Convergence across nation-states is about the poor catching up with the rich, even as growth continues for all. Convergence is about “the global south” achieving parity with “the global north.” Convergence is about the distribution of incomes of people around the world flattening towards equality, and thus about the shift in the planet’s economic landscape curving to better fit the world’s spatial distribution of people.

Of course, how exactly convergence is studied and discussed does not always achieve that goal. When economists study the dynamics of income per capita, say, and assess if that measure shows a tendency to return to some steady-state long-run trend, obviously such an exercise will always be remote from achieving an understanding of the poor catching up with the rich. When researchers seek to explain the dynamics of, again, just income per capita, obviously such an exercise can give no insight into what happens to the incomes of the bulk of the world’s population nor into what happens to the very poor and the very rich of different societies.

But these shortcomings are conceptually, at least, easily overcome. Policy discussion and research can factor in population size and the distribution of income within nation-states, and thereby sharpen understanding accordingly. Other deficiencies, however, are less easily addressed.

Much less studied is how the external or global environment might matter for growth and convergence. Historians¹ and international relations scholars² of global power shifts in particular and geopolitics more generally provide ready counter-examples. These researchers study the conditions that surround the rise of a challenger to the incumbent world superpower: What is such a rise but exactly the convergence of a poorer economy towards the leading nation-state? In this research the failure of global governance to adjust to such challenges can set in motion violent events that either topple the incumbent or disrupt the continued rise of the challenger, and inflict damage to worldwide economic growth more generally.

The positive tradition in such foreign policy analysis is strong. In that thinking the global hegemon dominates world leadership because it can: it is the world’s economic superpower; it issues the world’s reserve currency; it has the strongest military capabilities. But an economics perspective would suggest global hegemony also needs a normative foundation: The world leader leads, not just because it can, but because in doing so it improves the well-being of humanity. That leader provides global public goods; it keeps the world safe and the global economy stable. What happens to the global economic landscape, as convergence takes place or fails to do so, then has profound implications for what global governance might be appropriate.³

But do such considerations matter for growth and convergence today?

---

¹ Historians
² International relations scholars
³ Economics perspective

Danny Quah  
Professor of Economics and International Development, London School of Economics; Director  
Saw Swee Hock Southeast Asia Centre, London School of Economics
This Point in History

Twenty-five years ago the Soviet Union collapsed. This brought to an end the then-largest convergence challenge of the previous century. To understand this, observers considered a range of possibilities. The most prominent of those described itself in terms of the “end of history”:

Today […] we have trouble imagining a world that is radically better than our own, or a future that is not essentially democratic and capitalist.4

Only one path offered prosperity and growth:

[L]iberal democracy remains the only coherent political aspiration that spans different regions and cultures around the globe. In addition, liberal principles in economics—the “free market”—have spread, and have succeeded in producing unprecedented levels of material prosperity, both in industrially developed countries and in countries that had been, at the close of World War II, part of the impoverished Third World.5

Liberal democracy and free-market economics constituted the only pathway to prosperity.

In the same vein 20 years ago a similar end was predicted for East Asia, then still perilously close to “the impoverished Third World,” and which like the Soviet Union was also attempting a different pathway to prosperity:

From the perspective of year 2010, current projections of Asian supremacy extrapolated from recent trends may well look almost as silly as 1960s-vintage forecasts of Soviet industrial supremacy did from the perspective of the Brezhnev years.5

There was only one route to economic success, and East Asia was not on it.

The claim that a specific growth trajectory is unsustainable can indeed be confirmed by evidence, and thus shown to be right. But, as a matter of logic, it can never be proven wrong. (Whenever an economy keeps growing, it could still show dramatic collapse in the future.)

We are now past the year 2010, and so we can usefully examine prospects and reality on the predicted East Asian collapse. If the evidence suggests, however, that the projections and assessments described in this section are incorrect, perhaps so too do their underlying assumptions need to be re-examined.7

Empirical Evidence

The preceding discussion flags two dimensions of interest regarding economic performance across countries. First, how have different parts of the world performed relative to one another in a metric that lends itself to geopolitical comparison? Looking at purchasing power parity (PPP) correction in per capita incomes gives guidance on how the well-being of different populations have evolved, as these adjust for size and for different living costs across the world. But PPP correction will not accurately describe the relative footprints of different parts of the world in competition with each other. For this, it is GDP evaluated at current prices and market exchange rates that will be more revealing. By the same token, for geopolitics, size matters: it is the overall economy that must be studied here, not just per capita GDP.

Second, what are the underlying longer-run trends in GDP that shift more permanently the relative economic positions of different parts of the world? Looking at just measured year-on-year growth rates, say, highlights only shorter-term fluctuations (for the technical reason that a first-difference filter has frequency-domain representation that is 0 at frequency zero and, moreover, is everywhere continuous). Kemal Derviş8 has demonstrated how for per capita GDP, Hodrick-Prescott-filtered long-run trends show emerging markets and developing economies growing strongly and thus catching up with the initially advanced economies,
while, in contrast, short-run cycles across these groups co-move strongly. Thus, empirical techniques that fail to separate explicitly these dynamic behaviours—but instead just look at measured annual growth rates, say—will likely end up incorrectly concluding that the poor will remain poor and the rich, rich.

I follow Derviş’s insight for studying convergence but my empirical evidence differs from his in two ways. First, I am interested not in per capita quantities but in total incomes—again, because the latter is what matters for geopolitics. Second, I use a band-pass filter—that implied by a symmetric rectangular 5-year average, not the Hodrick-Prescott technique—to disentangle longer-run trends and shorter-run cycles. There is no single best technique for this estimation, so the more that different methods are applied, the greater confidence we have in the collective body of findings.

Begin with just the raw data. Table 1 shows the shares of world total GDP that different individual countries and groups contribute, averaged over the decades since 1980. The final column in the Table shows the results from using the IMF’s forecasts of GDP in individual economies.9

Begin with the world’s leading advanced economy.

From a 31 percent share of the world economy in the 1980s, the U.S. contribution has declined by over 8 percentage points; the figure is predicted to be even lower in the next five years. In this time, similarly, the G-7 group of advanced economies has seen its share decline 18 percentage points, from being two-thirds of the global economy to now less than half.

In contrast, the group of emerging markets and developing economies (EMDE) has seen its share of the global economy rise 16 percentage points, with over 10 of those percentage points from emerging and developing Asia, and eight from China alone.

It is striking that, in the IMF’s October 2014 forecast, the EMDE group has continued to advance despite the predicted slowdown for the global economy overall and, in particular, for the richer, developed economies—previously the bedrock of stable world economic growth and the market for developing economy exports.

The picture that emerges is convergence, pure and simple. A large part of this convergence had already taken place by 2014. Within the next five years, the EMDE group—at market exchange rates, not PPP—will achieve parity with the EU and the

<table>
<thead>
<tr>
<th>Shares of World Total</th>
<th>Decade Averages</th>
<th>Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>G-7</td>
<td>66.0%</td>
<td>66.0%</td>
</tr>
<tr>
<td>EU</td>
<td>29.0%</td>
<td>30.5%</td>
</tr>
<tr>
<td>Emerging Markets and Developing Economies</td>
<td>21.0%</td>
<td>19.1%</td>
</tr>
<tr>
<td>Emerging and Developing Asia</td>
<td>6.3%</td>
<td>5.7%</td>
</tr>
<tr>
<td>US</td>
<td>30.6%</td>
<td>27.2%</td>
</tr>
<tr>
<td>China</td>
<td>2.5%</td>
<td>2.6%</td>
</tr>
<tr>
<td>UK</td>
<td>4.3%</td>
<td>4.3%</td>
</tr>
</tbody>
</table>

Source: Author calculations from IMF World Economic Outlook, October 2014
U.S. combined. (Measured by PPP, in a table omitted in the interests of article length, the catch-up had already happened by the 2000s, with the trend simply continuing, so that the EMDE group was by the early 2010s 20 percentage points larger than the EU and U.S. combined.)

Setting aside the raw data, I turn now to the underlying trend and shorter-run fluctuations previously described. I compute the underlying trend by taking 5-year moving averages; short-run cyclical fluctuations are then defined to be the difference between the original raw data and this estimated underlying trend. To reduce the length of the discussion, hereafter, I focus on just EMDE and the G-7.

Figure 1 shows the dramatic convergence of the EMDE group towards the G-7. Figure 2 sharpens the point by showing the gap between EMDE and the G-7, calculated as a percentage of G-7 GDP. The reduction of this gap over time is neither linear nor monotone; there is nothing mechanical or automatic about convergence. From the early 1980s the distance between EMDE and the G-7 first grew, then plateaued, and finally fell dramatically. From a peak of 74 percent, where the gap remained for nearly a decade beginning in the mid-1980s, EMDE began to catch up sharply to the G-7 from the mid-2000s. By 2013 there was only a 17 percent gap; based on the IMF’s October 2014 forecasts, I estimate the gap will be just 6 percent by 2017.

But how does this finding square with the impression so many contemporary observers and financial market participants have, that rising globalization and ever-tighter coupling between advanced and poorer economies mean that the emerging and developing economies will not grow without advanced economies providing the locomotive of export demand? Figure 3 addresses this, making the same point that Derviş 10 had previously argued. When observers draw conclusions based solely on raw GDP data, perhaps mentally calculating or visualizing growth rates, it is the higher-frequency, shorter-term dynamics that they implicitly use. Growth rates, being the result of a first-difference filter, emphasise high-frequency movements. In Figure 3 those high-frequency dynamics display tight co-movement between EMDE and the G-7. Indeed, the raw correlation between those two series over the entire sample period is 0.7. Moreover, for those with the stylized impression that the world has become only more tightly coupled,
yes, the correlation has only grown over time. The contemporaneous correlation from 1980 through 1999 was actually zero (although expanding the correlations to take into account short leads and lags again makes the co-movement positive, exactly as the visual impression in Figure 3 suggests). However, since 2000 that same correlation has risen to 0.8.

It is only to be expected therefore that many observers hypothesize that the emerging economies can only slow when the advanced ones do so, and hence that convergence would not occur. But disentangling the underlying trend confirms instead the message from Table 1 and Figure 2.

Convergence has already occurred, big time.

Conclusions
Economic policymakers and economists have, appropriately, been interested in growth and convergence to understand if the poor in the world are catching up to the rich. Relatively unnoticed in this economic discussion is that a related debate has been taking place among historians of foreign policy and scholars of international relations. In that second domain convergence has implications for global power shifts and for the legitimacy of different forms of world leadership.

When convergence occurs on the kind of scale that I try to document as having taken place, the current system of global governance, dominated by traditional centres of power, can only come under ever greater stress.

Many contemporary observers, however, hold the view that the advanced economies will continue to be dominant, i.e., that convergence will fail because of a combination of two reasons: First, there is a relative narrow mixture of liberal democracy and free-market economics that makes for success; the emerging world—China and East Asia in particular—fail to hew to this recipe. Second, the empirical evidence says emerging and advanced economies are tightly coupled, so if the advanced economies slow, so too must the emerging markets.

In this paper I have shown that empirical evidence suggests instead the opposite. Those economies that have been successful in the world include those in East Asia, not least China, all of whom have been willing to experiment with a rich variety of alternative political and economic systems. There might well indeed be multiple pathways to prosperity, and thus multiple models appropriate for global governance. Following an earlier insight of Derviş’s, I have also suggested why tight coupling of high-frequency co-movements does not constitute evidence against convergence.

Convergence, I argue, has indeed already occurred. Only its implications—political and global—remain to be worked out.

References


Endnotes

3. Quah (2011) and (2014a)
4. Fukuyama 1992, p. 46
5. Fukuyama 1992, p. xiii
6. Krugman 1994, p. 78
7. Quah (2014b)
9. For the exact definition of different groupings of countries, see IMF (2014).