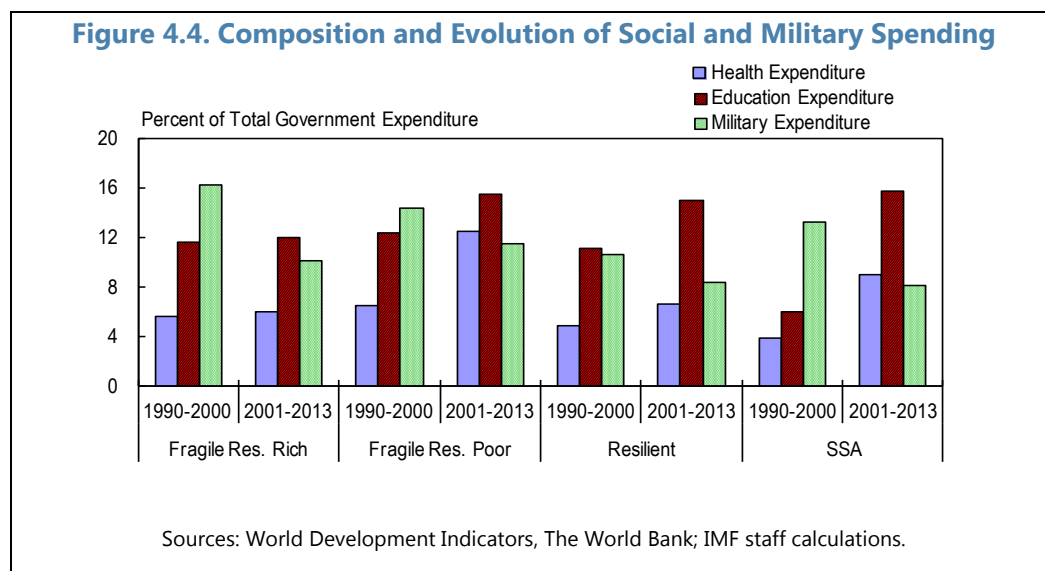
EMPIRICAL SPECIFICATION

This section explores the above issues further through an econometric investigation of the factors associated with building resilience (as measured by the CPIA) in fragile sub-Saharan African countries, with particular attention to the role of fiscal institutions and policies.

The key dimensions of resilience are opposite to those of fragility, namely the ability to (1) maintain peace and security, (2) reduce poverty and promote inclusion, and (3) improve institutions and governance. Because these dimensions are closely interrelated, we do not attempt to establish causality. Rather, the empirical approach relies on techniques that perform well in cases of weak exogeneity of independent variables (probabilistic model with lagged explanatory variables), or that control for endogeneity in an econometric sense (generalized method of moments [GMM]). The baseline specification relates a measure of resilience to a set of control variables and measures of fiscal policies and institutions.

Based on the above discussion, the empirical estimation focuses on the following hypotheses:

- *A higher quality of fiscal institutions* should be associated with a higher probability of becoming "resilient." We use Gollwitzer's Quality of Budget Institutions Index (2011), an indicator variable denoting whether a country has adopted a fiscal rule, as well as other measures of government effectiveness and regulatory quality (World Governance Indicators) (see Appendix 4.1, Table A4.1, for a definition of variables and sources).

- *Greater fiscal space* should be positively associated with resilience. We use the overall fiscal balance (excluding grants),[7] as well as development aid and public debt, all measured as a share of GDP, as proxies for the concept of fiscal space. We also decompose the overall balance into tax revenue either as a share of GDP or as a share of total revenue (excluding grants), and current expenditure and domestically financed expenditure, both as a share of GDP and of total expenditure. We expect that lower deficits, public debt, and higher tax-generating capacity should be associated with a higher probability of becoming resilient. Based on the earlier discussion on state capacity in Chapter 2, we also expect that higher domestically financed capital spending should be positively associated with higher resilience, reflecting the state's capacity to allocate budgetary resources and to implement its own investment projects. While a priori current spending could help build resilience (for instance, if effectively used to increase human capital or improve health and education), it may well have the opposite effect, particularly if used to fund an inefficient civil service or to crowd out public investment.

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[7] We construct an indicator variable taking the value of 1 if the fiscal deficit is higher than the sample median value.

- A variable capturing the presence of a *medium-term structural adjustment program* supported by IMF lending is included to capture the implementation of measures aimed at ensuring macroeconomic stability and structural reforms.

- *The composition of spending and tax revenue* should also matter. The share of indirect taxes in total revenue should be positively associated with resilience, while greater reliance on direct taxes should be the other way around. On the expenditure side, higher social spending on health and education, measured either in per capita terms or as a share of total expenditure, are expected to be associated with a higher probability of becoming resilient.

- *Infant mortality* is used in some specifications as an outcome-based measure of health spending and a proxy to capture the ability of the state to deliver basic goods and services (Besley and Persson's 2014 "collective capacity"). Lower infant mortality is hence expected to be positively associated with resilience. Compared to other social indicators, infant mortality data are of better quality and available for most countries.

- *Resource-rich countries* are likely to be different in a number of dimensions. While the rents from exploiting natural resource wealth can increase fiscal space as discussed in Chapter 3, many low-income countries endowed with natural resources have experienced conflict and political instability, struggling to break away from weak institutions and governance, low tax effort, and high military spending. To control for these direct and indirect effects of natural resource wealth, we interact the variables of interest with a dummy variable taking the value of 1 if natural resource rents exceed 10 percent of GDP.

The estimation also controls for other factors linked to fragility, namely:

- *Lagged dependent variable*, to capture the possibility of persistence in fragility.

- *Growth of real GDP per capita*, as a control for economic performance (fast-growing countries are, ceteris paribus, more likely to become more resilient).

- *High inflation*, another indicator of economic performance and state capacity. High inflation hits particularly the poor, brings more households into poverty, and discourages investment and economic activity, making a country more fragile. Gollwitzer and Quintyn (2010) note that an important step for countries with weak institutional environments, fiscal dominance, and high inflation is the setting up of a fully functioning central bank able to credibly anchor inflation. We expect high inflation to be negatively associated with resilience. High inflation is captured here by a dummy variable taking the value of 1 if inflation exceeds 20 percent and zero otherwise.

- *Degree of exchange rate flexibility*. This indicator captures another aspect of policy space which could be associated with resilience, as found in IMF (2011a).

- *Terms of trade.* Terms of trade are important, exogenous, determinants of countries' fortunes, and have been found to be significantly associated with favorable growth performances in post-conflict countries (David, Rodriquez Bastos, and Mills 2011). As above, we control for interactions between terms of trade and resource-rich countries (possible Dutch Disease effects) that could lead resource-rich countries experiencing a commodity boom to go through bouts of volatility and economic instability, and thus become less resilient.[8]

- *Constraints on the executive* captures the capacity of the other branches of government and of the population at large to limit the discretion (and hence the potential for abuse) of the executive branch in managing the economy and public resources (POLITY dataset). More constraints on the executive should be positively associated with the odds of becoming resilient.

- *Private investment,* measured as a share of GDP, is intended to proxy for the capacity of the state to support the development of private markets ("legal capacity") and is expected to be positively associated with resilience.

METHODOLOGY AND RESULTS

Because all factors affecting fragility are closely interrelated and causality is difficult to establish, the empirical strategy relies on a probabilistic model that identifies factors associated with the odds of gaining resilience, without making judgments about the direction of causality. As an alternative approach to gauge the robustness of the results, the model is also estimated on the full sample of sub-Saharan African countries with a GMM specification which uses econometric instruments to attempt to correct for endogeneity.

Logit model

Based on the sample of 26 countries described in Chapter 3, a probabilistic (logit) model with random effects[9] is used to identify significant factors and their marginal contributions to the probability of a country becoming "resilient." Resilience is proxied by a time-varying indicator variable that takes a value of 1 when the CPIA score is above 3.2 and there is no

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[8] The effect of terms of trade changes are likely to be more important in resource-rich countries because (1) these countries are more open, (2) their exports are less diversified, and (3) unless they save resource rents, they tend to be more vulnerable to shocks.

[9] We use an xtlogit model with random effects instead of fixed effects to avoid dropping countries that are fragile throughout the sample period.

significant conflict,[10] and zero otherwise. Summary statistics for all variables are presented by subperiod (1990s versus 2000s) and by country group in Appendix 4.1, Table A4.2.

As several explanatory variables are potentially endogenous to our measure of resilience (which could lead to biased and inconsistent coefficient estimates), we use lagged values of the regressors (David, Rodriquez Bastos, and Mills 2011; Singh, Bodea, and Higashijima 2014; Taydas and Peksen 2012). This attenuates the endogeneity and reverse-causality bias, although it is possible that issues of reverse causality appear before $t - 1$ as well.

Full results of the logit model estimation can be found in Tables 4.1 and 4.2. Table 4.1 shows the estimated coefficients from the logit regression with proxies for fiscal institutions and fiscal space as independent variables, and Table 4.2 focuses on the association between resilience and the composition of tax revenue and expenditure.[11]

The *control variables* in the baseline specification (Table 4.1, column 1) mostly have the expected sign, though not all are significant. The variables that are significantly and positively associated with resilience include lagged resilience (indicating persistence) and the terms of trade. The interaction of terms of trade and the dummy variable for resource-rich countries is negative and significant, suggesting that the positive impact of terms of trade shocks on resilience is much weaker in resource-rich countries. Private investment, constraints on the executive, and exchange rate flexibility are positively and significantly associated with resilience in some specifications.

The fiscal variables of interest are significantly associated with resilience. In particular, the *proxies for quality of fiscal institutions* are all positively associated with the probability of becoming resilient, while interactions with the resource-rich indicator variable are negative and significant (Table 4.1, columns 4 to 6). This suggests that good quality of budget institutions and government capacity are positively associated with resilience, but the impact is weaker in resource-rich countries.

Turning to the *fiscal space indicators* measured as shares of GDP, all the coefficients have the expected sign. High fiscal deficits are negatively associated with building resilience (Table 4.1, column 2); tax revenue is significantly and positively associated with the odds of becoming resilient, while current spending as a share of GDP is not (Table 4.1, columns 7 and 8). A possible rationale for the latter result is that higher levels of current spending may be more often associated with an oversized civil service or higher military spending and thus a rigid fiscal structure, lowering fiscal space and reducing the scope for social and infrastructure

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[10] A conflict is considered "significant" if it caused more than 1,000 deaths. As the estimation is based on annual data, the criterion used is slightly different from that of Chapter 3 which is based on the three-year average of the CPIA.

[11] Debt relief, which for the most part was granted in the second half of the 2000s, provided fiscal space. This variable, however, was highly correlated with other fiscal space variables in the regressions.

spending (see analysis of the decomposition of public spending below). The interaction between tax revenue and the resource-rich dummy is negative, although not significant in this specification; this result is consistent with the findings in Crivelli and Gupta (2014) that, other things equal, the domestic tax effort is lower in resource-rich countries. Lastly, domestically-financed capital spending appears positively (but not significantly) related to building resilience, while the presence of a multiyear agreement with the IMF (such as an Extended Credit Facility) is positively associated with resilience signaling a government commitment to a program rooted in economic stability and reforms.

To shed further light on the possible drivers of the relationship between fiscal space indicators and resilience, we also present results of logit regressions estimating the impact of the *composition of public expenditure and tax revenue* (Table 4.2). The main results from this analysis are that higher tax revenue and lower military expenditures are strongly and positively associated with the probability of becoming resilient. This holds whether these variables are measured as a share of GDP per capita, or as a share of total revenue or expenditure (Table 4.2, columns 1 to 5). The result on military spending seems even stronger in resource-rich countries (Table 4.2, column 3), in contrast to the Singh, Bodea, and Higashijima (2014) study that suggested that military spending may contribute to stability in this group of countries. Health and education spending are positively associated with resilience. Although overall current spending (excluding interest payments) as a share of total spending is associated with increased odds of becoming resilient, this relation stems mainly from the positive impact of social spending; current spending for the military is quite robustly negatively associated with building resilience, including in resource-rich countries.

On the revenue side, tax revenue as a share of total revenue is positively associated with resilience, though there is some evidence of a lower tax effort in resource-rich countries. The regression includes three major sources of tax receipts (Table 4.2, column 6). The results show that all categories of taxes are positively associated with resilience, but only taxes on income, profits, and capital gains seem to have a significant impact.[12] In resource-rich countries, the negative sign of the coefficient suggests a significantly lower effect of taxes compared with resource-poor countries.

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[12] The evidence on the impact of these taxes can be interpreted as representing the successful taxation of rents in monopolistic sectors like telecommunications or banking. There is also the possibility of reverse causality, as resilient countries are likely to have stronger tax administration and higher growth, hence derive higher income from these taxes. As seen in Figure 4.3, the stylized facts are consistent with a higher amount of revenue being derived from indirect taxes in resilient countries.

Table 4.1. Panel Logit Regression with Random Effects: Fiscal Institutions/Fiscal Space and Resilience (1990–2013)

VARIABLES	1	2	3	4	5	6	7	8
Resilience (lagged)	2.994***	3.043***	2.898***	3.483***	3.396***	3.561***	2.907***	2.692***
	(0.425)	(0.478)	(0.434)	(0.504)	(0.895)	(0.941)	(0.631)	(0.712)
Growth Real GDP per capita	0.027	0.023	0.027	0.012	0.008	0.005	0.021	0.031
	(0.026)	(0.029)	(0.027)	(0.026)	(0.060)	(0.059)	(0.039)	(0.043)
High Inflation	-0.673	-0.940	-0.514	-0.039	-0.334	-0.713	0.137	0.429
	(0.574)	(0.667)	(0.591)	(0.677)	(1.299)	(1.223)	(1.075)	(1.092)
Terms of Trade	0.010*	0.012*	0.010*	0.002	0.010	0.010	0.007	0.005
	(0.005)	(0.006)	(0.006)	(0.006)	(0.013)	(0.017)	(0.008)	(0.009)
Terms of Trade*RR	-0.013**	-0.010	-0.012**	0.003	-0.001	-0.004	-0.004	-0.005
	(0.006)	(0.006)	(0.006)	(0.009)	(0.008)	(0.017)	(0.014)	(0.014)
Executive Constraints	0.049	0.133	0.018	0.171	0.489*	0.394	0.098	0.123
	(0.119)	(0.145)	(0.124)	(0.130)	(0.263)	(0.246)	(0.180)	(0.187)
Exchange Rate Regime	0.566	0.624	0.694	0.393	0.776	0.703	1.126*	1.111
	(0.482)	(0.536)	(0.506)	(0.511)	(0.782)	(0.739)	(0.678)	(0.705)
(Private Investment/GDP)	0.040	0.065**	0.039	0.034	0.020	0.015	0.078**	0.080**
	(0.024)	(0.030)	(0.025)	(0.026)	(0.038)	(0.037)	(0.037)	(0.038)
High Fiscal Deficit		-0.708						
		(0.542)						
Budget Institutions				4.607*				
				(2.356)				
Budget Institutions*RR				-3.550*				
				(2.127)				
Regulatory Quality					4.209***	1.262		
					(1.418)	(1.510)		
Government Effectiveness					3.776***	6.884***		
					(1.433)	(2.015)		
Regulatory Quality*RR						5.051**		
						(2.221)		
Government Effectiveness*RR						-5.067**		
						(2.104)		
Infant Mortality			-0.019					
			(0.014)					
(Development Aid/GDP)							0.013	-0.019
							(0.027)	(0.033)
(Tax Revenue/GDP)							0.275**	0.340**
							(0.140)	(0.147)
(Current Expenditure/GDP)[1]							-0.182*	-0.204*
							(0.099)	(0.107)
(Dom. Fin. Capital Exp./GDP)							0.177	0.200
							(0.207)	(0.201)
(Tax Revenue/GDP)*RR							-0.160	-0.182
							(0.139)	(0.141)
Struct. Adjustment Facility								2.527***
								(0.777)
Constant	0.483	0.467	0.647	-0.302	-0.144	-2.759	0.894	0.842
	(0.560)	(0.625)	(0.575)	(0.821)	(1.429)	(13.637)	(0.677)	(0.708)
Observations	447	376	447	368	267	267	328	328
Number of country_code	23	23	23	19	23	23	23	23

Source: IMF Staff Calculations. The dependent variable is an indicator of resilience, which is approximated by a time-varying indicator that takes a value of 1 when the CPIA score is above 3.2 and there are no significant conflict, and 0 otherwise. A conflict is significant if there are more than 1,000 deaths. Standard errors in parentheses. (***) indicates the statistical significance at the 1 percent level, (**) at the 5 percent level, and (*) at the 10 percent level.
RR: Resource Rich countries

[1] Current expenditure excluding interest payments.

Table 4.2. Panel Logit Regression with Random Effects: Composition of Spending and Taxation and Resilience (1990–2013)

VARIABLES	1	2	3	4	5	6
(Tax Revenue/GDP)	0.510***	0.137				
	(0.193)	(0.225)				
(Tax Revenue/GDP)*RR	-0.477**	-0.354				
	(0.207)	(0.293)				
Education Exp. per capita		0.011				
		(0.014)				
Education Exp. per capita*RR		-0.003				
		(0.025)				
Total Health Exp. per capita (aver. exch. rate		0.039				
		(0.095)				
Total Health Exp. per capita (aver. exch. rate		0.038				
		(0.094)				
Military Exp. per capita	-0.397**					
	(0.162)					
Military Exp. per capita*RR	0.098					
	(0.202)					
(Tax Revenue/Domestic Rev.)			0.016	0.066	0.071*	
			(0.032)	(0.049)	(0.037)	
(Military Exp./Total Exp.)			-0.171*			
			(0.093)			
(Tax Revenue/Dom Rev.)*RR			0.019	-0.035	-0.024	
			(0.038)	(0.053)	(0.034)	
(Military Exp./Total Exp.)*RR			-0.635**			
			(0.276)			
(Development Aid/GDP)						
(Education Exp./Total Exp.)				-0.081		
				(0.127)		
(Education Exp./Total Exp.)*RR				0.150		
				(0.222)		
(Total Health Exp./Total Exp.)[1]				0.031		
				(0.084)		
(Total Health Exp./Total Exp.)*RR[1]				-0.005		
				(0.091)		
(Dom. Fin. Capital Exp./Total Exp.)					0.014	-0.036
					(0.066)	(0.079)
(Current Exp./Total Exp.)[2]					-0.138**	-0.196**
					(0.070)	(0.078)
(Taxes on G and S/Dom. Rev.)						0.048
						(0.063)
(Taxes on Profits/Dom. Rev.)						0.331***
						(0.119)
(Taxes on Int'l Trade/Dom. Rev.)						0.030
						(0.058)
(Taxes on G and S/Dom. Rev.)*RR						0.037
						(0.085)
(Taxes on Profits/Dom. Rev.)*RR						-0.305**
						(0.126)
(Taxes on Int'l Trade/Dom. Rev.)*RR						0.024
						(0.099)
Constant	1.531**	1.453**	0.952	1.596*	1.478*	1.863***
	(0.733)	(0.725)	(0.897)	(0.901)	(0.836)	(0.692)
Observations	282	215	243	179	288	285
Number of country_code	21	19	21	17	21	21

Source: IMF Staff Calculations. The dependent variable is an indicator of resilience, which is approximated by a time-varying indicator that takes a value of 1 when the CPIA score is above 3.2 and there are no significant conflict, and 0 otherwise. A conflict is significant if there are more than 1,000 deaths. Standard errors in parentheses. (***) indicates the statistical significance at the 1
Control variables (not shown) include: resilient (lagged), growth real GDP per capita, inflation, terms of trade, terms of trade interacting with resource rich, executive constraints, exchange rate
[1] Data from World Health Organization.
[2] Current expenditure minus interest payments.

For easier interpretation of the findings, Figure 4.5 displays the predicted probability of being resilient evaluated at different values (mean, one and two standard deviations), using the estimated coefficients of the fiscal variables that have been found to be significant in the logit regressions, holding the other variables constant at their mean. These estimates

highlight a nontrivial contribution of fiscal institutions and fiscal space indicators to the probability of becoming resilient.

A one standard deviation increase in the quality of budget institutions, regulatory quality, or government effectiveness is associated with an approximate gain of 30 percentage points in the probability of becoming resilient; a one standard deviation increase in the tax-to-GDP ratio or in the share of tax revenue (and in particular profit taxes) on total revenue is associated with an increase in the probability of becoming resilient from about 20 percent to 95 percent. At the same time, a one standard deviation increase in current spending as a share of total spending would reduce the probability of being resilient from 20 percent to less than 5 percent, while an increase of one standard deviation in military expenditure would reduce the probability of becoming resilient by 20 percentage points when measured in per capita terms and 10 percentage points when measured as a percent of total expenditures (Figure 4.5).

Figure 4.5. Fiscal Variables' Contribution to the Predicted Probability of Becoming Resilient
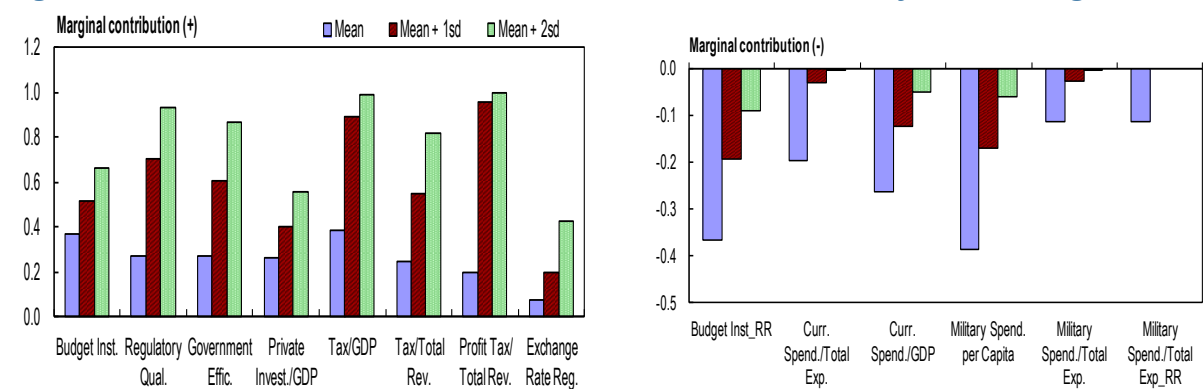
Sources: IMF, World Economic Outlook and African Department databases; ICRG Database; World Bank, World Development Indicators database; and IMF staff calculations.

GMM estimation

Many of the explanatory variables used in the previous regressions may not be strictly exogenous to the indicator of resilience, so that there may be reverse causality between the CPIA assessment and some of the right-side variables (i.e., even though the CPIA ratings are not a systematic or linear combination of the variables considered here, they are based on the judgment of World Bank staff which is directly or indirectly linked to some of the variables considered). A correlation between the error term and explanatory variables could also arise owing to individual fixed effects or omitted variables.

In this section, the endogeneity issue is addressed by using the System-GMM estimator (Arellano and Bover 1995; Blundell and Bond 1998). This estimator is obtained by estimating

a system of two simultaneous equations, one in levels and the other in orthogonal deviations.[13] For the panel, the CPIA ratings for the full sample of 44 sub-Saharan African countries (instead of the 26 states that were deemed fragile in the 1990s) are used to implement System-GMM (for large "N" and small "t").[14,15]

The control variables are mostly similar to those in the logit model estimated in the preceding section, albeit with a few exceptions. In order to avoid losing too many degrees of freedom, we do not include year dummies and instead use categories of exchange rate regimes and the growth of real GDP per capita in Organisation for Economic Co-operation and Development (OECD) countries to control for time fixed effects.[16] In all specifications, the number of instrumental variables is (weakly) smaller than the number of countries. The AR(2) test, Sargan test, and Hansen test of overidentifying restrictions are all insignificant, indicating that the instruments are appropriate.

The estimates for the two-step System-GMM with Windmeijer SE correction are shown in Appendix 4.1, Table A4.3. The effect of control variables in the GMM model is similar to the results in the logit model. CPIA ratings are highly persistent and real per capita GDP growth, constraints on the executive, terms of trade, and real GDP per capita in OECD countries have a positive impact on CPIA ratings in most specifications. The latter result is important, suggesting that prosperity in developed countries helps build resilience in fragile states.

Higher development aid and lower infant mortality (an outcome indicator of the ability of the government to deliver on health services) help improve CPIA ratings. Regarding fiscal variables, the estimates support the hypothesis that current expenditure as a share of total expenditure is negatively related to the CPIA rating; health and education spending per capita are positively related to CPIA ratings, while a high share of military spending has a negative relation with CPIA ratings.

Figure 4.6 shows the contribution of fiscal variables evaluated at their mean, one and two standard deviations, to the change in CPIA scores, in the full sample of 44 sub-Saharan

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[13] Orthogonal deviations can be interpreted as the result of taking first differences (eliminating the fixed effects) combined with a general least square transformation that deals with the serial correlation induced by differencing. Because of missing values in our data, orthogonal deviations instead of differences helped to maximize the sample size (Roodman 2006).

[14] It is important to widen the number of countries to meet the conditions for System-GMM (where the number of countries or groups has to be larger than the number of time periods). Given that the sample comprises 24 years, 26 countries would not allow sufficient degrees of freedom.

[15] Given the upward and downward bias of a pooled ordinary least squares and of a least-squares dummy variables with fixed effects model, the lagged dependent variable coefficient estimated by a System-GMM should lie in between these two (Roodman 2006), as is the case in our sample.

[16] Exchange regimes are classified as: 1-Pegged, 2-Managed, or 3-Floating. The real growth of GDP in Organisation for Economic Co-operation and Development countries is meant to capture common fixed effects, given the low degree of intraregional integration in sub-Saharan Africa. The exchange rate regime captures common fixed effects stemming from the mechanism of adjustment to external conditions.

African countries. A one standard deviation increase in education spending per capita contributes to a 0.85 point increase in the CPIA score. Similar increases in tax revenue and of profit and trade taxes, as a share of total taxes, contribute to a 0.4 to 0.55 point increase in the CPIA score. On the negative side, a one standard deviation increase in current spending contributes to a 0.55 point reduction in the CPIA score in the sample. Reductions in military spending and infant mortality would contribute to 0.2 and 0.3 points increase in the CPIA score, respectively.

Figure 4.6. Fiscal Variables' Contribution to Changes in Country Policy and Institutional Assessment Ratings (Based on Generalized Method of Moments Estimation Results)

Sources: IMF, World Economic Outlook and African Department databases; World Bank, World Development Indicators database; and IMF staff calculations.

Note: The bars represent the marginal contribution of each variable (evaluated at its mean) to the probability of becoming resilient, using estimated coefficients from Appendix 4.1, Table A4.3.

Takeaways

The empirical results are robust to the choice of estimation method and sample. Overall, the GMM results are consistent with the logit estimation, suggesting that sound fiscal policies and institutions contribute to resilience. A better quality of budget institutions, higher tax revenue and education spending, and lower current spending (particularly military spending), are associated with significant increases in the CPIA rating and with the probability of reaching the threshold of "resilience."

The analysis also shows the role of the composition of taxes and spending. Taxes on income and profits are seen to have a positive effect on resilience. On the expenditure side, education and military spending are, respectively, positively and negatively associated with resilience. While not the focus of this chapter, other measures of policy space, such as the avoidance of high inflation and more flexible exchange rate regimes are also positively associated with building resilience. Finally, private investment, the result of the state's capacity to support the development of markets, is also positively associated with resilience.

The importance of policy measures and outcomes in building resilience in fragile states is good news. Whereas broad-based institutions, as defined by Acemoglu, Johnson and Diamond (2004), are deeply rooted in history and highly persistent, fiscal institutions can be bolstered and policies implemented over a relatively shorter period. Implementing reforms

aiming at building policy space so that basic public goods and services can be delivered to the population and private investment can help build resilience.

The results also suggest that, beyond ensuring security, engagement by the international community in fragile and post-conflict countries needs to focus on strengthening economic institutions. The establishment of independent central banks and prudent monetary and fiscal policies, for example, can be essential in enhancing countries' ability to stabilize inflation at low levels, while capacity building in tax administration and public financial management can also be essential components to build resilience.

Appendix 4.1.

Table 4.1.1 Variables Used in Empirical Section		
Variable Name (expected sign)	*Definition*	*Data Source*
Dependent Variable		
Resilience	Dummy for resilient countries: 1 if CPIA > 3.2 and there are no significant conflicts, 0 otherwise.	World Bank, Country Policy and Institutional Assessment
Explanatory Variables		
Resource Rich	Dummy variable: 1 if resource rents exceed 10 percent of GDP and 0 otherwise.	IMF, Regional Economic Outlook
Conflict	Dummy variable: 1 if conflict is significant and 0 otherwise. A conflict is significant if there are more than 1,000 deaths	Uppsala Political Conflict Database
Growth Real GDP per Capita (+)	Growth of Real GDP per capita; constant million 2005 US$	World Penn Tables
Growth Real GDP per capita, OECD (+)	Growth of Real GDP per capita for OECD countries.	IMF, World Economic Outlook database
High Inflation (-)	Dummy variable: 1 if inflation > 20 percent and 0 otherwise	IMF, World Economic Outlook database
Terms of Trade (+)	Net barter terms of trade index for goods and services (2000=100)	World Bank, World Development Indicators
Infant Mortality (-)	Mortality rate, infant (per 1,000 live births)	World Bank, World Development Indicators
Executive Constraints (+)	Institutionalized constraints on the decision-making powers of chief executives: scale of one to seven	Polity IV Project; Marshall, Gurr, Jaggers 2017
Exchange Rate Regime (+)	Dummy: 1 if hard peg, 2 if soft peg, and 3 if floating	IMF, Monetary and Capital Markets Department and AREEAR database
Private Investment (+)	Private gross fixed capital formation; percent of GDP	IMF, World Economic Outlook database
Budget Institutions (+)	Budget institutions index	Gollwitzer 2010
High Overall Fiscal Deficit	Dummy variable: 1 if overall deficit excluding grants > median value.	IMF, World Economic Outlook database
Regulatory Quality (+)	Regulatory quality index; higher values correspond to better outcomes (index)	World Bank Governance Indicators
Government Effectiveness (+)	Government effectiveness; higher index values correspond to better outcomes (index)	World Bank Governance Indicators
Development Aid (+)	Total official development assistance, net; percent of GDP	United States Conference on Trade and Development
External Debt (-)	External Debt in percent of GDP	IMF, African Department database
Tax Revenue (+)	Tax revenue; in percent of GDP or domestic revenue	IMF, African Department database
Current Expenditure (-)	Current expenditure excluding interest payments; in percent of GDP or total expenditure	IMF, African Department database
Domestically-Financed Capital Expenditure (+)	Domestically-financed capital expenditure; in percent of GDP or total expenditure	IMF, African Department database
Structural Adjustment Facility (+)	Structural adjustment facility, IMF program	IMF, Strategy, Policy, and Review Department
Military Expenditure (-)	Military expenditure; per capita, percent of GDP, or percent of total expenditure	World Bank, World Development Indicators
Social Expenditure (+)	Social expenditure; per capita or percent of total expenditure	IMF, Fiscal Affairs Department
Education Expenditure (+)	Education expenditure; per capita, percent of GDP, or of total expenditure	IMF, Fiscal Affairs Department
Health Expenditure (+)	Health expenditure; per capita, percent of GDP, or percent of total expenditure	IMF, Fiscal Affairs Department
Health Expenditure (from WHO) (+)	Total health expenditure in percent of GDP or total expenditure, or per capita at average exchange rate	World Health Organization
Government Health Expenditure (from WHO) (+)	Government health expenditure in percent of GDP or total expenditure, or per capita at average exchange rate	World Health Organization
Taxes on Goods and Services (+)	Taxes on goods and services; percent of GDP or domestic revenue	IMF, African Department database
Taxes on Income, Profits, and Capital Gains (+)	Taxes on income, profits, and capital gains; percent of GDP or domestic revenue	IMF, African Department database
Taxes on International Trade (+)	Taxes on international trade; percent of GDP or domestic revenue	IMF, African Department database
Expenditure on Goods and Services (-)	Expenditure on goods and services; percent of GDP or total expenditure	IMF, African Department database
Expenditure on Wages and Salaries (-)	Expenditure on wages and salaries: percent of GDP or total expenditure	IMF, African Department database
Total Health Expenditure (+)	Total health expenditure in percent of GDP or total expenditure, or per capita at average exchange rate	World Health Organization
External Resources on Health (+)	External resources on health in percent of GDP or per capita at avererage exchange rate	World Health Organization
Government Health Expenditure (+)	General government expenditure on health; in percent of GDP or total expenditure	World Health Organization
Domestic Expenditure on Health (+)	Domestic expenditure on health; per capita at average exchange rate	World Health Organization

Table 4.1.2. Descriptive Statistics Comparing Periods 1990–2000 and 2001–13

Variables	SSA		Fragile		Fragile Res. Rich		Fragile Res. Poor		Resilient	
	1990-2000	2001-13	1990-2000	2001-13	1990-2000	2001-13	1990-2000	2001-13	1990-2000	2001-13
CPIA	3.281	3.182	3.074	2.836	2.785	2.875	3.291	2.808	3.197	3.438
Conflict	0.228	0.173	0.268	0.212	0.434	0.267	0.132	0.168	0.506	0.429
Requlatory Quality	-0.638	-0.664	-0.994	-1.061	-1.162	-1.045	-0.857	-1.074	-0.718	-0.623
Real GDP per Capita	0.383	2.698	-1.4	1.734	-2.371	2.737	-0.623	0.931	0.781	4.125
High Inflation	0.266	0.066	0.362	0.108	0.436	0.142	0.308	0.084	0.286	0.033
Terms of Trade	104.155	111.522	103.916	106.248	88.571	129.438	112.685	89.383	108.732	127.349
Infant Mortality	90.113	72.007	103.655	85.311	117.684	95.851	92.178	76.688	111.747	77.901
(Development Aid/GDP)	13.165	11.448	15.313	15.845	12.661	16.48	17.274	15.384	15.527	12.968
Struct. Adjustment Facility	0.434	0.528	0.414	0.512	0.354	0.547	0.463	0.483	0.623	0.725
Executive Constrains	3.27	4.184	2.749	3.628	1.977	3.102	3.383	4.058	3.221	4.095
Exchange Rate Regime	2.35	2.383	2.293	2.313	2.409	2.424	2.205	2.238	2.558	2.481
Private Investment	14.875	14.868	11.268	11.803	13.742	11.798	9.304	11.806	9.647	14.142
Budget Institutions	0.509	0.509	0.472	0.472	0.476	0.476	0.468	0.468	0.535	0.535
(Tax Revenue/GDP)	14.508	16.231	12.018	13.518	13.807	14.81	11.1	12.522	9.306	12.829
(Current Exp./GDP)[1]	14.281	15.633	15.337	15.355	10.868	14.607	18.829	15.924	10.676	11.523
(Exp. on Wages/GDP)	6.358	6.629	6.081	5.916	6.38	5.543	5.781	6.314	3.817	5.231
(Tax Revenue/Dom. Rev.)	62.946	66.833	61.886	62.055	63.654	66.102	60.837	58.918	54.031	60.666
(Tax on Profits/Dom. Rev.)	16.82	23.967	16.87	22.865	18.407	29.493	15.958	17.869	12.733	20.673
(Tax on GS/Dom. Rev.)	22.044	23.122	21.736	19.391	24.14	16.016	20.134	22.011	23.5	25.322
(Tax on Int'l Trade/Dom. Rev.)	21.094	16.247	22.119	17.238	14.623	17.327	26.185	17.171	16.207	12.6
(Current Exp./Total Exp.)[1]	55.474	60.641	56.552	61.589	55.828	62.968	57.153	60.431	52.769	57.721
(Dom. Fin. Capital Exp./GDP)	9.915	3.991	2.495	2.872	1.503	4.041	2.945	1.984	1.84	3.747
(Dom. Fin. Capital Exp. /Total Exp.)	12.948	16.129	9.083	11.853	6.769	15.788	10.286	8.5	10.894	19.88
(Education Exp./Total Exp.)	5.918	15.649	12.097	14.226	11.589	11.968	12.345	15.444	11.054	14.95
Education Exp. per capita	92.195	4.685	4.529	4.575	4.556	4.608	4.517	4.559	4.247	4.801
Government Effectiveness	-0.779	-0.823	-0.962	-1.063	-0.986	-1.006	-0.941	-1.109	-0.873	-0.668
(Military Exp./GDP)	2.891	1.958	4.499	2.684	4.047	2.27	4.808	3.146	2.391	1.601
Military Exp. per capita	2.364	2.513	1.918	2.403	1.926	2.876	1.913	1.851	2.392	0.898
(Military Exp./Total Exp.)	13.229	7.997	14.99	10.71	16.23	10.082	14.292	11.428	10.542	8.235
(Fiscal Balance/GDP)	-13.055	-5.791	-9.632	-7.593	-4.777	-2.37	-11.756	-11.642	-7.897	-6.35
(Ext. Debt/GDP)	87.936	55.28	111.971	75.689	117.805	69.067	107.85	79.903	93.542	43.849
(Total Health Exp. Per capita)[2]	5.32	6.022	5.813	6.38	6.453	6.865	5.334	5.991	5.004	6.532
(Total Health Exp./Total Exp.)[2]	30.7	27.2	38.3	31.1	56.4	37.8	24.2	25.1	30.2	35.0

Number of countries in each group: SSA (44), Fragile (26), Fragile Resource Rich (8), Fragile Resource Poor (11), and Resilient (7)

[1] Current expenditure excluding interest payments.

[2]Data from World Health Organization.

Table 4.1.3. System-Generalized Method of Moments Estimation (1990–2013)

VARIABLES	1	2	3	4	5	6	8	7	8	9
	cpia	cpia	cpia	cpia	cpia	cpia	cpia	cpia	cpia	cpia
CPIA	0.741***	0.753***	0.828***	0.679***	0.750***	0.780***	0.479***	0.550***	0.764***	0.718***
	(0.058)	(0.070)	(0.076)	(0.071)	(0.058)	(0.054)	(0.131)	(0.109)	(0.109)	(0.105)
High Inflation	-0.018	0.011	-0.138**	-0.043	-0.069	0.153*	-0.042	-0.090	0.033	0.022
	(0.066)	(0.084)	(0.057)	(0.090)	(0.085)	(0.086)	(0.144)	(0.127)	(0.100)	(0.093)
Growth Real GDP per capita	0.008	0.012**	0.003	-0.009	-0.011	0.003	-0.042***	-0.037***	-0.036***	0.026*
	(0.008)	(0.005)	(0.005)	(0.013)	(0.021)	(0.016)	(0.011)	(0.011)	(0.009)	(0.014)
Terms of Trade	0.001***	0.001*	-0.000	0.001	0.000	0.001**	0.004***	0.002*	0.001*	-0.000
	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)
Executive Constraints	0.027	0.026*	0.023*	-0.005	0.023	0.016	0.041**	0.024	0.028	0.030*
	(0.020)	(0.013)	(0.013)	(0.013)	(0.020)	(0.022)	(0.018)	(0.021)	(0.019)	(0.015)
Exchange Rate Regime	0.042	-0.008	0.046	0.111	0.070	0.219**	-0.119	-0.265**	-0.003	-0.042
	(0.085)	(0.088)	(0.074)	(0.079)	(0.087)	(0.101)	(0.159)	(0.119)	(0.137)	(0.084)
Growth Real GDP per capita, OECD	0.004	-0.000	-0.002	0.011**	0.012**	0.006	0.022**	0.006	0.016**	0.002
	(0.003)	(0.003)	(0.003)	(0.005)	(0.006)	(0.004)	(0.010)	(0.006)	(0.007)	(0.004)
(Development Aid/GDP)	0.003	0.004**	0.003							
	(0.003)	(0.002)	(0.002)							
(Tax Revenue/GDP)	0.016									
	(0.017)									
(Current Expenditure/GDP)1	-0.011									
	(0.011)									
(Tax Revenue/GDP)*RR	-0.024*									
	(0.013)									
Regulatory Quality										
Government Effectiveness										
(Tax Revenue/Dom. Rev.)		0.007**	0.007***							
		(0.003)	(0.002)							
(Current Exp./Total Exp.)1		-0.008***	-0.010***							-0.009***
		(0.002)	(0.003)							(0.002)
(Tax Rev./Dom. Rev.)*RR		-0.006***								
		(0.002)								
Struct. Adjustment Facility			-0.070							
			(0.068)							
(Military Exp./Total Exp.)				-0.011***						
				(0.004)						
Military Exp. per capita					-0.000***					
					(0.000)					
Infant Mortality						-0.003**				
						(0.001)				
(Education Exp./Total Exp.)							0.013	-0.012		
							(0.009)	(0.015)		
(Total Health Exp./Total Exp.)2								0.013		
								(0.013)		
Education Exp. per capita									0.002**	
									(0.001)	
Total Health Exp. per capita2									0.001***	
									(0.000)	
(Tax on GS/Dom. Rev.)										0.006
										(0.004)
Constant	0.507	0.654	0.496	0.833**	0.564	0.230	1.324*	1.789***	0.395	0.680
	(0.384)	(0.485)	(0.491)	(0.373)	(0.342)	(0.382)	(0.721)	(0.575)	(0.555)	(0.514)
Observations	519	452	461	449	507	635	367	342	397	412
Number of country_code	40	35	35	34	39	41	31	31	36	33
AB test for AR(2)	0.394	0.621	0.818	0.230	0.149	0.132	0.632	0.953	0.829	0.339
Number of IVs	22	22	21	16	16	16	18	18	18	22
Sargan test	0.476	0.244	0.235	0.211	0.00611	0.0940	0.465	0.162	0.0925	0.634
Hansen test	0.452	0.451	0.186	0.257	0.167	0.279	0.372	0.619	0.0679	0.856

(***) indicates the statistical significance at the 1 percent level, (**) at the 5 percent level, and (*) at the 10 percent level.
[1] Current expenditure excluding interest payments.
[2] Data from World Health Organization.

5 Growth Performance

Over the past two decades, sub-Saharan countries that managed to build resilience not only experienced more frequent and longer growth accelerations, but they also managed to avoid sharp and sustained periods of growth deceleration. In contrast, countries that remained fragile or regressed into fragility were not able to sustain adequate growth, in many cases even experiencing episodes of contraction. This chapter explores the economic and institutional factors that may explain these differences.

GROWTH ACCELERATIONS AND DECELERATIONS

Sub-Saharan Africa has experienced a remarkable turnaround in per capita income since the mid-1990s, in sharp contrast to the declines experienced in the 1980s and the early 1990s.[1] Since 1995, the pace of overall GDP growth (4.7 percent annually) has been above the average of non-African developing countries and is comparable to that of the East Asia and Pacific region. Growth in real GDP per capita has also experienced a turnaround, averaging 2 percent per annum in the same period.

Countries that seem to have transitioned out of fragility have grown by about 4 percent per year in per capita terms during the 2000s, compared to under 1 percent in the 1990s (Figures 5.1 and 5.2).[2] As noted in Chapter 3, improved political and economic stability and better policies and reforms have triggered a virtuous cycle that remains active to date.[3] Resource-rich fragile countries also experienced a pick-up in real GDP per capita growth.

Fragile countries that do not abound in natural resources and countries that have become fragile since the 1990s have not experienced this acceleration in growth; their average per capita growth only reached 0.9 percent in the 2000s. These countries also experienced episodes of significant growth breakdowns. Furthermore, both resource-rich and resource-poor fragile countries have also experienced greater volatility of growth, measured, for

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[1] A number of studies have explored this growth takeoff (see IMF 2008, Chapter II) and factors associated with this turnaround (see Hostland and Giugale 2013).

[2] As identified in Chapter 3, these are countries that have consistently reached a CPIA score above 3.2 without major conflict and/or have not hosted a UN or regional peace-keeping or peace-building mission in the previous three years.

[3] This growth takeoff is not a commodity boom story. Most countries that have become resilient are not rich in natural resources.

instance, by the number of years of contraction (when real per capita GDP declined by 5 percent or more) (Figure 5.2).

Figure 5.1. Real GDP Growth in Sub-Saharan African Countries, 1991–2013

a: Fragile resource-poor countries

b: Fragile resource-rich countries

c: : Countries transitioned out of fragility

d: Resilient countries
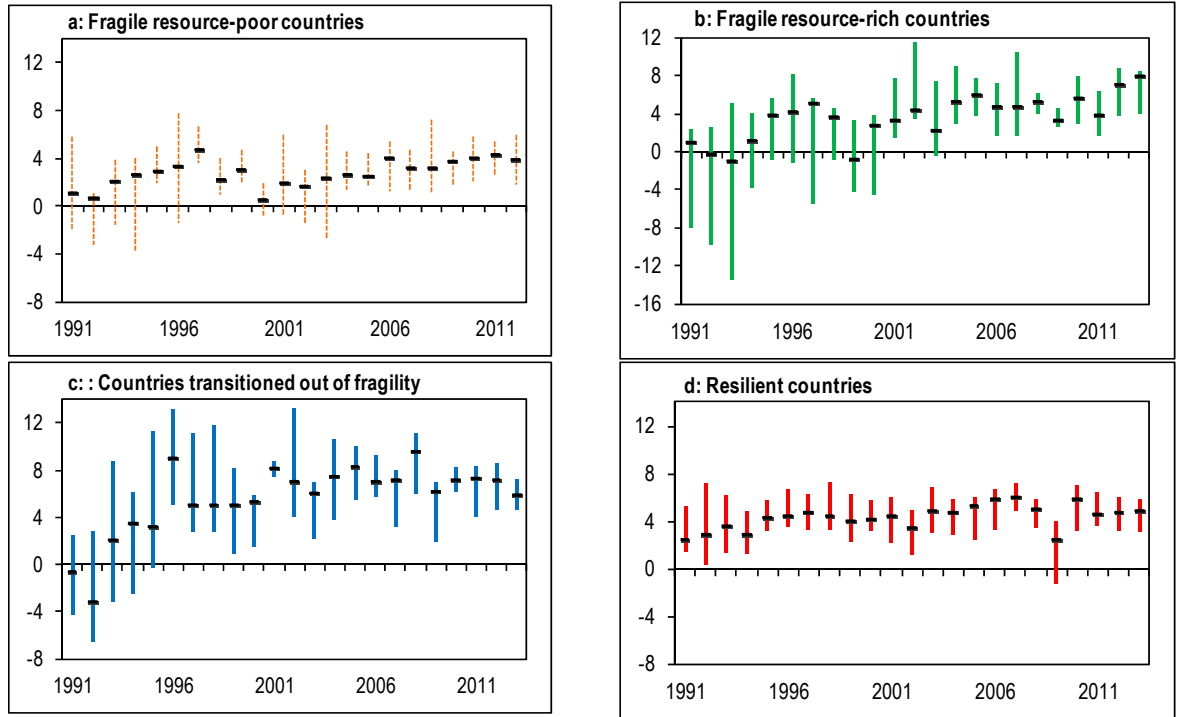
Source: IMF staff calculations based on real GDP data from the PWT 8.0 (Feenstra, Inklaar, and Timmer, forthcoming) and *the World Economic Outlook Database.*

Figure 5.2. Levels and Volatility of Real GDP per Capita Growth in Sub-Saharan African Countries

Growth in real GDP per capita: 1990s vs. 2000s
(Percent, average annual)

☐ Ave growth 90-2000
■ Ave growth 2001-12

Average years with contraction of 5 or more percent
(per country)
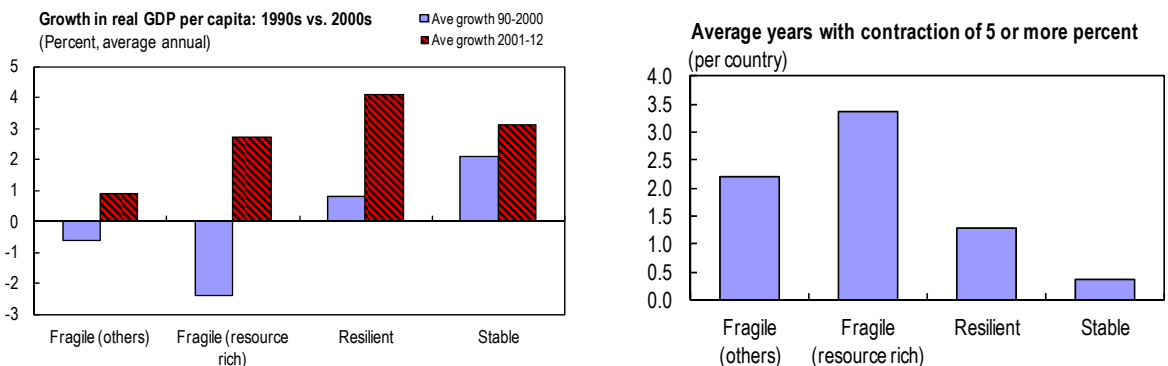
Source: IMF staff calculations based on real GDP per capita data from PWT 8.0 (Feenstra, Inklaar, and Timmer, forthcoming).

Resilient countries distinguish themselves from fragile states in that they have avoided sharp and sustained decelerations (periods of weak or negative growth).[4] During the period 1991–2011, fragile countries (both resource-rich and non–resource-rich) have experienced, on average, fewer years of growth acceleration compared to non-fragile countries (Figure 5.3). Even more striking, however, is that while fragile countries have often experienced growth downturns, there have been no downturns in resilient countries and only two among stable countries (in Zambia and Gabon, both resource-intensive economies).

Figure 5.3. Sub-Saharan Africa: Real GDP Per Capita Growth Acceleration and Deceleration, 1990–2011

Source: IMF staff calculations based on real GDP per capita data from PWT 8.0.

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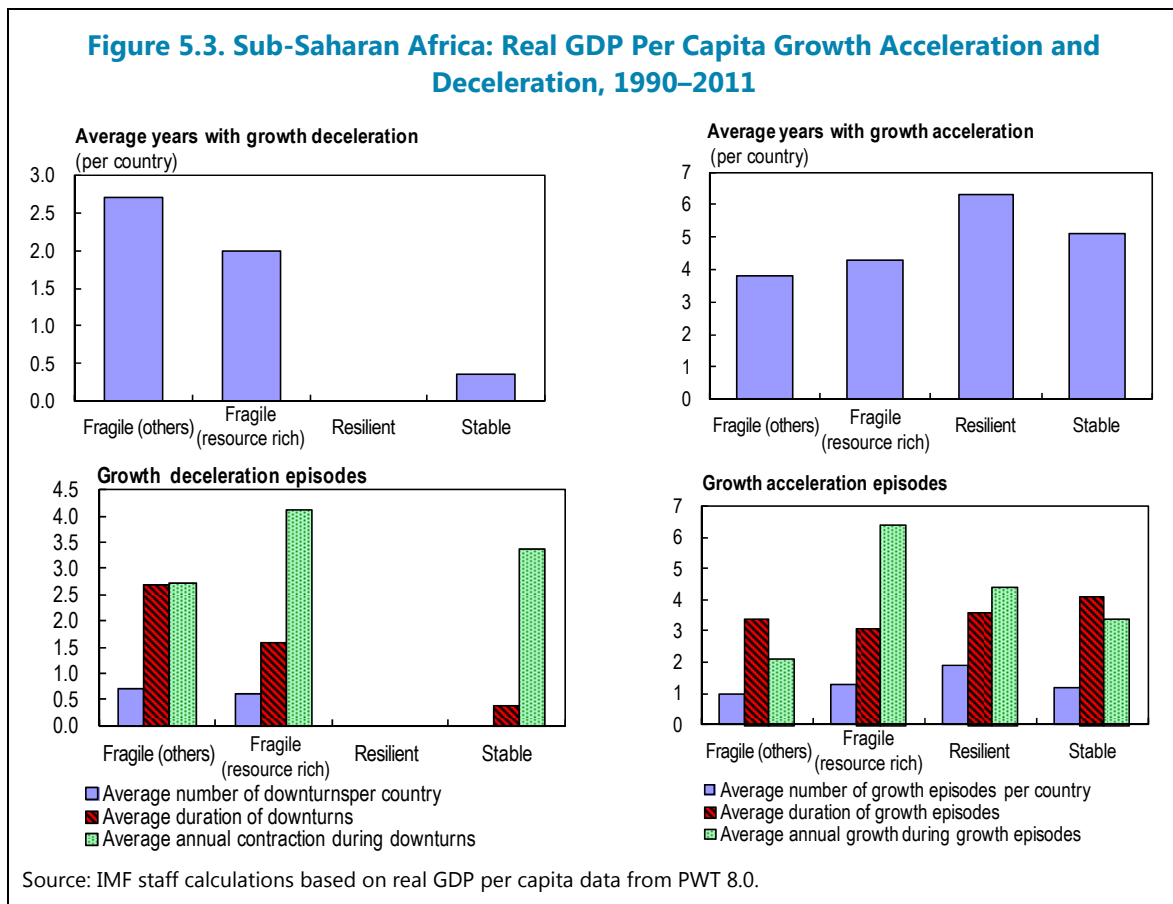
[4] Using the methodology of Arbache and Page (2007), we characterize periods of sustained high growth as "acceleration episodes" and sustained decline in growth as "deceleration episodes." An acceleration (deceleration) episode occurs in a year when (1) the forward-looking three-year average per capita GDP growth rate is above (below) the backward-looking three-year average growth rate; (2) the forward-looking three-year average per capita GDP growth rate is above (below) the country's overall average growth rate; and (3) the forward-looking three-year average per capita GDP level is above (below) the backward-looking three-year average GDP per capita level. Only when this acceleration (deceleration) occurs at least for three consecutive years does it become a growth acceleration (deceleration) episode. The real GDP per capita is measured in purchasing power parity at constant dollars (PWT 8.0). Other studies that analyzed countries' ability to sustain growth accelerations and managed shorter recessions include Abiad et al. (2012) and Berg, Ostry. and Zettelmeyer (2012).

WHAT EXPLAINS THE GROWTH OUTCOMES?

Drawing on the discussion in the previous chapters, this section investgates the key factors associated with growth accelerations and decelerations. In particular, we consider:

- Political stability and accountability. As noted in Chapters 2 and 4, political inclusion and leadership are likely to be critical to enable the implementation of a set of policies and reforms that ensure peace and stability and create an environment for economic development. This dimension is captured by a variety of proxies: constraints on the executive, rule of law, democracy, and a direct measure of political stability.

- Policies to maintain macroeconomic stability, mobilize revenue, and make room for public and private investment. These policies, when combined with strong fiscal institutions, generate fiscal policy space that enables a country to promote a higher and more stable growth and respond to shocks. We explore the role of public investment, inflation, size of the government, public debt, and real exchange rate developments.

- Other growth-enhancing factors. These include the quality of institutions, the business climate, public infrastructure, and control of corruption (Hausmann, Pritchett, and Rodrick 2005).

- External factors. Two indicators are considered: changes in the terms of trade and development aid.

The above factors are interrelated and expected to provide a foundation for growth, support growth accelerations, and, in some cases, mitigate downturns. For example, private or public investment is typically discouraged in situations of macroeconomic instability or in an overly regulated environment.

Growth episodes and growth breakdowns: logit regressions

On the basis of annual data for the period 1989–2013, a logit model is used to assess the probability of a growth acceleration conditional on the factors discussed above. The dependent variable is a binary indicator $g_{i,t}$ that takes the value of 1 if country i experiences a growth acceleration (or breakdown) in year t, and 0 otherwise. Owing to the difficulty of establishing the direction of causality between growth and a number of explanatory variables, the estimated relationships should be interpreted as associational rather than causal.

The first specification (Table 5.1, column 1) presents baseline results of regressions with variables such as conflicts and variations in exogenous factors such as terms of trade and aid levels. The results support the view that the chances of a growth acceleration are adversely

impacted by conflicts and by high inflation and are boosted by improvements in the terms of trade and by increased aid.[5]

Controlling for structural conditions and macroeconomic conditions, variables linked to political inclusion and institutions are significantly related to the odds of experiencing a growth acceleration (Table 5.1, columns 3 and 4). In addition, the surge in foreign direct investment prompted by increased demand for commodities that are abundant in the region—in many countries, foreign direct investment has more than doubled between the 1990s and the late 2000s—has had a positive effect on the odds of experiencing a growth acceleration (Table 5.1, columns 5 and 6).

Table 5.1. Explaining Growth Accelerations in Sub-Saharan African Countries, 1989–2013

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
Conflict dummy	-0.523**	-0.505**	-0.432*	-0.403*	-0.462*	-0.452*
	(0.223)	(0.228)	(0.238)	(0.241)	(0.243)	(0.241)
Resource rich dummy	0.112	0.152	0.316	0.315	0.137	0.066
	(0.196)	(0.205)	(0.226)	(0.230)	(0.240)	(0.237)
% change in terms of trade	0.015***	0.015***	0.016***	0.016***	0.016***	0.015***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.006)
Aid (in percent of gdp)	0.015**	0.018***	0.019**	0.019**	0.016**	0.021**
	(0.006)	(0.007)	(0.008)	(0.008)	(0.008)	(0.009)
Inflation above 20 percent		-0.648***	-0.405	-0.389	-0.357	0.177
		(0.246)	(0.256)	(0.257)	(0.258)	(0.270)
Constraints on the executive			0.166***		0.166***	0.089**
			(0.040)		(0.041)	(0.041)
Level of democracy				0.107***		
				(0.026)		
FDI (as percent of gdp)					0.040***	0.031***
					(0.012)	(0.011)
Decade of 2000s dummy						1.363***
						(0.184)
Constant	-1.165***	-1.133***	-1.855***	-1.612***	-1.912***	-2.502***
	(0.149)	(0.156)	(0.251)	(0.215)	(0.262)	(0.284)
Observations	934	934	910	910	905	905
Number of countries	42	42	41	41	41	41

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

Dependent variable is a dummy for years when a country experienced a growth acceleration espisode, as defined in the text.

Sources: IMF staff calculations based on data from the World Economic Outlook, Uppsala Conflict Database, and Polity IV.

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[5] The result that aid can contribute to growth acceleration is similar to the result in Cerra, Panizza, and Saxena (2013) on aid flows contributing to recovery from a recession.

Identifying empirical stylized facts in cases of growth breakdowns proved to be more difficult. In constrast to growth acclerations, structural characteristics (frequency of conflicts and resource dependency) or external environment (terms of trade shocks and aid levels) do not show statistically significant association with the probability of growth breakdowns (Table 5.2). However, the proxy for macroeconomic instability (inflation above 20 percent) is highly associated with the incidence of a growth breakdown. In addition, variables linked to the quality of political inclusion and institutions have an inverse relationship with the odds of experiencing a growth breakdown (Table 5.2, columns 2 to 4). Since these variables change gradually over longer periods, countries that score low along them tend to be vulnerable to breakdown episodes for a prolonged period.

VARIABLES	(1)	(2)	(3)	(4)
Conflict dummy	0.245	0.091	0.127	0.149
	(0.368)	(0.359)	(0.352)	(0.358)
Resource rich dummy	0.340	-0.239	-0.206	-0.016
	(0.459)	(0.432)	(0.429)	(0.421)
% change in terms of trade	-0.005	-0.007	-0.006	-0.007
	(0.008)	(0.008)	(0.008)	(0.009)
Aid (in percent of gdp)	-0.028	-0.020	-0.023	-0.022
	(0.019)	(0.018)	(0.019)	(0.019)
Inflation above 20 percent	0.919***	0.772**	0.751**	0.777**
	(0.337)	(0.342)	(0.339)	(0.343)
Constraints on the executive		-0.207***		-0.193***
		(0.054)		(0.055)
Level of democracy			-0.173***	
			(0.051)	
FDI (as percent of gdp)				-0.146***
				(0.054)
Constant	-2.714***	-1.887***	-2.090***	-1.701***
	(0.388)	(0.378)	(0.363)	(0.394)
Observations	934	910	910	905
Number of countries	42	41	41	41

Table 5.2. Explaining Growth Decelerations in Sub-Saharan African Countries, 1989–2013

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

Dependent variable is a dummy for years when a country experienced a growth deceleration espisode, as defined in the text.

Sources: IMF staff calculations based on data from the World Economic Outlook, Uppsala Conflict Database, and Polity IV.

In sum, aside from the positive effect of peace and improvements in the terms of trade, the analysis tends to confim the hypothesis linking political stability and accountability factors,

aid, and investment with the probalitlity of growth accelerations. Since growth accelerations are relatively rare, the logit estimates are likely to be affected by small sample biases. The robustness of the results can therefore be examined by comparing them with traditional growth regression analysis.

Explaining growth using panel regressions

We also estimate a conventional growth model based on a panel of 42 sub-Saharan African countries over five non-overlapping five-year periods between 1989 and 2013 in Table 5.3. The simplest specification (Table 5.3, column 1) includes only key structural factors: the *level* of GDP per capita at the beginning of each period, a proxy for the external environment (average annual change in the terms of trade over the period), and a dummy indicating whether a country is fragile or not.

The model is expanded to include a macroeconomic policy variable (a dummy capturing high inflation, above 20 percent annualized), and capital formation indicators (public and private investments in percent of GDP). Other specifications include additional variables that capture the soundness of institutions, such as the constraints on the executive, political stability, or the rule of law.

The results reported in Tables 5.3 and 5.4 do not exhibit a strong *unconditional convergence*: relatively low initial level of real GDP per capita are not associated with higher growth rates. However, there is significant *conditional* convergence. C*eteris paribus*, a higher level of income at the beginning of each five-year period is associated with a lower rate of growth during the subsequent periods once the impact of other important determinants of growth is accounted for (Table 5.4).

The role of the external environment is also important given the region's dependence on trade and in some cases aid. Indeed, the terms of trade appears significant across all specifications. The proxy for macroeconomic instability (high inflation) is negatively associated with growth rates, and this association is robust across different specifications. The dummy for fragile countries, however, remains significant after controlling for all these explanatory factors, suggesting that the differential growth performance between fragile and resilient countries in the region is affected by other factors not included in the model.

We also explore whether the differential growth experience across fragile and resilient countries can partly be explained with differentials in investment rates. Investments—both public and private—in fragile countries tend to be either low or less efficient owing to various regulatory and institutional bottlenecks, weak institutions, and weak implementation capacity. As noted in Chapter 4, countries that seem to have built resilience have had relatively higher public investment. In addition, in the 2000s, resource-rich countries have also been able to boost public investment on the back of an extended commodity boom.

The results (Table 5.3, columns 3 and 4) indicate a strong association between public and private investment and growth performance.[6] The significant negative coefficient of the interaction term on private investment and the fragility dummy is consistent with the hypothesis that private investment is less efficient in fragile states than in other countries. In terms of public investment, there is a very strong positive relation in the subset of fragile countries—in line with the hypothesis that the large infrastructure needs of these countries entail very high returns on this type of investment.

Table 5.3. Explaining Sub-Saharan Africa's Growth over 1989–2013
(panel data, five-year averages)

VARIABLES	(1)	(2)	(3)	(4)
Constant	2.848	4.436**	3.921*	4.268**
	(2.072)	(2.153)	(2.219)	(2.120)
Initial GDP per capita (log)	-0.119	-0.291	-0.325	-0.431
	(0.276)	(0.285)	(0.312)	(0.294)
Terms of trade (% change)	0.165***	0.153***	0.153***	0.148***
	(0.035)	(0.034)	(0.034)	(0.033)
Fragile country dummy	-1.588***	-1.461***	-0.335	-1.686*
	(0.506)	(0.525)	(0.781)	(0.901)
Inflation above 20 percent		-2.385***	-2.115***	-1.934***
		(0.585)	(0.584)	(0.562)
Private investment (lagged)			0.055**	0.055**
			(0.028)	(0.027)
Pri. Investment (lagged) x fragile dummy			-0.109**	-0.120**
			(0.049)	(0.047)
Public investment				0.049
				(0.036)
Pub. Investment x fragile dummy				0.252***
				(0.089)
Observations	207	207	192	192
Number of ccode	42	42	40	40

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Dependent variable is the growth in real GDP per capita, averaged over five years.
Sources: IMF staff calculations based on data from the World Economic Outlook, Uppsala Conflict Database, and Polity IV.

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[6] Private investment has been lagged by one five-year period to control for reverse causality. Public investment is instead considered as a policy variable and hence contemporaneous values are used.

Table 5.4. Explaining Sub-Saharan Africa's Growth over 1989–2013
(panel data, five-year averages)

Variables	(1)	(2)	(3)	(4)
Constant	3.569*	7.431***	8.913***	4.492**
	(2.166)	(2.604)	(2.748)	(2.161)
Initial GDP per capita (log)	-0.559*	-0.984***	-1.169***	-0.599**
	(0.296)	(0.330)	(0.348)	(0.300)
Terms of trade (% change)	0.137***	0.114***	0.119***	0.142***
	(0.032)	(0.033)	(0.033)	(0.032)
Fragile country dummy	-1.907*	-1.639	-3.566**	-2.175**
	(1.067)	(1.178)	(1.675)	(1.062)
Inflation above 20 percent	-1.696***	-2.211***	-2.302***	-1.749***
	(0.571)	(0.616)	(0.615)	(0.573)
Private investment (lagged)	0.066**	0.106***	0.113***	0.066**
	(0.026)	(0.027)	(0.027)	(0.026)
Pri. investment (lagged) x fragile dummy	-0.081*	-0.096*	-0.120**	-0.089*
	(0.048)	(0.053)	(0.055)	(0.048)
Public investment	0.051	0.033	0.033	0.050
	(0.035)	(0.045)	(0.045)	(0.035)
Pub. investment x fragile dummy	0.294**	0.334***	0.408***	0.326***
	(0.123)	(0.129)	(0.136)	(0.122)
Constraints on the executive	0.350***	0.218*	0.220*	
	(0.106)	(0.124)	(0.123)	
Rule of law		0.770	1.307**	
		(0.559)	(0.647)	
Rule of law x fragile dummy			-1.859	
			(1.149)	
Level of democracy				0.214***
				(0.070)
Observations	190	153	153	190
Number of ccode	39	39	39	39

*** p<0.01, ** p<0.05, * p<0.1

Dependent variable is growth in real GDP per capita, averaged over five years.

Source: IMF staff calculations based on data from the World Economic Outlook, Uppsala conflict database, and Policy IV.

Another possible explanatory factor for the growth differential across fragile and resilient countries is the quality of institutions. Research has supported the hypothesis of a strong association between institutional factors and economic growth in non-fragile economies (e.g., David, Rodriquez Bastos, and Mills 2011). As noted in Chapter 6, case studies point to the critical role of more inclusive political settlements (i.e., governments reflecting the interests of important groups otherwise underrepresented) in the aftermath of conflict as a factor that helps build resilience. Moreover, the countries that became "resilient" have established stronger institutional provisions to hold governments accountable. We use two proxies for political institutions (constraints on the executive and the extent of democracy) and two proxies for government effectiveness (rule of law and political instability) to assess the association between institutions and growth. The results (Table 5.4) show a strong association between growth performance and these proxies for institutional quality. In particular, the representativeness and accountability of the executive (the degree of democracy and the constraints, or checks and balances, on the executive) have a positive effect on growth.

Takeaways

The analysis of various dimensions of growth in this chapter has shown that those countries that were relatively more "resilient" or became so in the 2000s have had a better and longer economic growth performance supported by stronger macroeconomic fundamentals, higher and more efficient private investment, and better governance. On the contrary, such associations can not be found among fragile countries or countries that regressed. Key factors that seem to facilitate growth accelerations include foreign aid and foreign direct investment, and, more importantly, government accountability—captured either by the constraints on the executive or by the level of democracy. In sustaining growth in fragile countries, macroeconomic stability and public investment are key. Lastly, public investment has a considerably higher impact on growth in fragile states than it has in other countries.
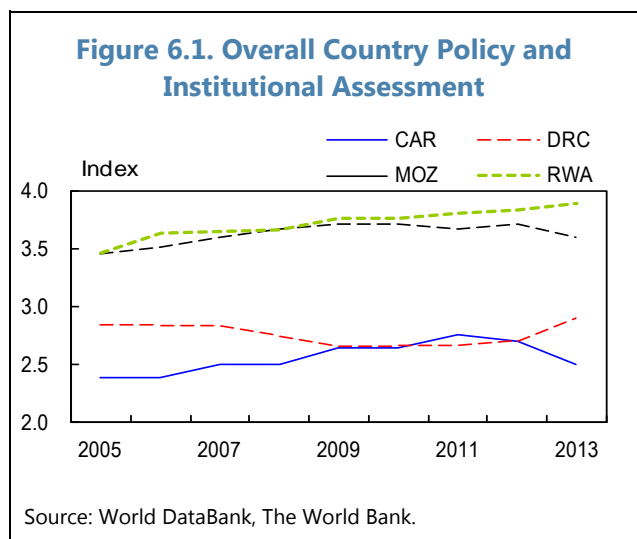
6 **Case Studies**

Given that the underlying causes of fragility are shaped not only by current political and economic conditions but also by the history of societies, there can never be a single road map to resilience. This chapter examines a number of country experiences that could shed further light on the factors linked to building resilience. The first section contrasts the experiences of four countries (Rwanda, Mozambique, the Democratic Republic of the Congo [DRC], and the Central African Republic [CAR]), two of which were successful in building resilience and two of which have not so far been able to make much progress. The second section looks at three additional countries (Ethiopia, Mali, and Sierra Leone) that provide other perspectives on the factors associated with resilience, approaches to reform, and the risks that arise in the transition process.

RWANDA, MOZAMBIQUE, THE DEMOCRATIC REPUBLIC OF CONGO, AND THE CENTRAL AFRICAN REPUBLIC

This section contrasts the experience of four countries. Rwanda (a resource-poor landlocked country) and Mozambique (a coastal, resource-poor country) emerged from conflict in the early to mid-1990s, rebuilt capacity and institutions in the following decade, and managed to build resilience as evidenced by Country Policy and Institutional Assessment (CPIA) scores consistently above 3.2 since the mid-2000s (Figure 6.1). In contrast, the DRC and the CAR have had far more difficulties in building resilience. In the DRC, a resource-rich coastal country, conflict ended with a peace accord in 2001 and general elections in 2003. While the improvements in its CPIA score in the early period were encouraging, the country has not yet been able to break through to a zone of non-fragility. The CAR, a resource-rich landlocked country, has been mired in repeated spells of political and civil conflict since it gained independence in 1960, with a long string of coups and civil conflicts. The 2007 peace agreement started a new period of stabilization, but the country fell back into conflict in 2012, erasing much of the progress made in previous years.

Figure 6.1. Overall Country Policy and Institutional Assessment

Source: World DataBank, The World Bank.

While all four country cases have some similarities in policies and priorities, several elements set them apart. This is shown in Figure 6.2 that contains a subjective yet revealing assessment of the different factors involved in the transition process (see below).

Figure 6.2. Factors in Building Resilience

	Central African Republic	Democratic Republic of Congo	Mozambique	Rwanda
Stabilization				
Political Inclusion	🟥	🟨	🟩	🟩
Capacity and Institutions (incl. budget inst.)	🟥	🟥	🟩	🟩
Restoration of macrostability and growth	🟥	🟨	🟩	🟩
Delivering to the Population				
Creating Policy Space				
Mobilizing Domestic Revenue	🟥	🟨	🟩	🟩
Donor support	🟨	🟩	🟩	🟩
Debt relief	🟩	🟩	🟩	🟩
Spending				
Priority spending	🟥	🟨	🟩	🟩
Public investment	🟥	🟥	🟩	🟩
International Support				
Continued IMF programs	🟥	🟨	🟩	🟩
Donor coordination	🟥	🟨	🟩	🟩
Private Sector				
Private domestic investment	🟨	🟨	🟨	🟩
Foreign direct investment	🟨	🟩	🟩	🟨
Outcomes				
Security, political stability, governance	🟥	🟨	🟩	🟩
Economic growth and stability	🟥	🟨	🟩	🟩
Social	🟨	🟥	🟩	🟩

🟥 Factor developed negatively, likely to have contributed to fragility

🟨 Factor did not develop decisively and impact unclear, or too early to tell

🟩 Factor developed positively, likely to have contributed to building resilience

Source: IMF staff estimates.

Stabilization

Political inclusion and checks on power. The history of the four countries considered shows that a sufficiently inclusive political settlement is a foundation for peace and building resilience. It should be noted that "inclusive" denotes the degree to which the interests of previously unrepresented or competing groups have been included; it does not necessarily mean that the system is inclusive as in a well-functioning democracy. In Rwanda and

Mozambique, broad-based governments defined early on their political, economic, and social objectives, and established sufficient institutional provisions to be held accountable for them (the General Peace Agreement for Mozambique in 1992; and in Rwanda, the formation of a government of national unity in July 1994 comprising five political parties and incorporating the principal provisions of the 1993 Arusha Accord). As shown by the political stability observed in both countries since the 1990s, these efforts have so far been successful (Figure 6.3), though both countries have yet to experience further political transition. In DRC, the political settlement has been holding recently, but still needs to stand the test of time (Inter-Congolese National Agreement in 2003). In CAR, the return to conflict in 2012/13 highlights the weak implementation of the power-sharing agreements reached in 2007/08 and in 2012.

Figure 6.3. Political Instability/No Conflict

Source: Worldwide Governance Indicators Database, The World Bank.
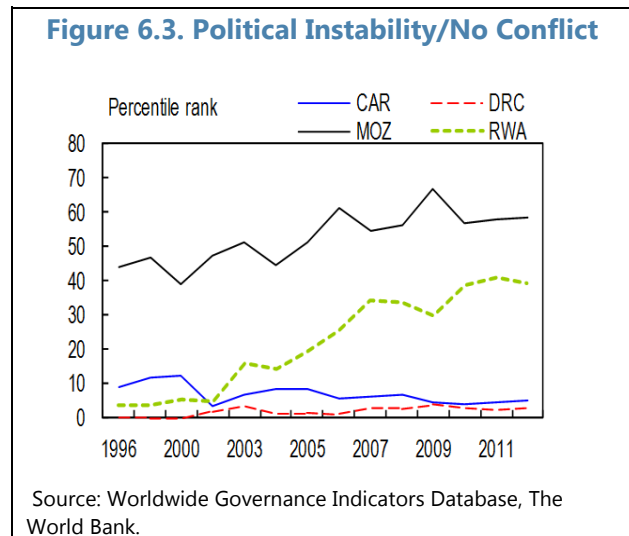
Capacity and institutions. Albeit with different results across countries, efforts at rebuilding economic capacity and institutions focused on three areas: public financial management (PFM), in particular the budget process; mobilizing revenue; and strengthening the central bank and the banking sector. Rebuilding PFM systems was important not only for transparency, accountability, and inclusiveness, but also for the gradual routing of donor support through national budgets. Along with other international financial institutions and bilateral donors, the IMF supported these efforts through technical assistance and training in its core areas of expertise. Most successful among the four countries were Rwanda and Mozambique (Figure 6.4), although they still have some way in order to fully implement their reform agenda. Rwanda reinstituted the budget process with parliament adopting annual budget laws since 1998, and had broadly rebuilt its PFM system by the mid-2000s. Tax administration was strengthened and has remained a priority for the authorities. The central bank's effectiveness to run monetary policy was improved quickly, but reforming the banking sector proved difficult and took longer than anticipated. In Mozambique, revenue administration reforms were instrumental in achieving a steady increase

Figure 6.4. Country Policy and Institutional Assessment Public Sector Management and Institutions Cluster

Source: World DataBank, The World Bank.
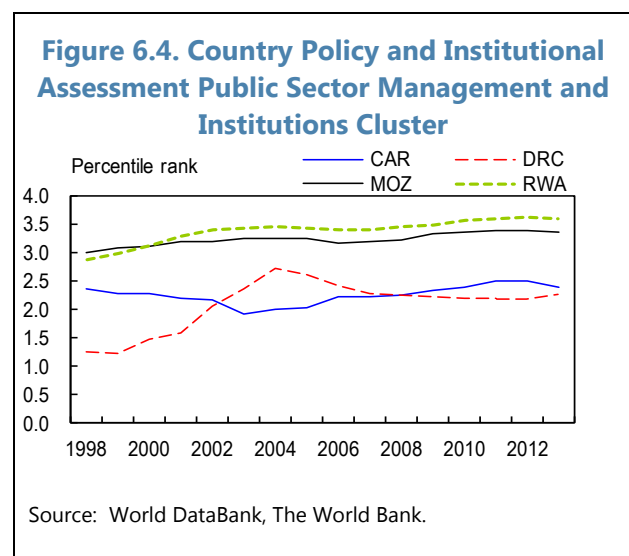
in government revenue since 1999, and the 2002 PFM law paved the way for increased transparency in budget execution. Central bank functions were streamlined in the early 2000s, although central bank independence and restructuring of the banking sector took more time to materialize. The DRC made progress in the first two years after the peace accord, but has regressed since then. The initially good economic performance proved difficult to sustain due to political instability and recurrent conflicts nourished also by a lack of reforms, including limited support for integrating ex-combatants into the economy. Fiscal space limitations and revenue shocks resulted in low pro-poor spending and investment. In 2005, a new election cycle and fiscal loosening led to high inflation and a loss in foreign reserves as well as delays in the implementation of reforms, with pervasive poverty and other vulnerabilities leaving the country exposed to crises and reversals. The CAR also improved somewhat in these areas at first, but fell back again with the onset of renewed conflict.

Macroeconomic stability. Macroeconomic stability was lost in periods of conflict in all countries and in most cases restored within two to four years after the conflict. Mozambique, Rwanda, and the DRC all moved quickly to liberalize prices and the exchange rate regime, control monetary growth, and remove other state controls on the economy and the financial sector, facilitating a swift consolidation and a move to market-based economies. In parallel, economic policymaking and capacity were gradually strengthened. Mozambique and Rwanda then set off on a strong post-conflict rebound with sustained growth accelerations before stabilizing in later years. In contrast, the long-term erosion of the economy and the state in the DRC impeded its ability to catch up quickly. While macroeconomic stability was restored and growth resumed at about 5 percent to 6 percent, there was no post-conflict rebound comparable to that seen in Rwanda and Mozambique, and inflation remained relatively high for several years. Similarly in the CAR, despite the low inflation and exchange rate certainty from membership in the Communauté Financiere Africaine (CFA) zone, limited progress was made toward macroeconomic stability and growth remained weak before the country was caught in conflict again.

Delivering public services

Policy space. The return to liberal market systems in Mozambique, Rwanda, and the DRC not only helped to regain macroeconomic stability, but also to create policy space. The liberalization of prices drove up inflation only temporarily, and as market incentives and stabilization policies started to work, inflation abated and real incomes increased. Moreover, the liberalization of the trade regime helped bring in much-needed goods at lower prices. Liberalizing the foreign exchange system also increased policy space and helped bolstering foreign exchange reserves. In contrast, the CAR had difficulties building sufficient policy space as fiscal policy could not be adjusted enough, notably through revenue mobilization and reforms, with the recurrence of conflicts making everything more difficult.

Fiscal space

Mobilizing revenue. All four countries placed emphasis on mobilizing domestic revenue, but the results varied. Mozambique, Rwanda, and the DRC made impressive progress (albeit the DRC from a very low base and as a result of hydrocarbon revenues). In contrast, the CAR made little or no progress at all (Figure 6.5).

Figure 6.5. Government Revenue

Donor support. Aid levels to the four countries were significant, especially following conflict. Aid flows to the DRC, Mozambique, and Rwanda averaged around 50 percent of GDP in the immediate years after conflict, leveling off to about 20 percent of GDP annually since then.

Source: IMF, World Economic Outlook database.

At around 10 percent of GDP, aid levels to the CAR were much smaller, with fluctuations reflecting recurrent instability and conflict. While there is concern whether countries can fully absorb drastic surges in aid flows, the analysis in Chapters 4 and 5 shows that high levels of aid can be important for resilience—for example in resuming growth and expanding fiscal space to facilitate public investment.

Debt relief. Debt relief under the enhanced Heavily Indebted Poor Countries and Multilateral Debt Relief Initiatives was successful in restoring debt sustainability in all four countries, but in terms of supporting the buildup of resilience, the decisive factor was how the additional fiscal space was ultimately used. Debt service reductions freed up resources on the order of 1.5 percent to 2 percent of GDP per year and were intended to increase social and priority spending. However, there were variations in the degree to which these resources led to increases in these spending categories.

Priority spending. All four countries developed Poverty Reduction Strategy Papers in a participatory consultative process in which they laid out their developmental priorities. Spending on these economic, institutional, and human development priorities is a good measure of the government's commitment to them and, more broadly, to building a more inclusive society. Mozambique saw the largest and most sustained increase in priority spending, rising from 6 percent of GDP in 1999 to around 15 percent of GDP in the early 2000s and on to around 20 percent more recently. Similarly, Rwanda expanded its priority spending from 4 percent of GDP in 1999 gradually but steadily to around 12 percent to 14 percent of GDP in 2008–12. In contrast, priority spending in the DRC has hovered around 6 percent of GDP, and in the CAR it remained around 2 percent to 3 percent.
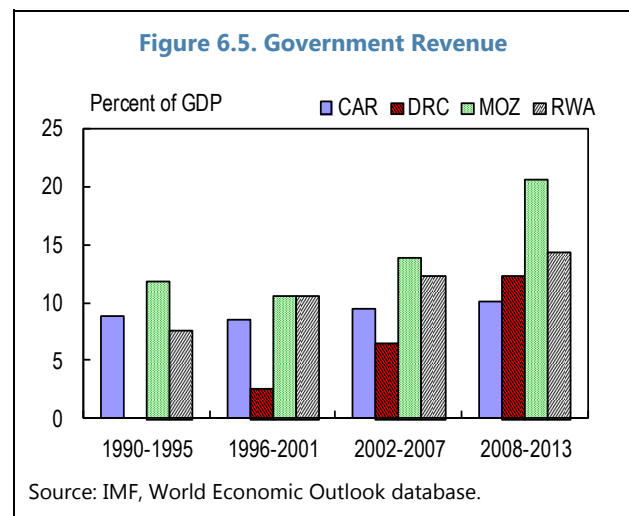
Public investment. Public investment plays an important role in rebuilding infrastructure, attracting private investment, and increasing growth (as shown in Chapter 5). During the period under review, Mozambique has outperformed the other countries while Rwanda has been catching up since the early 2000s, with both countries' investment ratios now in the range of 12 percent to 15 percent of GDP. However, the DRC and the CAR have remained well below these levels. The DRC has recently climbed up from near zero to over 5 percent of GDP, whereas the CAR has been in a gradual long-term trend decline reaching about 3 percent of GDP recently. In addition to the volume of public investment, its efficiency is also important, both in terms of project selection and implementation and in terms of the quality of the outcome. Judging by the latter, Mozambique and, in particular, Rwanda display a higher quality of infrastructure compared to many other sub-Saharan African countries (IMF 2014b, Chapter 3, Figure 3.4).

International support

Donor coordination. As donors progressed from emergency humanitarian assistance to development assistance, aid coordination became stronger in all cases except in the CAR. In Mozambique, close donor coordination began in the mid-1990s and was formalized in 2000, coordinating support in several areas (i.e., reforming the tax system, financial sector, trade, poverty reduction strategy, and private sector development; and health and education). In Rwanda, donor coordination began in 1998 and was formalized in 2003, with donors funding an aid coordination unit in the finance ministry and coordinating Public Expenditure Reviews, macroeconomic reviews, and Poverty Reduction Strategy Paper monitoring. In the DRC, donor coordination was strengthened in 2005 and a Country Assistance Framework was established in 2008, covering 95 percent of all external assistance. In contrast, donor coordination in the CAR has remained informal as several attempts to form an international consultative group together with government have not yet succeeded.

IMF-supported programs. The IMF has been closely engaged with Rwanda and Mozambique, supporting the authorities' economic strategies through early and continued programs. In addition to providing direct financial and technical support for countries' strategies, IMF programs played a catalytic role in unlocking support from other donors (Bal-Gunduz and Crystallin 2014). The IMF supported Mozambique from before the end of its conflict—the country successfully implemented five medium-term programs between 1987 and mid-2007 before moving to a Policy Support Instrument. Following the genocide in 1994, Rwanda was supported through emergency facilities first (1995, 1997) while capacity was being rebuilt to implement an upper-credit tranche program. Since 1998, the IMF has supported a series of medium-term economic programs with structural adjustment facilities and, more recently, with a Policy Support Instrument. In contrast, the DRC did not have an IMF-supported program until 2002 and was in arrears to the IMF. After arrears clearance, the DRC had two Extended Credit Facilities during 2002–06 and 2009–12, although performance under these programs was uneven, with political uncertainty and social tensions coupled with low levels of priority spending. Finally, the CAR's involvement with the IMF has been characterized by large gaps within and between programs, reflecting recurring crises.

Private sector. The private sector—at least the formal private sector as captured in the data—does not appear to have played a significant role in the early stages of recovery except for foreign direct investment in the resource-rich countries and in Mozambique.[1] In Mozambique, private domestic investment was relatively low at an average of 6.5 percent to 7 percent of GDP in the 1990s and 2000s. Following the discovery of large gas and coal deposits, it surged to over 30 percent of GDP since 2009 (part of the increase is related to the influx in foreign direct investment). In Rwanda, private investment recovered gradually and has recently been at about 12 percent of GDP. In the DRC, it fluctuated strongly, reflecting the volatility of the political and security situation. Finally, private investment in the CAR also suffered from political instability; even though it rose following the 2007 peace accord, it has not surpassed 8 percent of GDP during the past two decades.

Outcomes

Security, political stability, and governance. Both Mozambique and Rwanda followed an approach that led to political stability and avoided conflict. Both countries also strove to improve governance, as evidenced by their higher ratings on indicators of governance effectiveness, regulatory quality, control of corruption, and rule of law (Figure 6.6). In contrast, both the CAR and the DRC have struggled to make progress in these areas.

Figure 6.6. Governance Indicators

Source: Worldwide Governance Indicators Database, The World Bank.

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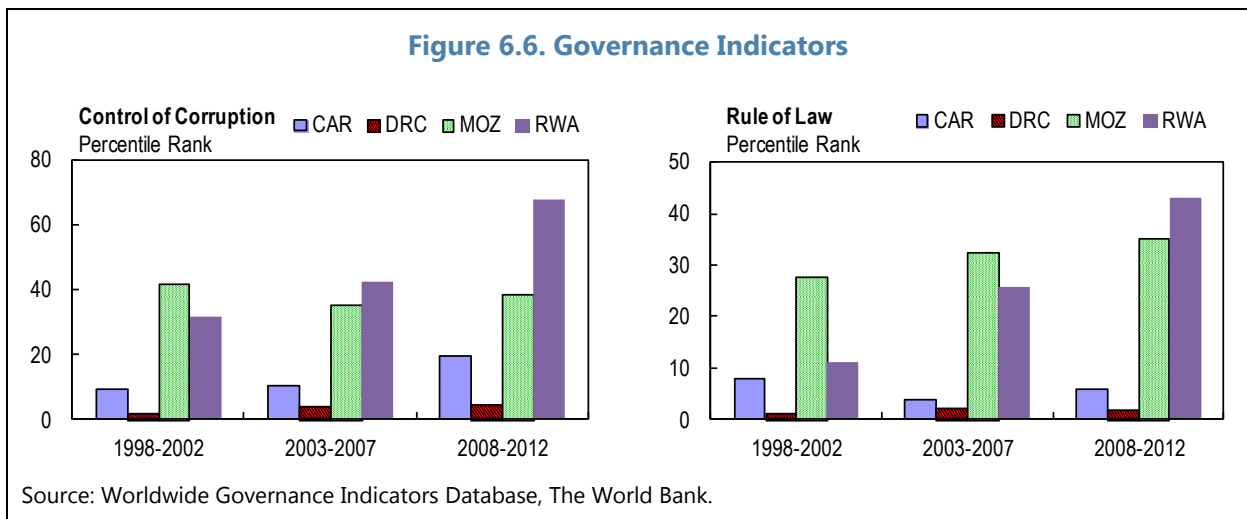
[1] In the DRC, foreign direct investment had been hovering around zero since the 1970s, but took off in 2002/03 following the end of the civil war and the ensuing political stabilization. Foreign direct investment in the CAR displayed a similar pattern, though the increase after the onset of peace was much smaller peaking at 6 percent of GDP in 2009.

Economic growth. Rwanda and Mozambique enjoyed sustained increases in real per capita income since the mid-1990s, and such increases accelerated during the last decade (Figure 6.7). Since the early 2000s, both countries embarked on a second generation of economic reforms that seemed to have supported and boosted growth beyond the post-conflict rebound. In Mozambique, reforms to strengthen revenue mobilization and PFM continued, together with efforts to improve governance and the anticorruption framework. In addition, the country embarked on reforms to strengthen the monetary and financial sectors, the framework for managing natural resources, and the business and investment climate. In Rwanda, reforms also focused on the latter, including financial sector and legal reforms, boosting trade and diversification and raising agricultural productivity.

Figure 6.7. Real GDP per Capita

Source: University of Pennsylvania World Tables.
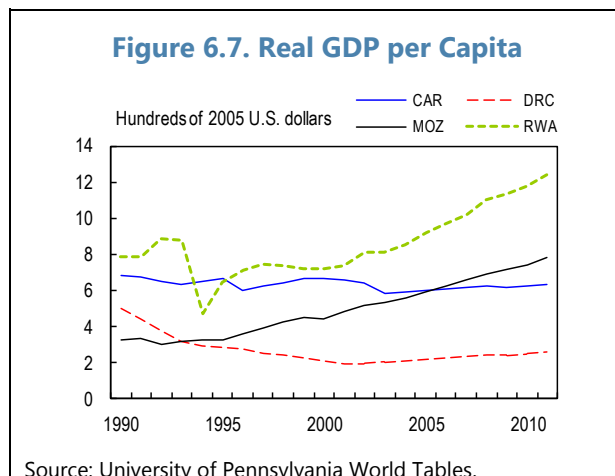
Unfortunately, both the DRC and CAR were not able to accomplish as much in any of these areas.

Social progress. Political and macroeconomic stability, growth, higher social spending, and investment led to significant improvements in social indicators in both Rwanda and Mozambique (Table 6.1). In both countries, poverty rates were reduced (though they are still high), enrollment rates increased, and the under-five mortality rate declined. The CAR appeared to have made progress on poverty reduction and net enrollment rates, although the under-five mortality rate did not improve much. In contrast, poverty and under-five mortality rates remained at high levels in the DRC.

Table 6.1. Social Indicators: Central African Republic, Democratic Republic of Congo, Mozambique, and Rwanda

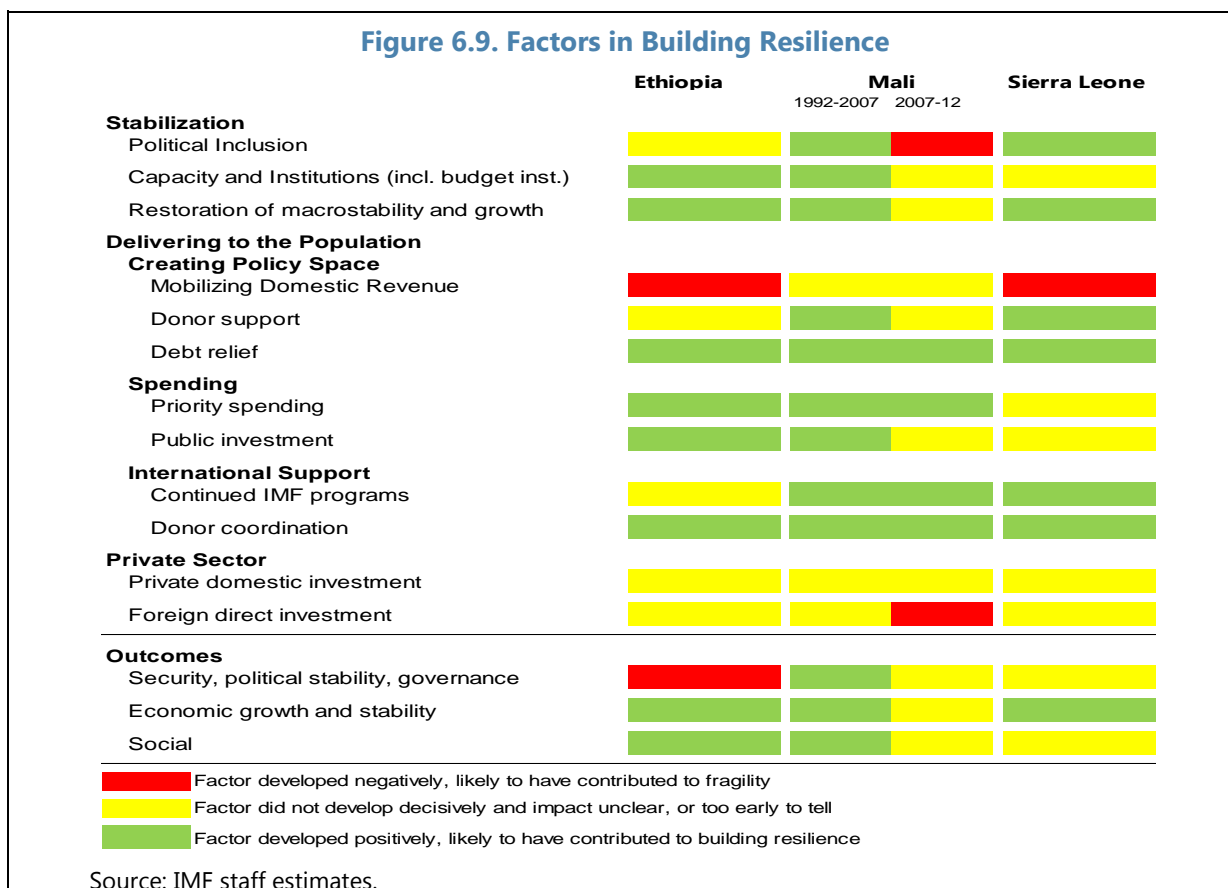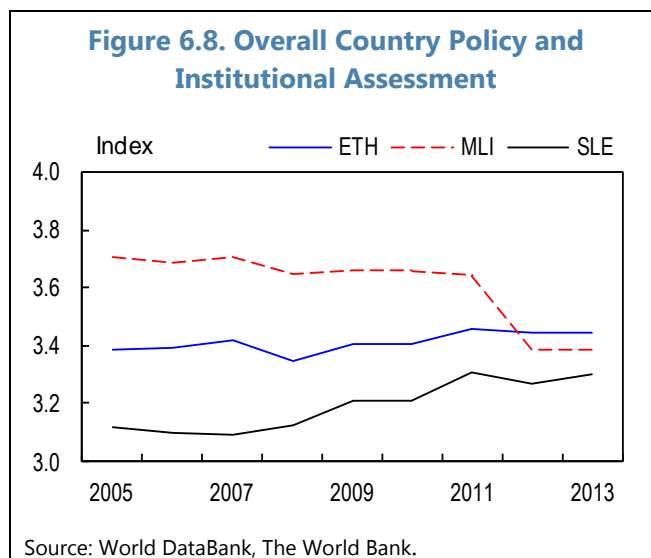|	Earliest	Latest
A. Poverty headcount ratio at $1.25 a day (PPP, percent of population)		
Central African Republic	83	63
Congo, Democratic Republic of the	n.a.	88
Mozambique	81	60
Rwanda	75	63
B. Net enrollment rate, primary and secondary education		
Central African Republic	59	69
Congo, Democratic Republic of the	70	79
Mozambique	73	91
Rwanda	95	103
C. Mortality Rate under 5 Years (Per 1,000 live births)		
Central African Republic	168	164
Congo, Democratic Republic of the	181	168
Mozambique	228	103
Rwanda	180	90

Source: World Bank, World Development Indicators database.
Note: Earliest data in 1992–2000; latest in 2006–12.

ETHIOPIA, MALI, AND SIERRA LEONE

This section reviews the experience of Ethiopia, Mali, and Sierra Leone to shed more light on the factors associated with building resilience and to highlight risks in the transition process.

Ethiopia has followed a somewhat different development path compared to other countries, which has produced positive outcomes and avoided the risk of a reversal at the time of the border conflict with Eritrea. Mali has been oscillating in and out of fragility, mainly due to unresolved ethnic issues and security spillovers from other countries. Sierra Leone has made progress since the 1990s, but the recent Ebola pandemic has been threatening to erode the gains made thus far. Figure 6.9 summarizes the main aspects of these countries' road to resilience.

Figure 6.8. Overall Country Policy and Institutional Assessment

Source: World DataBank, The World Bank.

Figure 6.9. Factors in Building Resilience

	Ethiopia	Mali 1992-2007	Mali 2007-12	Sierra Leone
Stabilization				
Political Inclusion	Yellow	Green	Red	Green
Capacity and Institutions (incl. budget inst.)	Green	Green	Yellow	Yellow
Restoration of macrostability and growth	Green	Green	Yellow	Green
Delivering to the Population				
Creating Policy Space				
Mobilizing Domestic Revenue	Red	Yellow	Yellow	Red
Donor support	Yellow	Green	Yellow	Yellow
Debt relief	Green	Green	Green	Green
Spending				
Priority spending	Green	Green	Green	Yellow
Public investment	Green	Green	Yellow	Green
International Support				
Continued IMF programs	Yellow	Green	Green	Green
Donor coordination	Green	Green	Green	Green
Private Sector				
Private domestic investment	Yellow	Yellow	Yellow	Yellow
Foreign direct investment	Yellow	Yellow	Red	Yellow
Outcomes				
Security, political stability, governance	Red	Green	Yellow	Yellow
Economic growth and stability	Green	Green	Yellow	Green
Social	Green	Green	Yellow	Yellow

Red: Factor developed negatively, likely to have contributed to fragility
Yellow: Factor did not develop decisively and impact unclear, or too early to tell
Green: Factor developed positively, likely to have contributed to building resilience

Source: IMF staff estimates.

Ethiopia—an atypical case?

In the early 1990s, Ethiopia emerged from a long civil war (1974 to 1991) which reflected deep ideological and ethnic divides. Under the communist dictatorship of Mengistu, a centrally planned system generated low economic growth with falling per capita income and high inflation. Government policies also contributed to recurrent famines that fueled the conflict. After the overthrow of Mengistu in 1991, a new constitution was adopted and the country moved to a multiparty system with the first election held in 1993, although power sharing at the central government level remained rather limited. However, the government's commitment to growth, poverty reduction, and social policies contributed to stability and progress since then. The development agenda was supported by a national poverty reduction strategy prepared under a broad and participatory process and the devolution of powers (including fiscal competencies) to regional governments representative of ethnic and linguistic diversity.

Macroeconomic stability was restored and growth spiked up. Institutional and administrative capacity was rebuilt quickly within two or three years following the change in government, although progress languished thereafter. The authorities implemented an ambitious program, including price and trade liberalization, a reform of the interest rate structure, tax reforms, a public enterprise law, and investment and labor codes. A 59 percent devaluation of the domestic currency (the birr) in 1992 helped restore competitiveness and shored up international reserves. Growth accelerated to over 6 percent annually in the 2000s.

A number of shocks including a border conflict with Eritrea in 1998–2000 threatened progress, but stability prevailed. Defense spending escalated, peaking at 13 percent of GDP and 40 percent of total expenditure, which crowded out public investment and social spending. Fiscal space was further reduced as donor support declined in response to the conflict. In addition, the country was hit by a severe drought and a deterioration of its terms of trade (owing to lower international coffee prices). The situation improved following a peace agreement in 2000, which allowed for defense spending to be cut in half and priority spending to increase, and a resumption of international aid. Exchange rate depreciation provided additional support.

Ethiopia achieved resilience in the 1990s as reflected in improved CPIA ratings and the absence of major conflicts. Even though the country is widely regarded as having followed an "atypical" development model, the buildup of resilience reflects many of the same elements noted in the successful countries in the first section, namely:

- **Fiscal space.** International aid was substantial but not as high as in the cases of Rwanda and Mozambique. In addition to donor financing, the government relied on domestic financing rather than foreign borrowing or domestic revenues to finance public investment and social spending (Figure 6.10).
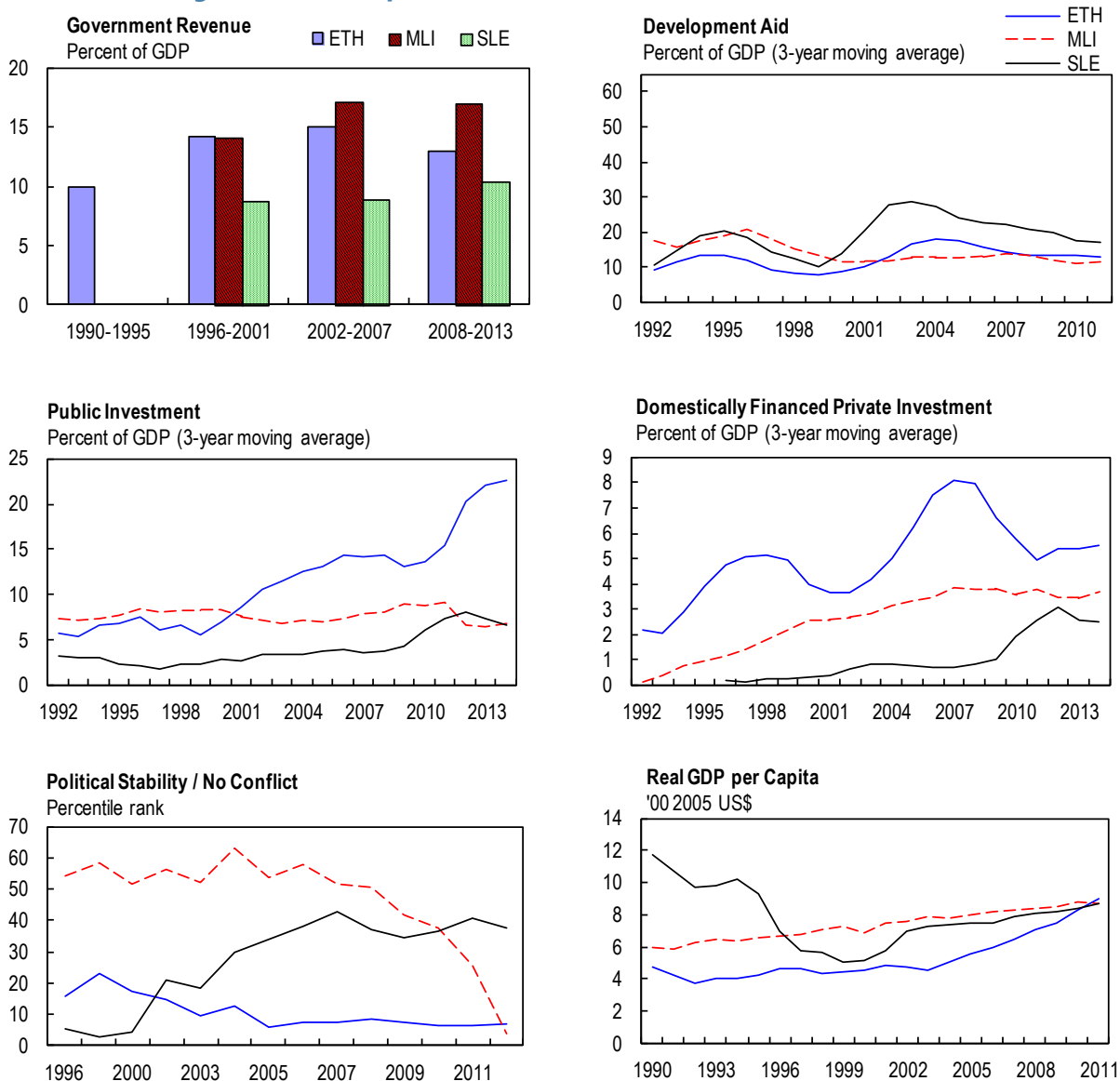
- **Delivering public services.** The country did quite well in this area, and consistently so. A strong commitment to social development has manifested itself in priority government spending equivalent to 10 percent to 13 percent of GDP per year since 1999, while public investment sharply increased from 6 percent to over 20 percent of GDP, surpassing other high-investment countries such as Mozambique.

- **Private sector.** The private sector did not play a major role in Ethiopia's transition. Private sector investment increased somewhat until the mid-2000s but has remained at a relatively low level since then (Figure 6.10). Improvements in this area will require a revision of regulations and rules on foreign direct investment (foreign direct investment increased somewhat between 1995 and 2004 to peak at 4.3 percent of GDP but has declined since then) and a fresh look at the environment for investment in general, notably the rule of law, regulatory quality, and control of corruption.

Ethiopia's approach to building resilience—which in essence is not very different from that of Rwanda and Mozambique—has achieved impressive results. The main differing factor seems to have been the more prominent role of the government in directing resources to social sectors and infrastructure investment. In the long term, such a role and the country's high reliance on domestic financing have limitations, and the private sector will need to play a more central role. And while the government's commitment to social policies and decentralization appears to have eased ethnic and social tensions, weak governance indicators suggest that other, less tangible aspects of political economy may need to be addressed.

Mali—a temporary reversal?

Mali is a complex case, with longstanding issues surrounding the Touareg's strife for independence and regional security spillovers. After it achieved independence in 1960, Mali was ruled by a one-party government under President Keita. A military coup in 1968 installed a military-led government under President Moussa Traoré. In 1991/92, mass demonstrations led to the fall of this government, a new democratic constitution, and Mali's first free multiparty election. A national pact was negotiated with the Touareg which recognized their special status in the North of the country and signaled room for more autonomy in the future.

Figure 6.10. Ethiopia, Mali, and Sierra Leone: Selected Indicators

Government Revenue
Percent of GDP

Legend: ETH, MLI, SLE

Development Aid
Percent of GDP (3-year moving average)

Legend: ETH, MLI, SLE

Public Investment
Percent of GDP (3-year moving average)

Domestically Financed Private Investment
Percent of GDP (3-year moving average)

Political Stability / No Conflict
Percentile rank

Real GDP per Capita
'00 2005 US$

Sources: IMF, World Economic Outlook database; University of Pennsylvania World Tables; World DataBank, World Bank; and IMF staff calculations.

Following the elections in the early 1990s, the government embarked on a set of successful economic reforms. Streamlining and strengthening of tax policy and administration helped boost government revenue which, along with rising aid and debt relief, enhanced fiscal space. Public financial management was also improved. In the context of Mali's membership in the West African Economic and Monetary Union, the devaluation of the CFA franc in 1994 increased external competitiveness. Privatization and improvements in the management of public enterprises lowered fiscal costs and contingent liabilities and helped boost competition, together with trade liberalization in the West African Economic and Monetary Union.

Since the mid-1990s, real GDP growth has averaged 5 percent to 6 percent per year while inflation has remained low except for a brief spike in the wake of the CFA franc devaluation. Priority social spending has been kept at about 15 percent of GDP on average, while public investment amounted to 8 percent to 9 percent of GDP. Good progress was achieved on social indicators, with poverty declining from 86 percent to 50 percent and net school enrollment rates rising from 5 percent to 69 percent (Table 6.2).

Table 6.2. Social Indicators: Ethiopia, Mali, and Sierra Leone

|	Earliest	Latest
A. Poverty headcount ratio at $1.25 a day (PPP, percent of population)		
Ethiopia	61	31
Mali	86	50
Sierra Leone	63	52
B. Net enrollment rate, primary and secondary education		
Ethiopia	23	79
Mali	5	69
Sierra Leone	n.a.	n.a.
C. Mortality Rate under 5 Years (Per 1,000 live births)		
Ethiopia	228	77
Mali	309	176
Sierra Leone	264	185

Source: World Development Indicators.

[1] Earliest data in 1992-2000; latest in 2006-2012.

However, the unresolved conflict over the Touareg's independence triggered a reversal in the late 2000s. The Touareg rebellions—a recurrent feature in Mali's pre- and post-colonial history—resumed accompanied by incursions of radical Islamist fighters from Algeria and Libya. In the face of mounting pressures, a military coup took place in 2012. The Touareg quickly took control of the North and declared independence, but were then attacked by radical groups who had previously supported them. The subsequent advance of the radical groups to the South of the country was contained through a multinational military intervention in early 2013. The junta that had seized power later gave way to a transitional government of national unity, but the conflict with the North has yet to be resolved.

While unresolved ethnic divisions drove the reversal of progress in Mali in the late 2000s, symptoms of Mali's fragility could be detected before the conflict. Governance indicators—indices of political stability, rule of law, and control of corruption—started deteriorating in 2007 (Figure 6.11). Widespread allegations of corruption combined with a growing perception of incompetence in the government also eroded the legitimacy of the government (Carment, Samy, and Landry).

Figure 6.11. Control of Corruption and Rule of Law
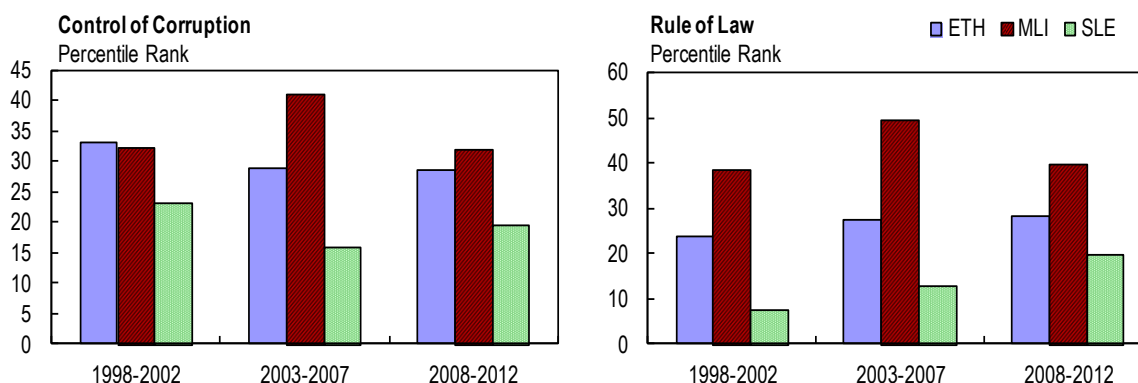
Source: Worldwide Governance Indicators Database, The World Bank.

The case of Mali highlights the mutually reinforcing role of security, good governance, and reconciliation of powerful interests.

Sierra Leone—gains at risk?

Corruption, mismanagement of natural resources, and spillovers from the civil war in Liberia fueled a civil war in Sierra Leone in the 1990s. The costs were huge: about 50,000 people died, 2 million were displaced, and large parts of the infrastructure were destroyed. Peace was restored in 2002, and the country transitioned swiftly to a multiparty democracy and more inclusive politics.

Macroeconomic stability had been lost during the war with real per capita GDP declining by about 7.5 percent annually, high fiscal deficits, inflation, and currency depreciation. After 2002, the government embarked on a set of reforms aimed at rebuilding the tax base and tax administration, strengthening public financial management, overhauling the monetary policy framework, and privatizing state owned enterprises. Subsequently, a set of reforms was aimed at strengthening central bank independence, modernizing the financial sector, increasing electricity supply, and improving the business climate and the management of public investment.

Growth rebounded and inflation fell. In rebuilding government capacity and institutions, good progress was achieved in the early 2000s, but additional gains proved more difficult to achieve. Domestic revenue mobilization improved, although the bulk of fiscal space came in the form of aid which shot up to about 30 percent of GDP immediately after the conflict and then declined to about 15 percent of GDP by 2011. Priority spending fluctuated in a range of 2.5 percent to 5 percent of GDP with no clear trend, and only in recent years public investment rose from 4 percent of GDP to about 8 percent. Investment picked up markedly after 2010 to over 20 percent of GDP with the start of two iron ore mining operators.

All in all, Sierra Leone has made some progress in building resilience, although the Ebola outbreak is testing the authorities' ability to cope with a major shock. In the 2000s, Sierra Leone displayed a steady growth in per capita GDP (from US$580 in 2001 to about US$870 in 2011) and recorded progress on social indicators (with poverty declining from 63 percent in 1990 to 52 percent in 2011). However, the country's level of institutional strength is still low (its CPIA has hovered around 3.2 in the past decade) and the recent outbreak of Ebola has exposed the country's fragility. Among the three countries most affected by the outbreak of the Ebola pandemic in late 2013, Sierra Leone has by far been hit the hardest, with an adverse impact on economic activity. The pandemic has also put pressure on the budget by causing sharp revenue losses and posing an urgent need to increase health and social spending and human capital. This highlights the importance of resolved government efforts to deal with this shock and resume progress on institution building combined with strong international support.

TAKEAWAYS

The comparison of the country cases in the first two sections of this chapter highlights the fact that no two countries travel the same path toward resilience. At the same time, however, there are several commonalities in their experiences. These include the need for sufficient political inclusion that leads to peace, avoids major political turmoil, and supports the establishment of a national development vision as a precondition for building resilience, with fiscal policy space being important for the government to deliver results to the population, including through public investment. And while not all countries were successful in mobilizing domestic revenue, those that did supported the tenet that it helps create an implicit contract between citizens and the government and builds legitimacy for the state. In addition, donor support appears beneficial if provided in sufficient volume and for a long enough period—not just to support the immediate post-conflict stabilization but also reconstruction and development. Lastly, debt relief was critical for debt sustainability and fiscal space, but the key was how well the freed up resources were used. The most successful cases consistently expanded their priority spending and investment, while support from the international community, including the IMF, played a supporting role.

# **Timing of Progress and Sequencing of Reforms**

This chapter looks at the sequencing of policies in the seven African countries (Cameroon, Ethiopia, Mozambique, Niger, Nigeria, Rwanda, and Uganda) that have made progress in building resilience, with a focus on the timing and sequencing of macroeconomic and fiscal policies and the country-specific context.[1] In contrast to Chapter 6 that compares countries at different points across the spectrum of fragility, this chapter zooms in on the experiences of the relatively most successful countries over time. The objective is to identify particular reforms or measures that might have contributed to these countries' progress.

The chapter analyzes the progress achieved in macroeconomic, institutional, and social indicators, by aligning countries at the year in which their Country Policy and Institutional Assessment (CPIA) was the lowest since 1985 (t_0) and tracking them until they reach a "resilient" state (when the CPIA score has been above 3.2 for over three consecutive years and the country has not experienced a major conflict). Selected economic and sociopolitical variables are analyzed with respect to the timing and the extent of progress made.

How long does it take to achieve enough resilience?

Starting from the most fragile year for each country (see Box 7.1) and simply analyzing the evolution of CPIA ratings, the data suggest that it took an average of ten years for these economies to become "resilient".[2] The CPIA scores show a rapid improvement in the first 5 years (Figure 7.1) starting from their lowest point and signaling a turnaround in policies and institutions. One possible explanation for the rapid initial pace of change could be that, since all countries suffered from civil unrest and/or conflict up to period t_0, they were able to tap an inherent level of capacity that had survived the conflict and could be harnessed

Figure 7.1. Overall Country Policy and Institutional Assessment Index
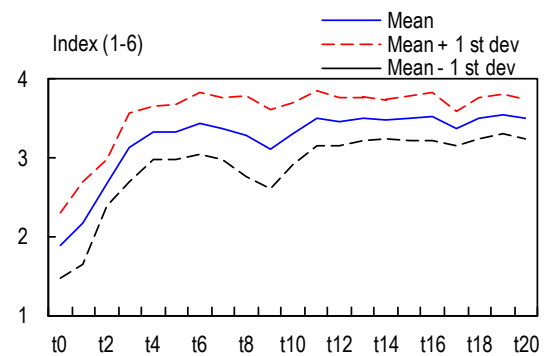
Sources: Word DataBank, The World Bank; and IMF staff calculations.

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[1] All charts and tables represent simple averages across the seven countries.

[2] It should be noted that if the first year for which there are CPIA data (available data begin in 1985) also represents the lowest score (t_0). This may underestimate the length of the period required to build resilience (in the sample, this is the case of Mozambique).

quickly to enable the recovery once the situation stabilized. After passing the threshold of "resilience," the pace of improvement in policies and institutions became slower in all countries.

Box 7.1. Identifying the Most Fragile Period

Cameroon (1993): During the mid-1980s, Cameroon's economy suffered a period of steady decline, marked by lower terms of trade, oil output, and an appreciation of the real effective exchange rate. Faced with a deepening economic crisis, the government cut wage and nonwage spending in 1993 (IMF 1993a). In the wake of the presidential election and the economic decline, sociopolitical tensions rose in 1993, marking this year as the most fragile period for Cameroon.

Ethiopia (1991): In the late 1980s, Ethiopia faced major economic hardship due to deterioration in the terms of trade, a drought, and rising political and security tensions. Industrial production declined sharply due to a foreign exchange shortage and the stagnation in agriculture (IMF 1991). Violence and political tensions were elevated with a long-fought civil war between Ethiopia and Eritrea (1974–91), and rising tensions between Ethiopian ethnic groups. In addition, the collapse of the Soviet Union resulted in the halting of aid from the principal external partner in 1990. In 1991, Eritrea gained independence from Ethiopia and the government of President Mengistu collapsed. The economic decline, violence, and political tensions in 1991 marked the most fragile year for Ethiopia.

Mozambique (1985): In 1975, a civil war erupted in Mozambique, leading to a 16-year-long civil war. The centrally planned economic system characterized by price and production controls led to a pronounced economic deterioration and severe economic instability starting in the 1980s. The peak of the economic decline was in the mid-1980s, when output contracted by 25 percent and the country experienced hyperinflation (IMF 2003). 1985 was the most fragile year.

Niger (1993): After the end of a uranium boom in the 1980s, Niger faced macroeconomic imbalances due to the deterioration in the terms of trade, frequent droughts, and inefficient economic management. In 1990, political turmoil and social disturbances intensified, and a transitional government was formed in 1991 pending legislative and presidential elections. However, sporadic fighting of the guerrilla groups continued, and the economy declined further until 1993 (deemed the most fragile year).

Nigeria (1994): Nigeria experienced considerable political turmoil in 1993/94. The presidential elections were annulled and an Interim National Government was formed to prepare for new presidential elections in early 1994. There was widespread civil unrest and the military took power. The new military government dismissed all elected officials and dissolved the state and national legislatures. Prior to the unrest, economic conditions deteriorated rapidly amidst accelerating inflation, lower economic growth, and high current account deficits. Nigeria's fragility peaked around 1994.

Rwanda (1994): After years of ethnic conflict and violence, civil war broke out in 1994 and ended with a genocide of up to 1 million people. Due to the armed conflict, most institutions were closed and the administrative system collapsed. Output fell by one-half and exports declined by 60 percent (IMF, 1999). 1994 marked the most fragile year for Rwanda.

Uganda (1985): Uganda experienced recurrent civil wars and external conflicts since the 1970s. While the civilian government was restored in 1981, an open civil war took place during 1983–85. Shortages of consumer goods and expansionary financial polices led to hyperinflation. Peace and security were restored in late 1986, but living standards had fallen sharply. The last year of the civil war, 1985, marks the highest level of fragility in Uganda.

A number of studies, using different approaches, confirm that it takes many years to escape fragility. The World Development Report (World Bank 2011b), for example, estimates that moving from the level of institutional capacity of a country like Haiti to that of Ghana could take between 15 and 30 years. Cilliers and Sisk (2013) estimate that of 26 sub-Saharan African countries identified as fragile, 12 could be expected to be on a path to greater resilience by 2039, 4 more by or before 2050, leaving 10 still stuck in a fragile situation by 2050.[3]

The remainder of this chapter focuses on the progress made in the areas of macroeconomic performance, institutional capacity and political stability, fiscal space, and monetary and financial sector issues.
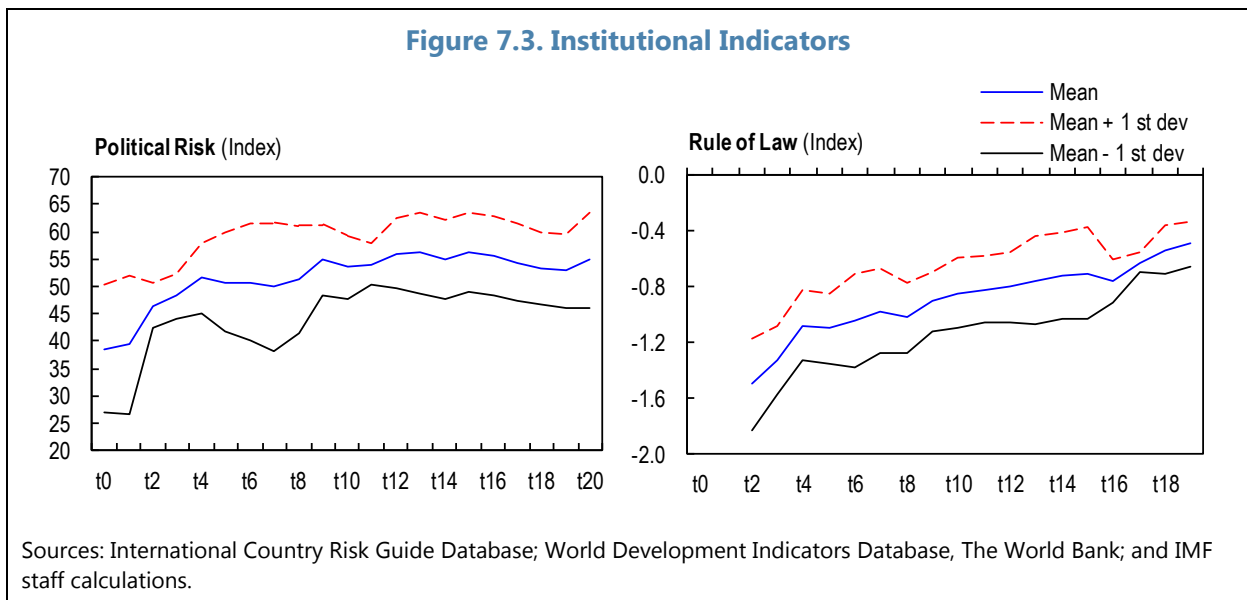
Macroeconomic performance

At their most fragile point, all of the countries under review experienced macroeconomic instability reflected in high levels of inflation, a contraction of the economy, and high fiscal and current account deficits. During the recovery phase, the countries were able to implement policies with support from donors and international financial institutions (each country had at least two IMF-supported programs after t_0), that brought inflation down to single digits, raised per capita growth rates from negative to an average of about 5 percent (Figure 7.2), and experience less volatile economic growth.

Figure 7.2 Selected Macroeconomic Indicators

Sources: University of Pennsylvania, Penn World Tables; IMF, World Economic Outlook database; and IMF staff calculations.

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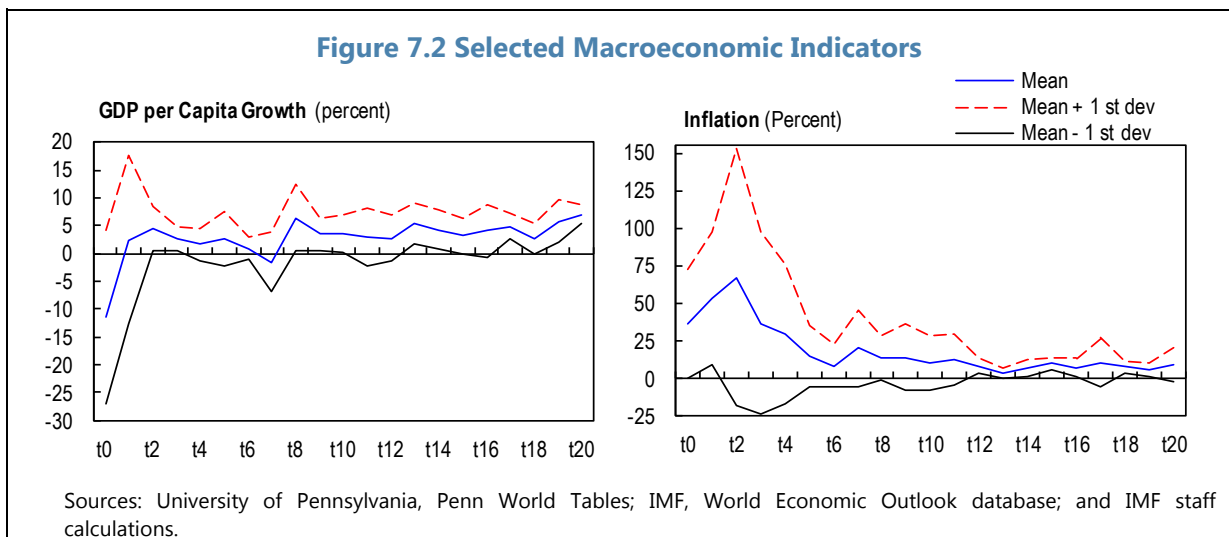
[3] Other studies found similarly long periods. Chauvet and Collier (2008) find that the probability of a fragile state starting a sustained turnaround in any given year is just 1.7 percent (implying that it would take on average 59 years before a country could cease to be fragile); this probability increases to 5 percent in a post-conflict environment. Regarding institutional capacity, Pritchett, Woolcock, and Andrews (2013) calculated that at their historical pace of reform, the 15 lowest capability countries would take more than 600 years to reach the level that Singapore has today.

Institutional capacity and political stability

All seven countries have made considerable progress in improving institutions, reflected in the improvement of several dimensions of institutional quality, such as measures of government stability (little or no political violence), rule of law, regulatory effectiveness, and government effectiveness. The results are consistent with the conclusion in Chapter 6 about the critical role of political stability and institution building in enabling progress from a situation of fragility. In particular, all seven countries have made significant progress during the whole period in strengthening the rule of law and regulatory quality (Figure 7.3 and Table 7.1). The political risk index and the government effectiveness index rose rapidly in the first four years after t_0 and improved gradually thereafter.[4]

Figure 7.3. Institutional Indicators

Sources: International Country Risk Guide Database; World Development Indicators Database, The World Bank; and IMF staff calculations.

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[4] This is consistent with the analysis of Collier (2007), Acemoglu and Robinson (2012), and Gupta and Blee (1998).

Table 7.1. Evolution of Institutional Variables (average)

Institutional Variables 1/	Δ1: Change t0-t5	Δ2: Change t0-t10	Δ3: Change t0-t15	Δ4: Change t0-t20
Regulatory Quality (-2.5 to 2.5)	0.35	0.43	0.22	-0.02
Rule of Law (-2.5 to 2.5)	0.22	0.43	0.42	0.25
Quality of Growth Index (0 to 1)	0.03	0.08	0.13	0.16
Government Effectiveness (-2.5 to 2.5)	0.14	0.28	1.30	1.24
Political Variables 1/				
Political Risk (0 to 100)	12.2	14.9	17.6	19.0
Government Stability (0 to 12)	4.3	3.6	4.9	2.7
Corruption (0 to 6)	-0.6	-0.4	-0.4	-1.0

Sources: International Country Risk Guide Database; World Development Indicators Database, The World Bank; and IMF staff calculations.

Note: This table indicates the average pace of change in several institutional and political measures. For each country, we look at the change in the variable between the last year and the first year of each subperiod (e.g., $\Delta 1 = Xt5 - Xt0$) and present the average across the seven countries.
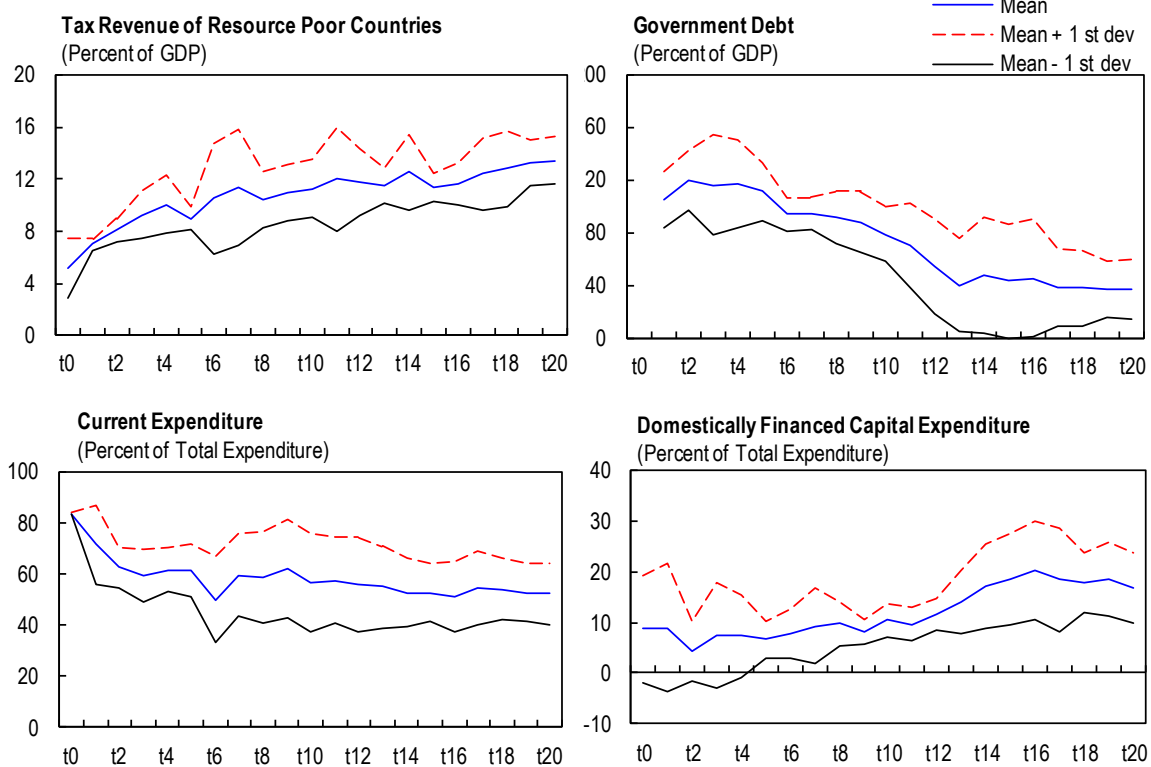
[1] Higher index values correspond to better outcomes.

Fiscal space

A crucial factor that helped these countries build resilience is the creation of fiscal space for investment and social spending in conjunction with buffers of government savings and external reserves. The countries managed to contain non-priority spending, reduce debt service payments, and mobilize domestic revenue. The share of current spending in total spending declined rapidly in the initial years and hovered at about 55 percent thereafter. This, in turn, allowed for higher levels of public investment. Debt relief through the Heavily Indebted Poor Countries and the Multilateral Debt Relief Initiatives also enabled these countries to reduce debt levels and debt service outlays. Debt levels declined from an average of about 120 percent of GDP in the earlier years to an average of about 40 percent of GDP by t_{13}.

In addition to lower current spending and debt, the seven countries were also successful in mobilizing fiscal revenue (Figure 7.4). Tax revenues increased progressively from an average of 5 percent of GDP (at t_0) to an average of 13 percent of GDP (at t_{20}), confirming the important role of revenue mobilization (the chart does not show the tax revenues of Nigeria and Cameroon, two countries rich in natural resources where much of the increase in revenues were in the form of oil receipts). More remains to be done, however, as tax revenues remain below the average of 20 percent of GDP for non-fragile sub-Saharan African countries.

Figure 7.4. Fiscal Space Indicators

Tax Revenue of Resource Poor Countries
(Percent of GDP)

Government Debt
(Percent of GDP)

Legend:
— Mean
- - - Mean + 1 st dev
— Mean - 1 st dev

Current Expenditure
(Percent of Total Expenditure)

Domestically Financed Capital Expenditure
(Percent of Total Expenditure)

Source: IMF staff calculations.

Note: The charts represent the average across the seven countries.

In the early years, countries mobilized revenues through improved collection of taxes on goods and services—reflecting a combination of tax rate adjustments and administrative improvements, such as ensuring that the taxes collected ended up in the government's accounts (Table 7.2). In subsequent years, additional forms of taxation contributed more, particularly income taxes as economies recovered, while the importance of revenue from international trade taxes declined as a result of trade liberalization.

On the expenditure side, the data show a focus on capital spending in the early years. Political instability and conflict have negative effects on investment and capital stocks, implying a need to rebuild infrastructure as well as a high return (see Chapter 5) to capital expenditures in post-conflict years (Table 7.2). In many cases, donors helped to finance investment in light of limited domestic resources, although the emphasis was on project financing in light of lack of confidence in national budgetary systems. The subsequent mobilization of domestic revenue contributed to generate fiscal space and allowed to sustain increases in domestically financed capital expenditure over time.

And while most countries did not lower military spending in the first five years after the most fragile period, they did so shortly after.[5] Over time, the countries shifted resources into health and education spending (the only exception was Rwanda, which swiftly reallocated funds from military spending to social areas).

	Δ1:Change t0-t5	Δ2:Change t0-t10	Δ3:Change t0-t15	Δ4:Change t0-t20
Table 7.2. Evolution of Fiscal Indicators (average)				
Revenue Variables	*(% of domestic revenue unless noted otherwise)*			
Tax Revenue	3.2	2.1	2.2	4.3
Resource Revenue	2.7	6.6	5.7	n.a.
Taxes on International Trade	0.7	2.3	-0.3	-0.9
Taxes on Goods and Services	6.4	7.6	8.4	10.7
Income Tax	-5.6	5.1	8.7	18.2
Expenditure Variables	*(% of total expenditure unless noted otherwise)*			
Current Expenditure	-1.62	-1.78	-1.50	-1.16
Capital Expenditure	16.82	5.08	7.86	5.25
Domestically Financed Capital Exp.	0.26	-0.24	7.77	5.98
Health Expenditure	-1.76	-0.18	1.04	3.16
Education Expenditure	-2.65	-0.94	1.44	1.85
Military Expenditure	0.03	-4.32	-6.32	-9.50
Expenditure Variables	Level in t0	Level in t5	Level in t10	Level in t15
	$US per capita			
Current Expenditure	56.92	39.99	38.72	65.62
Capital Expenditure	12.13	16.41	17.04	35.66
Domestically Financed Capital Exp.	5.96	3.29	6.68	20.47
Health Expenditure	18.47	10.66	15.14	24.70
Education Expenditure	67.24	30.31	37.15	64.65
Military Expenditure	17.31	10.79	12.08	18.96

Sources: IMF, African Department and World Economic Outlook databases; IMF, Fiscal Affairs Department; World Bank, World Development Indicators, database; and IMF staff calculations.

Note: This table indicates the average pace of change in several institutional and political measures. For each country, we look at the change in the variable between the last year and the first year of each subperiod (e.g., Δ1 = $Xt5 - Xt0$) and present the average across the seven countries.

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[5] In post-conflict countries, a reduction of military spending may allow governments to create more fiscal space. However, depending on the length and severity of conflict, the process may take time owing to the need to absorb former combatants in the public payroll.

Sequencing of fiscal reforms

Gupta et al. (2007) examine the challenges and experiences of post-conflict countries in rebuilding fiscal institutions. Their findings point to a three-step process that facilitates the strengthening of fiscal institutions over time: (1) creating a sound legal framework for fiscal management, (2) establishing a central fiscal authority that acts as a coordinating body for foreign assistance, and (3) designing appropriate tax policies while simultaneously introducing simple tax administration and expenditure management arrangements. It is noted, however, that the sequencing may vary from country to country depending on country-specific factors, notably their stage of development. In addition, the actual building or strengthening of institutions and implementations of legislation on budget and revenue administration needs to go hand in hand with the strengthening of the legal framework. In some countries, the process of strengthening fiscal institutions has been supported by substantial technical assistance (see Figure 7.5 for assistance provided just by the IMF's Fiscal Affairs Department).

Figure 7.5. Technical Assistance from the IMF's Fiscal Affairs Department
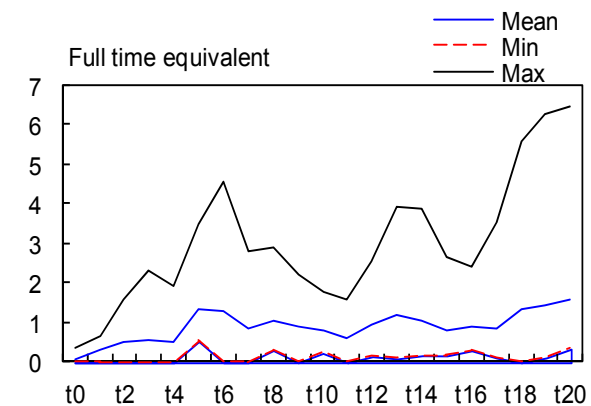
Sources: IMF's Travel Information Management System; and IMF staff calculations.

The importance of tailoring reforms to the specifics of each country can be seen by contrasting the experiences of Rwanda and Mozambique (Box 7.2).[6] Prior to the onset of conflict, Rwanda had a higher annual per capita GDP than Mozambique (US$259 versus US$145) and stronger fiscal institutions. For this reason, Mozambique followed more closely the above steps. The authorities established a legal and regulatory framework over a period of four years (introduction of value-added tax, public financial management law, fiscal incentive code, income and corporate tax law) and then established a semiautonomous revenue authority. To overcome capacity constraints, the country successfully outsourced its customs administration to a private company. In contrast, before the confict, Rwanda already had the basic legal framework and institutions. After the conflict, its focus was therefore on fiscal decentralization, which supported an inclusive peace and reconciliation process through the devolution of resources to local governments (Box 7.2, Figure 7.2.1).
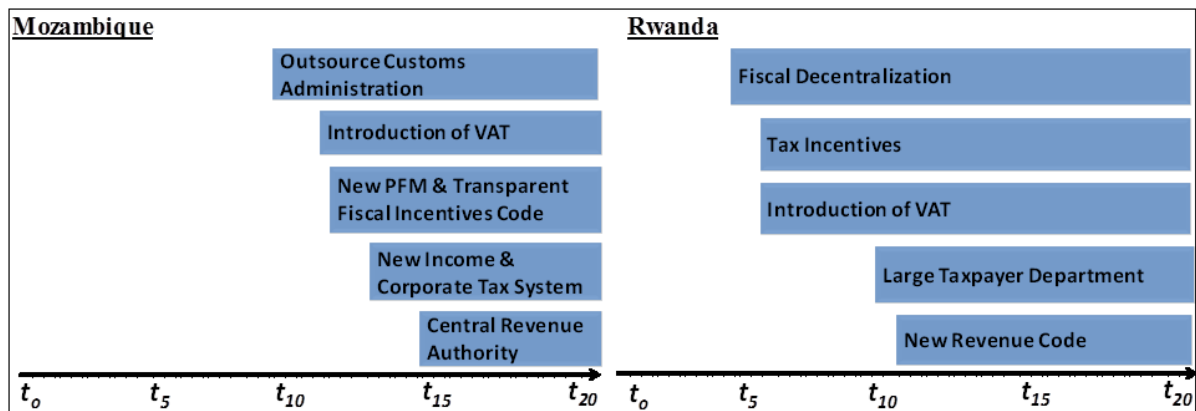
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[6] Figure 7.2.1 in Box 7.2 shows technical assistance delivered by Fiscal Affairs Department with the exception of assistance in the fiscal area provided by other IMF departments (Legal and Statistics).

Box 7.2. Country Examples: Timing of Fiscal Reforms

Mozambique: Fiscal institutions were strengthened by reforming tax policy, tax and customs administration, and expenditure management. In 1996, in light of acute capacity constraints, the authorities outsourced custom management to a foreign private firm. In 1999, they introduced a value-added tax. This was followed in 2002 by a fiscal incentives code and a public financial management law and in 2003 by a new income and corporate tax system. By then, customs management was transferred back to the Revenue Authority (McCoy and Dunem 2009). Later, in 2005, the Mozambique Tax Authority, a semiautonomous central revenue agency, was established (IMF 2003). The reforms helped to broaden the tax base within a simplified tax system, taking the domestic revenue-to-GDP ratio from 12 percent to 21 percent in just 10 years. On the expenditure side, efficiency was improved by rolling out the government financial management information system and strengthening the budget system. The IMF and other donors provided substantial technical assistance in the process. With natural resource projects coming on stream, the focus of fiscal institution building shifted to establish a framework and capacity for the management of natural resource revenues.

Rwanda: Fiscal reforms focused on revenue administration and budgetary and treasury management. A steering committee between the government and donors was set up to coordinate technical assistance and monitor reforms. Starting in 2000, Rwanda introduced fiscal decentralization and in the following four years carried out a reform of tax incentives, introduced a value-added tax, and established a large-taxpayers unit. In 2005, the authorities enacted a new revenue code for income tax, tax procedures, and customs. As a result of these policies and improvements in tax administration, domestic revenues increased from about 4 percent to 11 percent of GDP in just four years after 2000.

Figure 7.2.1. Sequencing of Fiscal Reforms

Source: IMF staff calculations.

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Figure 7.2.1. Sequencing of Fiscal Reforms

Source: IMF staff calculations.

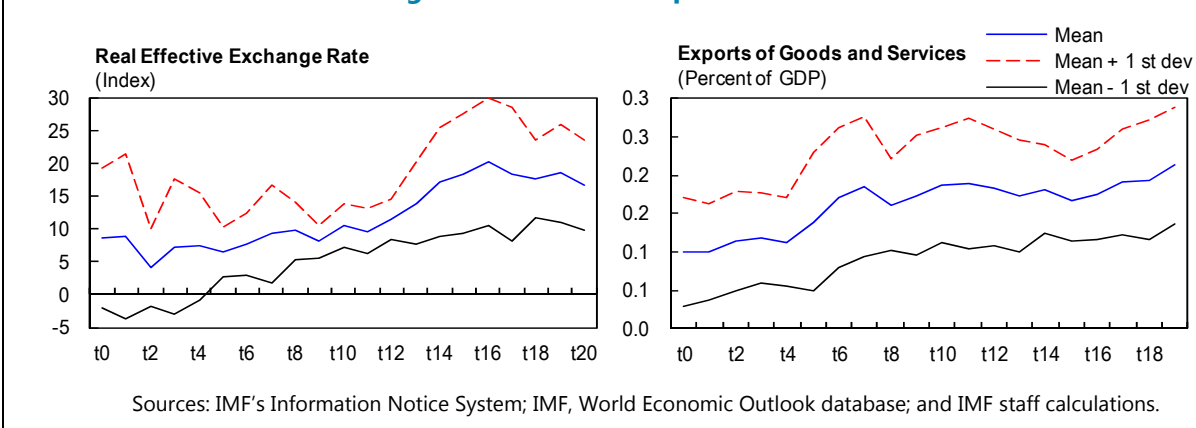## Monetary and financial sector policies

Before t_0, all seven countries were challenged by a combination of weak institutions; financial repression; administrative controls on interest rates, prices, and the foreign exchange market; and erratic fiscal and monetary policies. And in all of them (except Ethiopia), after t_0, monetary and financial reforms were aimed at removing these controls, gradually liberalizing trade and adopting more prudent fiscal and monetary policies. These reforms resulted in a sharp reduction in price distortions within five years. Over time, countries also strengthened central bank independence and developed monetary policy instruments, further contributing to macroeconomic stability (see, for example, the case of Uganda summarized in Box 7.3). Financial sector and monetary reforms were supported by the IMF and other donors throughout the period (Figure 7.6).[7]

Figure 7.6. Technical Assistance from the IMF's Monetary and Capital Markets Department

Sources: IMF's Travel Information Management System; and IMF staff calculations.
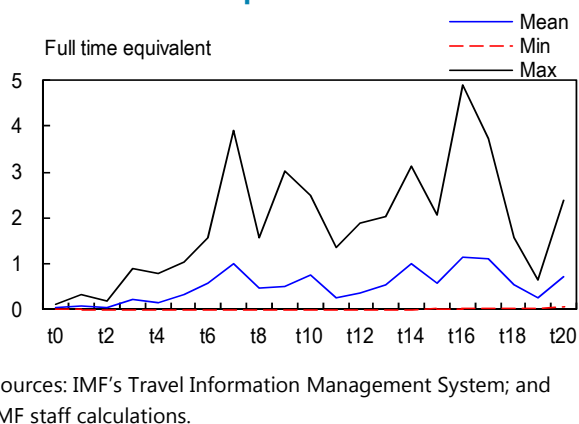
One key price in the economy is the exchange rate, which was kept artificially overvalued in most countries during their most fragile periods. The situation was corrected progressively after t_0, as prices and the foreign exchange market were liberalized. These policy changes seem to have contributed to an improvement in competitiveness as shown by the progressive increase in the exports-to-GDP ratio (Figure 7.7).

Figure 7.7. Trade Competitiveness

Sources: IMF's Information Notice System; IMF, World Economic Outlook database; and IMF staff calculations.

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[7] Figure 7.7 shows technical assistance delivered by the Money and Capital Markets Department with the exception of assistance in the financial sector area provided by other IMF departments (such as Legal and Statistics).

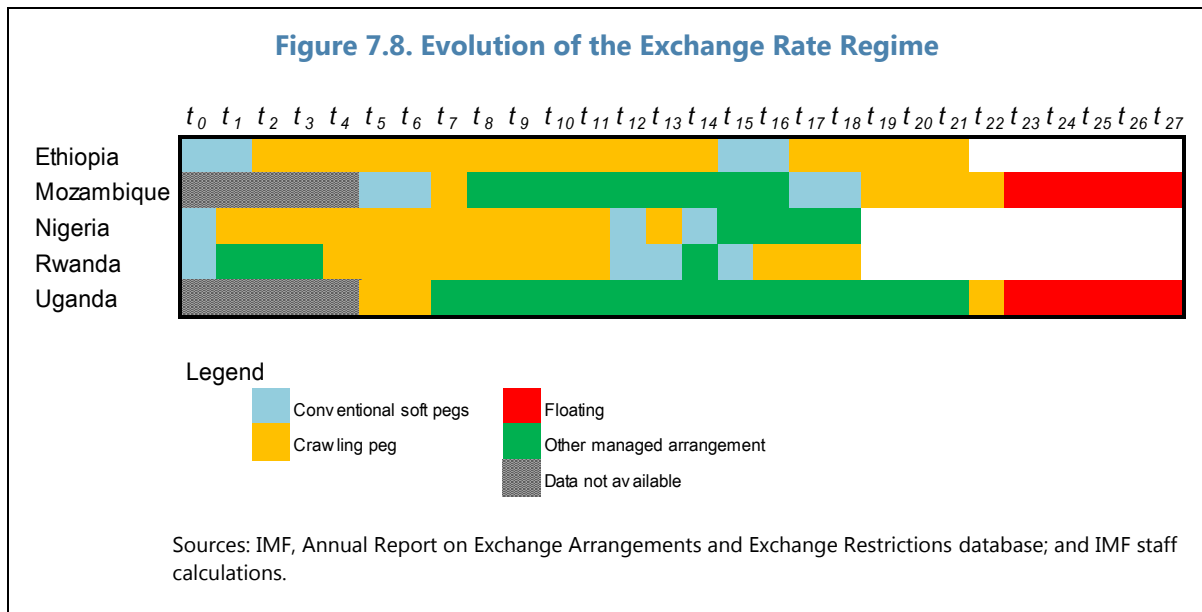**Box 7.3. Uganda: Sequencing of Monetary Reforms**

Uganda succeeded in stabilizing prices after years of high inflation in the late 1980s and early 1990s. While monetizing a fiscal deficit, the country used reserve requirements and direct credit controls to contain money expansion (Sharer, De Zoysa, and McDonald 1995). Since the early 1990s, the Bank of Uganda liberalized interest rates, moved away from direct monetary instruments, and introduced money market operations. Together with improved fiscal policies, these early reforms succeeded in bringing inflation down.

In 1993, the authorities enacted a new financial institutions law and the Bank of Uganda charter. The charter gave the Bank independence by clarifying the role of the central bank as the entity responsible for banking supervision and for formulating and implementing monetary policy.
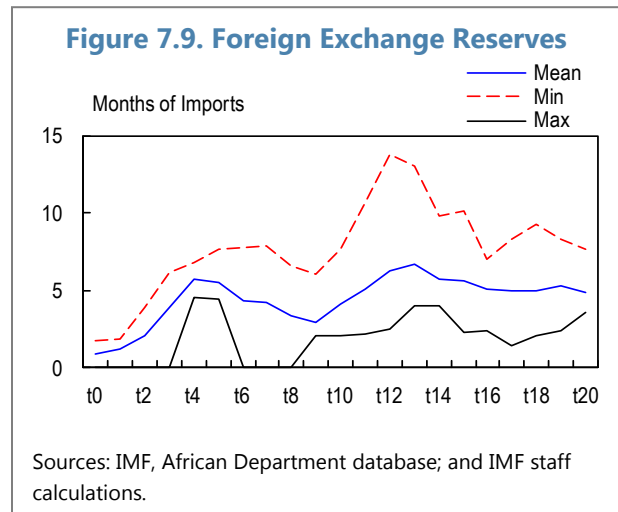
In the 1990s, the central bank used T-bills to manage the long-term "structural" liquidity as well as to fine-tune short-term liquidity and carried out foreign exchange operations to sterilize "structural" long-term liquidity. After 2001, the central bank moved away from combining multiple policy objectives in one policy instrument and started to rely on repos and reverse repos for fine-tuning as well as using T-bill auctions for sterilization operations. In parallel, a secondary securities market was developed through the formulation of a debt management strategy and the design of benchmark bills and bonds in key maturities. More recently, the central bank started working on an inflation targeting framework.

All seven countries had some sort of pegged exchange rate at t_0 and (with the exception of Niger and Cameroon that belong to a monetary union) moved to make their exchange rate regime more flexible following decades of pervasive exchange controls (Figure 7.8).

Figure 7.8. Evolution of the Exchange Rate Regime

Sources: IMF, Annual Report on Exchange Arrangements and Exchange Restrictions database; and IMF staff calculations.

In addition, as the economic situation normalized after the most fragile periods, countries were able to replenish their reserves to more adequate levels, moving from an average import cover of less than one month to about four months in four years (Figure 7.9). These developments were an integral aspect of the process of gaining resilience as they helped countries better withstand domestic and external shocks.

TAKEAWAYS

This chapter analyzed the reform paths

Figure 7.9. Foreign Exchange Reserves

Sources: IMF, African Department database; and IMF staff calculations.

undertaken by the seven countries deemed to have achieved "resilience." These countries were characterized by extremely weak fiscal institutions and shallow and repressed financial markets at their most fragile periods. These crippling conditions were progressively addressed by removing administrative controls (including on interest rates and the exchange rate) and the creation of fiscal space for prudent fiscal and monetary policies. Macroeconomic stabilization ensued and paved the way for increases in real incomes. Over time, countries strengthened their fiscal institutions, developed their monetary policy frameworks, and reformed their financial systems. And while commonalities were present in the reforms undertaken, the sequencing and specific areas were country specific, highlighting that there is no preset recipe for the sequencing of reforms. At the same time, the analysis illustrated the key features of the transition process, namely that:

➢ Countries begin with weak institutions and policy-induced market distortions, which need to be quickly reformed to promote macroeconomic stabilization and facilitate growth.

➢ Progress was faster in the initial years, supported by consensus to take necessary reforms to improve outcomes and the tapping of capacity that survived the crisis.

➢ Capital spending and military spending was high in the initial period, followed by a shift in the composition of spending toward health and education.

➢ Improving fiscal space was critical. Initially, this could be achieved by raising taxes but donor support was also needed (and as debt levels are high, debt relief from donors was also important). The countries under analysis also improved their economic institutions, including the trade and foreign exchange regimes and the legal frameworks for fiscal management, tax administration and expenditure management.

➢ Countries should expect that it will take at least a decade of concerted efforts to build enough resilience.

8 Conclusions

A large body of research has shed light on the factors that contribute to making a country fragile and on the conditions and policies that can facilitate the buildup of resilience. While each country's experience is different, a buildup of resilience can be thought of as a transition from very weak governance and institutions—in the extreme involving complete state failure and conflict—to a situation in which countries can reliably deliver public services to their citizens against a backdrop of peace and political stability. The analysis in this paper has highlighted a number of steps/elements in this transition.

While many fragile states in sub-Saharan Africa have progressed significantly since the 1990s, too many countries have not been able to break out of fragility yet, despite a broadly supportive external environment (debt relief, commodity booms, and substantial aid and technical assistance). Some countries have even regressed, reinforcing the need to ensure that the gains in resilience and the reforms underpinning them are sufficiently bold and sustainable. Moreover, new challenges have emerged, notably the expansion of violent groups operating across borders, which poses new threats to the cohesiveness of states and a need for these states to foster inclusiveness and security and work cooperatively.

The persistence of fragility in several countries continue to reveal critical factors of state weakness at play, namely hesitant leadership, lack of political cohesion, weak capacity and poor commitment to build economic institutions and implement pro-growth policies and reforms, and an inability to generate or appropriately use fiscal space. These factors also explain reversals including recurrent crises and/or conflict. Notably, some of the countries caught in this trap are rich in natural resources and thus far have not been able to translate the windfall gains of recent years into concrete development outcomes.

At the same time, a number of countries did manage to build resilience. These countries, in general, adopted more inclusive political arrangements, strengthened the quality of their economic policies and, over time, their institutions as well as the business environment (notably by improving their foreign exchange regimes, removing financial repression, implementing better fiscal policies, and enhancing their budget management capacity). A key role in this process was played by a strategy that reflected an internal consensus and provided a mechanism to mobilize support—financial and technical—from the international community. Building fiscal space to enable that national strategy to translate into public investment and increased spending on social development is also critical; for most countries, this was achieved through a combination of domestic revenue mobilization, debt relief, and increased aid. And while a particularly high rate of return was identified on public

investment, the impact of improved resilience on social outcomes was not as clear, although gains were evident in the areas of health and education.

The findings related to the experience of resource-rich countries are mixed. While some countries seem to have used the resource windfall of recent years to build resilience, others have had much more difficulty in doing so. What seems missing in the latter are a commitment to inclusive growth, robust social policies, and institutional frameworks that ensure a transparent and equitable management of their natural resource wealth.

In sum, this analysis of the experience of fragile sub-Saharan African countries suggests that there are three key factors that determine the success of countries in building resilience, namely:

➢ A sufficiently inclusive political arrangement that helps sustain peace and prevent major political turmoil.

➢ A committed leadership that is both willing and capable of promoting policies that translate this strategy into action and implement reforms that improve governance, transparency, and accountability. This is particularly important in the countries under analysis which started with weak institutions that were unable to provide adequate checks and balances. The leadership factor is critical as it allows for policies and reforms that promote economic stability, generate policy space to deliver improvements in living standards, and, over time, help strengthen institutions and build capacity.

➢ Strong international support in the form of financial and technical assistance focused simultaneously on security and on development. International stakeholders should be prepared to engage with fragile countries on a long-term basis, providing financial assistance in ways that can improve the effectiveness of the state, coordinating their efforts closely, and focusing capacity development efforts on economic institutions.

Once the above conditions are in place, an ensuing process of domestic revenue mobilization can enhance the government's financial strength and help establish an implicit contract between the citizens and their government that promotes good governance and accountability. In the longer term, fostering an environment that promotes the expansion of the private sector is also necessary for sustained growth.

Exiting fragility remains a difficult challenge for several countries. The experiences reviewed in this paper suggest that, even when both domestic and external factors are well aligned, this process takes a long time and reversals are possible. This calls for realism in expectations among all stakeholders on the pace of progress and for a long-term engagement that balances immediate needs with longer-term priorities. But the experiences discussed in this paper have also highlighted that countries can make substantial progress in these efforts and their experience provides valuable insights for others to follow.

References

Abiad, Abdul, John Bluedorn, Jaime Guajardo, and Petia Topalova. 2012. "The Rising Resilience of Emerging Market and Developing Economies." International Monetary Fund, Washington.

Acemoglu, D., and J. A. Robinson. 2012. *Why Nations Fail: The Origins of Power, Prosperity and Poverty*. 1st ed. New York: Crown.

Acemoglu, Daron, Simon Johnson, and Jared Diamond. 2004. "Institutions as the Fundamental Cause of Long-Run Growth." NBER Working Paper No. 10481, National Bureau of Economic Research, Cambridge, Massachusetts.

Acosta-Ormaechea, S., and J. Yoo. 2012. "Tax Composition and Economic Growth." IMF Working Paper 12/257, International Monetary Fund, Washington.

Alesina, A., R. Hausman, R. Hommes, and E. Stein. 1999. "Budget Institutions and Fiscal Performance in Latin America." *Journal of Development Economics* 59: 253–73.

Alesina, Alberto, Arnalud Devleeschauwer, Wiliam Easterly, Sergio Kurlat, and Romain Wacziarg. 2003. "Fractionalization." NBER Working Paper No. 9411, National Bureau of Economic Research, Cambridge, Massachusetts.

Andrimihaja, Noro Aina, Matthias Cinyabuguma, and Shantayanan Devarajan. 2011. "Avoiding the Fragility Trap in Africa." Policy Research Working Paper, The World Bank, New York.

Arbache, Jorge Saba, and John Page. 2007. *More Growth or Fewer Collapses? A New Look at Long Run Growth in Sub-Saharan Africa*. Washington: The World Bank.

Arellano, Manuel, and Olympia Bover. 1995. "Another Look at the Instrumental Variable Estimation of Error-components Models." *Journal of Econometrics* 68 (1): 29–51.

Arnold, J., B. Brys, C. Heady, A. Johansson, C. Schwellnus, and L. Vartia. 2011. "Tax Policy for Economic Recovery and Growth." *Economic Journal* 111: 59–80.

Bal-Gunduz, Yasemin, and Masyita Crystallin. 2014. *Do IMF-Supported Programs Catalyze Donor Assistance to Low-Income Countries?* Washington: International Monetary Fund.

Barker, Gary, and Christine Ricardo. 2005. "Young Men and the Construction of Masculinity in Sub-Saharan Africa: Implications for HIV/AIDS, Conflict, and Violence." Social

Development Papers ; No. CPR 26. *Conflict prevention and reconstruction series*. Washington, DC: World Bank.

Berg, Andrew, Jonathan D. Ostry, and Jeromin Zettelmeyer. 2012. "What Makes Growth Sustained?" IMF Working Paper 08/59, International Monetary Fund, Washington.

Bertocchi, G., and A. Guerzoni. 2010. "The Fragile Definition of State Fragility." Unpublished, University of Modena, Modena, Italy.

Besley, Timothy, Ethan Ilzetzki, and Torsten Persson. 2013. "Weak States and Steady States: The Dynamics of Fiscal Capacity." *American Economic Journal* 5 (4): 205–35.

Besley, Timothy, and Torsten Persson. 2009. "The Origins of State Capacity: Property Rights, Taxation and Politics." *American Economic Review* 99: 1218–44.

———. 2011. *Pillars of Prosperity: The Political Economics of Development Clusters*. Princeton: Princeton University Press.

———. 2014. "The Causes and Consequences of Development Clusters: State Capacity, Peace, and Income." *Annual Review of Economics* 6: 927–49.

Blattman, Christopher, and Edward Miguel. 2010. "Civil War." *Journal of Economic Literature* 48 (1): 3–57.

Blundell, Richard, and Stephen Bond. 1998. "Initial Conditions and Moment Restrictions in Dynamic Panel Data Models." *Journal of Econometrics* 87 (1): 115–43.

Breidlid, Anders. 2013. "The Role of Education in Sudan's Civil War." *Prospects* 43 (1): 35–47.

Burgoon, Brian. 2006. "On Welfare and Terror: Social Welfare Policies and Political-Economic Roots of Terrorism." *Journal of Conflict Resolution* 50 (2): 176–203.

Carment, David, Samy Yiagadeesen, and Joe Landry. 2013. "Transitioning Fragile States: A Sequencing Approach." *The Fletcher Forum of World Affairs* 37 (2): 125–51.

Cerra, Valerie, Ugo Panizza, and Sweta C. Saxena. 2013. "International Evidence on Recovery from Recessions." *Contemporary Economic Policy* 31 (2): 424–39.

Chauvet, Lisa, and Paul Collier. 2008. "What are the Preconditions for Turnarounds in Failing States." *Conflict Management and Peace Science* 25(4): 332–48.

Chu, Ke-young, Hamid Davoodi, and Sanjeev Gupta. 2000. *Income Distribution and Tax, and Government Social Spending Policies in Developing Countries*. Washington: International Monetary Fund, Fiscal Affairs Department.

Cilliers, Jakkie, and Timothy D. Sisk. 2013. "Assessing Long-term State Fragility in Africa: Prospects for 26 'More Fragile' Countries." ISS Monograph #188, Institute for Security Studies South Africa, Pretoria, South Africa.

Cincotta, Richard P., Robert Engelman, and Daniele Anastasion. 2003. *The Security Demographic: Population and Civil Conflict after the Cold War*. Washington: Population Action International.

Collier, Paul. 2007. *The Bottom Billion: Why The Poorest Countries Are Failing And What Can Be Done About It*. Oxford: Oxford University Press.

———— and Anke Hoeffler. 1998. *On Economic Causes of Civil War*. Oxford: Oxford University Press.

————. 2002. *Greed and Grievance in Civil War*. Oxford: Oxford University Press.

————. 2004. "Greed and Grievance in Civil War." *Oxford Economic Papers* 56 (4): 563–95.

———— and Måns Söderbom. 2004. "On the Duration of Civil War." *Journal of Peace Research* 41 (3): 253–73.

————. 2008. "Post-Conflict Risks." *Journal of Peace Research* 45 (4): 461–78.

Crivelli, Ernesto, and Sanjeev Gupta. 2014. "Resource Blessing, Revenue Curse? Domestic Revenue Effort in Resource-rich Countries." IMF Working Paper 14/5, International Monetary Fund, Washington.

Dabla-Norris, Era, Richard Allen, Luis-Felipe Zanna, Tej Prakash, Eteri Kvintradze, Victor Lledo, Irene Yackovlev, and Sophia Gollwitzer. 2010. "Budget Institutions and Fiscal Performance in Low-Income Countries." IMF Working Paper 10/80, International Monetary Fund, Washington.

David, Antonio C., Fabiano Rodriguez Bastos, and Marshall Mills. 2011. "Post-Conflict Recovery: Institutions, Aid, or Luck?" IMF Working Paper 11/149, International Monetary Fund, Washington.

Dupuy, Kendra. 2008. *Education for Peace: Building Peace and Transforming Armed Conflict Through Education Systems*. Oslo, Norway: Save the Children.

Elbadawi, Ibrahim, and Nicholas Sambanis. 2002. "How Much War Will We See? Explaining the Prevalence of Civil War." *Journal of Conflict Resolution* 46 (3): 307–34.

European Report on Development. 2009. *Overcoming Fragility in Africa: Forging a New European Approach*. San Domenico di Fiesole, Italy: European Report on

Development, Robert Schuman Center for Advanced Studies, and European University Institute.

Fearon, James D., and David D. Laitin. 2003. "Ethnicity, Insurgency, and Civil War." *American Political Science Review* 97 (1): 75–90.

Feenstra, Robert C., Robert Inklaar, and Marcel P. Timmer. forthcoming. "The Next Generation of the Penn World Table." *American Economic Review*.

Feeny, Simon, and Mark McGillivray. 2009. "Aid Allocation to Fragile States: Absorptive Capacity Constraints." *Journal of International Development* 21 (5): 618–33.

Fritz, V., E. Hedger, and A. P. Fialho Lopes. 2011. "Strengthening Public Financial Management in Post-Conflict Countries." In *Economic Premise, Poverty Reduction and Economic Management Network*. Washington: The World Bank, 54.

g7+. 2013. "The Fragility Spectrum: Note on the G7+ Fragility Spectrum Launched in Kinshasa, Democratic Republic of Congo. Preliminary Release."

Gollwitzer, Sophia. 2011. "Budget Institutions and Fiscal Performance in Africa." *Journal of African Economies* 20 (1): 111–52.

——— and Marc Quintyn. 2010. *The Effectiveness of Macroeconomic Commitment in Weak(er) Institutional Environments*. Washington: IMF Institute.

Guillaumont, Patrick, Sylviane Guillaumont Jeanneney, and Laurent Wagner. 2010. "How to Take into Account Vulnerability in Aid Allocation Criteria and Lack of Human Capital as Well: Improving the Performance based Allocation." FERDI Working Paper P13, La Fondation pour les Études et Recherches sur le Développement International, Clermont-Ferrand.

Gupta, Dipak K., M. C. Madhavan, and Andrew Blee. 1998. "Democracy, Economic Growth and Political Instability: An Integrated Perspective." *Journal of Socio-Economics* 27 (5): 587–611.

Gupta, Sanjeev, Emanuele Baldacci, Benedict J. Clements, and Erwin Tiongson. 2003. "What Sustains Fiscal Consolidations in Emerging Market Countries?" IMF Working Paper 03/224, International Monetary Fund, Washington.

Gupta, Sanjeev, Marijn Verhoeven, and Erwin Tiongson. 2001. "Public Spending on Health Care and the Poor." IMF Working Paper 01/127, International Monetary Fund, Washington.

Gupta, Sanjeev, Shamsuddin Tareq, Benedict Clements, Alex Segura-Ubiergo, and Rina Bhattacharaya. 2007. "Post Conflict Countries Strategy for Rebuilding Fiscal Institutions." Research Paper No. 2007/41, United Nations University, New York.

Hausmann, Ricardo, Lant Pritchett, and Dani Rodrick. 2005. "Growth Accelerations." *Journal of Economic Growth* 10: 303–29.

Hegre, Havard, Tanja Ellingsen, Scott Gates, and Nils Petters Gleditsch. 2001. "Towards a Democratic Civil Peace? Democracy, Political Change, and Civil War, 1816–1992." *American Political Science Review* 95 (1): 16–33.

Hirschleifer, Jack. 1991. "The Paradox of Power." *Economics and Politics* 3 (3): 177–200.

Hostland, Douglas, and Marcelo M. Giugale. 2013. "Africa's Macroeconomic Story." Policy Research Working Paper 6635, World Bank, Washington.

International Monetary Fund. 1991. "Ethiopia—Staff Report for the 1991 Article IV Consultation." Washington, May.

———. 1993a. "Cameroon—Staff Report for the 1994 Article IV Consultation." Washington, November.

———. 2003. "Republic of Mozambique – Ex Post Assessment of Mozambique's Performance Under Fund-Supported Programs." Washington, November.

———. 2008. *Regional Economic Outlook: Sub-Saharan Africa*. Washington, October.

———. 2011b. *Macroeconomic and Operational Challenges in Countries in Fragile Situations*. Washington.

———. 2011c. *Regional Economic Outlook: Sub-Saharan Africa.* Washington, April.

———. 2013a. *Regional Economic Outlook: Sub-Saharan Africa.* Washington, April.

———. 2014a. *Regional Economic Outlook: Sub-Saharan Africa.* Washington, April.

———. 2014b. *Regional Economic Outlook: Sub-Saharan Africa*. Washington, October.

Inter-Agency Network for Education in Emergencies. 2011. *The Multiple Faces of Education in Conflict-Affected and Fragile Contexts*. New York.

Maier, Rolf. 2010. *Growth and Equity in Fragile States*. The Hague: Conflict Research Unit, Clingendael Security and Conflict Programme, Netherlands Institute for International Relations, Clingendael.

Manuel, Marcus, Sanjeev Gupta, and Paul Ackroyd. 2011, *Accelerating the Transition Out of Fragility: The Role of Finance and Public Financial Management Reform. The 6th Annual CAPE Conference*. Washington: Overseas Development Institute and International Monetary Fund.

Mata, Javier Fabra, and Sebastian Ziaja. 2009. *User's Guide on Measuring Fragility*. Bonn, Germany: German Development Institute.

Mccoy, S., and J. V. E. Dunem. 2009. "Institutional Design." In *Taxation in a Low-Income Economy: The Case of Mozambique*, edited by C. Arndt and F. Tarp. New York: Routledge, 100–30.

Mesquida, Christian G., and Niel I. Wiener. 1999. "Male Age Composition and Severity of Conflicts." *Politics and the Life Sciences* 18 (2): 181–89.

North, Douglass C. , John Joseph Wallis, and Barry R. Weingast. 2006. "A Conceptual Framework for Interpreting Recorded Human History." NBER Working Paper 12795, National Bureau of Economic Research, Cambridge, Massachusetts.

Organisation for Economic Co-operation and Development. 2013. *Fragile States 2013: Resource Flows and Trends in a Shifting World*. Paris.

———. 2014. *Fragile States 2014: Domestic Revenue Mobilisation in Fragile States*. Paris.

———. 2015. *States of Fragility 2015: Meeting Post-2015 Ambitions*. Paris.

Østby, Gudrun. 2008. "Polarization, Horizontal Inequalities and Violent Civil Conflict." *Journal of Peace Research* 45 (2): 143–62.

——— and Henrik Urdal. 2011. "Education and Conflict: What the Evidence Says." CSCW Policy Brief 2, Centre for the Study of Civil War, Peace Research Institute Oslo.

Østby, Gudrun, and Indra de Soysa. 2008. "Too Weak to Fight? Horizontal Inequality and State Repression 1980–2004." Paper presented to the 49th Annual Convention of the International Studies Association, San Francisco, CA, 26–29 March.

Prati, Alessandro, Massimiliano Gaetano Onorato, and Chris Papageorgiou. 2013. "Which Reforms Work and Under What Institutional Environment? Evidence from a new Data Set on Structural Reforms." *Review of Economics and Statistics* 95 (3): 946–68.

Pritchett, Lant, and Frauke de Veijer. 2010. "Fragile States: Stuck in a Capability Trap?" World Bank Report 2011 Background Paper, World Bank, New York.

Roodman, D. 2006. "How to Do xtabond2: An Introduction to 'Difference' and 'System' GMM in Stata." CGD Working Paper No. 103, Center for Global Development, Washington.

Sachs, J. D., and A. M. Warner. 2001. "The Curse of Natural Resources." *European Economic Review* 45 (4-6): 827–38.

Sharer, R. L., H. R. De Zoysa, and C. A. McDonald. 1995. "Uganda: Adjustment with Growth, 1987–94." IMF Occasional Paper No. 121, International Monetary Fund, Washington.

Siebrits, Krige, and Estian Calitz. 2007. "The Legacy and Challenge of Fiscal Policy in Sub-Saharan Africa." *South African Journal of Economics* 75 (2): 221–35.

Singh, Raju Jan, Cristina Bodea, and Masaaki Higashijima. 2014. "Oil and Civil Conflict: Can Public Spending Have a Mitigation Effect?" World Bank Group, New York.

Skinner, Jonathan. 1987. "Taxation and Output Growth: Evidence from African Countries." NBER Working Paper 2335, National Bureau of Economic Research, Cambridge, Massachusetts.

Staveteig, Sarah. 2005. "The Youth and the Restless: Population Age Structure and Civil War." ECSP Report 11, Woodraw Wilson International Center for Scholars.

Stewart, Frances. 2002. "Horizontal Inequalities: A Neglected Dimension of Development." Working Paper No. 81, Queen Elizabeth House, University of Oxford.

Taydas, Zeynep, and Dursun Peksen. 2012. "Can States Buy Peace? Social Welfare Spending and Civil Conflicts." *Journal of Peace Research* 49 (2): 273–87.

Thyne, Clayton. 2006. "ABC's, 123's and the Golden Rule: The Pacifying Effect of Education on Civil War, 1980–99." *International Studies Quarterly* 50: 733–54.

United Nations Development Programme. 2008. *Post-Conflict Economic Recovery: Enabling Local Ingenuity*. New York: United Nations Development Programme.

Walter, Barbara. 1997. "The Critical Barrier to Civil War Settlement." *International Organization* 51 (3): 335–65.

———. 2004. "Does Conflict beget Conflict? Explaining Recurrent Civil War." *Journal of Peace Research* 41 (3): 371–88.

Wantchekon, Leonard, and Zvika Neeman. 2002. "A Theory of Post Civil War Democratization." *Journal of Theoretical Politics* 14 (4): 439–64.

World Bank. (2011a). *Public Financial Management Reforms in Post-Conflict Countries: Synthesis Report*. Washington.

World Bank. (2011b). *World Development Report—Conflict, Security, and Development*. Washington.