

## **Putting Life Back into Miracles**

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If you type “East Asian Miracle” into Google, you get nearly 29,000 hits. That isn’t surprising. The term is shorthand for unprecedented development success in the region – GDP per capita growth rates that averaged about six percent over the 1975-2000 period.<sup>1</sup> These growth rates have pulled hundreds of millions out of poverty and propelled a number of countries into high income status –today, Singapore is richer than Italy, for example. As reflected in the Google count, the story of the East Asian Miracle has been widely written up –not least in the eponymous World Bank report of 1993.

If you type “Middle East Miracle” into Google, you get a paltry 151 hits, and even these few web pages aren’t about progress in development.<sup>2</sup> No surprise there, one might argue. The Middle East and North Africa region saw annual GDP per capita growth of just 0.5% 1975-2000. This is far from a supernatural performance.

Having said that, miracles don’t usually revolve around riches. Even Saint Donatus, whose first miracle did involve getting a deceased woman to tell her husband where she had put the rent money, quickly graduated to repairing chalices, smiting dragons, banishing demons, altering weather patterns and bringing people back from the dead.<sup>3</sup> In fact, most miracles appear to be about health.<sup>4</sup> At the same time, development isn’t just about money, either. Most people would surely agree that less disease and longer life-spans were a pretty important part of the development story, for example.

Which brings us back to the Middle East Miracle. Between 1962 and 2002, life expectancy in the Middle East and North Africa (hereafter MENA) increased from around 48 years to 69 years –each calendar year that passed added more than six months to average life expectancy in the region. Clearly, this was an incredibly strong performance in historical terms (otherwise, regional life expectancy would have been around zero in 1850). It was also the strongest performance of any region in the World. Average annual life expectancy growth over the 1962-2002 period was 0.9 percent in MENA, compared to 0.85% in second-place South Asia, 0.72 percent in East Asia, 0.53 percent in Latin America, 0.28 percent in Sub-Saharan Africa and 0.17 percent in Eastern Europe and Central Asia. As a comparison, high-income countries managed 0.31 percent

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<sup>1</sup> This and subsequent data is from the World Bank’s World Development Indicators, 2005.

<sup>2</sup> Most appear to be about peace deals, failed attempts at peacemaking, or earthquake survivors. The contrast is perhaps even more stark on Google Scholar: “East Asian Miracle” gets 2,990 hits, “Middle East Miracle,” “Middle Eastern Miracle,” “MENA Miracle,” “Middle East and North Africa Miracle,” “North Africa Miracle” and “North African Miracle” all get zero hits.

<sup>3</sup> <http://www.catholic-forum.com/saints/>

<sup>4</sup> For example, 22 out of 35 of Jesus’ miracles as listed on <http://www.allaboutjesuschrist.org/> are about healing or raising from the dead. Many of the rest involve expelling evil spirits –surely a related subject.

annual life expectancy growth. Fully one half of the top twenty countries in terms of life expectancy growth 1962-2002 were MENA countries.

It might, then, be worth questioning the assumption that economic growth is the only development grail we need quest after --that income is a strong correlate with most of the important dimensions of development, and so that GDP per capita growth is all that (or at least most of what) is needed to measure development success. In fact, using a different metric of development progress appears to considerably alter our perspective of relative success.

Looking at life expectancy, it appears that are both similarities and notable differences with the economic growth story. In some ways, the experience of development seen through the lens of life expectancy growth does look akin to the patterns that we see from GDP per capita growth. As with GDP per capita, average global life expectancy performance in the 1960s and 70s was considerably better than performance in the 1980s and 1990s, for example. Worldwide average annual life expectancy growth was 0.73 percent in the 1960s, and only three countries out of the 164 for which we have data saw negative growth. By the 1990s, worldwide average growth had slipped to 0.09 percent, and 36 out of 188 countries saw negative growth.

Again, as with GDP per capita, the life expectancy data throws up “hills, plateaus, mountains, and plains” as Lant Pritchett puts it. There are countries that keep on growing (Bangladesh, which saw decadal life expectancy growth varying between 1.0 and 1.2% between the 1960s and the 1990s). There are countries that grow and then stop –Angola, growing at more than one percent in the 1960s, 70s and 80s, with zero growth in the 1990s. There are countries which grow and then collapse –Botswana, growing at above one percent in the 60s and 70s, then -1% in the 1980s and -3 percent in the 1990s. There are countries that are pretty much flat –the Czech Republic saw growth that varied between 0.05 and 0.41 percent across decades.

Furthermore, as Bill Easterly and friends found with income growth,<sup>5</sup> there is very little short term relationship between growth in life expectancy over decades –1990s life expectancy growth is an insignificant correlate with 1980s life expectancy growth. At the same time, over the longer term, as relatively rich countries in the 1900s remain relatively rich countries today, it appears that relatively healthy countries in 1913 remain relatively healthy countries today.<sup>6</sup>

As to the differences, whilst there has been variation in life expectancy outcomes, the global experience of life expectancy growth over the long term is far less varied than income growth. Lant Pritchett found that the standard deviation of developing country

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<sup>5</sup> Easterly et. al. (1993) Good Policy or Good Luck? Country Growth Performance and Temporary Shocks, NBER Working Paper 4474.

<sup>6</sup> Kenny, C. (2007) There's More to Life than Money: The Link Between Income and Quality of Life, forthcoming, *Journal of International Development*.

growth over the long term was around 2 percent.<sup>7</sup> Taking our global life expectancy sample, Japan had the median life expectancy growth rate over 1962-2002 of about 0.4 percent. Only one country in the World saw an annual rate more than one percent different from this global median –Oman, which saw 1.47 percent annual growth. The global similarity of life expectancy outcomes –at least compared to income-- might suggest comparatively strong global forces at work in determining life expectancy outcomes.

Furthermore, as opposed to income, where we have seen “divergence big time,”<sup>8</sup> countries that started out with low life expectancies have seen far faster life expectancy growth than rich countries. The bottom 20 countries in terms of life expectancy in 1962 (average life expectancy 36.4 years) saw average annual life expectancy growth of 0.62 percent over the next 40 years, compared to 0.22 percent average annual growth for the richest countries (average 1962 life expectancy 71.2 years).

Overall, the hills, plateaus, mountains, and plains of life expectancy do not match the topography of income change. The timing of life expectancy growth and income growth looks considerably different –take China, which saw life expectancy growing at 1.6 percent in the 1960s, collapsing to around 0.2 percent in the 1980s and 1990s, while income growth was going the other direction. Related to this, the winners and losers are also different –MENA being one obvious example. Botswana, the star growth performer in Africa, saw the worst global performance in life expectancy out of the 161 countries for which we have data, with an average annual decline of 0.55 percent 1962-2002. Amongst the top ten in terms of life expectancy growth are the Gambia, Yemen, Nepal, Bangladesh and Libya –not often associated with stellar income performance. These cases are far from exceptional --a growing body of cross-country work suggests that the statistical link between income growth and life expectancy growth is very weak.<sup>9</sup>

In turn, the causes of variation in economic growth and variation in life expectancy growth must be different. For example, while AIDS is emerging as a potential economic scourge, a more immediate and more considerable impact was on life expectancy. Thirteen countries have seen negative life expectancy growth over the 1962-2002 period. Eleven of those countries are in Southern and Eastern Africa, where the AIDS virus is most widespread.<sup>10</sup>

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<sup>7</sup> Pritchett, L. (1998) Patterns of Economic Growth: Hills, Plateaus, Mountains, and Plains World Bank Policy Research Working Paper 1947.

<sup>8</sup> Pritchett, L. (1995) Divergence, Big Time. World Bank Policy Research Working Paper 1522.

<sup>9</sup> See Easterly, W. (1999) Life During Growth Journal of Economic Growth 4,3.. Even Lant Pritchett and Larry Summers, whose paper “Wealthier is Healthier” (1996, Journal of Human Resources, 31, 4) suggested a strong link between income and health, found that the income growth -life expectancy growth relationship was not statistically significant and that even the stronger link between income change and infant mortality change could only explain about 18 percent of the variation in mortality change.

<sup>10</sup> The importance of regional factors in explaining outcomes might further be suggested by the fact that, out of 73 cases of negative decade growth in life expectancy that occurred in the 1960s through the 1990s, fully 62 were in Sub-Saharan Africa or Eastern Europe and Central Asia.

Taking a wider view of development than one focused just on income, it appears that we might find elements of success in interesting places, and enrich our knowledge regarding the elements of broad-based development progress. The similarities between the nature of progress in health and progress in income suggest that similar types of models might be able to play a role in explaining both. The differences in actual rates of progress across countries between health and income suggest immediate causal factors must be markedly different. Examining a wider range of miracles (and tragedies) might help uncover what these different causal factors are.