IS IT AFRICA’S TURN?

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Things are finally looking up for Africa: economic growth rates are at historical highs and democratization appears to be taking root. Is Africa on track to join China and India as the latest development miracle? In this article, University of California, Berkeley economist Edward Miguel describes key recent economic and political trends in sub-Saharan Africa. Focusing on Kenya – a country where he’s worked since 1997, and until recently a regional success story – he argues that while some gains have been real, Africa’s current progress is very fragile. Armed conflict and climate change remain major threats to many African countries in the decades to come.

Things are finally looking up for Africa. Economic growth rates are at historical highs and democratization appears to be taking root. Are African countries on track to join China and India as economic development miracles? Or will they slide back into the hopelessness of the past? This article describes some key recent trends and asks whether it’s finally Africa’s turn.

I’ll start with the view from Kenya, the African country I know best. Kenya has been in political crisis since its disputed December 27, 2007 presidential election. The incumbent president Mwai Kibaki was reelected, allegedly through heavy ballot box rigging. The results, and subsequent violent opposition protests and ethnic clashes have surprised many Kenyans and most observers of Kenya, who thought that the 2007 elections would be free and fair, and that they would help Kenya turn the corner on its autocratic past.

It certainly seemed like things were looking up to me personally when I last visited Busia, Kenya in mid-2007. Busia is a small city of about 60,000 residents that spans Kenya’s western border with Uganda: half the town sits on the Kenyan side and half in Uganda. As befits a border town, Busia is well-endowed with gas stations, seedy bars and hotels catering to the truckers who spend a night on the way from Nairobi to Uganda. I've visited Busia every year since 1997, for consulting work with local development non-profit organizations, mainly helping them design and evaluate their rural programs, and these frequent visits have allowed me to see the city's evolution from up close.[1]

A decade ago, poverty and desperation were pervasive in western Kenya. Primary school enrollment rates had fallen throughout the 1990s; public health surveys in 1997 showed that the HIV infection rate might be upwards of 30% among pregnant women; and that all-important road into Uganda – the lifeblood of a border town and one of Kenya's critical international trade arteries – was falling apart. Long stretches of the drive from Kisumu, the economic hub of the region and Kenya's third largest city, to Busia were nearly impassable due to moon-crater potholes: cars hugged the road edge, single-file, searching for patches of asphalt that had not yet been worn out or washed away. A few cars going west would slalom around the bumps, followed by a few eastbound vehicles, alternating control over the pavement. Especially at night, this narrowing of the road set a deadly stage for road accidents, when oil tankers and buses speeding in opposite directions played a high-stakes game of chicken.

Fast forward to 2007. Busia was experiencing an economic renaissance. Busia's first supermarkets, ATM's, internet cafés, and car rental businesses all opened, and residential suburbs formed on the edges of town. The small *dukas* – shops selling home food supplies and airtime for the now ubiquitous cell phones – were freshly painted with advertisements for local dairy products. And most importantly, the highway was paved over and became a proper two-

[1] Some of this research was recently described in Abhijit Banerjee's "Making Aid Work" in the July/August 2006 edition of *Boston Review*.

lane road again all the way from Kisumu to the border, bringing in more trade with Uganda's productive factories and farmers.

Kenyan economic growth rates surged between 2002 and 2007, at levels not seen since the 1970s disco era. Nairobi's never-ending traffic jams of imported Japanese commuter cars were but one tangible indication that Kenyans were suddenly on the move. Construction projects were everywhere, as developers took advantage of the unexpected spike in land values. Like a fever that had suddenly broken, the resignation and fear in Kenyans' eyes in the 1990s was replaced by energy, optimism and a feeling that there was no time to lose.

The ongoing Kenyan political crisis has shattered its citizens' new-found hope and brought back the violence and repression of an earlier era. Despite the heartbreaking disappointment of recent events, the Lazarus story I witnessed – even if only temporarily – in Busia, Kenya is being repeated in hundreds of cities, towns, and villages all over Africa.

AFRICA BY THE NUMBERS

By 2000, sub-Saharan Africa[2] was at the end of an uninterrupted quarter century of economic and political failure, a downward tailspin that gave the world the 1984 Ethiopian famine and the 1994 Rwandan Genocide, and more recently, blood diamonds and mass amputations in Sierra Leone. Africa was the world's undisputed basket case along just about every economic and social dimension, including public health, as the epicenter for the global HIV/AIDS epidemic.

While two other once desperately poor regions – South Asia (dominated by India) and East Asia (led by China) – successfully carried out economic transformations in the 1980s and 1990s, Africa didn't even manage to stagnate: per capita incomes actually *fell*. The first decade

[2] I will follow many other authors and use "Africa" and "sub-Saharan Africa" interchangeably, for simplicity. North Africa, the excluded region, has about 15% of the total African population according to United Nations estimates.

after most African countries' 1960's independence tended to be successful in economic terms, continuing the positive economic trends of the 1940's and 1950's. The source of this early success remains poorly understood, but the hangover of relatively sound colonial macroeconomic and fiscal policies, and the postwar economic boom in Africa's main European trading partners, probably both played a part.

After peaking around 1975, African per capita income steadily declined through 2000, with average living standards falling a staggering 20%. Kenya serves as a pretty close stand-in for the entire continent: the timing of its economic advance and decline differs only slightly, with incomes peaking in the 1980s. During the same period Indian per capita incomes doubled and Chinese levels rose four-fold.

[FIGURE 1 HERE]

The leading culprits for what went wrong in Africa are bad economic policy and weak state institutions.[3] But this essay isn't about the bad old days, at least not directly. My goal is to describe the far right-hand side of Figure 1, the turnaround in economic performance since 2000 that has lifted African per capita income levels close to historical highs, to evaluate some leading explanations for the rebound, and assess where things are headed.[4] Average annual per capita income growth for all sub-Saharan Africa has been positive, at about 3% during 2000-2007.

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[3] Some of the best-known such work that speaks to this debate includes Daron Acemoglu, James Robinson and Simon Johnson (2001) "The Colonial Origins of Comparative Development: An Empirical Investigation", *American Economic Review*; Robert Bates (1981) *Markets and States in Tropical Africa*, University of California Press; Paul Collier and Jan Gunning (1999) "Explaining African Economic Performance", *Journal of Economic Literature*; William Easterly and Ross Levine (1997) "Africa's Growth Tragedy: Policies and Ethnic Divisions" *Quarterly Journal of Economics*; Jeffrey Herbst (2000) *States and Power in Africa: Comparative Lessons in Authority and Control*, Princeton University Press; and Jeffrey Sachs and Andrew Warner (1997) "Sources of Slow Growth in African Economies" *Journal of African Economies*, among many others.

[4] I'm certainly not the first one to notice the change: several insightful World Bank publications make related points, including: *Recent Economic Performance in Sub-Saharan Africa*, AFRCE, April 12, 2006; *Accelerating Development Outcomes in Africa: Progress and Change in the Africa Action Plan*, Development Committee, April 15, 2007; *Challenges of African Growth: Opportunities, Constraints and Strategic Decisions*, Benno Ndulu (with Lopamudra Chakraborti, Lebohang Lijane, Vijaya Ramachandran, and Jerome Wolgin), 2007.

Africa's recovery may still be modest by China and India's astounding recent rise, but it constitutes a clear break from the past, and it's become possible to wonder whether the terrible decades of war, famine and dashed hopes are finally over.[5] The following sections take a tour of some the key continent-wide trends to try to figure out some answers.

AFRICA'S DEMOCRATIC ERA

Sub-Saharan Africa has become much more democratic since 1991, and this change has brought new faces into power and challenged the old ways of doing business in the state house. Although Kenya's recent stolen election seems like a huge step backwards, there was a time not long ago when opposition parties weren't even allowed to contest African elections and all private media outlets were banned.

Freedom House produces a commonly-used index of democratic freedoms, taking on values from 1 (most democratic) to 7 (most autocratic / dictatorial). The 1970s and 1980s were the political dark ages for most of Africa, with average democracy scores hovering around 6, a level at which political freedoms are non-existent. Rulers in societies with a score of 6 violently repress dissident speech and assembly.

[FIGURE 2 HERE]

Starting in 1991, though, citizens in dozens of African countries fought for political change (some inspired by the freedom wave then sweeping the Soviet bloc), and by 2007 the African Freedom House average had jumped up to a 4 out of 7. What does that number mean? The typical African country is still not as democratic as Sweden – or India or Mexico – but the improvements have been widespread and visible. Opposition parties are ubiquitous and open

[5] My Berkeley colleague Pranab Bardhan presents the evidence on their rise in his January/February 2008 piece "What Makes a Miracle: Some Myths about the Rise of India and China" in this *Review*.

debate the norm in a growing swathe of Africa, and this puts them far ahead of the dictatorships in China or Burma.

Until its recent lapse, Kenya had experienced an even more inspiring turnaround, from a 7 in 1995 to a 3 in recent years, following the 2002 elections won by then opposition leader Mwai Kibaki. Back in the 1990s, Kenya's political and institutional infrastructure was every bit as corroded as the Kisumu-Busia highway. Daniel arap Moi, a violent, polarizing and autocratic ruler, had served as Kenya's President since 1978. Hundreds of dissidents were imprisoned and many tortured when Moi officially turned the country into a one-party state in the 1980s. Political discussions were rendered in whispers. It seemed like Moi's secret police were everywhere then.

Popular protests – backed up with foreign aid donor pressure – finally forced Moi to hold the country's first competitive elections in a generation, in 1992 and again in 1997, but both elections were flawed exercises. Moi held all the levers of state power and would never allow himself to lose. Ethnic land clashes – most likely manufactured by the president himself – broke out before both polls and served to intimidate the opposition, which was already reeling from the blatantly pro-Government electoral commission and biased press coverage. Tens of thousands of Kikuyus were driven off their land by Kalenjin (Moi's ethnic group) youth bands in the Rift Valley.

Kenya had another national election in 2007. But this time the political opposition – led by long-time dissident Raila Odinga, himself imprisoned for over eight years without trial by Moi – was leading opinion polls over the incumbent Kibaki, who came to power when Moi finally stepped down. Political coverage in newspapers, radio, television, and the internet was exhilarating and no-holds-barred, and peaceful protests ubiquitous. As the incumbent party faced probable defeat in a second consecutive free election, Kenyan was starting to look like a real democracy.

But things didn't work out the way they were supposed to. After moving ahead in the early election returns, Odinga saw Kenya's Electoral Commission delay vote counting for two days, and then produce vote tallies that unexpectedly put President Kibaki ahead. Many international observers, and even the Commission's own head, think rigging was the cause: in some of Kibaki's Kikuyu strongholds, the president received tens of thousands more votes than the total number of registered voters.

The police put down massive nation-wide opposition street protests with shoot-to-kill orders. The post-election anger also provided a political opening for renewed Kalenjin-Kikuyu clashes in the Rift Valley, in a dispute that had largely been on ice since the mid-1990s but was never settled. Hundreds of thousands of Kenyans of all ethnic groups, but disproportionately Kikuyus, have been driven out of their homes since the election. A country lauded globally for graciously hosting refugees from its troubled neighbors – including Ethiopia, Somalia, Sudan and Uganda – now has refugee camps of its own. The Kenyan success story was apparently much more fragile than it seemed even a few months back.

While Kenya's Freedom House rating is sure to worsen following the rigged December 2007 election, some of Kenya's recent democratic gains are permanent, as told in the boisterous new opposition media outlets openly challenging the election results, the mass opposition rallies, and the fact that Odinga's opposition party, despite losing the presidency, did manage to win control of parliament. These changes have been made possible by a new generation of Kenyan civil society leaders, journalists, and anti-corruption campaigners who simply won't allow a return to one-party rule.

Are Africa’s democratic reforms a partial explanation for its positive recent economic performance? Nobel Prize economist Amartya Sen has famously described how democracy has improved the Indian government’s response to famines. Although it’s impossible to definitively prove the link one way or the other, there are good conceptual reasons to believe that democracy can sometimes play midwife to economic rebirth. Democratic elections force politicians to be receptive to voters’ needs: a free press means government policies are scrutinized and malfeasance investigated, and elections provide discipline for even the most venal politicians. Get caught stealing and you’re unlikely to be returned to a plum MP post. The recent gains in both political freedom and economic growth could be connected.

Better control over corruption is another concrete way that political accountability could improve economic performance, at least in theory. Unfortunately, this proposition is very difficult to establish rigorously. Corruption is notoriously hard to measure: it’s by definition a hidden and illegal act and official data rarely provides much insight, so the jury is still out on whether expanding democracy will contain corruption.

AFRICA’S RENAISSANCE: MADE IN CHINA?

But Africa’s economic comeback probably isn’t all due to internal political and social changes, as important as these may be. Global economic factors are also critical, and in recent years nothing has been more salient than China’s rise as an economic force.

China’s economic miracle – from rice paddies to mag-lev trains in one generation – affects Africa in multiple ways. The first channel is international trade. Overall Asia-Africa trade increased to $100 billion in 2006 from trivial levels a decade earlier, and most of it is with

China.[6] Rising commodity prices are a big part of the story. Global commodity prices for petroleum, minerals, and agricultural products have been soaring over the past five years as surging Asian demand meets limited world supplies.

Crude oil is the best known example. Its price has more than tripled since 2000, depositing much more money in the coffers of the big African producers like Nigeria, Angola, Sudan, and Gabon. The petroleum for Chinese factories and urban commuters has to come from somewhere and Africa is filling in the gaps.

[FIGURE 3 HERE]

But oil isn't Africa's only key export. The per unit price of copper, used in factories and construction everywhere, soared from about $70 to $350 between June 2001 and June 2007, a boon to Zambia, Africa's largest producer. Kenya and its East African neighbors have benefited from coffee's rise: prices have been frothy, rising from $41 in 2001 to $113 in 2007[7]. This rise puts more money in the pockets of coffee farmers, many of whom are smallholders. The consensus is that hungry Chinese consumers are behind a big chunk of these rising prices.

Gains in key export sectors can even help people who aren't growing coffee or mining copper themselves. For instance, Busia, Kenya isn't a coffee producing region but it still benefits from higher coffee prices. As coffee producers in central Kenya get richer, they buy more of Busia's fish and plantains, and also more Ugandan goods, sending ever more trucks (and truckers) laden with imports through Busia town.

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[6] *Africa*'s *Silk Road: China and India's New Economic Frontier*, Harry G. Broadman (with Gozde Isik, Sonia Plaza, Xiao Ye, and Yutaka Yushino), 2007.

[7] Oil prices are on the U.S. Department of Energy website at http://tonto.eia.doe.gov/dnav/pet/hist/wtotworldw.htm; copper prices on the New York Mercantile Exchange website http://www.nymex.com/cop_fut_histspot.aspx; and coffee prices on the International Coffee Organization website http://www.ico.org/asp/select10.asp.

While Chinese demand for African commodities is one way that Asia's economic boom helps to raise African living standards[8], China's economic involvement in Africa now goes far beyond arms-length imports and exports. Chinese firms have begun investing directly in African oil and mineral producers, and in roads, dams and telecommunications infrastructure. It's estimated that annual Chinese foreign direct investment in Africa surpassed the $1 billion mark in 2005 and has continued to grow since then.[9] Shuttered factories and mines have been brought back to life and severed roads restored.

No one knows the exact figures, but hundreds of thousands of Chinese workers and entrepreneurs have also migrated to Africa in search of their fortunes. This new Afro-Chinese community – from telecom engineers to owners of small Asian restaurants and medicine shops – has been a striking new presence in my own recent travels in both West and East Africa. The spread of cell phone technology has allowed rural African grain markets to function more efficiently, probably improving the lives of consumers, farmers, and traders alike.[10]

Why have Chinese firms invested so aggressively in Africa when European and U.S. investors have largely shied away? In discussions with Chinese investors, it seems the key motive is very simple: profit.[11] Africa provides bountiful profit opportunities across multiple economic sectors for Chinese firms flush with cash from their boundless growth at home. Chinese investors also have a major advantage over their Western counterparts as they hunt for profits in Africa. Chinese firms know how to make money in a developing country business environment where the rule of law is optional, corruption and bribery the norm, and

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[8] For a theoretical economics discussion of how economic growth in China and India could affect long-run prospects in Africa, see Marcos Chamon and Michael Kremer (2006)) "Asian Growth and African Development" in the *American Economic Association Papers and Proceedings*.
[9] Broadman (2007).
[10] See Jenny Aker, "Does Digital Provide or Divide? The Impact of Cell Phones on Grain Markets in Niger", unpublished working paper University of California, Berkeley.
[11] A recent NYT article contains interesting interviews with Chinese investors in Africa, "Entrepreneurs From China Flourish in Africa", *NYT*, August 18, 2007, by Howard W. French and Lydia Polgren.

infrastructure (roads, the power supply) often patchy. These experiences give them a big leg up on the potential foreign competition.

Chinese investment sometimes has a more sinister edge. Take the example of Zambia's recently decrepit Chambishi mine, bought out by a Chinese state-owned enterprise and reopened in 2003 to great fanfare in Zambia. However, local support for the Chinese quickly evaporated when brutal labor conditions came to light: workers were given inadequate safety equipment, pay below the national minimum wage, and could forget about ever getting a day off – basically, working conditions similar to those faced by many Chinese mine workers. Perhaps as a result of this disregard for worker rights, in 2005 more than 50 workers died in a major accident that shut down the Chambishi mine.

Chinese firms aren't subject to the same scrutiny as Western firms with respect to worker, environmental and human rights issues. A U.S. or U.K. firm with such an appalling safety record would probably face investigations, protests, or even boycotts back home, and the bad PR might push them to improve working conditions. Some readers will recall the black eye Nike received when the awful conditions in its Asian shoe factories came to light.

Yet the repressive political environment back home insures that Chinese firms never have to say they're sorry, and this gives them a far freer hand than Westerners to squeeze profits out of their African workers. While the Chambishi copper mine eventually reopened, the belief that Chinese investment brings with it slave-labor conditions remains widespread in Zambia. Some have begun to ask whether Chinese investment is worse than no investment at all.

More ominously, Chinese investors have also taken the lead tapping into Sudan's rich crude oil reserves. Western oil firms have shunned the Khartoum regime as punishment for its support for the *janjaweed* militias who have massacred thousands of civilians in Darfur and displaced millions more. This has left the oil playing field to Chinese firms alone, who in exchange for access to its natural resources have provided critical military assistance and diplomatic support for Sudan at the United Nations. Ironically, Western sanctions have only strengthened the Chinese bargaining position vis-à-vis Khartoum by eliminating the potential competition, boosting their profits.[12]

Sudan is not alone is receiving no-strings-attached Chinese investment in the oil sector: Angola and Chad are two other recipients with questionable democratic and human rights credentials, and some of the world's worst corruption ratings. Given these countries' venal leaders and repressive politics, it's debatable whether expanded oil production will yield higher living standards anytime soon.

Leaving problematic cases like Sudan, Angola and Chad aside for the moment, China's economic rise has clearly benefited many millions of Africans in oil and non-oil-exporting countries alike, especially through growing trade and higher global commodity prices. And the billions in Chinese investment currently pouring into Africa hold out the possibility of better infrastructure and industrial development in the long-run: in 2007, China committed over $20 billion to finance trade and infrastructure development throughout Africa.[13] The downside is Chinese firms' home-country labor, environmental, and human rights baggage, which increasingly seems out of step with many Africans' democratic aspirations.

Beyond the rise of China, the most important trade issue for African economies is access to rich country markets for their agricultural exports. The U.S., European Union and Japan like to force open foreign markets to "free trade" in sectors where they have the competitive edge, while subsidizing their own inefficient farmers with hundreds of billions of dollars each year and

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[12] Ray Fisman makes the same point in *Slate*, "Diamonds are a Guerrilla's Best Friend", August 17, 2007.
[13] See "China's Trade in Africa Carries a Price Tag", *New York Times*, August 21, 2007, by Lydia Polgreen, and Howard W. French.

using tariffs and quotas to keep foreign agricultural products out. This is one of the most long-standing and hypocritical of all international economic injustices, but also one that seems impervious to all reform efforts.

Cotton is an extreme example of how rich country policies can hinder African economic development. In recent years, twenty-five thousand U.S. cotton farmers have gotten over $3 billion dollars a year in government subsidies.[14] The resulting surge in U.S. production floods global markets and drives down world cotton prices, hurting millions of poor cotton farmers in Benin, Burkina Faso, Mali and Tanzania, for whom higher cotton prices would bring improved living standards. If United States policymakers are genuinely interested in keeping Africa's current economic turnaround going, reducing agricultural subsidies to our domestic cotton farmer would be an obvious starting-point.

Recent history suggests that unilateral trade liberalization by rich countries can make a big difference to African economies. The 2000 U.S. African Growth and Opportunity Act (AGOA) reduced tariff rates and lifted quotas on African textiles, and is credited with spurring on rapid growth of textile production in many African countries, including Kenya. A broader opening of rich country markets could have even more profound benefits. Yet here again China's growing economic might directly affects Africa. The 2005 expiration of the Multi-Fiber Agreement, which ended most textile and apparel quotas worldwide, allowed China's low-cost factories to freely compete with other textile producers for the first time, and China's share of rich country markets has surged. Africa's textile producers have been among the main losers, and many of AGOA's initial gains have evaporated.

[14] An influential reference on the global implications of U.S. cotton subsidies is Oxfam's 2002 Briefing Paper #30 "Cultivating Poverty: The Impact of U.S. Cotton Subsidies on Africa".

WHAT'S AID GOT TO DO WITH IT?

The role of foreign aid is one of the most contentious issues in development economics today. Champions of foreign aid led by Jeffrey Sachs of Columbia University claim that dramatically boosting foreign aid is *the* key to breaking poor regions like sub-Saharan Africa out of their "poverty traps". Sachs' position is that a large aid infusion will provide poor Africans with enough spare cash to save, invest and finally grow on their own.

Opponents of more foreign aid led by Bill Easterly at NYU point to the fact that African remains desperately poor today despite the hundreds of billions of dollars that have already spent in foreign assistance. In other words, if there really was a poverty trap, the foreign aid already donated provided ample chances for Africans to break out of it.[15]

Social science researchers have long sought to credibly establish foreign aid's impacts on economic growth but there are still no definitive statistical answers.[16] Yet a look at the raw data on foreign aid across regions and time suggests that aid has played a rather small role in Africa's recent economic success.

[FIGURE 4 HERE]

The first instructive comparison is Africa versus the world's two other poor giants, China and India, both of whom were at African income levels in the 1970s. It's striking just how high foreign aid to Africa is in per capita terms: overseas development assistance is a full order of magnitude higher in Africa than in China or India, including during the critical 1980-2000 period

[15] See their latest books: Jeffrey Sachs (2005) *The End of Poverty: Economic Possibilities for Our Time*, Penguin Press; and William Easterly (2006) *The White Man's Burden: Why the West's Efforts to Aid the Rest Have Done So Much Ill and So Little Good*. Penguin Press.

[16] Some important contributions in this vast literature include William Easterly (2003) "Can Foreign Aid Buy Growth?", *Journal of Economic Perspectives*, and Adam Przeworski and James R. Vreeland (2000) "The impact of IMG programs on economic growth", *Journal of Development Economics*. Figure 2 in Easterly (2003) clearly illustrates the sharp drop off in foreign aid at the Cold War's end.

when those Asian countries moved forward economically and Africa stagnated. One thing's for sure: foreign aid is not a necessary condition for economic development.

Another issue that comes up in comparing Figures 1 and 4 is that foreign aid to Africa increased in the 1980s precisely when its economies started to collapse. You might wonder if foreign aid caused the collapse, but that probably wouldn't be fair. Increased foreign aid flows could have been a response to the deteriorating economic circumstances. But this is precisely the sort of concern that makes it so hard to understand foreign aid's impact. Foreign aid can affect economic growth but it also reacts to local economic conditions, and disentangling causes and effects statistically is hard.

A more promising way to get analytical leverage is to compare African economic growth in the 1980s versus the 1990s. At the tail end of the Cold War in the 1980s, foreign aid levels to Africa were at historical highs, as the U.S. (and its allies) and the Soviet Union each plied countries with cash to win their diplomatic support in the climax of that grand struggle. Yet foreign aid to Africa fell off a cliff – by nearly 50% - between 1990 and 1995, when African countries lost their geopolitical significance. What was the impact of this sudden change, driven mainly by external political factors rather than in reaction to local economic performance, on African economies?[17] This kind of sharp unexpected change is what social scientists call a "natural experiment".

A close look back at Figure 1 indicates that average African economic performance remained pretty much the same throughout the 1990s – stable stagnation – despite the sudden drop off in aid. Once again it doesn't look like we should look to foreign aid to explain the key turning points in African economic performance.

[17] Easterly's (2003) data illustrates this sharp change.

These patterns certainly don't mean that all foreign aid is useless. There are many aspects of human wellbeing – in education and healthcare, for instance – that are impacted by foreign aid but don't show up in short-run national income figures. The recent international campaign to fund anti-retroviral drugs is the most dramatic example, and it's already saved hundreds of thousands of African lives. Foreign aid can sometimes improve lives today without changing the bottom line or stimulating the macroeconomy. That said, the patterns in Figures 1 and 4 should make us more skeptical about simplistic claims that boosting foreign aid alone will break Africa out of its centuries-old poverty and lead to sustained economic progress. Skepticism about foreign aid's benefits is particularly appropriate in countries where corruption remains widespread, where much of whatever aid does arrive is likely to be squandered or misused.

CLOUDS ON THE HORIZON: CONFLICT CONTAGION

Violence lies just below the surface of politics in poor countries, and as the Kenyan crisis illustrates, sub-Saharan Africa is no exception. In fact, African countries have suffered through the greatest number of armed conflicts in the world over the past three decades: seventy percent have experienced at least one year of armed conflict since 1980.[18]

The past few years have seen some optimistic trends on the conflict front, but overall it's a mixed bag. Several of the most stubborn civil wars – including those in Angola, Liberia and Sierra Leone – have finally come to an end since 2000, and the conflict in northern Uganda is going in the same direction. Post-Apartheid South Africa has avoided a political explosion, at least for the time being.

War always leaves heavy scars, but at least in the cases of Sierra Leone and Uganda, there are signs that the civil war hasn't permanently demoralized survivors. In fact, experiencing

[18] This is according to the latest Peace Research Institute of Oslo (PRIO) / Uppsala Armed Conflict Database.

conflict's horrors can give some people greater will to strive for a better society: field research among former Ugandan child soldiers finds that those who were abducted by rebels are actually more politically engaged today than those who escaped, while Sierra Leonean households that personally suffered violence are more likely to vote, participate in community meetings, and contribute to local road and school projects than their neighbors who were spared direct violence.[19] These findings highlight the incredible resilience of African households. The rapid postwar expansions in many African countries – Mozambique and Uganda come to mind – also show that some African economies can overcome conflicts' toxic legacies.

Despite these success stories, the total proportion of African countries with ongoing armed conflicts hasn't budged, remaining near 30% since 1995, because new conflicts (Ivory Coast) have taken the place of the old ones, and as old conflicts re-start (Niger).

[FIGURE 5 HERE]

The darkest cloud on the African horizon, in my view, is the fact that armed conflicts continue in Congo and Sudan. These are Africa's two largest countries, bordering a combined total of 15 other nations. African civil wars have a history of spilling over national frontiers: the Liberian civil war led to Sierra Leone's conflict, the Rwanda genocide provided the spark for Congo's current mess, and Sudan's Darfur conflict has already rekindled Chad's long-simmering civil war. Kenya's January 2008 political turmoil shut down the Kisumu-Busia highway, temporarily cutting off oil supplies into Uganda. Unless the wars in Congo and Sudan end, they will soon threaten Africa's new democracies and economic success stories.

There is growing evidence that African civil violence can be precipitated by adverse economic conditions, and in particular by sharp drops in national income. This isn't always the

[19] The relevant research papers are Christopher Blattman (2007) "From Violence to Voting: War and political participation in Uganda." Manuscript, Yale University; and John Bellows and Edward Miguel (2008) "War and Local Collective Action in Sierra Leone", manuscript University of California, Berkeley.

case: Kenya's current crisis broke out during good economic times. But more times than not, extreme poverty breeds desperation and makes organized violence more attractive. Exploiting two different types of "natural experiments" (once again), researchers find that external factors that hurt African economies can set off armed conflict. Large drops in rainfall levels – which lead to economic collapse in agrarian societies – as well as reductions in key commodity prices have both been linked to civil conflict outbreaks in Africa.[20]

There's a silver lining to this bleak pattern. If the economic growth of the last seven years continues for another decade or two, African economies will be considerably richer and more diversified, and thus less at risk of falling into the conflict abyss. But in the meantime, sudden economic "shocks" linked to weather or commodity prices are a tremendous risk factor for Africa. Once wars like those in Congo or Sudan get started, they are difficult to stop and can even threaten their neighbors' stability so it's imperative to avert armed conflicts before they start.

One way to do so is by using foreign aid preemptively, targeting it to countries at greatest risk of violence. Tracking current rainfall levels and commodity price movements is a good way to figure out which countries should receive more aid. Rather than waiting until after conflicts break out, quickly targeting foreign aid beforehand – through what I've called "Rapid Conflict Prevention Support" (RCPS)[21] – to these vulnerable countries could help bolster fragile states in their most trying years. In other words, using more of the existing foreign aid pool as *insurance*

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[20] Refer to the research papers: Edward Miguel, Shanker Satyanath, and Ernest Sergenti (2004) "Economic Shocks and Civil Conflict: An Instrumental Variables Approach", *Journal of Political Economy,* and Markus Bruckner and Antonio Ciccone (2007) "Growth, Democracy, and Civil War", manuscript Pompeu Fabra.

[21] For further work describing the Rapid Conflict Prevention Support proposal, see my articles "Poverty and Violence: An Overview of Recent Research and Implications for Foreign Aid", in *Too Poor for Peace? Global Poverty, Conflict and Security in the 21st Century*, (eds.) Lael Brainard and Derek Chollet, Washington DC: Brookings Institution Press, 2007; "Stop Conflict Before it Starts", September 18, 2006 in *Businessweek*. RCPS is laid out in greater detail in my forthcoming book with Ray Fisman, *Economic Gangsters: Corruption, Violence, and the Poverty of Nations* (Princeton University Press). The discussion of climate change below also draws on the forthcoming book.

for the poorest African countries could pay off by preventing armed conflicts that jeopardize the whole region.

I don't think RCPS insurance should (or could) entirely replace traditional aid focused on investments in infrastructure, health or education. But given that the fruits of so much foreign assistance are currently destroyed by armed conflict, or diverted to humanitarian relief after wars have already broken out, RCPS is a natural complement to standard foreign assistance.

An existing program that provides drought assistance to farmers in Botswana shows that an insurance mechanism like RCPS can work in practice. Drought is a frequent visitor to Botswana, as in much of the semiarid tropics. Starting in the 1970s, the government implemented the groundbreaking Drought Relief Program (DRP) to help its people cope in years when the rains fail.[22] The DRP consists of direct income support for rural households in these years, including both public works employment and food aid for the most vulnerable farmers.

It's estimated that up to 60 percent of rural Botswanans received some DRP assistance during the country's severe mid-1980s drought. (To put that in perspective, Medicaid, the largest U.S. social program providing health care for poor families, covers only 13 percent of the population.) In those difficult years, DRP helped preserve social stability by keeping rural poverty and income inequality in check.

But Botswana's government probably got its money's worth: the country hasn't had a single year of armed conflict since independence in the 1960s. Botswana has been Africa's economic superstar for the past 40 years, and former Botswana president Quett Masire thinks the drought insurance played an important role in its success.[23] These agricultural insurance

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[22] For more information on Botswana, refer to Theodore Valentine. 1993. "Drought, Transfers, Entitlements and Income Distribution: The Botswana Experience." *World Development* 21, no. 1: 109–26.
[23] I had this conversation with President Masire on August 2, 2006 in Aspen, Colorado, at the Brookings-Blum Roundtable examining "The Tangled Web: Breaking the Poverty-Insecurity Nexus" conference.

programs are part of the social contract between the people of Botswana and their democratically elected government that helps to keep the peace and prosperity in this one small corner of sub-Saharan Africa. Other African countries at risk of drought could usefully follow in Botswana's footsteps with similar programs.

THE THREAT OF CLIMATE CHANGE

China's income per capita was at African levels in the pre-reform 1970s; now workers there earn many times more than their African counterparts. But China's modern economic growth is fuelled, literally, by burning coal, gas, and oil. Between 2002 and 2004, energy use in China increased by a staggering 33 percent, and China became the world's biggest greenhouse gas polluter in 2007. Together, China and the U.S. account for over 40 percent of global CO_2 emissions, the main culprit behind global warming.[24]

Half a world away in Botswana or Sudan, China's manufacturing boom may as well be on another planet but for one thing: the lives of African peasant farmers and Chinese factory workers—and everyone else on this planet—are connected by our collective effect on the Earth's climate. For poor African farmers, where the weather determines whether the next harvest will yield enough food to eat, or barren fields will bring hunger, what comes out of factory smokestacks in China could literally be a matter of life and death. If changing global weather brings less rain to Africa, it could also bring more poverty and war.

The most recent U.N. report predicts that temperatures worldwide will increase by anywhere from 2.0°F to 11.5°F (1.1°C to 6.4°C) during the 21st century.[25] This rise in temperatures will have a major impact on agriculture, and could amount to the difference

[24] The International Energy Agency Statistics, 2007 (www.iea.org) contains detailed global data on CO_2 emissions.
[25] This is for the range of low emission to high emission scenarios described in the 2007 IPCC Report: see http://ipcc-wg1.ucar.edu/wg1/Report/AR4WG1_Pub_SPM-v2.pdf, page 13.

between a bountiful harvest and a failed crop. For those of us living in advanced, post-industrial—and air conditioned—societies like the U.S., what do higher temperatures really mean, though? A slightly bigger electric bill at the end of each summer month (counterbalanced with smaller heating bills in winter)? Some parts of the U.S. may be buffeted by stronger hurricanes and tornadoes, but climate change in this range won't be catastrophic for most rich countries. Silicon Valley's idea factories and New York's investment banks will keep on humming if it's a few degrees warmer outside.

But not so for Sudan, Chad or their neighbors. If global warming brings more droughts, farmers there won't be able to just flip on the A/C. Though it's far from universal, several leading international climate scientists predict that conditions will get worse in Africa's Sahel, a parched stretch of earth containing Chad and Niger, as well as parts of Sudan, Mali, Senegal, and their neighbors. Princeton University's Geophysical Fluid Dynamics Laboratory (GFDL) has developed a leading climate model that offers dire forecasts, predicting that average temperatures in the Sahel could rise 6.3°F (3.5°C) and rainfall could fall sharply by 24 percent over the next 80 years. So there will be less rain, and what little does fall will evaporate more quickly due to higher temperatures. One of the driest places on earth may get even drier. If its fragile soils turn into desert sand, the region's economic situation could grow worse, and so could the cycle of poverty and violence that afflicts the region.

The Sahel region includes over 100 million of the world's poorest people. Average annual per capita income in the 15 Sahelian countries is only $346, and the entire region is today already racked by political instability and warfare.[26] It's the cruelest of ironies that the poorest

[26] This section is based on my ongoing research with John Dykema of Harvard, and Shanker Satyanath and Ernest Sergenti of NYU. There is no single accepted definition of the Sahel. The following organizations have different definitions: USAID (http://www.usaid.gov/press/factsheets/2005/fs050803.html), the Community of Sahel-Saharan States (http://www.africa-union.org/root/au/RECs/cen_sad.htm), and the International Development Research

people in the world—in the region least able to deal with extreme weather—also look like potentially the biggest losers in the global climate change lottery.

Climate predictions for the Sahel are still uncertain, since not all climate models produce the same bleak forecasts as the GFDL researchers. But given the disastrous consequences for the Sahel's people, it's worth planning for the worst. The increased droughts predicted by the GFDL model, caused by higher worldwide pollution, could make life simply unlivable in many parts of the Sahel, sending millions of hungry refugees into neighboring countries in search of food and water, and making the downward spiral of poverty and violence accelerate ever faster.

Of course, these grim predictions assume that the world will just keep on chugging along as it has been for the past 30 years or so, with China, America, and the rest of the industrialized world continuing to spew endless tons of carbon dioxide into the atmosphere; Africans failing to make the transformation to industrialized economies; and with irrigation systems in the Sahel remaining limited at best. But given Africa's economic stagnation of the past few decades, this gloomy scenario serves as a harsh warning of what the future could hold.

MOVING FORWARD – OR LOOKING BACK?

Looking back at Africa's first four decades of independence, it seems that everyone – including Africans themselves – were far too optimistic about how their economic and political fortunes would play out.

Centre (http://www.idrc.ca/en/ev-43109-201-1-DO_TOPIC.html). A reasonable definition of the Sahel includes parts of the following 15 countries: Burkina Faso, Cape Verde, Chad, Djibouti, Eritrea, Ethiopia, Gambia, Guinea-Bissau, Mali, Mauritania, Niger, Nigeria, Senegal, Somalia, and Sudan. The climate estimates for the Sahel come from a convenient geographic rectangle bounded between 4-25 degrees North latitude and 13 degrees West and 17 degrees East longitude. The per capita GDP figure in the text is population weighted for these countries (minus Somalia, which has no reliable national income figures for recent years) and comes from the World Development Indicators (http://devdata.worldbank.org/wdi2006/contents/cover.htm). Income is not adjusted for purchasing power parity.

With a few notable exceptions (like Ethiopia), African nations were inventions of the colonial powers, lines on maps with little real historical or social meaning. Think of the Central African Republic. Does that sound like a name people chose for themselves to express their national identity, or one imposed by a colonial bureaucrat? African political participation pre-independence was strictly limited by the colonizers, and that impeded the development of genuine local politics. A few African countries had strong independence movements (like Ghana), but in most cases, especially in Francophone Africa, independence dropped into people's laps like manna from heaven.

It shouldn't be surprising that it is taking a full generation or more for real nationhood to take root in these infant countries. Everything started from scratch in 1960. Politicians had to figure out how to forge political compromises across class, region, gender, language, clan and religious lines. History and civics textbooks needed to be written. Citizens had to come up their own national narratives and heroes. Creating new identities and institutions takes time, and isn't something that foreign colonizers, aid donors, or the IMF/World Bank, are willing or able to do. And all this on top of the immediate economic tasks of boosting agricultural productivity, educating the workforce, and building a modern transportation infrastructure.

Historically, the process of creating viable nations has been costly in time and blood. The closest historical parallel to Africa's painful post-colonial transition is probably Latin America's trajectory after its independence from Spain and Portugal in the 1810s and 1820s. Like Africa in the 20th century, the newly free Latin American republics suffered through many decades of civil and international wars, economic stagnation, and political repression before finally establishing stronger states in the late 1800s. These 19th century Latin American conflicts were as bloody as the worst African wars, if not more so: in the 1864-1870 War of the Triple Alliance, Argentine, Brazilian and Uruguayan troops killed over half the prewar population of Paraguay, as they snatched chunks of its land.[27] The comparison with the Democratic Republic of Congo's ongoing conflict – which has lured in troops from at least five of its neighbors, all grabbing at Congo's mineral trove, and leaving millions of civilians dead – is irresistible.

Nation-building has never happened overnight, and that includes the United States. Our own brutal Civil War took place eighty full years after independence from Britain. It wasn't until after that transformative war that the U.S. became a real world economic and military power. After its forced opening to the outside world in 1853, Japan suffered through three decades of political instability and economic stagnation before it too found its institutional footing and started on its unprecedented economic development path.

For the first time in a while, there is genuine hope today that Africa is on the path to real economic and political progress, and may finally join in on the rest of the world's prosperity. International trade is rising, new technologies like cell phones are improving millions of lives, and more countries than ever are turning to democracy. The economic boom and political opening I witnessed myself in Kenya between 2002 and 2007 shows what's possible.

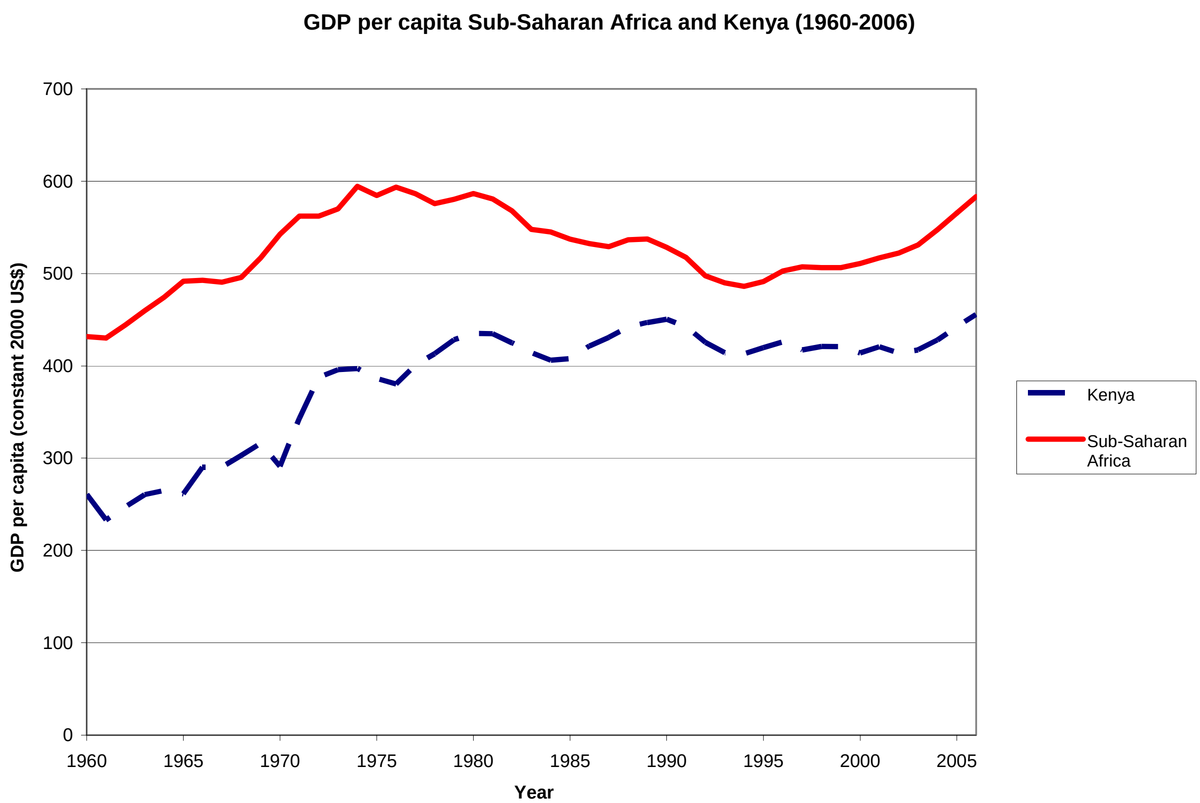
Unfortunately, the latest Kenyan crisis reinforces the point that Africa isn't yet over the hump. The fact that post-election violence could engulf East Africa's richest and most democratic country overnight – and so readily threaten the past decade's strides – highlights how fragile Kenya's gains really were. Other African countries may also be just one contested election – or one drought year, or one plummeting commodity price, or a global economic recession – away from similar meltdowns. Kenya is one country out of forty-plus in sub-Saharan

[27] Chris Leuchars. *To the Bitter End: Paraguay and the War of the Triple Alliance*, 2002, Greenwood Publishing, Westport CT. For a comparison of post-independence Latin America and Africa, refer to Robert Bates, John H. Coatsworth, and Jeffrey G. Williamson (2006), "Lost Decades: Lessons from Post-Independence Latin America for Today's Africa", *National Bureau of Economic Research Working Paper #12610.*

Africa, so it wouldn’t be right to over-interpret events there. But sadly Kenya isn’t alone: Ivory Coast and Zimbabwe, two of Africa’s most prosperous and stable countries in the early 1990’s, have also imploded in bloody political conflict.

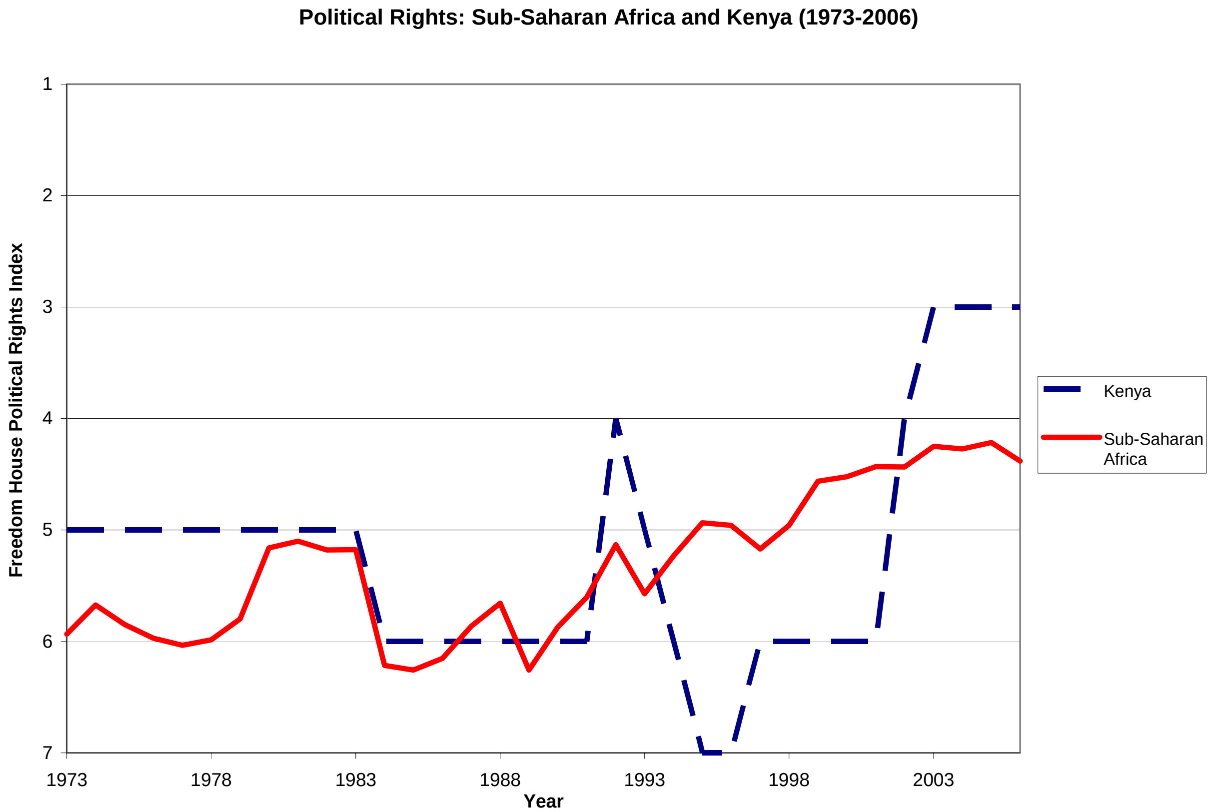
Is it Africa’s turn? It’s still too early to tell.

FIGURE 1:



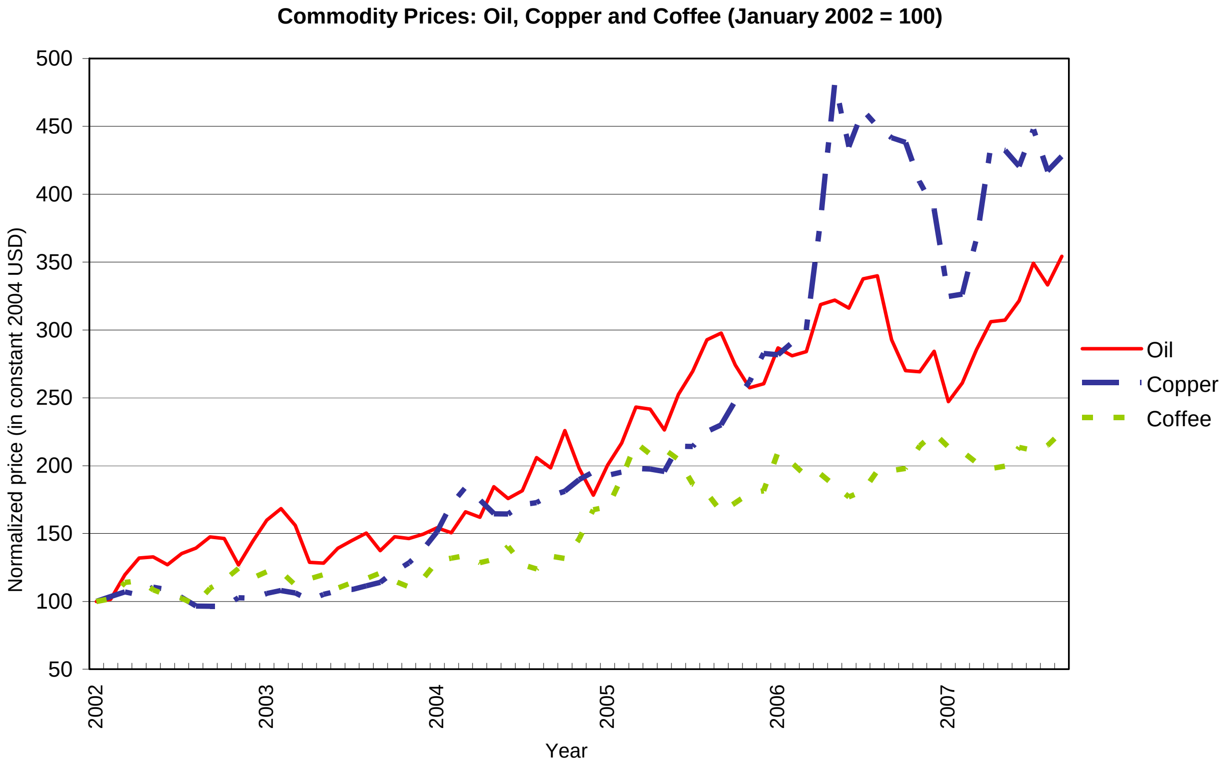
Sources: World Bank World Development Indicators 2007.

FIGURE 2:



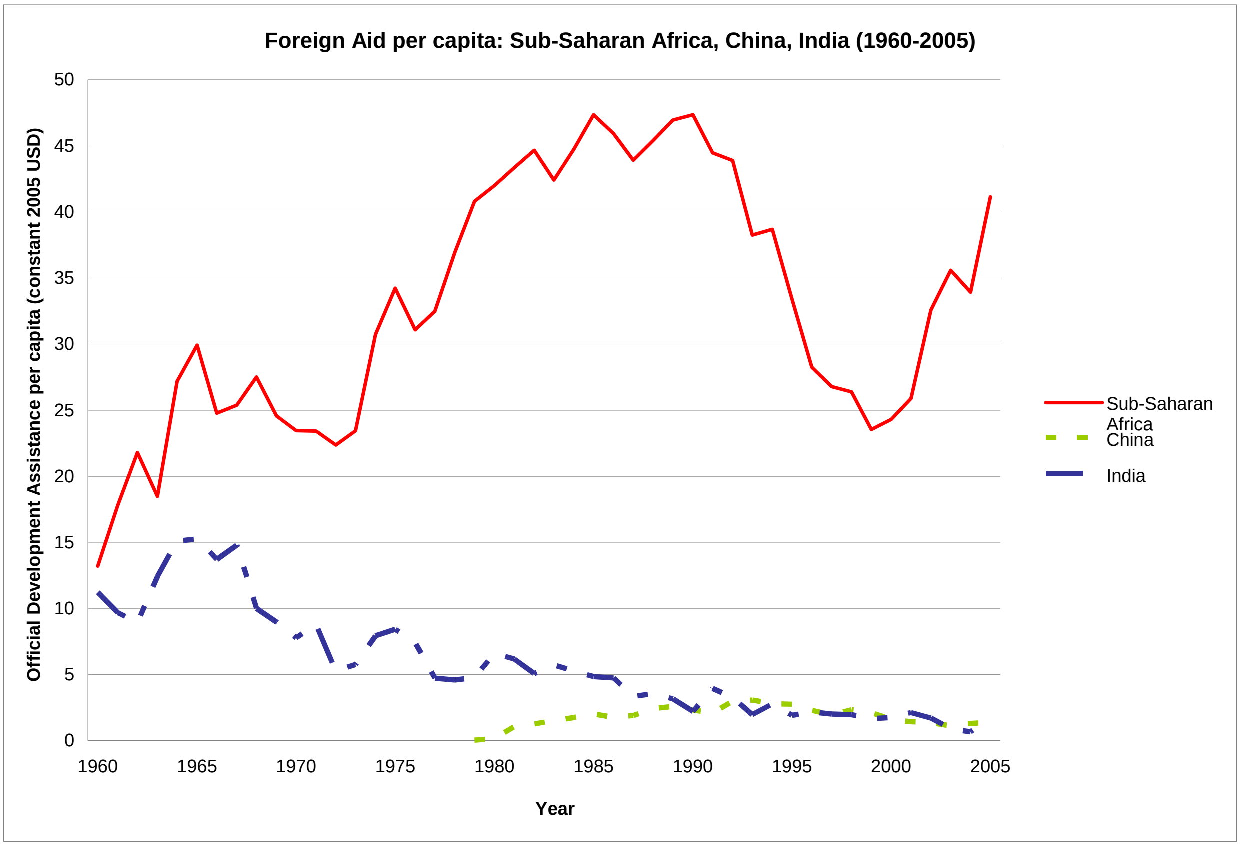
Sources: Freedom House.

FIGURE 3:



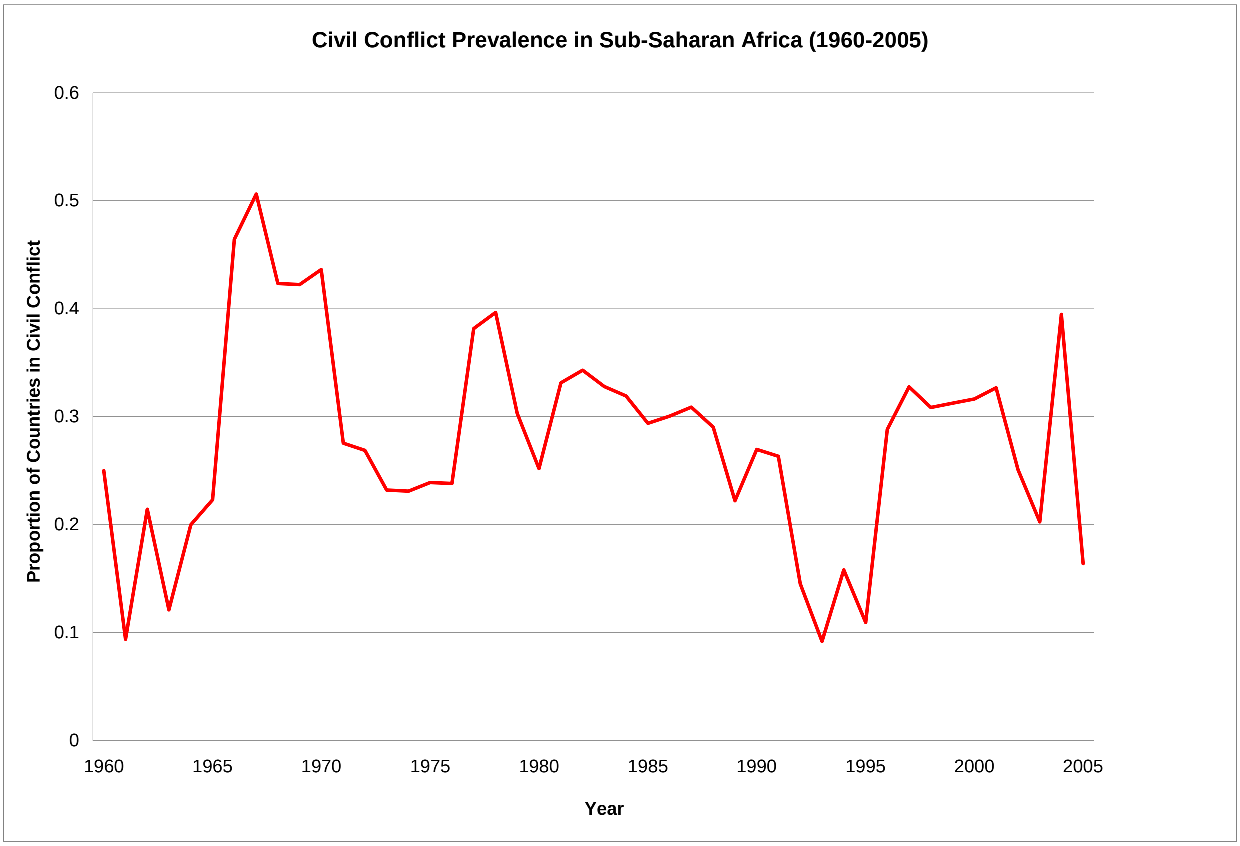
Sources: Oil prices are from the U.S. Department of Energy, copper prices from the New York Mercantile Exchange, and coffee prices from the International Coffee Organization.

FIGURE 4:



Sources: Organization for Economic Cooperation and Development OECD.Stat online.

FIGURE 5:



Sources: Peace Research Institute of Oslo / University of Uppsala Armed Conflict Database. These figures are weighted by country population.

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