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The Scorecard on Development, 1960-2010: Closing the Gap?

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April 2011

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Acknowledgements

About the Authors

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Executive Summary

This paper is the third installment in a series (the first and second editions were in 2001 and 2005) that traces a long-term growth failure in most of the world's countries. For the vast majority of the world's low- and middle-income countries, there was a sharp slowdown in economic growth for the two decades from 1980-2000, as compared to 1960-1980. By 2005, the story had still not changed very much.

As would be expected, this long-term decline in growth also brought a decline in progress on social indicators, including life expectancy, infant and child mortality, and education. This was not the result of "diminishing returns," either in economic growth or in the achievable progress in social indicators, as we showed previously.   More likely, it was a result of policy failures. But this widespread, historic long-term slowdown in economic growth and social progress received very little attention or investigation.

The past decade has shown a rebound in economic growth as well as progress on social indicators for many countries. In this paper, which looks at data for economic growth as well as health and education indicators for 191 countries over the last fifty years, we look at the economic performance of the last decade, as well as available social indicators, to see if the long slow-down in growth for the vast majority of countries has finally been reversed.

The question that we raised ten years ago, and is still relevant, is: how much of this growth slowdown can be attributed to the policy reforms that characterized the post-1980 era?[1] For most low- and middle-income countries, these reforms included tighter fiscal and monetary policies (including inflation-targeting regimes and increasing independence of central banks); a large reduction of tariffs and non-tariff barriers to trade; financial deregulation and increased opening to international capital flows; privatization of state-owned enterprises; increased protectionism in the area of intellectual property; and the general abandonment of state-led industrialization or development strategies.

Identifying econometrically the contribution of the various reforms to the growth failure would be a daunting and possibly intractable exercise. But the fact that these reforms, often referred to as "neoliberal," coincided with a sharp, long-term decline in economic growth for the vast majority of low- and middle-income countries is at least *prima facie* evidence that on the whole, these reforms contributed to the economic failure. It is also striking that so very few countries have, in the last 60 years, caught up with the living standards of Europe, the United States, and the high-income countries that were the first to industrialize. More recently, only three small countries out of 51 – Botswana, the Maldives, and Cape Verde – have moved up from the group of Least Developed Countries since the category was created by the United Nations four decades ago.[2] These long-term patterns by themselves suggest that there are barriers and obstacles that have their origin in international relations, rather than simply within countries.

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1 In some countries, e.g. Argentina and Chile in Latin America, the reforms began in the 1970s.
2 ILO (2011) and UN DESA (2008).

In this paper countries are divided into quintiles according to the level of per capita income, or social indicator (e.g. life expectancy, infant mortality). The three periods are (1) 1960-1980 (2) 1980-2000 and (3) 2000-2010. It is important to emphasize that we are not comparing the same set of countries in each quintile over the different time periods. Rather, we are comparing all of the countries that start each period (e.g. 1960) at a certain level of per capita GDP or social indicator, with those that start the next period (e.g. 1980) at the same level. This methodology eliminates the possibility that any slowdown in progress is a result of "diminishing returns."

Economic Growth

For growth in per capita GDP, as noted above, there was a sharp slowdown from the first (1960-1980) period to the second (1980-2000) for all quintiles. At an annual rate, every quintile saw per capita growth that was slower by roughly half- or more- in the second period as compared with the first.

For all except the top quintile of countries – i.e. for the vast majority of low- and middle-income countries, there was a sharp rebound to the growth rates of the 1960-1980 period during 2000-2010.

There are a number of possible contributing factors to the apparent turnaround. First, if the growth failure of 1980-2000 were primarily a result of policy errors, we would expect at least some recovery eventually. For example, the "shock therapy" that Russia and other transition economies experienced in the 1990s was a tremendous failure, especially as compared to the high-growth transition managed by China; but after some of the worst output losses in recorded economic history, there was an economic recovery.

In other cases failed policies were abandoned – for example the fixed exchange rates in countries such as Argentina, Brazil, and Russia that contributed to the crises and output losses of the late 1990s. India's moves away from the neoliberal policies of overly-high interest rates and an over-valued exchange rate were an important part of its growth acceleration. After the Asian economic crisis of the late 1990s many countries began to accumulate reserves, so as to prevent the liquidity problems that played a major role in the crisis – and also to avoid having to borrow from the International Monetary Fund (IMF), and accept unwanted conditions attached to the borrowing.[3]

Partly as a result of these developments, the influence of the IMF collapsed during most of the past decade, with its worldwide lending portfolio falling from $105 billion in 2003 to under $20 billion in 2007.[4] The IMF, in the prior three decades, had been one of the most important promoters of neoliberal, and often pro-cyclical, policies in low- and middle-income countries. Prior to the past decade, it headed up a "creditors' cartel" whereby borrowing countries that did not reach agreement with the Fund would not get credit from the World Bank, regional banks such as the Inter-American Development Bank, and sometimes even the private sector.[5] This was a very powerful influence on economic policy, and by 2007 it had collapsed.

In 2008, with the world economic downturn, the IMF increased its resources enormously, with its capital tripling from $250 billion to $750 billion. This was an unprecedented level of resources for

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3 For more on the decline in influence of the IMF, see Weisbrot (2007).
4 Calculated from IMF (no date a, b).
5 For more on the IMF's role in the "creditors' cartel," see Weisbrot (2006).

the Fund, but it did not give the IMF the kind of influence that it had previously had on most low- and middle-income countries. The middle-income countries of Asia and Latin America, for example, mostly remained outside the Fund's orbit. Instead, the IMF has played a major role in Europe, especially Eastern Europe and the weaker Euro zone countries (Ireland, Portugal, Spain, and Greece). Although the Fund did play a role in the implementation of pro-cyclical policies in many countries during the world economic downturn – a look at 41 agreements at the end of 2009 showed that 31 contained pro-cyclical macroeconomic policies[6] – it was considerably more moderated than its role in the past. In many countries the policies were reversed as the downturn worsened. And the IMF also had some positive impact: the Fund's lending that did not have pro-cyclical or other harmful conditions attached, which was significant in the last few years, made a positive contribution. It is difficult to measure the overall impact of the Fund since the beginning of the world recession, but clearly it did not have anything approaching the negative impact that it had from 1980 to 2000. Also, there was a coordinated intervention by central banks in response to the financial crisis, and expansionary monetary and fiscal policy in many countries, especially in high-income and some middle-income countries, in response to the downturn.

The past decade also saw a lot of bubble growth – with big real estate bubbles in the United States, much of Europe including the UK, Spain, and Ireland, and elsewhere. It was a period of very low real interest rates worldwide, and – until the crash of 2008 – unusually favorable financial conditions. Rising commodity prices also increased growth in many commodity-exporting countries, including in Sub-Saharan Africa. As a region, Sub-Saharan Africa more than doubled its overall (not per capita) growth rate, to 5.7 percent annually for the last decade, from 2.4 percent in the prior 20 years.[7]

The growth of China also contributed increasingly to world growth in the past decade, as compared to previous decades, as China became the second largest economy in the world[8] – and the only economy near its size with a state-led growth strategy. This affected not only regional growth, but also helped to spur growth in many commodity-exporting countries.

The Chinese success story –GDP per capita seventeen-fold over the past 30 years, to $11,918 – cannot be attributed to the reforms that most countries adopted in the post-1980 period. Although both foreign direct investment and exports contributed substantially to China's growth, both were heavily managed and handled quite differently than in other developing countries. The government has played a major role in shaping investments that would fit in with the country's development goals. These include such priorities as producing for export markets, a high level of technology (with the goal of transferring technology from foreign enterprises to the domestic economy), hiring local residents for managerial and technical jobs, and not allowing foreign investments to compete with certain domestic industries. China's policy toward foreign investment has therefore been directly opposed to the major worldwide reforms of recent decades, including the rules of the World Trade Organization; the same is also true in the important area of intellectual property.

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6 Weisbrot et al. (2009).

7 IMF (2011).

8 The international financial press reported that China became the second-largest economy in the world in 2010, on an exchange-rate basis (see, for example, Barboza 2010 and BBC 2011). However, on a purchasing power parity basis, China rose to the second largest economy in the world in 2001 (IMF 2011).

The Chinese economy is still, after more than three decades of reform, very much a state-led economy. State-owned enterprises account for about 44 percent of the assets of major industrial enterprises.[9] The financial system is state controlled, with the government owning the four largest banks.

India, with more than 1.2 billion people and now the world's fourth largest economy[10], has also had a fast-growing economy in recent years, with per capita GDP growth accelerating to 8.9 percent annually for 2003-2008. While India's growth acceleration has not been state-led as in China, it seems that the movement away from two important neoliberal macroeconomic policies are a big part of the story: the country moved toward lower interest rates and a much more competitive exchange rate. The Indian experience does, however, differ considerably from prior late-development experiences in that it has been a net capital importer (as opposed to running long-term trade surpluses as in China or other fast-growing Asian countries); and in the leading role of the expansion of the service sector, both as a share of the economy and exports.

Health and Education

As noted previously, the sharp slowdown in economic growth for 1980-2000 coincided with a significant decline in progress on health indicators. This is to be expected over any long time period since these indicators are correlated with a country's income per capita. But they are also affected by policy, and it may be that the shift toward neoliberal policy reforms also had some impact in reducing progress on health indicators in the post-1980 era.

Progress in life expectancy fell from the first to the second period for the bottom three quintiles of countries. It rose for all quintiles over the past decade, except the second quintile, which consists of countries that started out with a life expectancy between 48 and 59 years.

The decline in progress during the last decade, for the second quintile, was mostly the result of the HIV/AIDS crisis. This was driven primarily by African countries, including South Africa, Swaziland, and Lesotho, with high rates of HIV infection. Of course it is also important to emphasize that the AIDS crisis is not completely exogenous, and many of the failures of treatment and prevention are policy failures.

There is also a divergence between male and female life expectancy for the lower life-expectancy quintiles, with females doing much worse during the last period. This appears to be the result of the feminization of the HIV-AIDS crisis (with women suffering much higher infection rates), the lack of progress on maternal health, and associated health policy failures.

Adult male mortality shows some relationship to the growth slowdown and recovery for the second and third quintiles. However, for the lowest quintile, there was no slowdown in progress during the 1980-2000 period; rather this came in the most recent decade, again due to the HIV/AIDS crisis.

For adult female mortality, we see the same pattern as for male mortality in the first and third quintiles. But the second quintile shows a decline in progress on mortality across all three periods.

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9 World Bank (2010a, 3, Box Figure 2).
10 This is measured in purchasing power parity terms.

This is also the result of the HIV/AIDS crisis, which has hit women in Africa much harder than men, and with the worst-affected countries in this second quintile.

Infant and child mortality also show patterns related to the growth slowdown and recovery for the bottom three quintiles of countries.

Looking at education spending as a percentage of GDP, there is also a pattern that relates to the growth slowdown and recovery, for the middle three quintiles. For primary school enrollment, we see this pattern only in the bottom two quintiles, with an especially large increase for 2000-2008. This is, at least in part, a result of the end of a policy by the World Bank prior to this decade, of requiring borrowing countries to charge user fees for primary education. For secondary education, there is also a pattern of growth that follows economic growth for the bottom three quintiles.

Looking forward, it is too early to tell how much of the rebound in growth over the last decade will continue. At this moment it is the high-income countries, where the 2008-2009 financial crisis and recession originated -- including Europe and the United States -- that are most in danger of pursuing pro-cyclical and other harmful neoliberal policies that could produce long-term stagnation.[11] Since these countries still make up the majority of the world economy, their policies will continue to have a heavy influence over world growth over the next decade, even though the developing economies have seen a much faster recovery so far. But at the moment it seems that a good part of the developing world has developed a growth dynamic that is capable of achieving fairly rapid growth even as the high-income countries recover relatively slowly.

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11 For more on current austerity and recovery prospects across countries, see Dean Baker (2010) and Weisbrot and Montecino (2010).

Introduction

Ten years ago, at the turn of the millennium, we published a paper that called attention to a long-term economic failure that had been almost completely ignored by the major media, and had received very little attention from economists. For the vast majority of the world's low- and middle income countries, there had been a sharp slowdown in economic growth for the two decades from 1980-2000, as compared to 1960-1980.

Furthermore, as would be expected, a long-term decline in growth of this magnitude had also brought a decline in progress on social indicators, including life expectancy, infant and child mortality, and education. We documented this in our 2001 paper.[12]

We updated the analysis in 2005, and the story had not changed very much.[13] For the 25-year period 1980-2005, there had still been a sharp slowdown in growth for the vast majority of low- and middle-income countries, and reduced progress on most social indicators. As will be explained below, this was not the result of "diminishing returns," either in economic growth or in the achievable progress in social indicators. Still, after 25 years, this widespread, historic long-term slowdown in economic growth and social progress received very little attention or investigation.

To illustrate how important this phenomenon is, we can look at the growth of per capita GDP (or income) for two countries that grew rapidly from 1960-1980, but then took sharply divergent paths. **Figure 1** shows per capita GDP for Brazil and South Korea. Brazil started out much less poor than South Korea in 1960, with per capita GDP of $3,038 as compared to just $1,765 for South Korea.[14] Both countries had rapid growth for the next two decades, so by 1980 the gap had more than doubled in absolute terms, and was about the same in relative terms ($8,458 for Brazil and $5,468 for South Korea).

But then something dramatic happened. Both countries were hit by the world recession and other external shocks in 1980, but while South Korea recovered and even surpassed its prior growth rate, Brazil stagnated. Twenty years later, Brazil had barely budged from its 1980 level of per capita GDP – virtually zero increase over two decades. But South Korea had grown by 259 percent. By 2010, South Korea had achieved the living standards of Western Europe, with income per capita of $28,226. By contrast, Brazil in 2010 is still a developing country, with income per person of just $10,647.
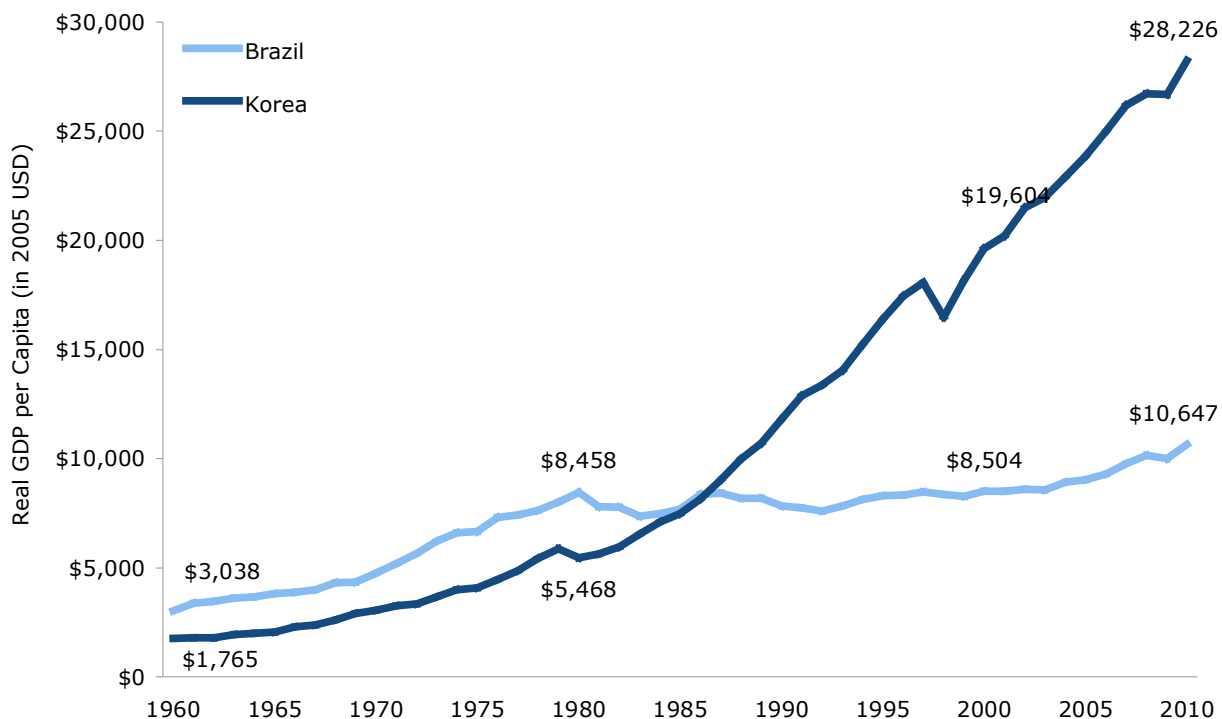
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12 Weisbrot, Baker and Kraev (2001).
13 Weisbrot, Baker and Rosnick (2005).
14 Figures are in constant 2005 dollars, on a Purchasing Power Parity basis (PPP). See Appendix 1 for GDP
   measurement and comparison methodology.

FIGURE 1
GDP Brazil and Korea

Source: Heston, Summers, and Aten (2011), and IMF (2011). See Appendix 1 for full methodology.

The differences between these two paths are huge as measured by any number of other indicators. The United Nations Human Development Index (HDI), for example, attempts to measure progress in health and education as well as income. South Korea is now ranked 12 among all countries on the HDI, while Brazil is at 73.[15] The average number of years of schooling in South Korea is 12, versus 7 for Brazil.[16] Poverty is still a widespread problem in Brazil: Despite the progress over the past decade, some 22.3 percent of the population (about 42 million people) are living on less than $3 per day; 12.7 percent on less than $2 per day.[17] South Korea is listed as having less than 2 percent of the population living below the $2 per day poverty line; the actual percentage is probably well below 2 percent.[18] Brazil's infant mortality rate is nearly four times that of South Korea, at 17.3 versus 4.5 per 1000 live births.[19]

This comparison also illustrates how important economic growth is, at least for developing countries, to achieving social progress. Of course, there is much more to economic and human well-being than income per capita – which does not even take distribution into account. The whole purpose of the HDI, for example, is to provide a broader measure of human progress that captures the ability of people to live long, healthy lives, with improved education and related opportunities.

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15 UNDP (2010).
16 Ibid.
17 World Bank (no date a, b).
18 UNDP (2009). The UN statistics count anything less than 2 percent on this measure as the same.
19 World Bank (no date b).

And the UN Human Development Report documents some sizable divergences between countries' per capita income levels and their achievements in health, education, gender equality, and other measures of human development.

But improvements in health and education, and other quality-of-life indicators are for most low and-middle income countries difficult to achieve without increasing income levels. Politically, it is generally much more difficult to redistribute income when it is stagnant than when it is growing. And of course the poorest countries cannot do very much at all without increasing their income levels. While it may be argued that the higher income countries of Europe, for example, have only to concern themselves with full employment and reducing inequality – which in theory could be accomplished with little income growth – most of the world is not in that situation.

To a large degree, the story of Brazil shown above is the story of Latin America over the last half-century. This is shown in **Figure 2.** There was considerable economic progress from 1960 to 1980, with the region as a whole – not the average of individual countries -- growing by an annual per capita rate of 3.3 percent, for a cumulative gain of 91.5 percent over the two decades. From 1980-2000, this fell to just 0.3 percent annually, or just 5.7 percent over 20 years. This was the worst long-term economic growth performance for the region in more than a century. Over the past decade (2000-2010), there has been some improvement – to 1.9 percent annual per capita growth – but this is still far below the rate of the prior decades.

FIGURE 2
Per Capita GDP Growth, Latin America
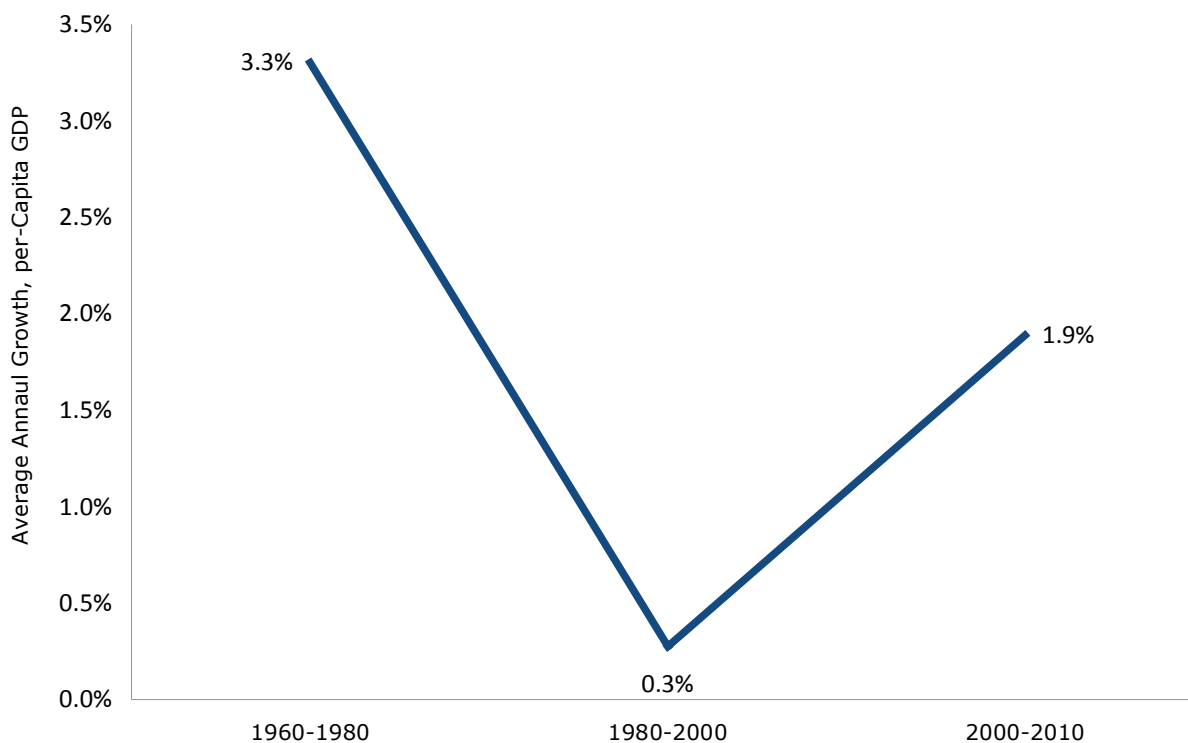
Source: Heston, Summers, and Aten (2011), and IMF (2011). See Appendix 1 for full methodology.

The rest of the world is of course more diverse; but as noted above and examined in detail below, there is a similar pattern for most countries – especially for the years 1960-2000. The question that we raised ten years ago, and is still relevant, is: how much of this growth slowdown can be attributed to the policy reforms that characterized the post-1980 era?[20] For most low- and middle-income countries, these reforms included tighter fiscal and monetary policies (including inflation-targeting regimes and increasing independence of central banks); a large reduction in tariffs and non-tariff barriers to trade; financial de-regulation and increased opening to international capital flows; privatization of state-owned enterprises; increased protectionism in the area of intellectual property; and the general abandonment of state-led industrialization or development strategies.

The fact that these reforms, often referred to as "neoliberal," coincided with a sharp, long-term decline in economic growth for the vast majority of low- and middle-income countries is at least *prima facie* evidence that on the whole, these reforms contributed to the economic failure. Identifying econometrically the contribution of the various reforms to the growth failure would be a daunting and possibly intractable exercise. But economists such as Ha-Joon Chang, for example, have long argued that the success of not only the handful of late-industrializing countries such as South Korea and Taiwan that actually made it to the high-income world – but also the United States, Europe, and Japan – was characterized by policies that were vastly different from the neoliberal policies that the governments of high-income countries now recommend to others.[21] And even aside from long-term development strategy (or lack thereof), it is not difficult to find cases where neoliberal macro-economic policies – inflation-targeting regimes and/or over-valued exchange rates – and contractionary fiscal and monetary policies have reduced economic growth considerably below its potential.

In what follows we will look at the economic performance of the last decade, as well as available social indicators, to see if the long slow-down in growth for the vast majority of countries has finally been reversed.

Standards of Comparison

In what follows we will compare the countries for which data is available on per capita GDP growth over three periods: 1960-1980; 1980-2000; and 2000-2010. There are several points about this comparison that are worth emphasizing.

First, the period 1960-1980 is a reasonable benchmark. While the 1960s were a period of very good economic growth, the 1970s suffered from two major oil shocks that led to world recessions – first in 1974-1975, and then at the end of the decade. So using this period as a benchmark is not setting the bar too high. If there were good comparable data for the 1950s, these could be included – but they would not change the story, since this was also a period of good economic growth for most countries.

Second, it is very important to keep in mind that we are not comparing the same set of countries across the different time periods. Instead, we are comparing all of the countries that start the period

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20 In some countries, e.g. Argentina and Chile in Latin America, the reforms began in the 1970s.
21 See for example Chang (2002).

(e.g. 1960) at a certain level of per capita GDP (or life expectancy and the other variables) with countries that start the next period (e.g. 1980) at the same level. So this is different from the example of Latin America and the Caribbean above.

The reason for this method of comparison is straightforward. Over time, as countries reach a certain level of GDP or life expectancy, it becomes more difficult to make the same gains – i.e. there are diminishing returns. For example, it is much easier to go from a life expectancy of 45 to 60 than from 65 to 80. There are also diminishing returns in the area of GDP growth; high-income countries are not expected to have the same potential for rapid growth as developing countries. In the example of Latin America above, the region had not reached a level of GDP that we would expect would reduce its potential growth below what was achieved in the 1960-1980 period; so we can conclude that the slowdown since then was not a result of diminishing returns. But when looking at the world as a whole, these diminishing returns will exist, not only for growth but for social indicators. The method used here eliminates the possibility that any reduction in progress that is observed is the result of diminishing returns.

In fact, this method of comparison is likely to bias the result in favor of the later time periods. It should be easier for a country starting out at a certain level of development in 1980 to make progress than one beginning at that same level in 1960 – simply because the world in 1980 had a higher level of scientific, technical, and medical knowledge. It is striking that so very few countries have, in the last 60 years, caught up with the living standards of Europe, the United States, and the high-income countries that were the first to industrialize. More recently, only three small countries out of 51 – Botswana, the Maldives, and Cape Verde – have moved up from the group of Least Developed Countries since the category was created by the United Nations four decades ago.[22] These long-term patterns by themselves suggest that there are barriers and obstacles that have their origin in international relations, rather than simply within countries.

Finally, the unit of analysis for this method is the country – there is no weighting by population or GDP. A small country such as Iceland, with 300,000 people, counts the same in the averages calculated as does China, with 1.3 billion people and the world's second largest economy. The reason for this method is that the individual country government is the level of decision-making for economic policy. If there are a number of economic reforms that were carried out in more than 100 countries, and economic failure ensues for the vast majority of them, then this is evidence that the reforms contributed to the failure. Of course, India and China make up most of the developing world, and thus their progress will have the predominant influence on measured changes in overall human welfare in the developing world. But the economic policy choices of just two governments will not provide much evidence on the success or failure of economic reforms adopted by most of the governments in the world.

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22 UN DESA (2008).

Economic Growth

Figure 3 shows economic growth for the countries divided into five quintiles. The quintiles are defined by the countries that fall within the per capita GDP levels at the beginning of each period. Thus, the first quintile includes the poorest countries with per capita GDP between $303 and $1,429 at the beginning of each period.

FIGURE 3
Average Annual GDP Growth, by Quintile
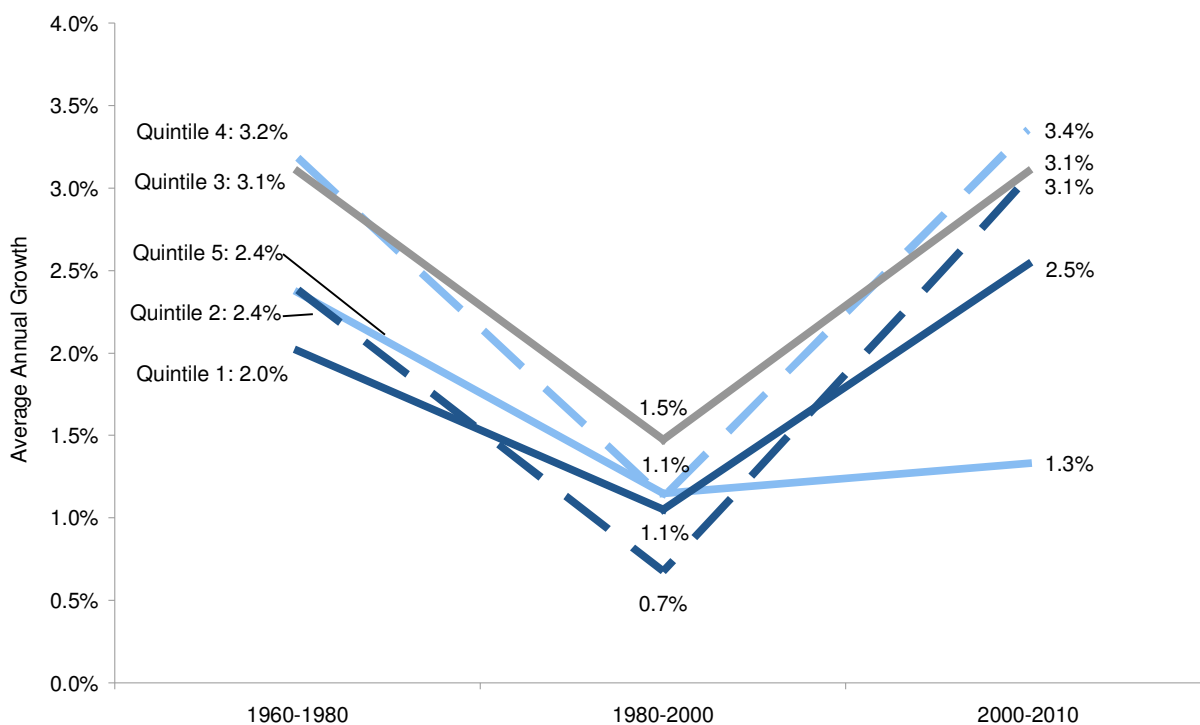
Source: Heston, Summers, and Aten (2011), and IMF (2011). See Appendix 1 for full methodology.
Note: At the beginning of each time period, countries with the lowest GDP per capita were placed in Quintile 1: between $303 and $1,429. Similarly, Quintile 2 began each period with between $1,438 and $3,103 in per capita GDP. Quintile 3 had $3,133 - $5,885; Quintile 4 had $5,890 - $12.723; and Quintile 5 had $12,829 - $97,721 in per capita GDP.

As can be seen in the graph, there was a sharp slowdown in economic growth from the first (1960-1980) period to the second (1980-2000) for all quintiles. At an annual rate, every quintile saw per capita growth slow by roughly half - or more -in the second period as compared with the first.

The poorest (first) quintile saw its annual growth of income per capita fall from 2.0 to 1.1 percent. At the lower end of this quintile were countries such as Mali, Guinea-Bissau, Tanzania, and Ghana; at the upper end were Niger, Central African Republic, Rwanda, Egypt, and Thailand.

The second quintile (GDP per capita between $1,438 and $3,103) was the slowest growing for the second period, falling from a 2.4 percent annual rate to just 0.7 percent. Over time, this is a huge difference; at an annual growth rate of 2.4 percent, per capita GDP would double in 29 years; at 0.7 percent, it would take 99 years. Countries that started out in the second quintile in 1960 included Cote d'Ivoire, Haiti, Morocco, Nigeria, and South Korea; at the upper end were Brazil, Ecuador, Bolivia, and Turkey. The Dominican Republic, Honduras, Panama, and Malaysia were towards the middle of the quintile.

The third and fourth quintiles also plunged, from growth rates that were somewhat higher in the 1960-1980 period. The third quintile, with GDP per capita between $3,133 and $5,885, grew by an average annual rate of 3.1 percent per capita from 1960 to 1980, but only 1.5 percent from 1980 to 2000. Among the countries starting off in the third quintile in 1960 were, towards the bottom, Colombia, El Salvador, Guinea, Gabon, and Hong Kong. At the higher end were Jamaica, Chile, South Africa, Spain, and Japan.

The fourth quintile, with incomes between $5,890 and $12,723 per capita, had the sharpest drop, from 3.2 percent average annual per capita growth for 1960-1980, to just 1.1 percent for 1980-2000. Countries starting out in this quintile in 1960 included, at the low end, Uruguay, Ireland, and Greece; at the high end were high-income countries including New Zealand, United Kingdom, Denmark, Sweden and Canada.

Switching for a moment to a constant-country comparison: of 83 low- and middle-income countries with data for both 1960-1980 and 1980-2000, only 21 grew at a faster rate in the second period.[23]

Returning to the quintile comparison, there is a clear rebound in the third period, 2000-2010, for all quintiles other than the fifth, or highest income quintile. As can be seen in Figure 3, the first four quintiles all equaled or surpassed the average annual per capita growth of the first period.

What accounts for the rebound in economic growth over the last decade? It is beyond the scope of this report to try to give a definitive answer to this question. However, there are a number of possible contributing factors to the apparent turnaround. First, if the growth failure of 1980-2000 were primarily a result of policy errors, we would expect at least some recovery eventually. Brazil, for example, has had among the world's highest real interest rates for decades. It may never achieve its prior economic growth with these levels of real interest rates, but the economy has to some extent adapted to them. The "shock therapy" that Russia and other transition economies experienced in the 1990s was a tremendous failure, especially as compared to the high-growth transition managed by China; but after some of the worst output losses in recorded economic history, there was an economic recovery. Similarly, the weaker Euro-zone economies and some others today (e.g. Latvia) are pursuing pro-cyclical policies that are intended to restore economic growth through an "internal devaluation." This may lead to, as growth projections continue to be revised downward, continued output losses and a prolonged and unnecessary period of recession and/or stagnation; but eventually these economies will recover.

In other cases failed policies were abandoned – for example the fixed exchange rates in countries such as Argentina, Brazil, and Russia that contributed to the crises and output losses of the late

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23 This is not including three countries that had zero or negative growth in both periods: Madagascar, The Gambia, and Senegal.

1990s. As noted below, India's moves away from the neoliberal policies of overly-high interest rates and an over-valued exchange rate were an important part of its growth acceleration. After the Asian economic crisis of the late 1990s many countries began to accumulate reserves, so as to prevent the liquidity problems that played a major role in the crisis – and also to avoid having to borrow from the International Monetary Fund (IMF), and accept unwanted conditions attached to the borrowing.[24]

Partly as a result of these developments, the influence of the IMF collapsed during most of the past decade, with its worldwide lending portfolio falling from $105 billion in 2003 to under $20 billion in 2007.[25] Most of the latter was owed by just two countries – Turkey and Pakistan. The IMF, in the prior three decades, had been one of the most important promoters of neoliberal, and often pro-cyclical, policies in low- and middle-income countries. Prior to the past decade, it headed up a "creditors' cartel" whereby borrowing countries that did not reach agreement with the Fund would not get credit from the World Bank, regional banks such as the Inter-American Development Bank, and sometimes even the private sector.[26] This was a very powerful influence on economic policy, and by 2007 it had collapsed.

In 2008, with the world economic downturn, the IMF increased its resources enormously, with its capital tripling from $250 billion to $750 billion. This was an unprecedented level of resources for the Fund, but it did not give the IMF the kind of influence that it had previously had on most low- and middle-income countries. The middle-income countries of Asia and Latin America, for example, mostly remained outside the Fund's orbit. Instead, the IMF has played a major role in Europe, especially Eastern Europe and the weaker Euro-zone countries (Ireland, Portugal, Spain, and Greece). Although the Fund did play a role in the implementation of pro-cyclical policies in many countries during the world economic downturn – a look at 41 agreements at the end of 2009 showed that 31 contained pro-cyclical macroeconomic policies[27] – it was considerably more moderated than its role in the past. In many countries the policies were reversed as the downturn worsened. And the IMF also had some positive impact, for example, by creating some $283 billion of its reserve currency, Special Drawing Rights (SDRs), in 2009 and distributing this to its member countries to increase their reserves. The Fund's lending that did not have pro-cyclical or other harmful conditions attached, which was significant in the last few years, also made a positive contribution. It is difficult to measure the overall impact of the Fund since the beginning of the world recession, but clearly it did not have anything approaching the negative impact that it had from 1980 to 2000. Also, there was a coordinated intervention by central banks in response to the financial crisis, and expansionary monetary and fiscal policy in many countries, especially in high-income and some middle-income countries, in response to the downturn.

Some pro-cyclical and currently contractionary policies supported by the IMF, the European Commission, the ECB and other authorities do not always affect the data for 2000-2010 very much. For example, countries such as Latvia and Estonia are projected by the IMF to need 9 or 10 years to reach their pre-recession level of per capita GDP. But these countries show high growth for the past decade, more than four per cent annually per capita. Other countries such as Greece and Spain have lower growth for the past decade than Latvia and Estonia, but still show better growth for 2000-

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24 For more on the decline in influence of the IMF, see Weisbrot (2007).
25 Calculated from IMF (no date a, b).
26 For more on the IMF's role in the "creditors' cartel," see Weisbrot (2006).
27 Weisbrot et al. (2009).

2010 than they are projected to have in the coming years, as recent austerity measures become fully felt. If these contractionary policies are continued for a prolonged period, bad results can be expected for the future.

The past decade also saw a lot of bubble growth – with big real estate bubbles in the United States, much of Europe including the UK, Spain, and Ireland, and elsewhere. It was a period of very low real interest rates worldwide, and – until the crash of 2008 – unusually favorable financial conditions. Rising commodity prices also increased growth in many commodity-exporting countries, including in Sub-Saharan Africa. As a region, Sub-Saharan Africa more than doubled its overall (not per capita) growth rate, to 5.7 percent annually for the last decade, from 2.4 percent in the prior 20 years.[28]

The biggest change in overall GDP growth by region was in former Soviet states that make up the Commonwealth of Independent States: this group shrank by an enormous 2.8 percent annually in the 1990s – due to a badly managed transition – but grew by 5.4 percent annually in the past decade. Central and Eastern Europe, where the transition was not nearly as badly managed, also showed significant improvement in the past decade, at 3.8 percent versus 2.3 percent over the 1990s. A good part of this improved growth can be attributed to recovery from the policy mistakes, some of them enormously destructive, in the prior decade.

There was also significant improvement for the Middle East and North Africa (4.8 percent versus 3.8 percent for the 1990s and 2.3 percent for the eighties). The fastest growing region of all was, of course, developing Asia, dominated by China, with 8.5 percent average annual growth for the region over the past decade; but it also had quite a rapid rate of growth in the previous decades, at 7.3 and 6.7 percent for the 1990s and 1980s, respectively.

The growth of China also contributed increasingly to world growth in the past decade, as compared to previous decades, as China became the second largest economy in the world[29] – and the only economy near its size with a state-led growth strategy. This affected not only regional growth, but also helped spur growth in many commodity-exporting countries.

The Cases of China and India

China was foremost among developing countries that bucked the trend, growing at a record-breaking 7.4 percent annually per capita from 1980-2000, as compared to 2.4 per cent in the first period. For 2000-2010 it has grown still faster, averaging 9.6 percent annually per capita. It is worth noting that China's growth rate does not show signs of decelerating, despite having increased its GDP per capita seventeen-fold over the past 30 years, to $11,918.

China's success cannot be attributed to the reforms that most countries adopted in the post-1980 period. Although both foreign direct investment and exports contributed substantially to China's growth, both were heavily managed and handled quite differently than in other developing countries. The government has played a major role in shaping investments that would fit in with the country's development goals. These include such priorities as producing for export markets, an increasing

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28 IMF (2011).

29 The international financial press reported that China became the second-largest economy in the world in 2010, on an exchange-rate basis (see, for example, Barboza 2010 and BBC 2011). However, on a purchasing power parity basis, China rose to the second largest economy in the world in 2001 (IMF 2011).

level of technology (with the goal of transferring technology from foreign enterprises to the domestic economy), hiring local residents for managerial and technical jobs, and not allowing foreign investments to compete with certain domestic industries. China's policy toward foreign investment has therefore been directly opposed to the major worldwide reforms of recent decades, including the rules of the World Trade Organization (WTO); the same is also true in the important area of intellectual property.[30]

These policies with respect to foreign investment have continued to this day, even after China joined the WTO in 2001. For example, over the last decade China has used local content requirements – forbidden by the WTO – in the wind turbine industry,[31] along with other restrictions to get foreign investors to train and recruit local suppliers, helping China become one of the largest producers of wind turbines in the world.

The Chinese economy is still, after more than three decades of reform, very much a state-led economy. State-owned enterprises account for about 44 percent of the assets of major industrial enterprises.[32] The financial system is state-controlled, with the government owning the four largest banks. The Chinese government's control over the "commanding heights" of the economy, especially finance, proved crucial in maintaining rapid economic growth during the world recession. In 2009, China's net exports had a negative 3.7 percentage point contribution to the economy's GDP growth; but growth was maintained at 9.1 percent, due partly to a nearly 20 percent surge in capital formation.[33] It is difficult to imagine this having happened without the government's control over bank lending and state-owned enterprises generally.

India, with more than 1.2 billion people and now the world's fourth largest economy[34], has also had a fast-growing economy in recent years. India adopted a number of liberalizing reforms beginning in 1991, including sharply reducing the peak tariff rate (from 300 to 110 percent); the loosening of the Monopolies and Restrictive Trade Practices Act, which reduced barriers to entry; some privatizations, and liberalization of foreign investment. For many analysts, India's growth acceleration since 1991 demonstrates the success of these liberalizing reforms.

However, this conclusion is not consistent with the data. First, India's growth acceleration preceded the 1991 reforms by a decade. Per capita GDP grew by about 3.4 percent annually in the 1980s and 3.3 percent annually in the 1990s. This is indeed much higher than the 1.7 percent annual average for 1960-1980, but it is about the same for the two decades, and thus the 1991 reforms cannot be seen as decisive. While some have argued that the acceleration post-1980 can be attributed to a government shift toward pro-business policies, as Rodrik and Subramanian (2004a) pointed out, pro-business is not the same as pro-market. (The example of South Korea in the 1960s and 1970s can be seen as one of pro-business rather than pro-market policies.)

India's biggest growth acceleration was for the fiscal years 2003-2008, with per capita GDP growth averaging about 8.9 percent annually for this period. Per capita growth fell with the world recession in 2008/2009 fiscal year to 6.7 percent, but has rebounded to about 7.4 percent for 2009/2010.

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30 For more on China's investment policy, see OECD (2003, 2006, and 2008).
31 Bradsher (2010).
32 World Bank (2010a, 3, Box Figure 2).
33 World Bank (2010a, 11, Table 2; and 2010b, 3).
23 India is the fourth largest economy in the world on a PPP basis. On an exchange-rate basis, it is the world's eleventh largest economy.

There has been a huge acceleration of the country's rate of savings and capital formation. Gross fixed capital formation has risen from 15.6 percent in the 1970s, to 31.5 percent for the years 2004-2009. The domestic savings rate has risen from 17.7 to 31.4 percent in the same years. These are huge changes that, if sustained, could make India one of the fastest growing economies in the world in the foreseeable future.[35]

There has been a good deal of debate over how to interpret India's growth acceleration, its causes, and whether it is something that is likely to continue.[36] Bhalla (2010) has put forth a compelling argument that emphasizes the role of interest rates and exchange rates. There was a growth spurt following the 1991 reforms, with three consecutive years of growth that were greater than 6.6 percent beginning in fiscal year 1994. But real interest rates increased by about 400 basis points from 1993 to 2000. Growth slowed from 7.6 percent (5.6 per capita) in fiscal 1995/1996 and 1996/1997 to 4.1 percent (2.2 per capita) in 1997/1998, and 4 percent (2.3 percent per capita) in 2000/2001. From 1999-2003, real interest rates fell by about 400-500 basis points; this contributed significantly to the rapid acceleration of growth, to Chinese levels, beginning in 2003/2004.

The Indian economy also got a boost from a large change in the exchange rate to a more competitive level. As Rodrik and Subramanian (2004a) note, "after remaining broadly unchanged during the first half of the 1980s, the rupee experienced a large real depreciation of over 40 percent in the second half of the 1980s." Rodrik (2008) characterizes its recent state as "an undervaluation of around 60 percent."[37]

These two most important macroeconomic policy changes – lower interest rates and a real exchange rate depreciation -- are in the opposite direction of the neoliberal reforms that accelerated worldwide in the 1980s. With the increasing independence of central banks, tighter monetary policy, and inflation-targeting regimes, unnecessarily high – and sometimes pro-cyclical – policy interest rates were probably one of the most important contributors to the worldwide slowdown in growth that most countries experienced in the 1980-2000 period.[38] In many cases, central banks' inflation targeting regimes and over-concern with inflation has also led to overvalued exchange rates. In many developing countries, central banks target an inflation rate and allow the exchange rate to rise, worsening the trade balance and thereby slowing the domestic economy. (An overvalued exchange rate also directly lowers inflation by making imports cheaper.) So, to the extent that India's transition to a rapidly growing economy was driven by these macroeconomic policy shifts – and it seems to be a big part of the story -- it would be an example of the success of transitioning away from important neoliberal policy mistakes. Nonetheless, it is still a quite different story from the state-led development strategies of China.

There are other interesting aspects of India's growth acceleration that are worth noting. One is the rapid growth of the service sector, both as a percentage of overall GDP and of exports. The service sector share of GDP increased from about 38 percent in 1980 to 57 percent in 2008-2009.[39] The

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35 Data in this paragraph are from Bhalla (2010) and RBI (2010).
36 See for example: Bhalla (forthcoming); Bosworth and Collins (2008); Eichengreen and Gupta (2011); Mohan (2008); and Rodrik and Subramanian (2004a).
37 Of course there are different ways to measure exchange rate undervaluation or overvaluation; Bhalla (2010) has significantly different numbers but the same general trend of a very large real depreciation over these years.
38 There is a rich literature on the primacy of policy interest rates as a determinant of economic growth. See for example Díaz-Bonillo (2007), Ocampo and Taylor (1998), Romer and Romer (1994).
39 Eichengreen and Gupta (2011).

fastest growing service sectors have included wholesale and retail trade, banking, communications, and business services (which included the call centers and data entry services that have been widely discussed). There is some debate over whether this kind of economic expansion driven by services can be a feasible growth and development strategy;[40] in any case it is certainly a major divergence from the industry-led growth strategies that have characterized the most successful later development experiences.

Another distinguishing feature of India's growth acceleration is that the country has run current account deficits for six of the last 10 years, and trade deficits for 10 of these years. This means that India's growth has not been "export-led" in the sense that China and South Korea have had export-led growth during most of their rapid-growth years. This is more in accordance with the textbook, neoclassical development model, in which developing countries are net importers of capital. The idea is that capital should flow from developed to developing countries, seeking a higher return; developing countries, in theory, should be able to run sustainable trade and current account deficits and thereby take advantage of the additional resources to supplement their own domestic savings. This might take the form of foreign direct investment, which has its own potential for increasing productivity, or other inflows that allow for greater imports of capital goods. But most of the fastest growth experiences in recent decades have been the opposite; e.g. countries such as China, South Korea, and other Asian countries running trade and current account surpluses, and therefore exporting capital to the rich countries. These have been among the most successful growth experiences in history, but they have been successful in spite of the handicap of being net capital exporters to the rich countries; although the strategy has other advantages, such as the contribution of a trade surplus to aggregate demand, and technology transfer in export industries. But to the extent that India can continue accelerated growth while being a net capital importer, that is one advantage that other fast-growing developing countries did not have.

Returning to the quintile comparison in Figure 3 and the rebound that it shows for the past decade, we can say that the above changes in the world economy undoubtedly contributed to the turnaround in the last decade. Some of this growth was a result of movement away from destructive neoliberal policies of the 1980s and 1990s-- although many of these policies are still firmly entrenched in central banks, finance ministries, and other national and multi-lateral institutions where policy is made. Mostly, it seems that these policies – for a variety of reasons noted above – had less negative impact on low- and middle-income countries over the past decade than they did in the 1980s and 1990s.

Looking forward, it is too early to tell how much of the rebound in growth over the last decade will continue. At this moment it is the high-income countries, where the 2008-2009 financial crisis and recession originated -- including Europe and the United States -- that are most in danger of pursuing pro-cyclical and other harmful neoliberal policies that could produce long-term stagnation.[41] Since these countries still make up the majority of the world economy, their policies will continue to have a heavy influence over world growth over the next decade, even though the developing economies have seen a much faster recovery so far. But at the moment it seems that a good part of the developing world has developed a growth dynamic that is capable of achieving fairly rapid growth even as the high-income countries recover relatively slowly.

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40 Ibid.
41 For more on current austerity and recovery prospects across countries, see Dean Baker (2010) and Weisbrot and Montecino (2010).

Health

As was shown in the last version of this paper five years ago, the long-term slowdown in growth experienced by the vast majority of developing countries during the post-1980 era was associated with a noticeable decline in the rate of progress on health indicators, including life expectancy and adult, child, and infant mortality. This is to be expected over any long time period since these indicators are correlated with a country's income per capita. Of course they are also affected by policy, and it may be that the shift toward neoliberal policy reforms also had some impact in lowering health indicators in the post-1980 era.[42]

It should be noted that life expectancy would be expected to change more slowly than some other indicators, since it is calculated on the basis of mortality rates from cohorts spanning the range of an entire life span. So changes in income during 2000-2010, which is much shorter than the first two periods -- 1960-1980 and 1980-2000 -- would not be expected to have as much immediate influence as in the previous periods. Nonetheless, we can see in **Figure 4** that for quintiles 1 and 3, the quintile with the lowest life expectancies and the middle quintile, respectively, the same V-shaped pattern that reflects the change in per capita GDP growth rates.

FIGURE 4
Average Annual Change in Life Expectancy, by Quintile
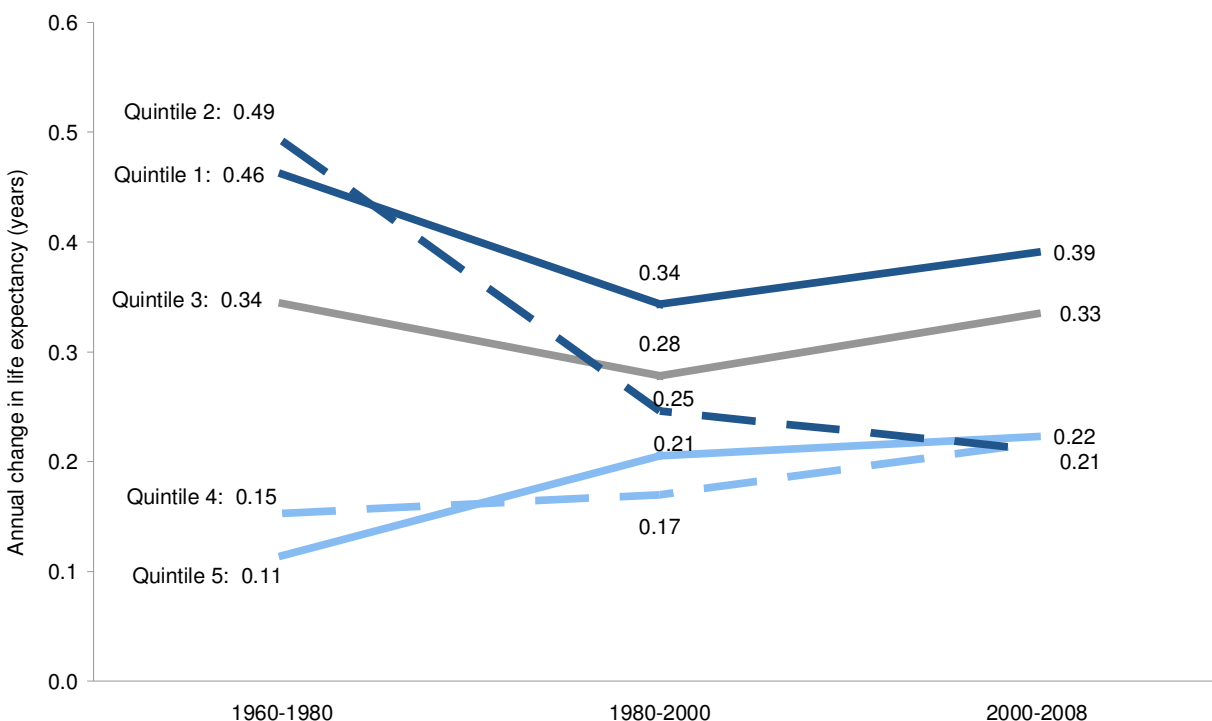
Source: World Bank (no date, b).

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42 For more on neoliberal policies and health outcomes in developing countries, see: Stuckler, Basu, and McKee (2011); WHO CSDH (2008); AFRODAD (2007); and CGD (2007).

Note: At the beginning of each time period, countries with the lowest life expectancy are placed in Quintile 1: between 31.1 and 47.7 years. Likewise, Quintile 2 began with life expectancy between 48.1 and 59.2 years. Quintile 3 had 59.4 – 67.6 years; Quintile 4 had 67.7 – 71.9 years; and Quintile 5 had 72.0 – 81.1 years of life expectancy. Figure 4 shows the annual average change in life expectancy for each quintile. For the bottom quintile, which started out each period with a life expectancy of 31 – 48 years, there was an average annual gain of 0.46 years from 1960-1980. This means that the typical country in this quintile would gain about nine years in life expectancy over the period. From 1980-2000, this progress slipped to 0.34 years annually. It then recovered part of the way over 2010, to 0.39 years. The third quintile also shows a V-shape, falling from 0.34 to 0.28 from the first to the second period; then recovering to 0.33 for the third period (2000-2010). These are countries that started each period with a life expectancy between 59 and 68 years.

It is worth noting that in the first quintile, there are two outliers that kept the depth of the decline from being somewhat steeper: Timor-Leste and Cambodia. These countries had a very large increase in life expectancy from 1980-2000 of 1.08 and 0.85 years annually, respectively. This is a result of the end of the wars and mass killings that depressed life expectancy in the prior years. Without these two countries, the annual increase in life expectancy for the quintile would have fallen to 0.29 for 1960-1980, instead of 0.34.

Quintile 2, which consists of poor countries with a beginning life expectancy in each period of 48-59 years, shows a different pattern than the first and third quintiles. Progress in life expectancy plummets by almost half, from 0.49 years annually in 1960-1980 to 0.25 years for 1980-2000. But it does not recover in 2000-2010, instead falling further to 0.21 years. Why does this group of poor countries look so different than the first (lowest life expectancy) quintile?

Table 1 shows countries that were in the second quintile during 2000-2008 that had negative annual average changes in life expectancy (Part A). Almost all of these countries (except Ghana) had extremely high rates of HIV infection. Swaziland and Lesotho had the highest and third-highest infection rate in the world, at 25.9 and 23.6 per cent of the adult population (age 15-49), respectively, living with HIV/AIDS. Swaziland's life expectancy declined by 0.61 years annually during 2000-2008; for Lesotho it fell by 0.65 years annually. South Africa came in fourth highest with an infection rate of 17.8 percent; life expectancy there from 2000-2008 declined at an average annual rate of 0.54 percent. These countries pulled down the average for the quintile enormously, as did the others in Part A.

In Part B of Table 1 are countries that had an increase in life expectancy, but less than the average annual improvement (0.25 years) for the 2nd quintile in the years 2000-2008. Most of these countries also had high rates of HIV infection, and help explain why the second quintile did not have a rebound of progress in life expectancy for the third period.

The higher life-expectancy countries in the fourth (68-72 years) and fifth (72-81 years) quintiles show a completely different pattern than the lower life expectancy (mostly poorer) countries. These countries do not show a decline in progress in life expectancy for any period. The best-off quintile actually doubles its rate of progress, from 0.11 in 1960-1980 to 0.22 for 2000-2008. The fourth quintile also shows improvement in each period, although smaller.

This is what we would expect to see as medical science advances. A country starting out with a certain level of life expectancy in 1980 or 2000 should show more rapid improvement in life expectancy than one starting out with the same life expectancy in 1960. The fact that this did not

happen for the three bottom quintiles, and in fact progress declined from the first to the second period, represents a severe policy failure.

TABLE 1
Life Expectancy Progress and HIV Rates

|	Life Expectancy: Average Annual Progress, 2000 - 2008		HIV Prevalence, 2009 (Adults, age 15-49)	
	Annual Change	Rank (of 193)	Rate	Rank (of 146)
Part A: Countries in Quintile 2 with negative progress in life expectancy				
Lesotho	-0.65	193	23.6	3
Swaziland	-0.61	192	25.9	1
South Africa	-0.54	191	17.8	4
Ghana	-0.16	189	1.8	31
Chad	-0.07	186	3.4	18
Cameroon	-0.05	185	5.3	13
Part B: Countries in Quintile 2 with below average progress in life expectancy				
Congo, Republic	0.00	183	3.4	18
Mauritania	0.03	182	0.7	58
Kenya	0.18	140	6.3	11
Somalia	0.19	136	0.7	58
Equatorial Guinea	0.19	133	5.0	15
Senegal	0.19	131	0.9	49
Côte d'Ivoire	0.23	108	3.4	18
Djibouti	0.23	106	2.5	25

Source: UNAIDS (no date), World Bank (no date, b). Note: UNAIDS has a larger set of HIV prevalence data than World Bank (no date, b), so UNAIDS data are shown here. However, UNAIDS does not offer data disaggregated by sex, so Table 2 (below) uses HIV prevalence data from World Bank (no date, b).

As noted above, some of this policy failure caused the slowdown in economic growth in the second (1980-2000) period, and the V-shape of the graphs for the first and third quintiles reflects the pattern of per capita income growth. But the role of the AIDS crisis in lowering life expectancy is not a completely exogenous variable, and also reflects specific health policy failures, especially with respect to the impact of neo-liberal and macroeconomic structural adjustments on health-related spending.[43]

Figures 5 and 6 show male and female life expectancy at birth, arranged into quintiles as in Figure 3. Although both reflect the same basic pattern of overall life expectancy, there are pronounced differences. The most striking difference is the relative lack of recovery of progress in life expectancy for women during the third period, for the lower-life-expectancy quintiles. For quintiles 1 and 3, there is almost no improvement from the second (1980-2000) to the third period. For the second quintile (life expectancy between 49 and 61 years), progress in the third period plummets much further for females than it does for males, to just 0.15 years annually. This also appears to be the result of the feminization of the HIV/AIDS crisis, the lack of progress on maternal health and associated health policy failures.

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43 For more on the role of macroeconomic policy on the fight against HIV/AIDS, see AFRODAD (2007) and Brook Baker (2010).

FIGURE 5
Average Annual Change in Male Life Expectancy at Birth, by Quintile
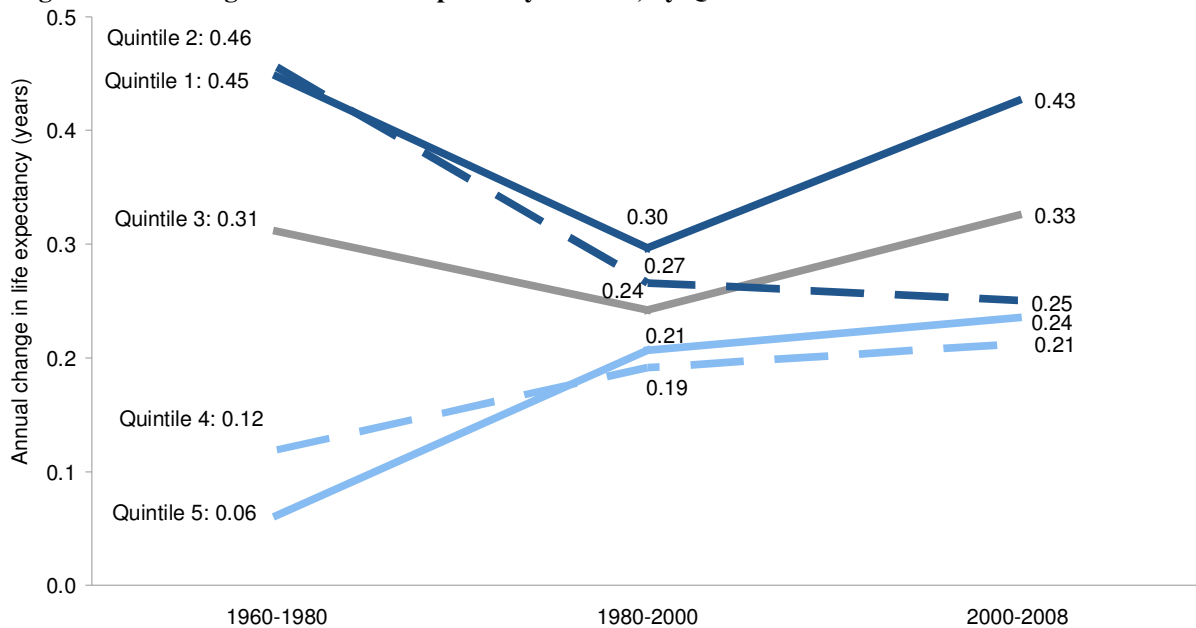
FIGURE 6
**Average Annual Change in Female Life Expectancy at Birth, by Quintile**
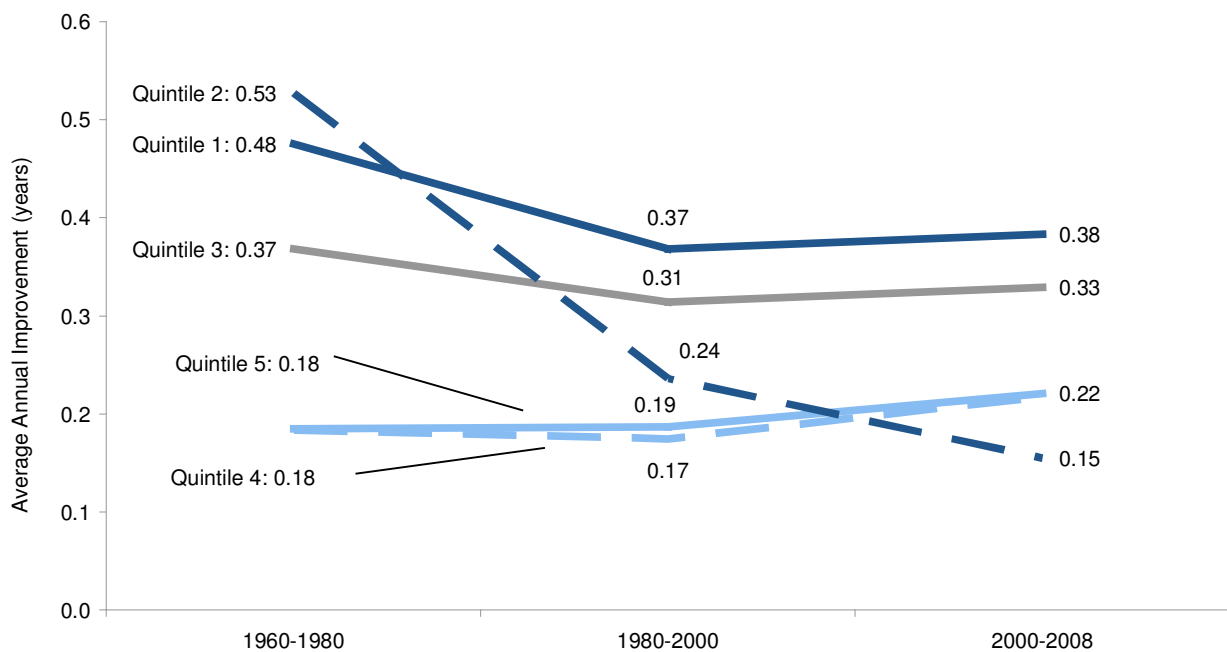
Source: World Bank (no date, b).
Note: At the beginning of each time period, countries with the lowest life expectancy are placed in Quintile 1 (between 31.4 and 46 years for men, between 30.8 and 49.08 for women). Likewise, Quintile 2 had between 46.5 and 57.4 years for male life expectancy, or between 49.1 and 61.2 years for women. Quintile 3 had 57.6 – 64.6 years for men and 61.24 – 70.3 years for women; Quintile 4 had 64.7 – 69.28 years for men and 70.4 – 74.8 years for women; and Quintile 5 had 69.32 – 78.0 years of male life expectancy and 74.9 – 84.6 years of female life expectancy.

Figure 7 shows adult male mortality, which is the number of men age 15 who will die before the age of 60, per 1000 of male population. Since a negative annual change is an improvement, these graphs show improvement when they are sloping downward. For quintiles 2 and 3, we see an inverted V-shape that reflects a similar pattern as for life expectancy. In quintile 2, which begins each period with a relatively high mortality of 311-445 deaths per thousand, there is a sharp decline in progress, from –5.0 annually (that is, a reduction of mortality of 5 per thousand) for the first period, to just –1.1 for the second period. This rebounds to –2.4 for the third period, which is only a partial recovery. The relative weakness of this recovery is also apparently due to the HIV/AIDS crisis. The third quintile shows a more complete recovery in the third period, dropping from –3.0 in the first period, to –1.6 in the second period, and rebounding to –3.7 for 2000-2008.

FIGURE 7
Average Annual Change in Male Adult Mortality, by Quintile
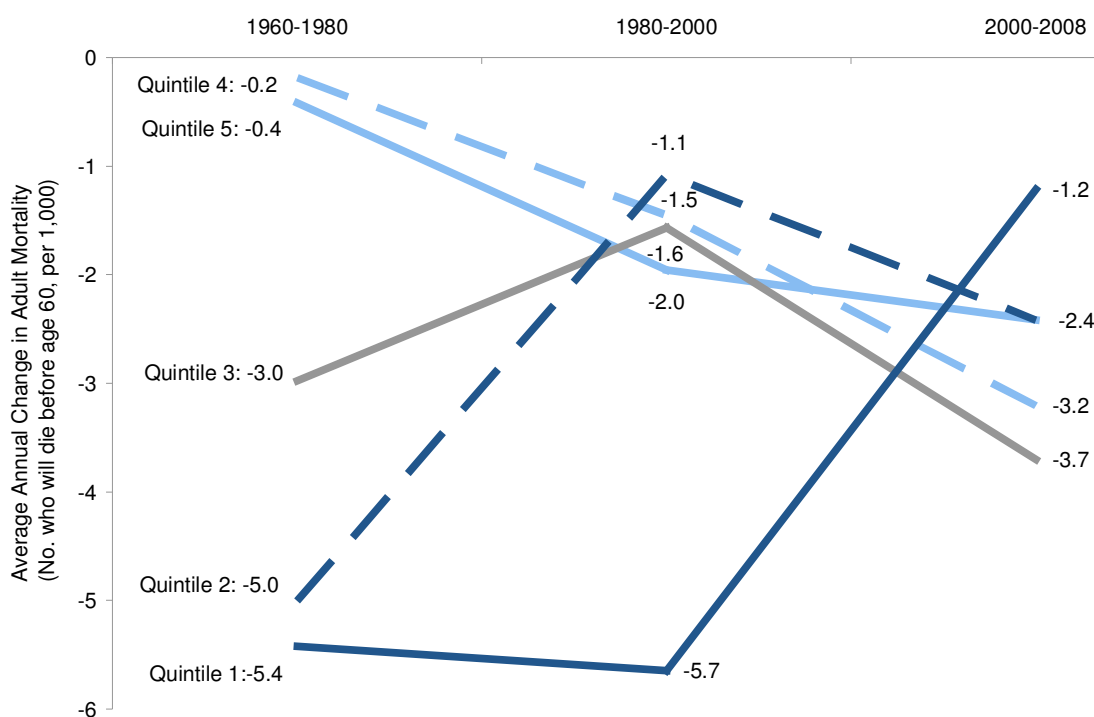
Source: World Bank (no date, b).
Note: Adult male mortality measures the number of men age 15 who are projected to die before reaching age 60, per 1,000 men. At the beginning of each time period, countries with the worst (highest) mortality rates are placed in Quintile 1: between 449 and 738 deaths per 1,000. In other words, between 44.9% and 73.8% of 15 year old males were projected to die before reaching age 60. Likewise, countries in Quintile 2 had adult male mortality rates between 311 and 445 deaths per 1,000. Quintile 3 had 233.4 – 309; Quintile 4 had 179.9 – 233.3; and Quintile 5 had 83 – 179.8 deaths per 1,000.

Quintile 1, however, shows something very different from the life expectancy pattern; there is a slight improvement from the first to the second period, and then a sharp decline in progress for the third period. This lack of decline from the first period to the second is unusual because this is a period in which most of the world's poor countries experienced a sharp slowdown in economic growth – in Sub-Saharan Africa; there was negative per capita GDP growth. Yet we do not see a slowdown in progress on adult male mortality, which declines at a rate of 5.7 per year from 1980-

2000, as compared with 5.4 in the previous period. Countries in the first quintile such as Benin, Sudan, Chad, Senegal, Guinea, and the Gambia had large, double-digit declines in adult male mortality during this period. Although the first three of these countries had modest positive per capita GDP growth during the two decades, the other three did not. Djibouti, Niger, Togo, and Mauritania also had large declines in mortality (7.6 to 9.6 annually) for 1960-1980 while their income per capita was shrinking. This quintile did not contain the countries that were hardest hit by the HIV/AIDS crisis, which were mostly in the second quintile, although there were some, such as Zambia and Uganda, where this caused mortality to actually increase over the period; and this was also true for the 1994 genocide in Rwanda. But this group of poor countries is especially noteworthy for the declines in adult male mortality that were achieved in spite of the lack of economic growth.

In the third period, 2001-2010, the first quintile shows a sharp slowdown in progress on adult male mortality. This is largely because of the HIV/AIDS crisis where ballooning infections during the 1990s resulted in higher death rates in the 2000s; Lesotho, Swaziland, and South Africa dominate this (much smaller) group, with huge annual *increases* in mortality (18, 16, and 13.5 respectively).

FIGURE 8
Average Annual Change in Female Adult Mortality, by Quintile
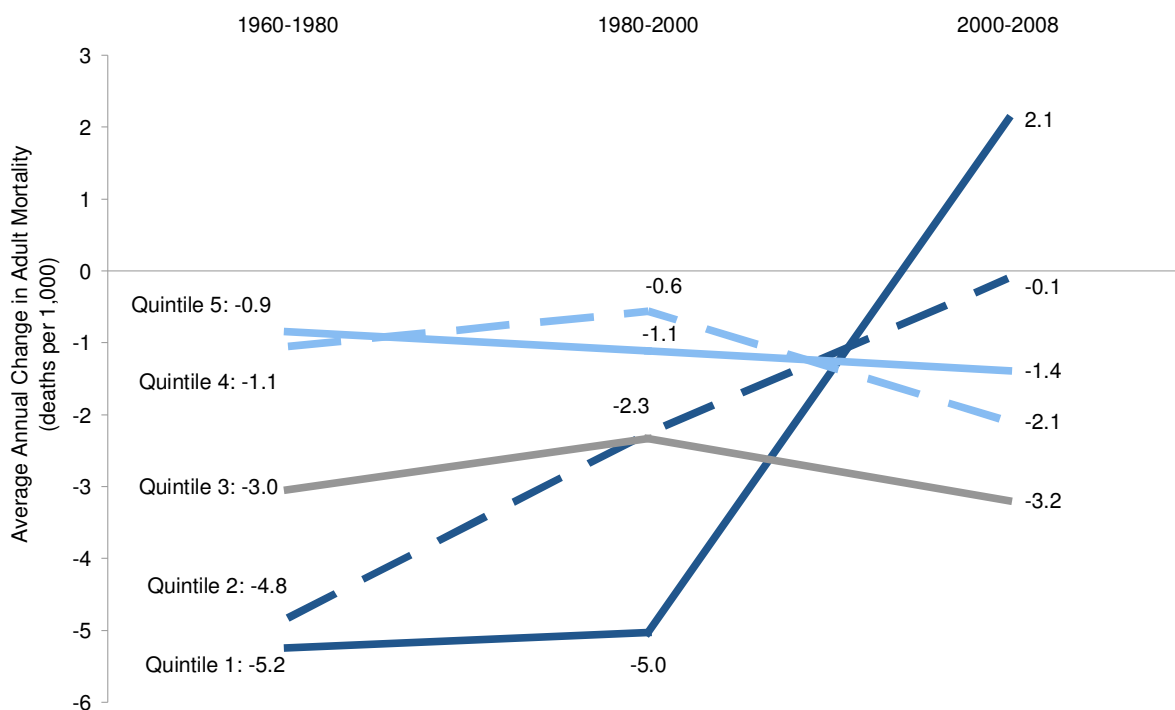
Source: World Bank (no date, b).
Note: At the beginning of each time period, countries with the worst (highest) female adult mortality rates are placed in Quintile 1: between 373 and 631 per 1,000. In other words, between 37.3 and 63.1 percent of females age 15 were projected to die before reaching age 60. Likewise, Quintile 2 had adult female mortality rates of between 237 and 371 per 1,000. Quintile 3 had 145.1 – 235; Quintile 4 had 106.1 – 145; and Quintile 5 had 39 – 105.8 deaths per 1,000.

The fourth and fifth quintiles, which contain mostly middle-income and high-income countries, show continued progress in reducing adult male mortality. This is most likely because these countries are reaping the benefit from past advances in medicine. Of course, this should also be true

for the poorer countries, but because of the inadequacy of domestic and international funding for health, the advances in medicine do not necessarily translate into reduced mortality there. We might expect that reductions will show up soon, however, because of increased donor funding for adult health during the 2000s, especially more recently for AIDS treatment.

For adult female mortality, shown in **Figure 8,** we see the same pattern as for male mortality in the first and third quintiles. But the second quintile shows a decline in progress on mortality across all three periods, from -4.8 per year for 1960-1980, to -2.3 for the 1980-2000, to almost no progress for 2000-2008. This is again the result of the HIV/AIDS crisis, which has hit women in Africa much harder than men, and with the worst-affected countries in this second quintile. As **Table 2** shows, the countries in Quintile 2 with the worst changes in adult female mortality often show much better statistics for changes in male mortality. It also shows that women have much higher HIV rates in these countries than men do, though women are more likely to access treatment at the end of this decade. The other noticeable difference from the pattern of change for male mortality is that the female fourth quintile does not show a steady progress in reducing mortality through all three periods, but rather a decline in progress from the first to the second period, with a strong recovery in 2000-2008.

TABLE 2
Quintile 2 Countries with Rising or Stagnant Adult Female Mortality,
2000 – 2008: Mortality and HIV rates by sex

	Adult Mortality, 2000 - 2008				HIV Prevalence, 2007 (Adults, age 15-49)	
	Average Annual Change		Rank (of 155)			
	Female	Male	Female	Male	Female	Male
Part A: Countries in Quintile 2 with rising adult female mortality						
South Africa	20.0	13.5	153	153	12.7	4.0
Malawi	8.4	3.0	150	150	8.4	2.4
Cameroon	6.0	2.6	149	148	4.3	1.2
Chad	4.3	2.3	147	147	2.8	2.0
Gabon	4.2	0.2	145	146	3.9	1.3
Ghana	3.3	2.8	144	149	1.3	0.4
Namibia	2.5	-2.0	141	106	10.3	3.4
Cote d'Ivoire	1.2	-3.1	139	66	2.4	0.8
Equatorial Guinea	1.2	-1.1	138	133	2.5	0.8
Djibouti	0.3	-0.8	133	137	2.1	0.7
Congo, Rep.	0.1	-4.0	132	38	2.3	0.8
Part B: Countries in Quintile 2 with worse than average (>-1.32) annual progress in adult female mortality						
Guinea-Bissau	-0.4	-0.5	129	140	1.2	0.4
Mauritania	-0.5	-0.4	127	141	0.5	0.9
Congo, Dem. Rep.	-1.0	-2.5	109	90	0.0	0.0
Sudan	-1.3	-2.3	100	98	1.0	0.3

Source: World Bank (no date, b). Note: UNAIDS has a larger set of HIV prevalence data than World Bank (no date, b), so UNAIDS data are shown in Table 1 (above). However, UNAIDS does not offer data disaggregated by sex, so World Bank (no date, b) data is shown here.

The results for child mortality are shown in **Figure 9**. These reflect the pattern of economic growth for the bottom three quintiles, with an inverted V-shaped pattern, since more negative numbers reflect an improvement in the reduction of child mortality. For the worst-off quintile, with child mortality between 171 and 390 deaths per thousand, there is an improvement of 4.9 per year for the first period; this falls to 3.1 for the second period (1980-2000), and rebounds back to 4.9 for 2000-2009. A similar pattern holds for the second quintile. The third quintile is basically flat from the first to the second period, but improves in 2000-2009. The improvements in child mortality for the bottom three quintiles are quite likely related to improved vaccines and vaccine rates this past decade. The fourth and fifth quintiles, with mostly middle and high-income countries, are pretty much flat across all three periods.

FIGURE 9
**Average Annual Change in Child Mortality, by Quintile**
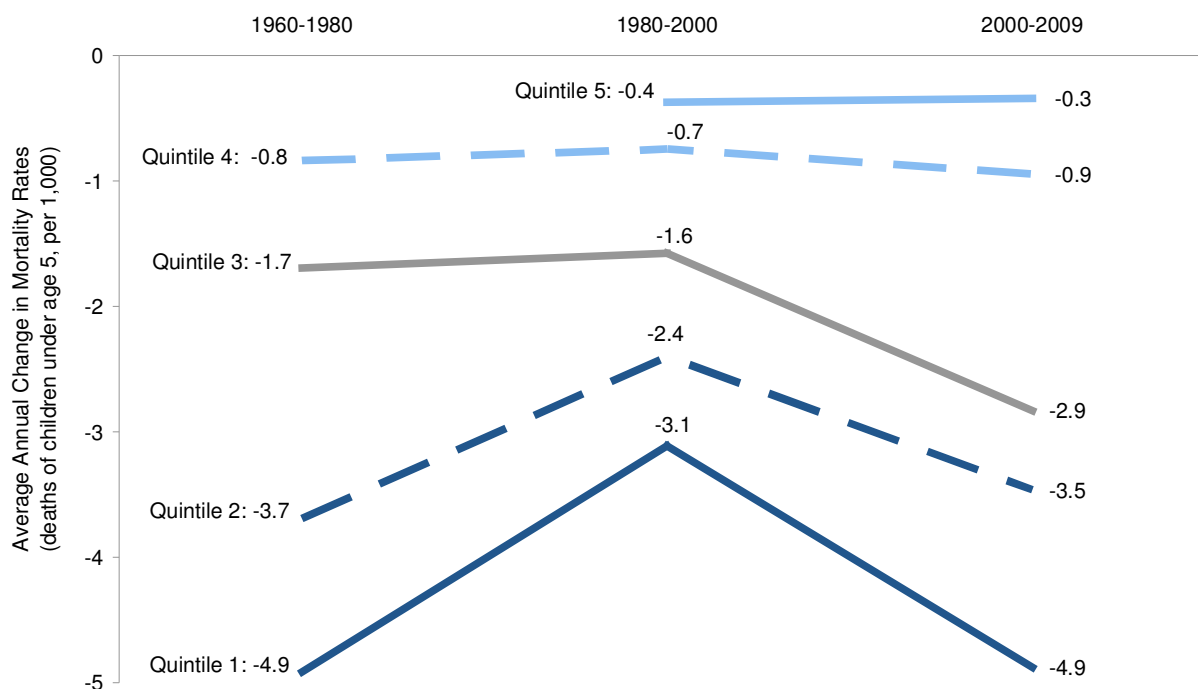
Source: World Bank (no date, b).
Note: Child mortality measures the number of newborn babies projected to die before reaching age five, per 1,000 babies. At the beginning of each time period, countries with the worst (highest) mortality rates are placed in Quintile 1: between 170.7 and 390 deaths per 1,000 babies. In other words, between 17.07% and 39.0% of newborns in Quintile 1 were projected to die before reaching age 5. Similarly, countries in Quintile 2 had child mortality rates between 94 and 169.9 deaths per 1,000. Quintile 3 had 41 – 93.8; Quintile 4 had 19.1 – 40.9; and Quintile 5 had 3.7 – 19.1 deaths per 1,000 children under 5. There is no data for Quintile 5 in 1960, because no country had yet achieved such a low level of child mortality. The quintile is empty in the first time period, but by 1980, 27 countries had risen to that level and by 2000 there were 67 countries at that level.

Figure 10 shows the results for infant mortality. These are very similar to the figure for child mortality, with inverted V-shaped results for the first three (higher-mortality) quintiles, and basically flat numbers across all three period for the fourth and fifth quintiles. Thus, infant and child

mortality in most developing countries appears to be very much affected by both the slowdown in economic growth from 1980-2000 and the rebound from 2000-2009.

FIGURE 10
**Average Annual Change in Infant Mortality, by Quintile**
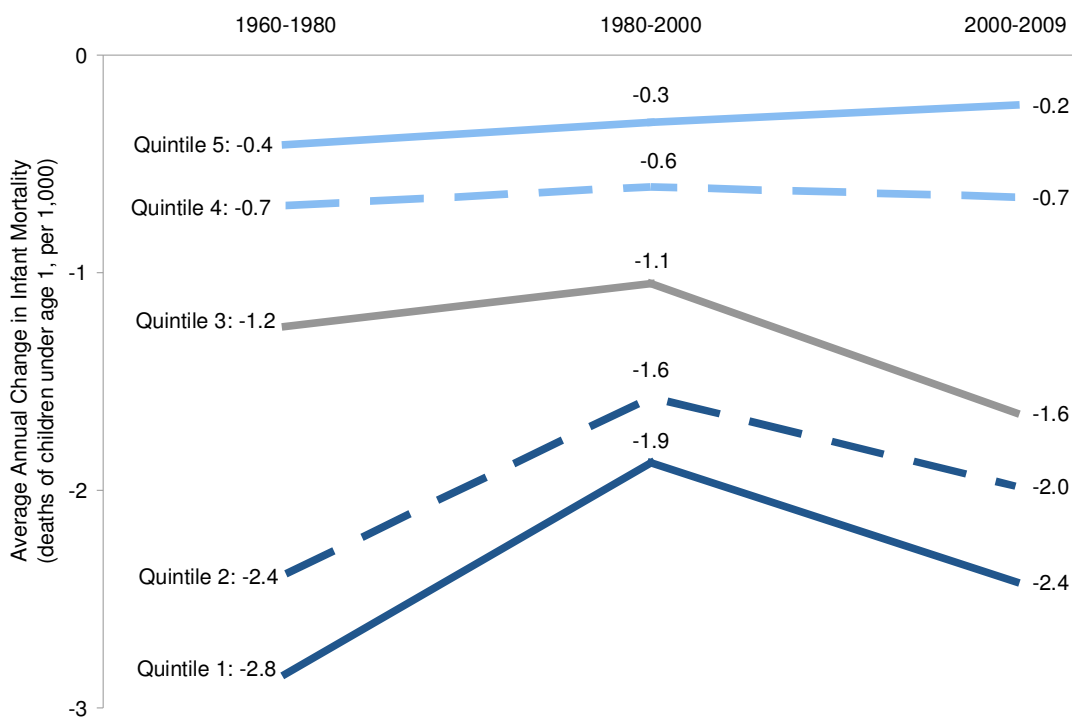
Source: World Bank (no date, b).
Note: Infant mortality measures the number of infant deaths before age 1, per 1,000 live births. At the beginning of each time period, countries with the worst (highest) mortality rates are placed in Quintile 1: between 109.0 and 245 deaths per 1,000 live births. Similarly, countries in Quintile 2 had between 94 and 169.9 infant deaths per 1,000 live births. Quintile 3 had 41 – 93.8; Quintile 4 had 19.1 – 40.9; and Quintile 5 had 3.7 – 19.1 infant deaths per 1,000 live births.

Education

Figure 11 divides the countries into quintiles according to the percent of GDP spent on education, from the lowest quintile (between 0.4 and 2 percent of GDP) to the highest (5.3 – 11.9 percent of GDP). For each quintile, improvement is shown in terms of the change in percentage points of GDP per year, spent on education. The middle three quintiles all show the familiar V-shape, corresponding to the slowdown and rebound in economic growth. However, the highest quintile shows a decline in education spending as a percentage of GDP for 1980-2000 and is essentially flat for 2000-2008. The lowest quintile, which consists of developing countries, is flat at an improvement of .09 percentage points per year for the first two periods and then falls off almost to zero for 2000-2008. It appears that many of the poorest countries, particularly in Sub-Saharan Africa, did not increase their government spending on education as their economies rebounded over the past decade (prior to the global recession).

FIGURE 11
Average Annual Change in Percent of GDP Spent on Public Education
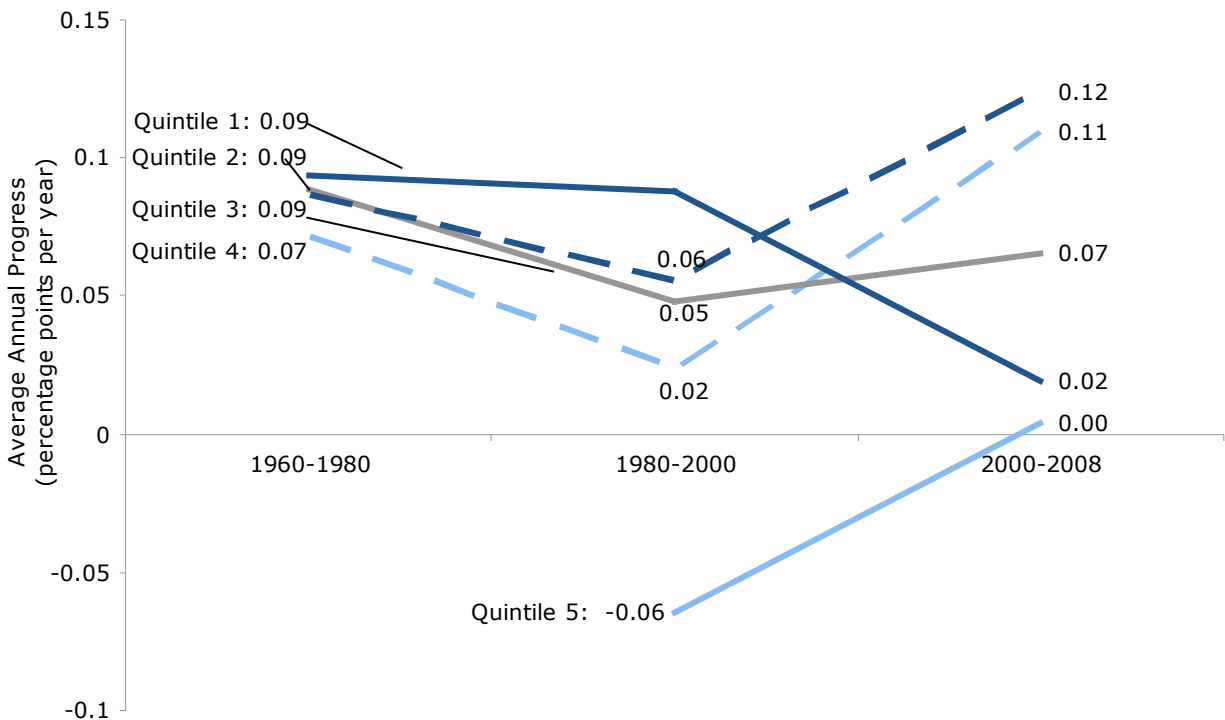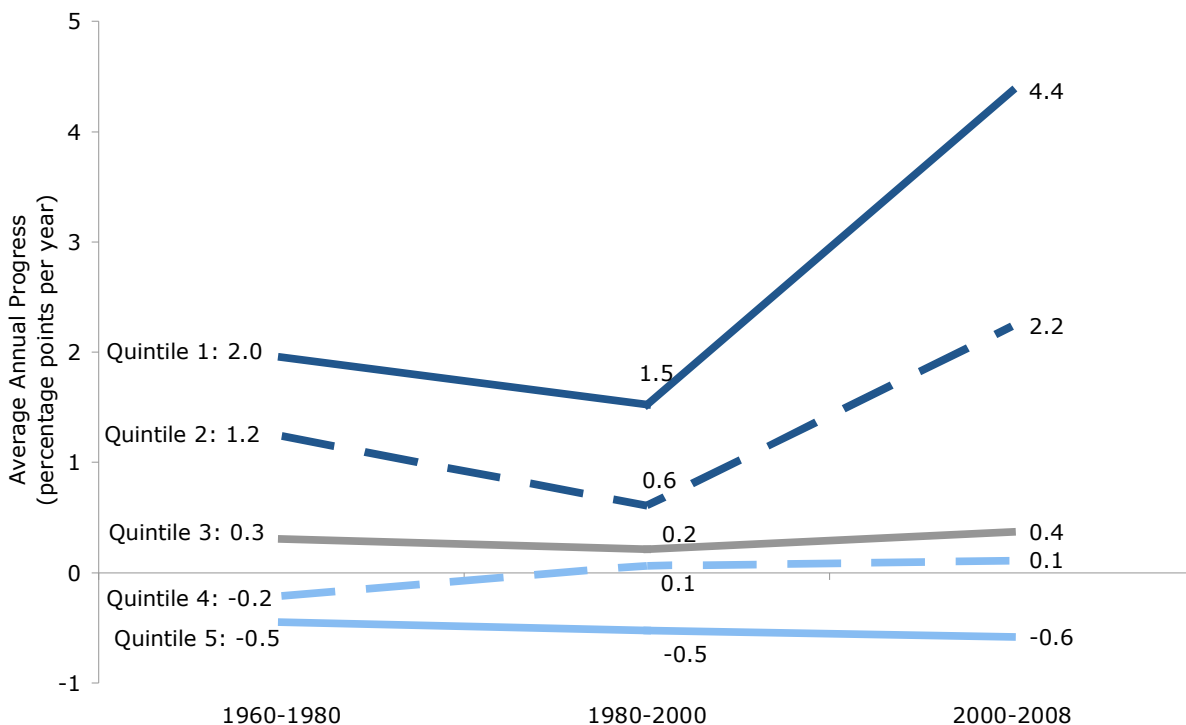

Source: World Bank (no date, b).
Note: At the beginning of each time period, countries with the lowest public spending on education are placed in Quintile 1: between 0.4% and 2.0% of GDP. Likewise, countries in Quintile 2 had between 2.1% and 2.87% of GDP in public spending on education. Quintile 3 had 2.91% - 4.0%; Quintile 4 had 4.1% - 5.26%; and Quintile 5 had between 5.33% and 11.9% of GDP in public spending on education. There is no data for Quintile 5 in 1960, because there were no countries yet with such high levels of public spending on education. The quintile is empty for the first time period, but by 1980, 20 countries had risen to that level.

Figure 12 shows the annual change in primary school enrollment, with the quintiles arranged from lowest (3 percent to 65 percent) to highest (109-167 percent) in terms of their level of enrollment.[44] The bottom two quintiles show a V-shaped pattern correlating with growth, with an especially pronounced acceleration in enrollment for the third period (2000-2008). This upsurge in primary enrollment could reflect a change in policy by the World Bank in poor countries. Prior to 2002, the World Bank had a policy of requiring borrowing countries to charge user fees for primary education (and health care). From 2000-2002, the U.S. Congress, in response to a campaign by advocacy groups, passed legislation requiring that the U.S. executive director at the World Bank and IMF oppose any loan or debt relief agreement that required such user fees. After this legislation was

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44 The gross enrollment rate can be over 100% because of the way it is measured. The World Bank (no date, b) defines the indicator as "the ratio of total enrollment, regardless of age, to the population of the age group that officially corresponds to the level of education shown." Where there are high numbers of non-traditional age students, the number of students can be higher than the overall traditional-age population, pushing the gross enrollment rate over 100%. However, where that is the case, enrollment rates would be expected to fall eventually, as the non-traditional age population catches up with the traditional-age population.

enforced through congressional follow-up hearings in 2002, the practice was abandoned, and there was an upsurge in primary school enrollment in certain borrowing countries, for example in Africa.[45]

FIGURE 12
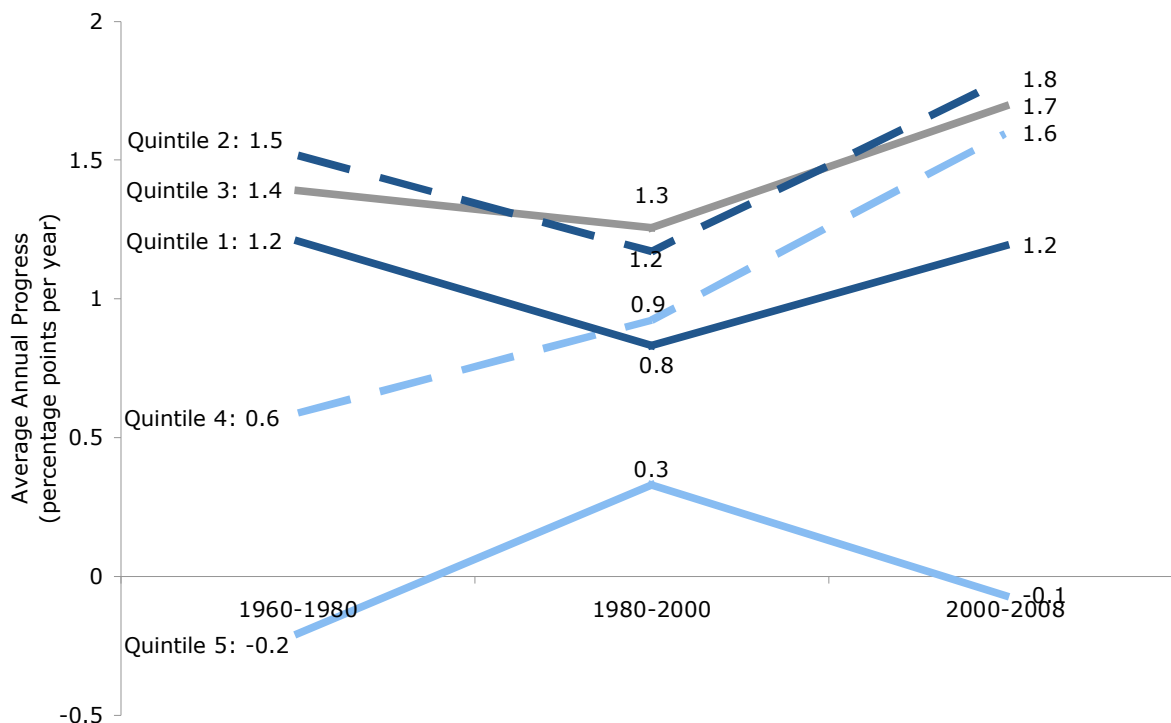**Average Annual Change in Primary School Enrollment (Gross)**

Source: World Bank (no date, b).
Note: Gross enrollment is number of enrolled students divided by the population in the corresponding age range. It can be higher than 100% in some cases (see footnote 45 for details). At the beginning of each time period, countries with the lowest gross primary school enrollment rates are placed in Quintile 1: between 3.0% and 64.6% enrolled. Likewise, countries in Quintile 2 had enrollment rates between 65% and 93.8%. Quintile 3 had 94.0% - 101.56%; Quintile 4 had 101.57% - 108.7%; and Quintile 5 had enrollment rates of 108.8% - 166.6%.

The rate of change for secondary education over the three periods is shown in **Figure 13** again with quintiles arranged by level of enrollment at the beginning of the period. In this case, it is the bottom three quintiles, which are overwhelmingly developing countries that show the V-shaped pattern associated with the growth slowdown and recovery. For the second and third quintiles, there is a strong recovery to a faster rate of increase in secondary education in the third period. The fourth quintile shoes a steadily rising rate of improvement in secondary enrollment, throughout all three periods; while the highest quintile shows an annual decrease for both 1960-1980 and 2000-2008.

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45 For more on the elimination of school fees, and the role of US civil society and government in advocating for their elimination, see Alonso i Terme (2002) and Dugger (2004).

FIGURE 13
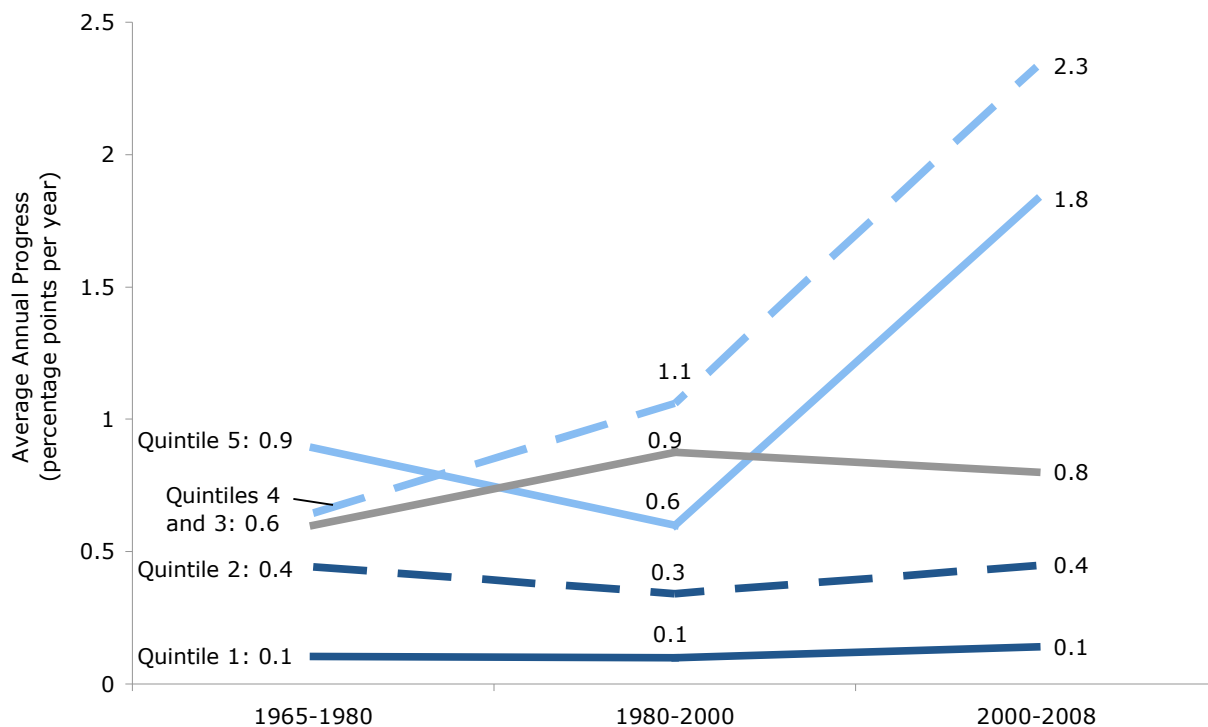**Average Annual Change Secondary School Enrollment (Gross)**

Source: World Bank (no date, b).
Note: Gross enrollment is the number of enrolled students divided by the population in the corresponding age range. It can be higher than 100% in some cases (see footnote 45 for details). At the beginning of each time period, countries with the lowest gross secondary school enrollment rates are placed in Quintile 1: between 1.0% and 10.7% enrolled. Likewise, countries in Quintile 2 had enrollment rates between 11.0% and 25.0%. Quintile 3 had 26.0% - 57.0%; Quintile 5 had 57.05% - 84.361%; and Quintile 5 had enrollment rates of 84.364 – 161.8%.

Figure 14 shows the annual percentage point increase in tertiary (post-high-school) enrollment, with quintiles arranged from lowest to highest enrollment rates. In this case there is no pattern related to the economic growth of the three periods, except for the highest quintile, which shows a V-shaped pattern. An unfortunate trend is that the countries with the highest enrollment rates are increasing much faster than those with the lowest rates; the bottom quintile, which consists of countries with tertiary enrollment of less than one percent, has a very small and unchanged annual increase in enrollment throughout the whole 43 years, averaging just 0.1 percent per year. Quintile 4 and 5 both show remarkable acceleration in the last time period. The rebound in quintile 4 was partly driven by a large increase in tertiary enrollment in Cuba; without Cuba, growth would have rebounded to 1.7 percentage points per year, instead of 2.8.

FIGURE 14
**Average Annual Change Tertiary School Enrollment (Gross)**

Source: World Bank (no date, b).
Note: Gross enrollment is the number of enrolled students divided by the population in the corresponding age range. It can be higher than 100% in some cases (see footnote 45 for details). At the beginning of each time period, countries with the lowest tertiary school enrollment rates are placed in Quintile 1: between 0.7% and 1.0% enrollment. Likewise, countries in Quintile 2 have between 1.1% and 4.8% enrollment. Quintile 3 has 4.9% - 14.0%; Quintile 4 has 14.9% - 26.6%; and Quintile 5 has 26.7% and 82.8% enrollment.

Finally, **Figure 15** shows the annual increase in literacy rates, with countries arranged into quintiles by adult (age 15 and above) literacy rates. This data series begins with 1970. With the exception of the fourth quintile, which includes countries that start each period with a literacy rate between 75 and 89 percent, the annual improvement in literacy rates for the three periods does not seem to follow a pattern related to economic growth.

FIGURE 15
Average Annual Change in Adult Literacy (Age 15 and Above)
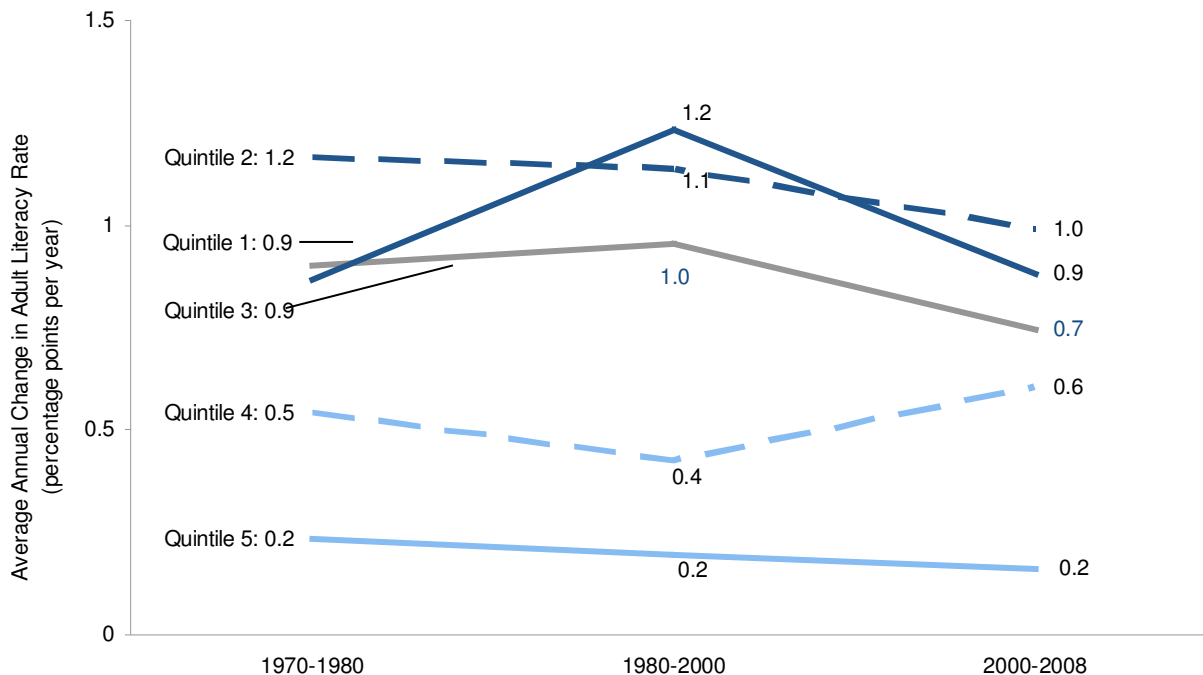
Source: World Bank (no date, b).
Note: At the beginning of each time period, countries with the lowest adult literacy rates are placed in Quintile 1: 6% - 32%. Likewise, countries in Quintile 2 had between 33 and 56% adult literacy. Quintile 3 has 57 – 74%; Quintile 4 has 75% - 88.7%; and Quintile 5 has 89.4 – 99.8% literacy.

Conclusion

After a decades-long slowdown in economic growth in the post-1980 period, there has been an acceleration for much of the low- and middle income world over the past decade, and a consequent improvement in the rate of progress for a number of social indicators for many countries. As explained above, it is still too early to tell how much of this improvement is likely to be sustained. On the positive side, much of the developing world seems to have been recovering from the world recession with its own growth dynamic, at a much faster pace than the high-income countries. Part of this is due to policy changes described above, and part is also due to the increasing weight, in the world economy, of countries whose policies are less neoliberal and more pro-development, most importantly China. On the other side, much of the high-income world, especially Europe and the United States, has had a much weaker recovery and is plagued by faulty macroeconomic policies and other problems. Some of their problems can still spill over to much of the developing world, as happened during the recent world recession. And the vast majority of developing countries are still far from adopting development strategies that might be analogous to what has worked in the past. It remains to be seen whether the next decade will be able to match or exceed the progress that has been seen since 2000. Nonetheless, the past decade marks a significant break from the long period of economic policy failure that most low- and middle income countries experienced from 1980 to 2000.

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Appendix

Appendix 1: Calculating GDP Growth

To calculate per capita GDP growth, we use the following method:

1. For 1960 to 2007, we use the Penn World Table's (PWT) real per capita GDP (purchasing power parity converted) variable, chained, in 2005 international dollars: *rgdpch*.

2. For 1981 to 2010, we use the IMF World Economic Outlook (WEO), which offers a per capita GDP (purchasing power parity converted) variable, but in *current* international dollars, so this is deflated to 2005 values using the US GDP deflator.

For the overlapping years of the two datasets (1981 to 2007), resulting values do not always match. In order to create a fluid dataset, we use the following method:

1. We calculate the annual growth rates implied by each dataset.

2. Beginning in 1981, we apply an indexed average of the two growth rates, as follows:

    1981GDP = 1980GDP * [1+ (1/28 * WEO rate for 1981) + (27/28 * PWT rate for 1981)]
    1982GDP = 1981GDP * [1 + (2/28 * WEO rate for 1982) + (26/28 * PWT rate for 1982)]
    ...
    2006GDP = 2005GDP * [1 + (26/28 * WEO rate for 2006) + (2/28 * PWT rate for 2006)]
    2007GDP = 2006GDP * [1 + (27/28 * WEO rate for 2007) + (1/28 * PWT rate for 2007)]

In cases of countries whose records begin after 1980, we used the Penn World Table value of GDP for the first year of records, and then apply the same formula for later years, substituting the correct number of years for the "28" listed above. If those countries appear in the WEO data one (or more) year(s) before they appear in the PWT data, we started with the first year of PWT data using the above steps, and calculated backwards to the first year of WEO data using the WEO annual growth rates.

Finally, in two cases (Serbia and Timor-Leste) the PWT has data for only 2005 while the WEO has data for several years. To match the methodology for other countries, relying more heavily on the PWT than WEO data, we apply the WEO's growth rate forward and backward to the 2005 PWT data point to generate estimates for the years prior to, and after, 2005.

Appendix 2: Distribution of Countries Among Quintiles

A quintile is defined as a group of countries that begin a given time period at a given level of development. Being placed in a given quintile in 1960 does not guarantee that a country will stay in that quintile for the next time period. For example, Table A1, below, shows that Quintile 1 countries begin a given time period with between $303 and $1,429 in per capita GDP. They may then grow enough to rise to a different quintile for the next time period. Thus, Table A1 shows only three countries in the fifth quintile in 1960, but more and more countries grow into that quintile as time passes. For each indicator, Quintile 1 represents the worst development outcomes, and Quintile 5 represents the best development outcomes.

For most indicators, countries are divided into quintiles of equal size. However, where achieving identically-sized quintiles would mean separating countries with the same level of development into different quintiles, this is avoided. For example, for secondary school enrollment, there are 371 data points, which would ideally be distributed into quintiles of 74, 74, 75, 74, and 74 data points each. However, doing so would put Poland and Switzerland, which each had enrollment rates of 26.0% in 1960, into different quintiles. For the purpose of the present analysis, it is more important to have quintiles with the same starting point than with the same size, so Poland and Switzerland are both in the third quintile for 1960, and the resulting quintiles contain 74, 73, 75, 74, and 75 countries.

TABLE A1
GDP Per Capita: Countries per Quintile / Time Period

	1960-1980	1980-2000	2000-2010	*Total*
Quintile 1: $303 - $1,429 per capita	33	31	27	*91*
Quintile 2: $1,438 - $3,103 per capita	28	34	29	*91*
Quintile 3: $3,133- $5,885 per capita	24	29	37	*90*
Quintile 4: $5,890 - $12,723 per capita	22	31	38	*91*
Quintile 5: $12,829 - $97,721 per capita	3	39	49	*91*
Total	*110*	*157*	*165*	*454*

TABLE A2
Life Expectancy: Countries per Quintile / Time Period

	1960-1980	1980-2000	2000-2008	*Total*
Quintile 1: 31.1 – 47.7 years	70	27	15	112
Quintile 2: 48.1 – 59.2 years	40	41	32	*113*
Quintile 3: 59.4 – 67.6 years	34	49	29	*112*
Quintile 4: 67.7 – 71.9 years	33	36	44	*113*
Quintile 5: 72.0 – 81.1 years	4	35	73	*112*
Total	*181*	*188*	*193*	*562*

TABLE A3
Male Life Expectancy: Countries per Quintile / Time Period

	1960-1980	1980-2000	2000-2008	Total
Quintile 1: 31.4 – 46.4 years	69	28	15	112
Quintile 2: 46.5 – 57.4 years	42	40	31	113
Quintile 3: 57.6 – 64.6 years	34	49	29	112
Quintile 4: 64.7 – 69.28 years	31	37	45	113
Quintile 5: 69.32 -78.0 years	5	34	73	112
Total	181	188	193	562

TABLE A4
Female Life Expectancy: Countries per Quintile / Time Period

	1960-1980	1980-2000	2000-2008	Total
Quintile 1: 30.8 – 49.08 years	72	27	14	113
Quintile 2: 49.10 – 61.20 years	39	41	32	112
Quintile 3: 61.24 – 70.3 years	36	48	29	113
Quintile 4: 70.4 – 74.8 years	32	37	43	112
Quintile 5: 74.9 – 84.6 years	3	35	75	113
Total	182	188	193	563

TABLE A5
Male Adult Mortality: Countries per Quintile / Time Period

	1960-1980	1980-2000	2000-2008	Total
Quintile 1: 449 - 738 deaths per 1,000	50	30	11	91
Quintile 2: 311 - 445 deaths per 1,000	30	26	35	91
Quintile 3: 233.4 - 309 deaths per 1,000	25	35	32	92
Quintile 4: 179.9 - 233.3 deaths per 1,000	31	34	26	91
Quintile 5: 83 – 179.8 deaths per 1,000	11	29	51	91
Total	147	154	155	456

TABLE A6
Female Adult Mortality: Countries per Quintile / Time Period

	1960-1980	1980-2000	2000-2008	Total
Quintile 1: 373 - 631 deaths per 1,000	48	27	16	91
Quintile 2: 237 - 371 deaths per 1,000	32	31	28	91
Quintile 3: 145.1 - 235 deaths per 1,000	27	32	32	91
Quintile 4: 106.1 - 145 deaths per 1,000	32	26	33	91
Quintile 5: 39 - 105.8 deaths per 1,000	7	38	46	91
Total	146	154	155	455

TABLE A7
Child Mortality: Countries per Quintile / Time Period

	1960-1980	1980-2000	2000-2008	*Total*
Quintile 1: 170.7 - 390 deaths per 1,000	44	33	17	*94*
Quintile 2: 94 - 169.9 deaths per 1,000	20	43	31	*94*
Quintile 3: 41 - 93.8 deaths per 1,000	18	41	34	*93*
Quintile 4: 19.1 - 40.9 deaths per 1,000	20	31	43	*94*
Quintile 5: 3.7 - 19.1 deaths per 1,000	0	27	67	*94*
Total	*102*	*175*	*192*	*469*

TABLE A8
Infant Mortality: Countries per Quintile / Time Period

	1960-1980	1980-2000	2000-2008	*Total*
Quintile 1: 109.0 - 245 deaths per 1,000 live births	48	33	13	*94*
Quintile 2: 67.0 - 108.6 deaths per 1,000 live births	15	44	35	*94*
Quintile 3: 33.41 - 66.9 deaths per 1,000 live births	21	39	35	*95*
Quintile 4: 16.6 - 33.35 deaths per 1,000 live births	16	33	45	*94*
Quintile 5: 2.9 - 16.4 deaths per 1,000 live births	2	28	64	*94*
Total	*102*	*176*	*189*	*471*

TABLE A10
Public Spending on Education: Countries per Quintile / Time Period

	1960-1980	1980-2000	2000-2008	*Total*
Quintile 1: 0.4% – 2.0% of GDP	17	9	7	*33*
Quintile 2: 2.1% - 2.87% of GDP	14	12	7	*33*
Quintile 3: 2.91% - 4.0% of GDP	13	9	10	*32*
Quintile 4: 4.1% - 5.26% of GDP	8	18	7	*33*
Quintile 5: 5.33% - 11.9% of GDP	0	20	13	*33*
Total	*52*	*68*	*44*	*164*

TABLE A11
Primary School Enrollment Rate (Gross) per Quintile / Time Period

	1960-1980	1980-2000	2000-2008	*Total*
Quintile 1: 3.0% – 64.6% enrollment	49	22	10	*81*
Quintile 2: 65.0% - 93.8% enrollment	30	31	19	*80*
Quintile 3: 94.0% - 101.56% enrollment	20	31	30	*81*
Quintile 4: 101.57% - 108.7% enrollment	13	32	36	*81*
Quintile 5: 108.8% - 166.6% enrollment	19	32	30	*81*
Total	*131*	*148*	*125*	*404*

TABLE A12
Secondary School Enrollment Rate (Gross) per Quintile / Time Period

	1960-1980	1980-2000	2000-2008	*Total*
Quintile 1: 1.0% – 10.7% enrollment	53	17	4	*74*
Quintile 2: 11.0% - 25.0% enrollment	36	27	10	*73*
Quintile 3: 26.0% - 57.0% enrollment	28	34	13	*75*
Quintile 4: 57.05% - 84.361% enrollment	9	33	32	*74*
Quintile 5: 84.364% - 161.8% enrollment	1	27	47	*75*
Total	*127*	*138*	*106*	*371*

TABLE A13
Tertiary School Enrollment Rate (Gross) per Quintile / Time Period

	1965-1980	1980-2000	2000-2008	*Total*
Quintile 1: 0.7% – 1.0% enrollment	44	15	1	*60*
Quintile 2: 1.1% - 4.8% enrollment	22	25	13	*60*
Quintile 3: 4.9% - 14.0% enrollment	33	21	6	*60*
Quintile 4: 14.9% - 26.6% enrollment	10	32	18	*60*
Quintile 5: 26.7% - 82.8% enrollment	1	19	40	*60*
Total	*110*	*112*	*78*	*360*

TABLE A13
Adult Literacy per Quintile / Time Period

	1970-1980	1980-2000	2000-2008	*Total*
Quintile 1: 6% – 32% literate	31	6	1	*38*
Quintile 2: 33% - 56% literate	25	7	6	*38*
Quintile 3: 57% - 74% literate	22	7	10	*39*
Quintile 4: 75% - 88.7% literate	25	8	6	*39*
Quintile 5: 89.4% - 99.8% literate	17	5	16	*38*
Total	*120*	*33*	*39*	*192*