1. The Hazards of Forecasting

According to Niels Bohr, “It is very difficult to make predictions, especially about the future”! The wisdom of this precept is reinforced when forecasts are made for a region as diverse, dynamic, and volatile as Asia. This diversity is reflected in the enormous differences that prevail in the region’s economic levels and rates of growth in GDP and per capita GDP, in technological sophistication, trading patterns and trading partners, capital flows, and even “cultural values.”

Because of this diversity, different growth trajectories can be expected both among the Asian countries and by each of them over time. So, China, Japan, India, Indonesia, and Korea may experience very different growth patterns over the next two decades.

A striking example of both variability and volatility in the region is provided by the sharply different impact that Asia’s financial turmoil

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1Despite the frequent proclamations by Mahathir Mohamad and Lee Kuan Yew about “Asian values,” the proposition that these values are either homogeneous within the region, or strikingly different from cultural values prevailing elsewhere, is really a myth. Consider, for example, how sharp are the cultural differences between, say, Indonesia and Japan, or how similar is the entrepreneurial zeal that one finds in, say, South China and Korea on the one hand, and Silicon Valley on the other!
has had since mid-1997 on one indicator of the economic outlook—namely, the national stock markets in the region. On a year-over-year basis in December 1997, Japan’s Nikkei index had fallen 12 percent, Hong Kong’s Hang Seng index 20 percent, Korea’s 57 percent, Thailand’s 72 percent, Malaysia’s 71 percent, and Indonesia’s 60 percent, while Taiwan’s index increased 7 percent and China’s increased by 35 percent.²

2. A Base-Line Forecast

Over the past decade, RAND has done several studies of the outlook for the Asian economies, as well as their security environment, compared with those of the United States and western Europe. The first of these studies was done in 1987 for the National Commission on Integrated Long-Term Strategy and published in April 1989,³ the second was done in 1994, and published in 1995.⁴

In characterizing the Asian economic outlook, the studies focused on two salient indicators—gross domestic product, and per capita GDP. (The Asian security outlook was characterized in terms of two other salient indicators—military spending and military investment.) For this essay, the economic indicators are germane, despite their limitations. For example, they do not directly reflect such other important dimensions of economic performance as sectoral growth patterns, transnational corporate business alliances and technology transactions, trade patterns, and capital flows. Nevertheless, the GDP and per capita GDP forecasts provide a useful starting point for assessing the region’s economic outlook.

The RAND studies used a closed macroeconomic model for each country to estimate its future GDP growth, based on rates of growth

²Because the yuan is not fully convertible, the Chinese index is not strictly comparable to the others.
in the capital stock, in employed labor, and in total factor productivity. The outlook for productivity growth in the respective economies was estimated from their experienced growth during the previous decade combined with explicit judgments by the RAND team as to whether the future would replicate or diverge from the prior time trend. The United States and Germany were also included in the studies for comparative purposes, with Germany representing a surrogate for the entire European Union, as described below.

The principal results of these studies are summarized in Table 17.1 and Figures 17.1 and 17.2.

As Table 17.1 indicates, the estimates made in 1987 and 1995 correspond closely, with Korea as the major exception. The 1995 Korean forecast was biased upwards by certain premature, if not unrealistic, assumptions about the timing and process of reunification in the peninsula. In general, with the exception of Korea and probably also the United States, the 1995 estimates provide a more accurate indication of what the aggregate economic outlook in the region will be.

Table 17.1
Forecasted Annual GDP Growth Rates, 1997-2015: Principal Asian Economies, United States, and Germany (%)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>China</td>
<td>4.7</td>
<td>4.0&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Japan</td>
<td>2.9</td>
<td>2.5</td>
</tr>
<tr>
<td>Korea</td>
<td>4.9</td>
<td>7.1</td>
</tr>
<tr>
<td>India</td>
<td>4.0</td>
<td>5.5</td>
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<tr>
<td>Indonesia</td>
<td>b</td>
<td>5.0</td>
</tr>
<tr>
<td>Taiwan</td>
<td>5.7</td>
<td>5.3</td>
</tr>
<tr>
<td>Germany</td>
<td>2.1</td>
<td>2.3</td>
</tr>
<tr>
<td>United States</td>
<td>2.6</td>
<td>2.2</td>
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SOURCES: See references in footnotes 3 and 4 to cited RAND studies.

<sup>a</sup>The estimate for China is the mean of two alternative scenarios—one involving sustained growth, the other interrupted growth.

<sup>b</sup>Indonesia was not included in the 1987 RAND study.
Perhaps the most striking divergence between the Asian economic outlook depicted in Figure 1 and the more or less “consensus” view portrayed by other sources is the slower, though still substantial, growth we have estimated for China. The 4 percent figure shown in the 1995 estimate for China represents about half that of recent estimates by the World Bank and other sources. As previously noted, the 1995 figure shown for China in Table 1 is the average of an “optimistic” scenario leading to a growth rate of about 5 percent annually, and a “pessimistic” scenario for which the estimate was 3 percent.

Several major factors account for the slowdown forecasted for China:

- Implementation by China of an explicit government policy designed to transfer income from high growth and relatively wealthy Eastern provinces to the poorer Western ones, probably resulting in raising consumption at the expense of savings for the Chinese economy as a whole;

- Probably modest reductions in the inflow of capital and associated technology and management from “maritime” Chinese and other sources, including Taiwan, Hong Kong, and Southeast Asia;\(^5\)

- A rising capital-output ratio for new investment in China due to several influences: for example, investments in transportation and other capital-intensive infrastructure projects; the enormous and costly Three Gorges multi-purpose dams; large continuing construction costs in Shanghai and other urban areas; probable increased energy costs; and the need to reduce or reverse environmental effects of water and atmospheric pollution;

- Potential increases in military spending.

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\(^5\)During the first half of the 1990s, China has been the principal recipient of long-term capital inflows from the rest of the world, at an annual rate of about $40 billion, representing 20–25 percent of the global total. In the coming decades, while China is likely to continue to be an attractive venue for private long-term foreign investment, the proportion of this capital inflow and its magnitude in real dollars is likely to decrease somewhat. See the author’s “Global Competition for Long-Term Capital: Who Will Win?” *Business Economics*, July 1996.
On the other hand, it is possible that successful privatization of China’s burdensome State-Owned Enterprises could have a countervailing effect on China’s future growth, offsetting some of the growth-inhibiting factors mentioned above.

Figure 17.1 shows the aggregate GDP figures for the Asian countries corresponding to the 1995 growth rates shown in Table 17.1.

The estimates shown in Figure 17.1 are expressed in terms of the relative buying power (i.e., purchasing power) of the respective national currencies converted to 1997 U.S. dollars. Use of these PPP exchange rates has a major effect on the levels (but not the growth rates) of the corresponding estimates for each country, compared to what these estimates would be if the GDP figures were instead based...
on nominal foreign exchange (FX) rates. For example, if FX rates were used for the conversion into dollars instead of the PPP rates, the GDP estimates for China would be only one-sixth of those shown in Figure 17.1, while the estimates for Japan would be about 80 percent higher than those shown in Figure 17.1.

It can be expected that over the next two decades these large discrepancies between the PPP and FX exchange rates will narrow, if and as the respective countries become more open to trade and capital flows. Consequently, the PPP-based estimates for China will probably turn out to be somewhat less than those shown in Figure 17.1, while the corresponding FX-based estimates will be somewhat more than the one-sixth ratio mentioned above. Conversely, the GDP estimates for Japan will very likely turn out to be higher than the level shown in Figure 1, while the corresponding FX-based estimates for Japan will be somewhat lower than those cited earlier.

With these caveats in mind, several points can be inferred from Figure 17.1 concerning the outlook for the Asian economies in relation to the global economy and to the economies of other countries.

- China’s GDP, like that of the United States, will be about one-fourth of the global gross product in 2015.6
- By 2015, China’s GDP dollar equivalent will be more than twice that of Japan, while Japan’s GDP will be about twice that of Korea.
- The five principal Asian economies (China, Japan, India, Korea, and Indonesia) will constitute about 45 percent of the global economy, on the assumption that Germany’s GDP remains about 40 percent of that of the entire European Union whose combined GDP will shrink to about 15 percent of the global product.

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6It is also worth noting that the GDP growth rate shown for China in Table 16.1, representing the average of the estimated growth rates for the two China scenarios referred to earlier, is less than half the corresponding estimates made by the World Bank, and considerably less than half China’s reported real growth rates during the past decade.
The GDP of the United States will be about 25 percent of the global product (about the same proportion as at present), and about the same proportion as that of China in 2015.

Finally, the economy of India in 2015 will be about 60 percent as large as that of the entire European Union, according to the estimates shown in Figure 17.1.

Another way of scaling the Asian economic outlook is to show how its per capita GDP estimates compare with those of other countries. These estimates are shown in Figure 17.2.

Figure 17.2—Per Capita GDP Estimates for Asian Countries, Germany, and the United States
Figure 17.2 presents a very different picture from that portrayed in Figure 17.1—a picture that can be summarized as follows:

- The per capita estimates for the United States, Japan, Germany, and Taiwan are about equal as of 2015—between $33,000 and $37,000.

- The per capita figures for each of these “rich” countries are about four times that of China, while the per capita figure for Korea (about $23,000 for the reunified country) reaches about two-thirds that of the “rich” countries.

- Of the countries shown in Figure 17.2, the lowest per capita figures are those of China, Indonesia, and India—China’s per capita GDP will be about $9,000, while that of India will be about one-third, and Indonesia about three-quarters, that of China.

3. Alternative Views of the Asian Economic Outlook

Views about Asia’s economic future are divided, if not polarized, between pessimists and optimists. In the United States the pessimists are well represented by Paul Krugman of MIT, while the optimists are no less effectively represented by Jeffrey Sachs of Harvard. Krugman’s pessimism antedates the bursting of Asia’s “bubble” since mid-1997, so he can claim some degree of prescience. Moreover, the number of adherents to this view, including numerous international money managers, has enormously increased since then. Sachs’s optimism, which is endorsed by the World Bank as well as the Asian Development Bank, preceded the recent turmoil in Asian financial markets, but has been sustained since then.

Both of these positions leave something to be desired—Krugman’s perhaps a bit more than Sachs’s. As the data summarized in Table 17.1 and Figures 17.1 and 17.2 above suggest, my views are less buoyant than those of Sachs and the World Bank, yet not so far from these views as are Krugman’s. My views can perhaps be aptly characterized as “realistically optimistic,” somewhat closer to Sachs’s views than to Krugman’s.

Krugman’s pessimistic view, based on empirical work done by Alwyn Young, Laurence Lau, and Jong-Il Kim, can be summarized in the following propositions:
1. Most of Asia’s seemingly “miraculous” growth over the past two decades has been due to the growth of capital and labor inputs, rather than to increases in productivity of these inputs.

2. This pattern contrasts with the development experience of the West, in which increased productivity, rather than simply mobilizing large quantities of inputs, accounted for much of the realized growth.

3. So, it can be inferred that Asia’s future growth will sharply decline, because the accumulation of inputs will slow down and because these will be subject to diminishing returns.

There are several flaws in this argument.

First, in the RAND work referred to earlier, we found a distinctly mixed picture among the various Asian countries with respect to the relative contribution of productivity growth and input growth in accounting for GDP growth during the past decade. For example, annual growth in total factor productivity in Japan ranged between a slightly negative and a slightly positive figure over the period; in China the corresponding productivity growth was about 1.5 percent per annum; in Korea it ranged between 2 percent and 3 percent; in India about 1.5 percent; and in Indonesia the corresponding figure was approximately 1.3 percent. The underlying data for all these estimates are admittedly soft. But the picture that emerges is more mixed than Krugman suggests: in some of the Asian countries, productivity growth has been appreciable, in others it has been minimal.

Second, to the extent that productivity growth in some Asian countries has indeed been minimal, quite a different inference can be drawn from that which Krugman suggests. If in fact these efficiency gains have been less in Asia than has been characteristic of development in the West, this can just as plausibly be construed as providing greater opportunities for future productivity growth, rather than foreclosing them.

Finally, it can be convincingly argued that the prospect for a continuation of high savings and investment rates, and for large increases in employed labor, remain strong in Asia. The extraordinary mobilization of inputs that the Asian countries have manifested in the past is not unlikely to be sustained in the future.
On the other hand, Sachs and his World Bank and Asian Development Bank associates may be somewhat more optimistic than is warranted. The World Bank has projected annual economic growth in the Asia-Pacific region at about 7.7 percent (hence, per capita GDP growth would be about 5 percent or 5.5 percent), and China’s growth at slightly above 8 percent (hence, its per capita annual GDP growth would be 6.5 percent to 7 percent). Sachs’s own estimates are slightly lower than those of the Bank: for example, in a recent article on “Asia’s Reemergence,” he forecasts China’s annual rate of growth in per capita GDP between 1996 and 2025 at 6.0 percent. These estimates are considerably higher than those advanced in Table 17.1 and Figure 17.2 above.

So, Sachs’s estimates of Asia’s economic outlook seem to me overly optimistic for several reasons. As Asia’s growth proceeds, long-deferred per capita consumption may rise. While Asia’s savings rates will surely remain high by Western standards, they very likely will decrease from the extraordinarily high levels experienced in the past decade. Moreover, Asia’s access to foreign capital, and the invaluable management and technology associated with it, may become more constrained in the coming decades. This may ensue as a consequence of the huge losses in Asian market values experienced by foreign equity investors since the middle of 1997, as well as the emergence of alternative opportunities for profitable foreign investment and trade in Latin America, Eastern Europe, and Russia.

4. Consequences and Implications of Asia’s 1997 Financial Turmoil

As noted earlier, the value of stock market capitalizations in most of the Asian countries experienced enormous losses in 1997. Expressed in U.S. dollars the losses are magnified due to significant currency depreciations in all cases except Hong Kong where the dollar peg has held, and mainland China where the yuan is not fully convertible. Perhaps the sharp divergences among the China, Hong Kong, and Taiwan indexes suggest that the standard mantra of “one China and two systems” should be recast instead as “one China, three systems”!

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While these developments represent a serious setback from the previous optimism about Asia’s economic outlook, it remains to be seen how long the setback will endure. Its duration and consequent effect on future foreign direct investment, portfolio equity investment, and long-term lending will depend on certain key institutional developments, as well as on the macroeconomic indicators—monetary policy and fiscal policy—that economists typically emphasize.

Among these key institutional developments, two related ones are of central importance:

- a clear, reliable legal structure, including the delineation of property rights, and greater transparency and predictability of regulatory and tax measures;
- sound financial institutions, including a banking industry whose lending reflects rigorous, explicit, and even-handed banking criteria (rather than “crony,” preferential ones), and equity markets that are open and competitive.

For sustained and high growth, and a generally favorable economic outlook in Asia, the discipline of competitive markets should govern allocation of resources, rather than the leniency and favoritism of political, family, or “crony” connections. This imperative is not an issue of equity versus efficiency, or morality versus economics. In this case, tradeoffs between these pairs are not involved because the pairs move in the same direction. Efficiency and equity trade “on” rather than “off.”

In the wake of Asia’s financial turmoil in 1997, we have seen the emergence of several multilateral “bailout” funds. Under the aegis and leadership of the International Monetary Fund, these safety-nets for Thailand and Indonesia amount to more than $40 billion. A similar fund of this magnitude may also be created for Korea. The magnitude and proliferation of this instrumentality carries with it both positive and negative implications.

On the positive side, the creation of such substantial financial cushions can significantly contribute to boosting investors’ confidence and expectations, reducing or reversing incentives for asset-holders to divest their holdings, relieving pressure on currency and equities
markets, and avoiding or at least damping the risk of serious deflationary effects in non-Asian markets, as well.

On the other hand, the creation of these bailouts can have negative and perverse consequences. For example, the conditions that the IMF typically attaches to the creation and use of these funds usually emphasize reductions in internal budget and current account deficits, as proxies for appropriate macroeconomic, fiscal, and monetary policies. IMF conditionality usually gives less attention to other measures, such as reducing government spending, decreasing the size of the public sector, and reducing government employment. Moreover, the building of sounder legal and financial institutions, which I have stressed, usually receives secondary attention by the Fund.

Furthermore, bailout funds may create moral hazards of two types. One type involves a possible incentive for governments to eschew sound macroeconomic policies and institution-building efforts because of a belief that the bailout option will be available if things go awry. The second type may lead governments to defer taking remedial measures as quickly as they otherwise would do.

The existence of moral hazards probably warrants more sparing use of these bailout measures than seems to be currently favored. Their excessive use would not be the first time that good intentions have had perverse consequences.

*Postaudit*

The forecasts seem to me to deserve no better than a B+! Growth rates for Korea and Indonesia seem too high, that for the United States probably is too low. The moral hazard problem remains a serious concern.