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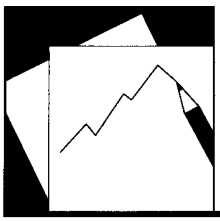

IMF Working Paper

Growth in Africa Under Peace and Market Reforms

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INTERNATIONAL MONETARY FUND

IMF Working Paper

African Department

Growth in Africa Under Peace and Market Reforms

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Authorized for distribution by John Wakeman-Linn and Mauro Mecagni
February 2011

Abstract

Economic stagnation in Sub-Saharan Africa (SSA) has led several economists to question the region's ability to attain sustained economic growth, some of them arguing for the need to shift away from natural resource–based exports. Yet, we find that low growth has not been common to all SSA countries and that those that achieved political stability and significantly liberalized their economies experienced high growth in income per capita, as high as ASEAN-5 countries. This group of SSA countries attained high growth while maintaining their specialization in natural resource exports. Our analysis also rejects the hypothesis of reverse causality: that good growth performance allowed countries to attain political stability or liberalize their economies.

JEL Classification Numbers: O11, O40, N17

Keywords: growth, Africa, structural adjustment

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[1] We would like to thank participants in the April 5, 2010, African Growth seminar at the International Monetary Fund for helpful comments. The usual disclaimer applies.

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I. INTRODUCTION

The apparent stagnation of Sub-Saharan Africa (the poorest region in the world) in an era of freer markets has fueled strong criticisms against market reforms. Indeed, condemnation of economic liberalization has become part of mainstream development thinking, and several commentators urge SSA countries to accelerate growth by modifying their comparative advantage on natural resources. But does SSA stagnation imply the failure of market reforms and of the natural resource–based model in the region?

We argue that blaming economic liberalization for SSA's stagnation neglects the fact that many SSA countries have been affected by political instability and/or did not significantly implement suggested market reforms. In fact, politically stable SSA countries that implemented considerable economic liberalization (i) accelerated their growth rates significantly since they *stabilized/liberalized*, (ii) grew much faster than SSA countries that did not *stabilize/liberalize*, and (iii) performed as well as the high-performing ASEAN-5 group (Indonesia, Malaysia, Philippines, Singapore, and Thailand) over a long period. This positive performance has been achieved while maintaining a natural resource exports base. Our analysis also shows that right before their political stabilization and economic liberalization these countries did not have a superior economic performance or better growth determinants than other SSA countries.

We first discuss the current schism in development thinking that has been fueled by the economic stagnation of SSA relative to other regions (Section II). We then discuss some factors that could have contributed to decelerate economic growth in SSA, (Section III) and review recent literature indicating a positive impact of political stabilization and market reforms on SSA economies (Section IV). We subsequently present the stylized facts on SSA growth (Section V), noting the superior performance of SSA countries that attained political stability and undertook significant economic liberalization. Through panel regressions (Section VI) we estimate the statistical difference in economic growth with and without political stability and economic liberalization, and we then show that growth determinants in SSA countries at the time of *stabilization/liberalization* were not superlative (Section VII). Finally, we discuss some implications of our statistical analysis (Section VIII).

II. DEVELOPMENT THINKING: STILL SPLIT IN TWO CAMPS

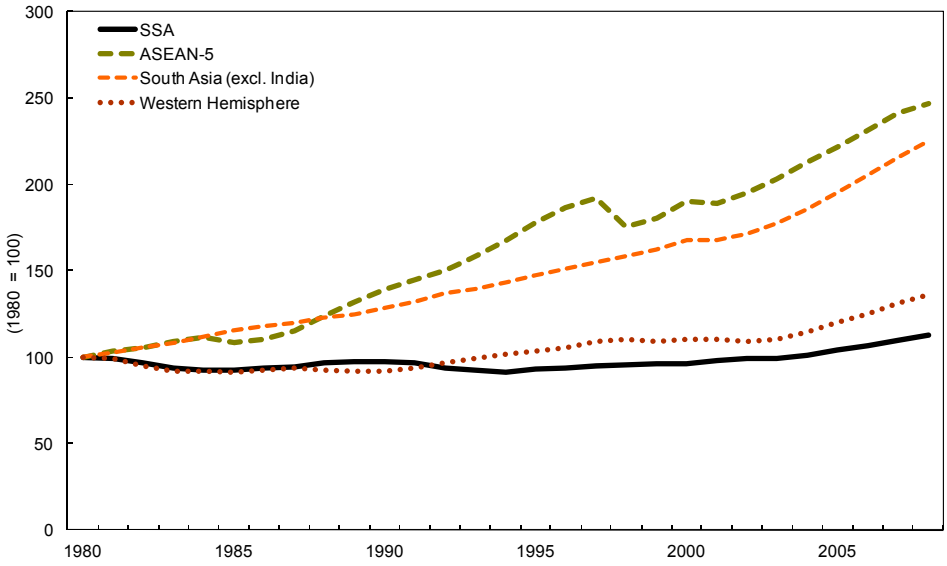
Over the last few decades, especially after the fall of the Berlin wall, the developing world, including SSA, has seen both a considerable reduction in the number of conflicts and the implementation of more liberal economic policies. Economic liberalization was broadly guided by so-called "Washington Consensus" policies,[2] which aimed to reverse the

[2] The Washington Consensus is a term coined in Williamson (1990), which describes 10 areas of economic reform (see Appendix 1) that were consensually supported by several Washington-based institutions, including international financial organizations (IMF, World Bank, Inter-American Development Bank), the U.S. Congress, senior members of the U.S. administration, and several U.S. agencies and think tanks.

overextended presence of the state in the economy that characterized the imports substitution industrialization (ISI) development model. The prescription was largely to "stabilize, privatize, and liberalize," as noted in Rodrik (2006), though few supporters of such reforms intended to eliminate completely government intervention from the economy,[3] as has been argued by many critics.[4]

Yet, SSA has remained stagnant, trailing behind other developing countries as has been the case throughout most of its independence. Figure 1 illustrates this by presenting the evolution of several indices of regional output per capita at constant prices and showing that SSA remained relatively stagnant for several decades. The contrast with ASEAN-5 and South Asia, even excluding fast-growing India, is remarkable.

Figure 1: Index of Income Per Capita of SSA vs. Other Regions



Source: IMF, *World Economic Outlook*, October 2009.

Partly as a result of SSA's relative stagnation, development thought now is divided into two camps. One emphasizes the shift in economic paradigm embodied in the Washington Consensus and its success in restoring macroeconomic equilibrium by pulling the government out of the production of goods and services already provided by the market and restraining its interventions on the price mechanism. Economists in this camp argue that the state should limit its activities to those that support the market and relieve poverty (for example, fund public infrastructure; enforce the rule of law and property rights; provide universal education, health services, and other welfare services). Proponents of this view

[3] In an attempt to clarify this misunderstanding, Williamson (2004) provides a short history of the Washington Consensus.

[4] For instance, some members of the Growth Commission (see footnote 5) denounced that Washington Consensus proposals advised governments to "stabilize, privatize, and liberalize…writing the government out of the script (Commission on Growth and Development, 2008; p. 5)."

usually explain most cases in which liberalization programs failed to launch a sustained economic take-off by arguing that reforms did not go deep enough (for example, Krueger, 2004; Singh and others, 2005).

Economists in the second camp argue that the outcome of liberalization reforms has been far below expectations and that significant deviation from the spirit of the Washington Consensus is needed (see Rodrik, 2006, and Stiglitz, 2003). Many of these economists suggest that developing economies should move away from dependence on natural resources through policies that strategically modify market incentives (for example, Stiglitz, 2010). The proposed policies include government intervention to alter prices (for example, exchange rate undervaluation); provide direct and subsidized finance to specific industries; and establish incentives to reward specific firms—all policies commonly implemented by East Asian governments. The final report of the Growth Commission (Commission on Growth and Development, 2008)[5] says that several of the commission members favored the adoption of this type of policies, arguing that high-growth countries (for example, East Asian countries) have usually experimented with them to promote investment in infant sectors.

The apparent discredit of market reforms based on the superior performance of East Asian countries seems overdone. Considering the areas of reform actually supported by the Washington Consensus (see Appendix 1), is it not true that all countries that have attained sustainable development, including those in East Asia, have largely followed most of these recommendations? The use of government policies to significantly modify a country's comparative advantages is equally questionable. Did not most such attempts fail notoriously in most of the developing world, including in SSA? Is there such a need to steer away from natural resources so as to risk adopting interventionist policies that can derail in rent-seeking?

It is actually not clear why SSA countries need to move out from natural resource based–exports when

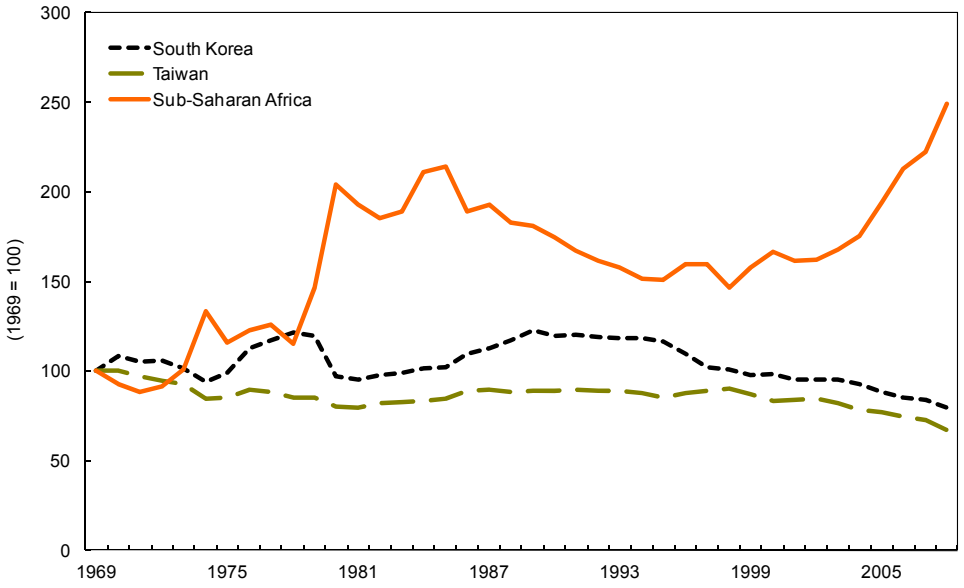
- Several countries have developed based on their comparative advantage in natural resources (for example, Scandinavian countries, Chile, Australia, New Zealand, and so on[6]).

[5] Launched in April 2006, the Commission on Growth and Development brought together 22 leading practitioners from government, business, and policymaking arenas, mostly from the developing world. The commission is chaired by Nobel Laureate Michael Spence, and Danny Leipziger, former Vice President of the World Bank, is the commission's vice-chair.

[6] Citing World Bank (2002), "[Canada] saw primary good exports (beginning with fur and fisheries and then progressing to forestry and wheat), as driving subsequent industries in wood, pulp, and metal refineries. [In Australia,] continuing success in mining and [its] derivative industries made the country one of the richest economies in the world in the early 20th century, and discoveries of new deposits might put it near the top of the list again. [And Scandinavian countries] built slowly on their strengths in natural resources: the forest and metal industries together still employ 20 percent of the industrial labor force in Sweden, and constitute 25 percent of exports."

- Although some research such as Prebisch (1959) raised concerns of a sustained decline in commodity prices, the long-run evolution of the latter has not differed much from that of manufactured products (see Cuddington, Ludeman, and Jayasuriya, 2007; Brahmbhatt and Canuto, 2010; Ocampo and Parra, 2010).[7] In fact, over the last forty years the terms of trade of SSA as a region evolved more positively than those of East Asian countries such as South Korea and Taiwan (see Figure 2) that focused on manufacturing exports.
- There is evidence that productivity growth in natural resources can be even higher than in manufacturing. For instance, Loayza and Raddatz (2006) find that in the last few decades productivity growth has been historically lower in manufacturing than in agricultural production (see also Martin and Mitra, 2001; Wright and Czelusta, 2007).
- Commodity exporters in Latin America such as Chile and Peru have growth-performed at least as well as Latin American manufacturing exporters such as Mexico and Central American countries, not only since the recent commodity boom, but very much since they significantly dismantled ISI schemes.
- Long-run prospects for commodity prices are most favorable considering existing concerns about insufficient natural resources to sustain high growth in emerging economies with large populations such as China and India.

Figure 2. Terms of Trade SSA vs. Manufacturing Exporters in East Asia



Source: IMF, *Wold Economic Outlook*,October 2009.

[7] In fact, not only Prebisch's projection of the future path of commodity prices was wrong but his estimate of a past decline was inaccurate. Prebisch measured commodity prices at their destination, and the decline that he estimated reflected a decline in the cost of transportation (World Bank, 2002).

III. SSA Relative Stagnation in Perspective

There are also reasons not to question the track record of market reforms based on SSA's stagnation relative to some East Asian countries.

First, while East Asian countries enjoyed a period of relative political stability after the Second World War, SSA countries were marred by conflict, both internal and external. Many observers (for example, Johnson, Ostry, and Subramanian, 2007) highlight the fact that whereas incomes per capita in East Asian and SSA countries were similar in the 1950s, East Asia remarkably left SSA behind afterwards. But this may be explained partly by the fact that while SSA remained submerged in conflict, most East Asian countries benefited from relative peace and returned to their potential output per capita after war-related destruction and stagnation in the first half of the 1900s, as Europe similarly did.

Second, the weak performance of SSA relative to East Asian countries may actually be also related to the long-lasting implementation of ISI policies in SSA. High-performing East Asian countries dismantled ISI policies in the early 1960s and soon afterward saw a significant acceleration in economic growth. SSA, on the other hand, maintained these policies for several decades. By supporting state interventionism and distorting trade flows through protectionist schemes, ISI led to macroeconomic disequilibria, both domestic (high inflation) and external (high external debt, overappreciated exchange rates, large current account deficits) that became unsustainable in the 1980s, and which Washington Consensus policies sought to reverse. Indeed, the reversal of these policies may explain why, despite weak commodity prices, SSA output per capita accelerated since the mid 1990s (see Figure 1) when a growing number of countries liberalized their economies.[8]

IV. Importance of Stabilization/Liberalization: Existing Evidence

Indeed, recent studies that analyze growth in SSA economies highlight the crucial role of political stability and policies associated with economic liberalization and the reversal of the ISI model (for example, trade openness and fiscal discipline aimed at preserving low inflation and low public debt).

Using a modified version of the growth acceleration methodology developed in Hausmann, Pritchett, and Rodrik (2005), Arbache, Go, and Page (2008) set out to identify the determinants of economic accelerations and decelerations in SSA. They find that growth decelerations in the region are associated with political conflict, as well as high inflation, which has been a usual by-product of ISI policies. On the other hand, the likelihood of experiencing acceleration is lower in countries with an oversized government and in those going through major political conflicts.

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[8] The acceleration of SSA countries despite weak commodity prices is also highlighted in the October 2008 IMF *Regional Economic Outlook: Sub-Saharan Africa*, which notes that a large number of the recent growth spells in SSA occurred in the context of weak terms of trade.

Using a sample that heavily relies on SSA countries, Berg, Ostry, and Zettelmeyer (2007) identify structural breaks in economic growth and conclude that sustained growth requires equal income distribution and democratic institutions to maintain political stability, openness to trade, and a stable macroeconomic environment. Also focusing on SSA countries and using Bayesian Model Averaging to explicitly account for model uncertainty, Tsangarides and Mirestean (2009) conclude that an improved political environment, lower inflation, lower government consumption, and a better fiscal stance are necessary for sustainable growth.

Duttagupta and Mlachila (2008) use tree-analysis to identify factors explaining economic growth, listing them according to their relevance. Their sample also relies largely on SSA countries. Low trade distortions and several geographical factors linked to access to international trade (for example, higher coastal population, shorter air distance to big cities) are the most important growth accelerators, followed by factors related to political stability (for example, less ethnic fractionalization) and by investments in education.

In reviewing five recent studies that focus on recent SSA growth,[9] the IMF's *Regional Economic Outlook: Sub-Saharan Africa* (October, 2008) finds that these studies generally conclude that countries need to engage in the global economy, maintain macroeconomic stability, and use prices to allocate resources. Indeed, such policy framework is in agreement with the spirit of the Washington Consensus.

V. SSA Under Peace and Market Reforms

In fact, the analysis in this section shows that SSA has performed quite well in the absence of conflict and after economic liberalization. We first estimate the growth rate of SSA countries that attained enduring political stability and liberalized their economies and compare it to the growth rate of SSA countries that did not. We define a country as *stable/liberalized* after it had both

i) *Attained enduring political stability*: We consider that a country reaches enduring political stability when the country no longer experiences a civil war nor a coup d'état, according to the Center for Systemic Peace guidelines.[10] In other words, if the last civil war or coup d'état in a country occurred in year t, we consider that the country attained enduring political stability in years t+1 and onward.[11]

[9] The studies surveyed by this Regional Economic Outlook are: Commission on Growth and Development, 2008; Ndulu and O'Connell, 2007; Ndulu and others, 2007; Arbache, Go, and Page, 2008; and Pattillo, Gupta, and Carey, 2006.

[10] The Center for Systemic Peace lists civil war and coup d'état episodes in its Major Episodes of Political Violence (MEPV) and its Coup d'État databases, respectively. Both databases are available at http://www.systemicpeace.org/inscr/inscr.htm

[11] Another way to assess performance of countries under peace and after economic liberalization is to estimate the growth performance of countries after they liberalized and exclude any subsequent years of political

(continued…)

ii) *Implemented significant and unreversed economic liberalization*: We deem that a country has implemented significant economic liberalization only after its trade policy has become "open," according to criteria proposed in Sachs and Warner (1995).[12] We use the Sachs and Warner trade openness criteria as an indicator of broad economic liberalization as done in Hausmann, Pritchett, and Rodrik (2005), who argue that several of the Sachs and Warner criteria reflect broad reforms, not just trade policy reforms.

Appendix 3 indicates the year in which each of the SSA countries in our sample became *stable/liberalized* according to our criteria. The table in Appendix 4 shows the time-varying composition of the *stable/liberalized* group of countries, and their GDP per capita growth rates in the years in which they had already become *stable/liberalized*. In the early 1980s, only Mauritius and Botswana belonged to this group, and later on Ghana, Mali, Uganda, and increasingly more SSA countries joined the *stable/liberalized* group.

We gauge the performance of the *stable/liberalized* countries through an index equal to 100 in 1980 and growing each year at the average growth rate of income per capita of SSA countries that, in that particular year, have already become *stable/liberalized*. Thus, in the early 1980s this index grows at the average growth rate of Mauritius and Botswana and later on also includes Ghana, Mali, Uganda, and so on. Similarly, the index *Rest SSA* is 100 in 1980 and grows each year at the average growth rate of those countries that are not *stable/liberalized* in that particular year.

Moreover, in our calculations we excluded the first three years after *stabilization/ liberalization* because countries usually rebound in the aftermath of *stabilization/ liberalization* and the temporarily high growth rates in those years do not reflect a permanent shift in the growth potential of their economies. Also note that our sample excludes potential outliers, such as oil-exporting countries, because their growth tends to be overwhelmingly influenced by international oil prices;[13] and small island countries, owing to high volatility in their data. Eritrea is also excluded since it is the only remaining SSA country for which the Sachs and Warner index was not listed in Wacziarg and Welch (2003).[14]

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instability. However, the results of such analysis would not be significantly different from those presented in this paper because all but two countries in our sample (Cote d'Ivoire and Guinea-Bissau) either (i) remained politically unstable after economic liberalization; (ii) remained politically stable after economic liberalization; or (iii) attained enduring political stability less than five years after liberalization. Note that after economic liberalization, during the years of political stability and before renewed political instability, both Cote d'Ivoire and Guinea Bissau experienced high income per capita growth.

[12] We consider a country as liberalized one year after the country became open according to Sachs and Warner. Thus, while Ghana was open and politically stable by 1985, we consider it stable/liberalized only since 1986. The list of countries that fulfill these criteria is taken from Wacziarg and Welch (2003).

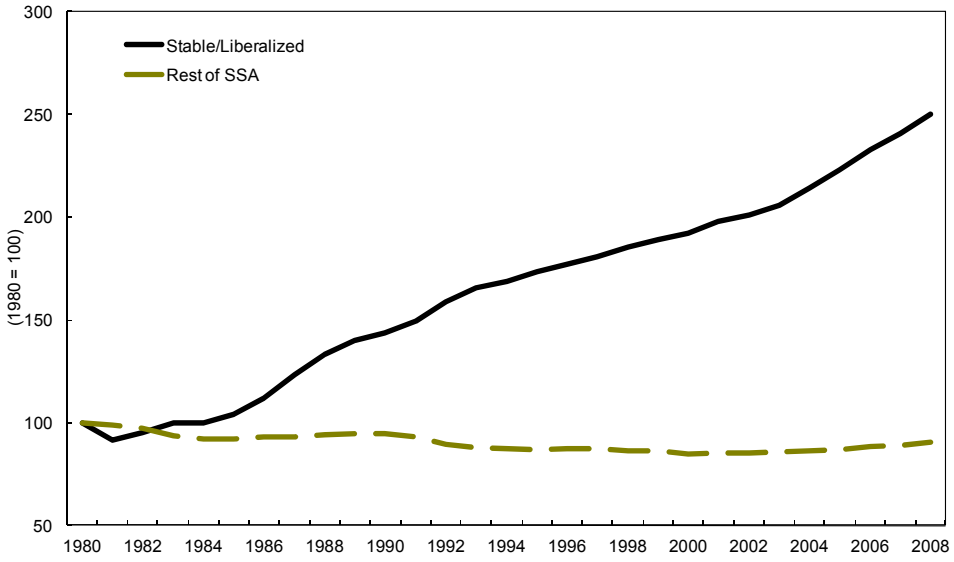
[13] In fact, Arbache, Go, and Page (2008) find that oil rich countries experienced growth accelerations despite extremely poor performance in other growth determinants, such as governance indicators.

[14] We exclude oil exporting countries as identified in the IMF's *Regional Economic Outlook: Sub-Saharan Africa*, October 2008: Angola, Cameroon, Chad, Equatorial Guinea, Gabon, Republic of Congo, and Nigeria.

(continued…)

The difference in the performances of the two indices, *stable/liberalized* versus *Rest of SSA* is striking (Figure 3). Whereas the income per capita of the *Rest of SSA* group remains flat for almost three decades, that of the *stable/liberalized* countries grows rapidly and monotonically. Outstandingly, the average growth rate of income per capita of the *stable/liberalized* countries is 3.7 percent per year in 1980–2008, much higher than what is commonly associated with SSA.

Figure 3: Income Per Capita in Stable/Liberalized vs. Rest of SSA Countries



Source: IMF, *Wold Economic Outlook*, October 2009.

In fact, the growth rate in income per capita of *stable/liberalized* SSA countries has not only been higher than in *Rest of SSA* countries, but actually has been as high as that of high-performing regions, including East Asian economies. Figure 4 compares the output per capita index in *stable/liberalized* SSA countries with the indices for Latin America, South Asia, and ASEAN-5[15]. The evolution of income per capita in *stable/liberalized* SSA economies is clearly superior to that of Latin America and slightly better than in ASEAN-5 and South Asian countries[16].

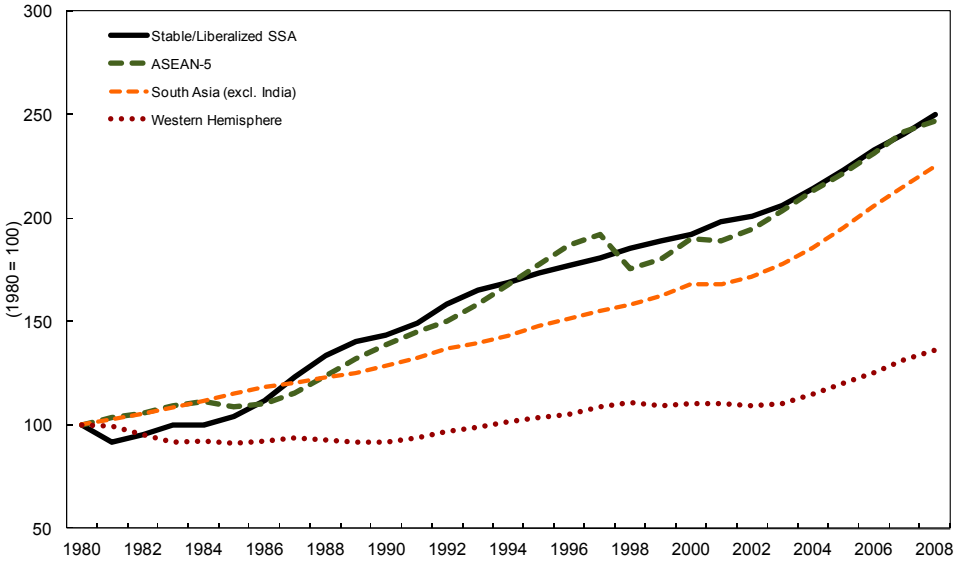
We consider small countries those with populations below 1 million by 2009: Cape Verde, Comoros, Equatorial Guinea, Sao Tome and Principe, and Seychelles.

[15] Admittedly, the use of ASEAN-5 countries as a comparator group can be questioned on several fronts, but such questioning can be both in favor and against the conclusions of this paper. On one hand, ASEAN-5 countries have higher income per capita and therefore, due to convergence forces, are expected to grow at a lower rate than SSA countries. On the other hand, one would expect ASEAN-5 to grow faster than SSA since the former group more effectively implemented other market-friendly growth policies, such as public investment in education and infrastructure.

[16] Note that having excluded oil exporting countries does not significantly affect the estimated evolution of the *stable/liberalized* SSA group as only one of the seven oil producers excluded (Cameroon) is considered *stable/liberalized* according to our criteria.

This favorable comparison of *stable/liberalized* SSA economies is robust to modifications in the sample, changes in the observation period, and alternative estimation methods. Table 1, (first column) shows the average growth rate in the index of output per capita by country group. The estimates in the second column show the average growth of *stable/liberalized* SSA countries excluding six outliers (that is, countries with the three highest and three lowest growth rates after becoming *stable/liberalized*[17]) demonstrating that the sound performance of *stable/liberalized* SSA economies is not determined by only a few countries. We reach a similar conclusion in the third column, which shows average growth rates since 1995, thus excluding previous years in which only a few SSA countries (Botswana, Ghana, Mali, Mauritius, Uganda) had *stabilized/liberalized*. The fourth column presents the averages by country group including IMF growth projections up to 2014, showing that the superior performance of SSA stabilizers is expected to widen slightly in the medium run. Moreover, the fifth column makes the intergroup comparison by first calculating the average growth of each country during its *stable/liberalized* period and then averaging across these country averages to estimate the average growth rate for the group (that is, a within then between calculation of the group average). Our main conclusion remains valid: the growth rates of ASEAN-5, South Asian, and *stable/liberalized* SSA countries are comparable.

Figure 4: Income Per Capita in Stable/Liberalized SSA vs. Other Regions



Source: IMF, *Wold Economic Outlook*,October 2009.

[17] The best performers were Rwanda, Mozambique, and Ethiopia, and the worst performers were Benin, Kenya, and Liberia.

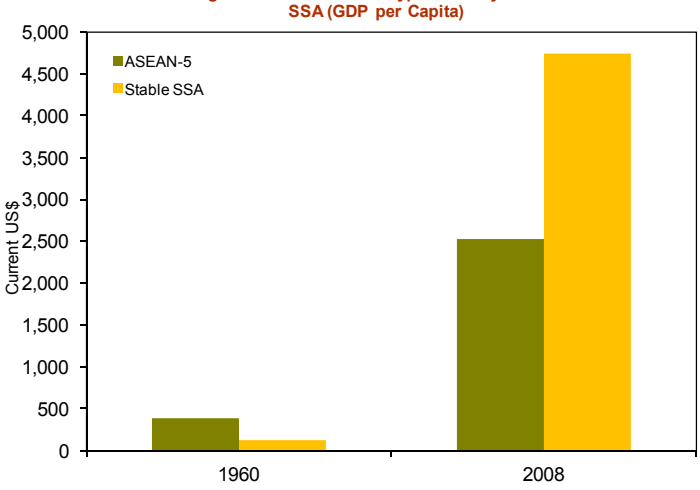
Table 1: GDP Per Capita Growth Rates by Region (%)

	1980-2008	1980-2008 (Without outliers)	1995-2008	1980-2014	1980 - 2008 Average by Country
SSA Stable	3.73	3.65	3.00	3.62	3.30
SSA Unstable	0.01	(0.23)	0.80	0.34	0.00
ASEAN-5	3.40	2.94	2.87	3.09	3.40
South Asia (excl. India)	2.93	2.91	3.29	3.08	2.93
Western Hemisphere	1.14	1.07	2.12	1.24	1.14

Source: IMF, *World Economic Outlook* , October 2009.

As an indicative exercise and through an admittedly blunt extrapolation we estimate that if all SSA economies had grown at the average rate of *stable/liberalized* countries since 1960, their income per capita would now be 90 percent higher than that of ASEAN-5 (Figure 5). Indeed, SSA would, on average, be wealthier than Indonesia, Thailand, and Philippines, and while Malaysia and Singapore would be richer than the average SSA country, that would be largely because they were already much wealthier in 1960.

Figure 5: ASEAN-5 and Hypothetically Stable SSA (GDP per Capita)

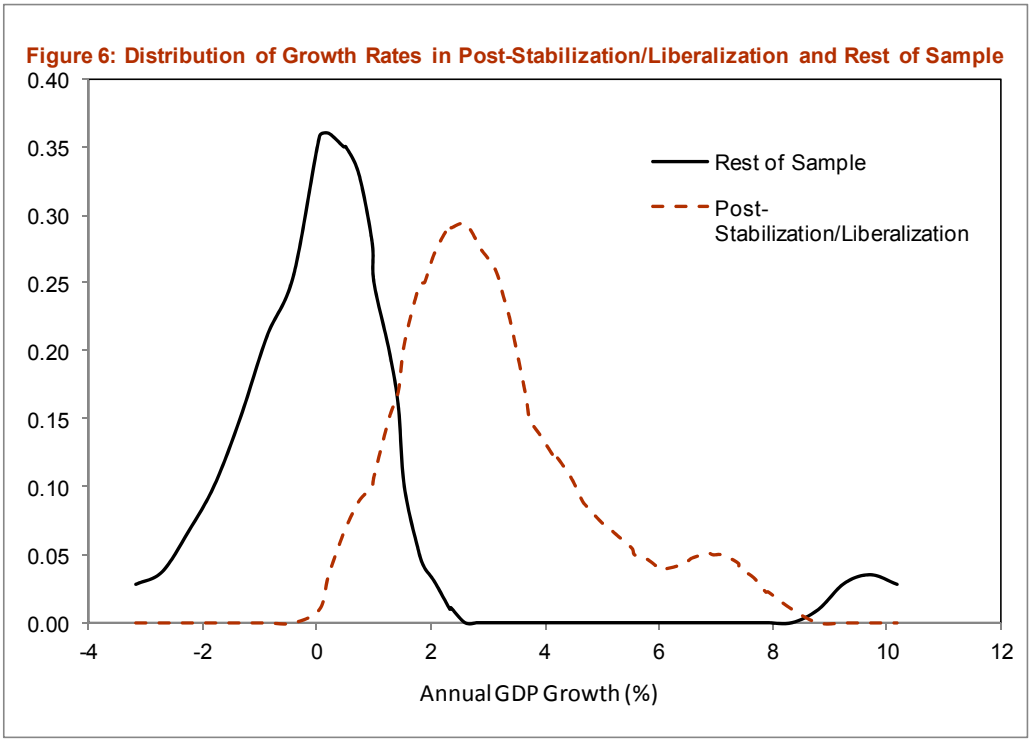


Source: IMF, *Wold Economic Outlook*,October 2009, and authors' calculations.

Arguably, with an income per capita near US$5,000, these countries currently would not be exporting just raw commodities, but would have started to industrialize their natural resource–based exports as other middle-income countries have done (for example, Brazil, Chile, Peru, Thailand). And with a regional market of almost US$4 trillion, owing to economies scale, the region could have better developed industries with comparative advantages that could have competitively substituted several products currently imported from outside the region.

VI. The Apparent Payoff of Stabilization/Liberalization

The magnitude of the apparent payoff of *stabilization/liberalization* is illustrated in Figure 6, which divides all observations in our sample into two kernel distributions: one including output per capita growth rates in post-*stabilization/liberalization* years and another with *rest of sample* growth rates.



The kernel distribution of post-*stabilization/liberalization* years is shifted significantly to the right of the distribution of *rest of sample* growth rates so that the mean growth post-*stabilization/liberalization* is 2.9 percent higher than for *rest of sample*. The performance of several growth determinants may explain the variation around the mean (for example, landlockedness and corruption), but the considerable shift in the distribution could indicate the impact of political stability and reversing ISI policies.

While the above analysis clearly shows the strong growth record of *stable/liberalized* SSA countries, demonstrating causality from *stabilization/liberalization* to higher economic growth is much more challenging. This would partly require eliminating the possibility of omitted variable bias by controlling for other growth determinants that could have accelerated growth in *stable/liberalized* countries. Researchers have typically attempted to do this through regressions that include several growth determinants as explanatory variables, but this methodology remains highly criticized. Thus, we refrain from implementing it and simply undertake univariate panel regressions as in Wacziarg and Welch (2003) as an indicative exercise, without claiming that their results constitute strong evidence of causality.

These univariate panel regressions can also be taken as a test of statistical significance of the difference in per capita growth rates between *stable/liberalized* and *rest of SSA* countries[18].

We thus estimate the apparent payoff of becoming a *stable/liberalized* country (S) by regressing a univariate fixed effects specification:

$$\gamma_{i,t} = \alpha_i + \pi S_{i,t} + \varepsilon_{i,t} \quad (1)$$

where S is defined as a binary variable, equal to 1 in post-*stabilization/liberalization* years and 0 in the rest of the sample observations. $\varepsilon_{i,t}$ is assumed i.i.d. We use observations for our sample of non-oil exporting SSA countries between 1960 and 2008. π could be considered the growth payoff from political stability and economic liberalization, with all the caveats mentioned above.

Table 2 presents the results of our panel regressions. The first three columns show the outcome of a random effects panel, a fixed effects panel, and a dynamic panel, and add a terms of trade independent variable to equation (1) thus acknowledging the importance of commodity prices for SSA growth.[19] The following three columns present the results of the same type of regressions but excluding the terms of trade. Under all these specifications the estimated payoff from *stabilization/liberalization* is significant, adding between 2.37 and 2.9 percentage points to growth of output per capita.

Admittedly, attaining political stability and economic liberalization has not been a panacea for SSA countries. Though almost all countries that *stabilized/liberalized* accelerated their economic growth after *stabilization/liberalization*, not all managed to grow at rates comparable to those of high-performing East Asian countries (see Table 3). Such heterogeneity in the outcome is most likely related to other growth determinants (for example, investments in education, infrastructure, governance, institutions, and so on). Yet, all countries experienced positive output per capita growth after *stabilization/liberalization*, within a 1.49–7.33 percent range.

Moreover, out of all 22 countries that *stabilized/liberalized* in the period under analysis, Botswana is the only case in which post-*stabilization/liberalization* growth was lower than pre-*stabilization/liberalization*. This is a unique case in which pre-*stabilization/liberalization* growth was already high owing to extraordinarily favorable terms of trade. Also, note that Botswana's post-*stabilization/liberalization* growth was still superior to average growth in ASEAN-5.

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[18] Excluding other growth determinants in these regressions could bias our estimate of the payoff of *stabilization/liberalization* in both directions. On one hand, ASEAN-5 countries have higher income per capita and omitting this variable could upward bias the estimated *stabilization/liberalization* payoff. On the other hand, ASEAN-5 contries seems to have invested more heavily in human capital and infrastructure, and therefore excluding these variables could downward bias our estimate of the stabilization/liberalization payoff.

[19] We include the one-year lag of the terms of trade, in line with Drummond and Ramirez (2009), which find a delayed effect of changes in the terms of trade on the growth rate of SSA countries.

Table 2. Apparent Payoff from Stabilization/Liberalization

	GDP Growth					
	(1)	(2)	(3)	(1)	(2)	(3)
Lagged GDP	0.102	0.173	0.017	0.093	0.161	0.093
growth	(0.031)***	(0.030)***	(0.081)	(0.031)***	(0.030)***	(0.076)
Stable	2.771	2.718	2.370	2.909	2.792	2.701
	(0.439)***	(0.347)***	(0.593)***	(0.442)***	(0.351)***	(0.631)***
Terms of trade	0.009	0.010	0.012			
growth	(0.008)	(0.008)	(0.008)			
Lagged terms of	0.018	0.018	0.105			
trade growth	(0.008)**	(0.008)**	(0.011)			
Constant	-0.357	-0.381	-0.229	-0.412	-0.413	-0.344
	(0.207)*	(0.190)**	(0.350)	(0.210)*	(0.193)**	(0.360)
Observations	992	992	956	1002	1002	965
Number of countries	36	36	36	37	37	37

Standard errors in parentheses.
* significant at 10%; ** significant at 5%; *** significant at 1%

Comparing the average growth before versus after *stabilization/liberalization* in each country provides another approximation of the apparent payoff of *stabilization/liberalization*. As seen in Table 3, average growth after *stabilization/liberalization* was 2.9 percent higher than before *stabilization/liberalization* growth. A Student's t-test of the difference between the average growth pre- and post-*stabilization/liberalization*, concludes that the means are different with more than 99 percent confidence, as the resulting t-statistic is 4.7.

VII. REVERSE CAUSALITY: DID GOOD PERFORMANCE LEAD TO STABILIZATION/LIBERALIZATION?

Although our analysis does not firmly establish causality from *stabilization/liberalization* to higher growth, we can more conclusively seek to determine whether there is reverse causality in this relationship, in other words, that *stabilization/liberalization* is itself the result of good economic performance or sound pre-existing growth determinants (for example, institutional development, educational attainment, level of income per capita, and level of industrialization).

To explore the reverse causality hypothesis we focus on a list of growth variables commonly cited in the growth literature, and first see if there is a statistical difference between the means of these variables in the three years before *stabilization/liberalization* compared to their means in other years without *stabilization/liberalization*. This will allow us to see if the

three years before *stabilization/liberalization*, are years of relatively better performance along any dimension[20].

Appendix 5 shows that, for very few variables, there is a statistically significant difference between the means in the years at the onset of *stabilization/liberalization* and the means in other years without *stabilization/liberalization*, but there is no clear overall "superiority" in any of the two groups. Table 4 lists only the variables for which there is a statistically significant difference in means. The picture at the onset of *stabilization/liberalization* is mixed. This group had a lower current account deficit and lower government spending, but also more people living in landlocked areas.

Table 3: GDP Per Capita Growth before and after Stabilization/Liberalization by Country

	Pre	Post	Difference
Benin	0.19	1.49	1.30
Botswana	9.70	4.71	-4.99
Burkina Faso	1.00	2.83	1.83
Burundi	0.54	2.36	1.82
Central African Rep.	-	-	-
Congo, Dem. Rep. of	-	-	-
Côte d'Ivoire	-	-	-
Ethiopia	0.62	4.88	4.26
Gambia, The	1.56	2.33	0.77
Ghana	-1.36	2.32	3.68
Guinea	-	-	-
Guinea-Bissau	-	-	-
Kenya	1.47	1.55	0.08
Lesotho	-		-
Liberia	-1.69	1.91	3.60
Madagascar	-1.23	2.28	3.51
Malawi	-	-	-
Mali	-0.05	2.18	2.23
Mauritius	-2.70	4.04	6.75
Mozambique	0.62	5.37	4.75
Namibia	0.08	2.68	2.60
Niger	-0.48	3.01	3.50
Rwanda	0.76	7.33	6.57
Senegal	-	-	-
Sierra Leone	-0.49	3.73	4.21
South Africa	0.57	2.25	1.68
Swaziland	-	-	-
Tanzania	0.72	4.48	3.76
Togo	-	-	-
Uganda	-0.77	4.07	4.84
Zambia	-0.19	3.25	3.44
Zimbabwe	-	-	-
Average	0.42	3.29	2.87

Source: IMF, *World Economic Outlook* , October 2009.

[20] Note that this analysis uses the same grouping as in Figure 7 that is, dividing all observations in two groups: country/years in which there is *stabilization/liberalization* and rest of the sample. The second group includes observations for countries that never *stabilized/liberalized*. This grouping differs from the one shown in Table 3, in which countries that never *stabilized/liberalized* are excluded.

Table 4: Comparison of Means - Unstable/Unliberalized Years vs. Years at the Onset of Stabilization*

	Period	Mean	95% Confidence Interval	
Current Account Balance (% of GDP)				
	Unstable/Unliberalized Years	-7.716	-8.367	-7.064
	Onset of Stabilization/Liberalization	-4.499	-6.130	-2.867
Central Government Balance (% of GDP)				
	Unstable/Unliberalized Years	-6.258	-6.702	-5.814
	Onset of Stabilization/Liberalization	-3.362	-4.067	-2.656
Manufacturing Exports (% of Merchandise Exports)	Unstable/Unliberalized Years	19.106	16.863	21.349
	Onset of Stabilization/Liberalization	8.933	5.736	12.130
CFAF Zone Dummy				
	Unstable/Unliberalized Years	0.305	0.270	0.341
	Onset of Stabilization/Liberalization	0.182	0.088	0.276
Population 100KM from Coast in 2000 (%)				
	Unstable/Unliberalized Years	42.420	39.049	45.791
	Onset of Stabilization/Liberalization	29.515	21.705	37.325

Source: IMF, *World Economic Outlook* (2009), World Bank *World Development Indicators* .
* See Appendix 2 for definition of variables

Furthermore, countries at the onset of *stabilization/liberalization* were not different in terms of most of the variables usually quoted by skeptics of economic liberalization as "preconditions to *stabilization/liberalization*." For instance, there is no statistically or economically significant difference in terms of institutional quality, education, or life expectancy. Interestingly, manufacturing exports were less relevant in countries at the onset of *stabilization/liberalization*. Most importantly GDP growth was lower in the years before *stabilization/liberalization*, thus rejecting the possibility of reverse causality in our results (that is, that high GDP growth led to *stabilization/liberalization* and not the other way around).

We also carry on a panel probit in which the dependent variable is "*stabilization/liberalization*" and independent variables (vector Z) include a year dummy and all those variables that appear statistically or economically different in the comparison of means of Appendix 5:

$$YS_{i,t}=\beta_0+ \beta_j Z_{,i,t,j} + \varepsilon_{i,t} \quad (2)$$

where YS is 1 in the year of stabilization and in the previous three years and 0 in other years. Note that we exclude all observations in the years after "*stabilization/liberalization*."

Table 5. Probit Results: Growth Determinants at the Onset of Stabilization/Liberalization

	Moving Average: Stable Years			
	(1)	(2)	(3)	(4)
Current account balance as % of GDP	-0.080	-0.256	-0.267	-0.080
	(0.138)	(0.143)*	(0.187)	(0.199)
Government balance as % of GDP	-0.116	-0.353	-0.222	-0.094
	(0.169)	(0.196)*	(0.194)	(0.207)
CFAF zone dummy	-3.847	-2.459	-0.645	1.798
	(2.573)	(2.330)	(3.037)	(3.703)
Manufacturing exports as % of merchandise exports	-0.131	-0.100	-0.085	-0.097
	(0.042)***	(0.075)	(0.082)	(0.096)
Population 100KM from coast in 2000	0.010	-0.047	-0.097	-0.061
	(0.028)	(0.049)	(0.047)**	(0.049)
Corruption index		-0.607	-0.539	-0.807
		(0.753)	(0.784)	(1.093)
Debt outstanding % of GDP			0.016	0.025
			(0.015)	(0.022)
Real exchange rate misalignment				0.027
				(0.040)
Year	1.110	0.849	0.970	1.409
	(0.001)***	(0.167)***	(0.418)**	(0.423)***
Constant	-2,217.760	-1,694.573	-1,937.479	-2,811.646
	(0.000)	(333.369)***	(828.816)**	(839.942)***
Observations	224	120	105	77
Number of countries	26	17	14	9

Standard errors in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%

Results of this specification are shown in Table 5. The first column includes only the variables for which a large number of observations are shown, and the following columns include other specifications for which fewer observations are available. There is no robust evidence that any of the independent variables is related to the likelihood of *stabilization/liberalization*.

VIII. CONCLUSION AND POLICY IMPLICATIONS

The analysis presented in this paper suggests that

1. **SSA countries under peace and after economic liberalization have attained impressively high economic growth.** Far from prompting economic disaster, as many commentators argued would happen, economic liberalization has been accompanied by high economic growth. Of course, the same may not have been true in countries that remained entangled in conflict, in which the impact of economic policies was subordinated to the detrimental effects of extreme violence.

2. **SSA countries can grow sustainably without changing their comparative advantage in natural resources.** The growth experience of SSA countries that dismantled the ISI model and avoided major political instability provides further evidence that a natural resource–based model can be consistent with sustained economic growth. Growth strategies that support specific sectors in which a country has no comparative advantage seem less appealing, especially if one considers how risky they are to macroeconomic stability (as illustrated by the experience of Latin American and SSA countries under ISI). Certainly, this does not imply that SSA countries should produce only raw commodities, and quite to the contrary they should seek to add value to their natural resources, as some SSA countries are already doing.

3. **Not only peace and market reforms are needed to achieve high economic growth**. This is suggested by the heterogeneity in the post-*stabilization/liberalization* outcome in our sample countries. After peace and economic liberalization, SSA governments, to different degrees, have boosted and improved their investments in health, education, and infrastructure, and have undertaken significant institutional reforms beyond the liberalization of their markets. Yet, these actions are not inconsistent with the shift in the development paradigm represented by the Washington Consensus.

4. Furthermore, as shown in our probit analysis, **SSA countries did not wait until they could reform institutions or improve other growth determinants before attaining political stability and launching economic liberalization**.

Note that these conclusions do not hinge on establishing whether *stabilization/liberalization* generated the apparent growth payoff mentioned in Section VI, but are based on the observation that *stable/liberalized* SSA countries have been high growth performers. More than claiming to have accurately measured the impact of *stabilization/liberalization*, this paper firmly denies that SSA market reformers that preserved political stability have underperformed other politically stable, fast growing developing regions.

Thus, attaining high economic growth may not be as complicated as argued by several development thinkers, who see the need to design complex growth diagnostics (a “pasta recipe”, as characterized by Commission on Growth and Development (2008)), as a precondition to accelerate economic growth. The experiences of SSA economies under peace

and after economic liberalization rather show that high growth has been common in countries that avoided major conflicts and dismantled ISI policies.

Certainly the effort and ingenuity of local policy makers, civil society, and entrepreneurs, as well as the work of international organizations all have been crucial in implementing many pro-growth policies beyond market reforms. But it seems increasingly evident that both political stabilization and market reforms have been crucial contributors to the acceleration of economic growth in SSA countries. As a result, optimists are finally gaining ground in a region previously doomed by pervasive conflict and the ISI experiment.

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Appendix 1: Ten Washington Consensus Reforms

In the following paragraphs, John Williamson lists and explains the original ten areas of reform included in the Washington Consensus (extract from Williamson, 2004, p.3):[21].

The ten reforms that constituted my list were as follows.

1. **Fiscal Discipline**. This was in the context of a region where almost all countries had run large deficits that led to balance of payments crises and high inflation that hit mainly the poor because the rich could park their money abroad.
2. **Reordering Public Expenditure Priorities**. This suggested switching expenditure in a pro-growth and pro-poor way, from things like non-merit subsidies to basic health and education and infrastructure. It did *not* call for all the burden of achieving fiscal discipline to be placed on expenditure cuts; on the contrary, the intention was to be strictly neutral about the desirable size of the public sector, an issue on which even a hopeless consensus-seeker like me did not imagine that the battle had been resolved with the end of history that was being promulgated at the time.
3. **Tax Reform**. The aim was a tax system that would combine a broad tax base with moderate marginal tax rates.
4. **Liberalizing Interest Rates**. In retrospect I wish I had formulated this in a broader way as financial liberalization, stressed that views differed on how fast it should be achieved, and—especially—recognized the importance of accompanying financial liberalization with prudential supervision.
5. **A Competitive Exchange Rate.**[22] I fear I indulged in wishful thinking in asserting that there was a consensus in favor of ensuring that the exchange rate would be competitive, which pretty much implies an intermediate regime; in fact Washington was already beginning to edge toward the two-corner doctrine which holds that a country must either fix firmly or else it must float "cleanly."
6. **Trade Liberalization**. I acknowledged that there was a difference of view about how fast trade should be liberalized, but everyone agreed that was the appropriate direction in which to move.
7. **Liberalization of Inward Foreign Direct Investment**. I specifically did not include comprehensive capital account liberalization, because I did not believe that did or should command a consensus in Washington.
8. **Privatization**. As noted already, this was the one area in which what originated as a neoliberal idea had won broad acceptance. We have since been made very

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[21] The list of these ten reforms is a direct quote from "A Short History of the Washington Consensus" by John Williamson—a paper commissioned by Fundación CIDOB for a conference, "From the Washington Consensus towards a New Global Governance," Barcelona, September 24–25, 2004.

[22] John Williamson says, "I have seen it asserted that a competitive exchange rate is the same as an undervalued rate. Not so; a competitive rate is a rate that is not overvalued, i.e., that is *either* undervalued *or* correctly valued. My fifth point reflects a conviction that overvalued exchange rates are worse than undervalued rates, but a rate that is neither overvalued nor undervalued is better still.

conscious that it matters a lot how privatization is done: it can be a highly corrupt process that transfers assets to a privileged elite for a fraction of their true value, but the evidence is that it brings benefits (especially in terms of improved service coverage) when done properly, and the privatized enterprise either sells into a competitive market or is properly regulated.
9. **Deregulation**. This focused specifically on easing barriers to entry and exit, not on abolishing regulations designed for safety or environmental reasons, or to govern prices in a non-competitive industry.
10. **Property Rights**. This was primarily about providing the informal sector with the ability to gain property rights at acceptable cost (inspired by Hernando de Soto's analysis).

Appendix 2. Data Sources

Description	Database
Real GDP (in billions of national currency)	WEO
PPP conversion factor for GDP (national currency per international U.S. dollar)	WEO
Barro and Lee Human Capital: Educational attainment of people aged 15 years and above reported every 5 years	CID website, Harvard University
GDP at current prices (in billions of national currency)	WEO
Real GDP growth	WEO
Real exchange rate misalignemnt	Elbadawi and Soto (2005)
Population 100KM from coast in 2000 (as % of total population)	World Resource Institute
Political rights score	Freedom House database
Civil liberties	Freedom House database
Bureaucracy quality index	PRS database
Investment profile index	PRS database
Manufacturing exports (as % of merchandise exports)	WDI
Gross capital formation (as % of GDP)	WEO
Current account (as % of GDP)	WEO
Government balance (as % of GDP)	WEO
Imports of goods (as % of GDP in real terms)	WEO
Political risk index	PRS database
Value added of mining and quarrying (as % of GDP)	WDI
Exports of goods (as % of GDP in real terms)	WEO
Life expectancy	WDI
Terms of trade	WEO
External debt (in millions of U.S. dollars)	WDI
Industry value added (as % of GDP)	WDI
Corruption index	PRS database
Exchange rate (national currency per U.S. dollar)	WEO

Source: Authors' construction, 2010.

Appendix 3. Year of Stabilization/Liberalization

Country	Year
Benin	1996
Botswana	1980
Burkina Faso	1999
Burundi	2002
Central African Rep.	-
Congo, Dem. Rep. of	-
Côte d'Ivoire	-
Ethiopia	1997
Gambia, The	1997
Ghana	1986
Guinea	2007
Guinea-Bissau	2009
Kenya	1994
Lesotho	1994
Liberia	2005
Madagascar	1997
Malawi	-
Mali	1992
Mauritania	2004
Mauritius	1969
Mozambique	1996
Namibia	1992
Niger	2000
Rwanda	2003
Senegal	-
Sierra Leone	2002
South Africa	1992
Swaziland	1992
Tanzania	1996
Togo	-
Uganda	1989
Zambia	1998
Zimbabwe	-

Source: Wacziarg and Welch (2003) and Center for Systemic Peace (2006 and 2008).

Appendix 4: GDP per capita growth rates post stabilization/liberalization*

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Post Stabilization/ Liberalization Average
Benin															3.1	1.4	2.8	1.1	2.4	1.9	2.1	0.0	2.0	0.1	0.0	0.8	1.4	1.7	1.5
Botswana				-1.2	3.0	11.1	3.9	12.2	16.8	2.9	5.1	-1.9	-3.4	5.0	5.7	2.5	7.1	7.6	6.4	4.7	2.3	7.7	5.1	4.8	0.8	4.3	3.5	1.8	4.7
Burkina Faso																							3.9	1.5	4.6	3.1	1.3	2.6	2.8
Burundi																										3.1	1.5	2.5	2.4
Central African Rep.																													
Congo, Dem. Rep. of																													
Côte d'Ivoire																													
Ethiopia																					4.6	-1.5	-6.1	6.8	9.6	8.5	8.4	8.8	4.9
Gambia, The																			2.1	2.5	2.9	-5.7	4.2	4.3	2.5	3.8	3.6	3.2	2.3
Ghana										0.7	2.7	3.5	2.3	0.7	1.4	2.0	1.6	2.1	1.8	1.2	1.6	1.9	2.6	3.0	3.2	3.8	3.5	4.5	2.3
Guinea																													
Guinea-Bissau																													
Kenya																		1.2	0.1	-1.7	2.1	-1.8	0.7	2.6	3.9	4.5	5.1	0.2	1.5
Lesotho																													
Liberia																												1.9	1.9
Madagascar																												2.3	2.3
Malawi																													
Mali													0.8	0.5	-0.6	4.2	2.3	6.0	0.6	-5.3	9.6	1.9	4.8	-1.1	3.7	2.9	2.0	2.6	2.2
Mauritius	-8.4	4.0	4.9	0.0	3.9	7.8	10.0	8.4	5.0	4.2	5.3	9.0	9.1	3.5	3.2	-0.9	2.6	7.4	3.6	6.1	3.2	0.4	2.7	3.9	2.6	2.7	3.6	5.7	4.0
Mozambique																				-0.7	9.9	7.1	4.5	5.8	6.3	6.6	4.9	4.1	5.4
Namibia																-0.8	1.6	1.1	0.1	1.8	-0.7	3.2	2.9	11.0	5.2	5.3	2.2	2.0	2.7
Niger																										2.6	0.2	6.2	3.0
Rwanda																											5.7	8.9	7.3
Senegal																													
Sierra Leone																										4.7	3.7	2.8	3.7
South Africa																2.3	0.8	-1.1	0.8	2.8	1.6	2.5	2.1	3.8	4.0	4.2	4.1	1.3	2.2
Swaziland																													
Tanzania																				1.5	3.2	5.0	4.8	5.5	5.1	4.8	5.0	5.4	4.5
Togo																													
Uganda													4.8	3.1	7.9	5.9	2.4	0.8	4.9	2.2	1.8	5.2	2.9	3.2	2.7	6.9	4.8	5.7	4.1
Zambia																							2.7	2.9	2.8	3.8	3.8	3.5	3.2
Zimbabwe																													
Average of Stable/Liberalized	-8.4	4.0	4.9	-0.6	3.5	9.5	7.0	10.3	10.9	2.6	4.3	3.5	2.7	2.6	3.5	2.1	2.6	2.9	2.3	1.4	3.4	2.0	2.6	3.9	3.8	4.2	3.6	3.7	

Source: IMF, World Economic Outlook, October 2009, and Authors' calculations

* SSA countries excluded are: Angola, Cameroon, Cape Verde, Comoros, Chad, Equatorial Guinea, Eritrea, Gabon, Republic of Congo, Nigeria, Sao Tome and Principe,and Seychelles

Appendix 5: Comparison of Means - Unstable/Unliberalized Years vs. Years at the Onset of Stabilization*

Variable	Period	Mean	95% Confidence Interval	
GDP Growth (%)				
	Unstable/Unliberalized Years	-0.134	-0.442	0.175
	Onset of Stabilization/Liberalization	-0.399	-1.571	0.773
Terms of Trade Annual Growth (%)				
	Unstable/Unliberalized Years	0.666	-0.351	1.683
	Onset of Stabilization/Liberalization	-2.219	-3.551	-0.887
Educational Attainment (Years)				
	Unstable/Unliberalized Years	2.258	2.126	2.391
	Onset of Stabilization/Liberalization	2.665	2.226	3.104
Mining Value Added (% of GDP)				
	Unstable/Unliberalized Years	0.039	0.032	0.045
	Onset of Stabilization/Liberalization	0.048	0.032	0.064
Gross Capital Formation (% of GDP)				
	Unstable/Unliberalized Years	18.365	17.516	19.370
	Onset of Stabilization/Liberalization	17.516	14.623	20.408
Current Account Balance (% of GDP)				
	Unstable/Unliberalized Years	**-7.716**	**-8.367**	**-7.064**
	Onset of Stabilization/Liberalization	**-4.499**	**-6.130**	**-2.867**
Central Government Balance (% of GDP)				
	Unstable/Unliberalized Years	**-6.258**	**-6.702**	**-5.814**
	Onset of Stabilization/Liberalization	**-3.362**	**-4.067**	**-2.656**
Exports of Goods (% of GDP)				
	Unstable/Unliberalized Years	23.928	22.461	25.396
	Onset of Stabilization/Liberalization	22.974	18.793	27.156
Life Expectancy (years)				
	Unstable/Unliberalized Years	51.852	51.176	52.529
	Onset of Stabilization/Liberalization	50.717	49.090	52.345
Bureaucracy Quality				
	Unstable/Unliberalized Years	1.430	1.307	1.553
	Onset of Stabilization/Liberalization	1.313	0.964	1.663
Investment Profile				
	Unstable/Unliberalized Years	5.489	5.297	5.681
	Onset of Stabilization/Liberalization	4.822	4.335	5.309
Law and Order				
	Unstable/Unliberalized Years	2.608	2.487	2.730
	Onset of Stabilization/Liberalization	2.567	2.303	2.832
Corruption Index				
	Unstable/Unliberalized Years	2.793	2.666	2.921
	Onset of Stabilization/Liberalization	3.066	2.758	3.374
Debt Outstanding (% of GDP)				
	Unstable/Unliberalized Years	106.747	96.987	116.508
	Onset of Stabilization/Liberalization	138.062	108.369	167.756
Industry Value Added (% of GDP)				
	Unstable/Unliberalized Years	21.004	20.327	21.682
	Onset of Stabilization/Liberalization	23.058	20.157	25.960
Manufacturing Exports (% of Merchandise Exports)	**Unstable/Unliberalized Years**	**19.106**	**16.863**	**21.349**
	Onset of Stabilization/Liberalization	**8.933**	**5.736**	**12.130**
Real Exchange Rate Misalignment (>100 is overvaluation)	Unstable/Unliberalized Years	147.797	135.677	159.918
	Onset of Stabilization/Liberalization	198.824	69.419	328.230
CFAF Zone Dummy				
	Unstable/Unliberalized Years	**0.305**	**0.270**	**0.341**
	Onset of Stabilization/Liberalization	**0.182**	**0.088**	**0.276**
Population 100KM from Coast in 2000 (%)				
	Unstable/Unliberalized Years	**42.420**	**39.049**	**45.791**
	Onset of Stabilization/Liberalization	**29.515**	**21.705**	**37.325**

Source: IMF, *World Economic Outlook* (2009), World Bank *World Development Indicators*.
* See Appendix 2 for definition of variables