The New Global Economic Geography

Stanley Fischer

When I first saw the title of this conference, "The New Economic Geography: Effects and Policy Implications," I thought it referred to two branches of the economic literature that were developed in the 1990s. The first, with the title the "New Economic Geography," pioneered by Paul Krugman, Anthony Venables, Richard Baldwin, and others,[1] seeks to explain why and how economic activity tends to be geographically concentrated and whether such economic equilibria are unique and stable or may instead be driven by history. The second is about the impact of geography on development, work associated primarily with Jeffrey Sachs and associates.[2]

However this conference is not about economic geography in these senses. Rather, it is about the startlingly rapid changes in the geographical locus of global economic activity and their consequences: the rise of Asia; Brazil, Russia, India, and China (BRICs);[3] globalization; economic convergence; changes in the international financial system—in short about the history of the world and the future of the world economy.[4]

I shall start by briefly discussing different aspects of these changes and then focus on the most critical development, the rise of Asia, especially that of China.

The title of this conference, the first of the Bernanke era, also reflects how far this premiere international economic conference has come. In 1980, the theme of the conference was "Future Sources of Loanable Funds for Agricultural Banks." This year, it is about the economic future of the world.

The changing global economic geography

There are several ways to describe the phenomenon of the change in the locus of global economic activity. One is to talk about the rise of the BRICs and the near-BRICs. This would place the focus on two and a half of the Asian countries and one in Latin America. But once one extends the group from India and China to include Russia and Brazil, near-BRICs jostle for inclusion, for instance, Mexico and South Korea. And it is then not clear where to stop.

One answer is to move from the BRICs to the non-Group of Seven (G-7) members of the Group of 20 (G-20). This group comprises Argentina, Australia, Brazil, China, India, Indonesia, Mexico, Russia (a member of the Group of 8, G-8), Saudi Arabia, South Africa, South Korea, and Turkey—12 in all, incidentally raising the question of who will be the 20th country in the G-20. The G-20 includes countries from the Middle East, Africa, and Latin America and is, thus, geographically more representative of global developments than are the BRICs or India and China. But the countries are diverse, and it is difficult without going into the details of each economy to talk about their future role in the global economy, except perhaps as the core of a new directorate for the international financial institutions.

Alternatively, we could talk about globalization, or about economic convergence, and whether and how it is happening. We also could talk about the rise of the South, except that in this case the South is mainly in the East.

I shall describe the phenomenon as the "rise of Asia," primarily the rise of China and India. This is evident in Table 1 (Angus Maddison). In summary, during the period 1950-2030, the share of global GDP (measured in purchasing power parity, PPP, terms) produced by the

Table 1

Maddison Tables on Population, GDP, and GDP Per Capita, 1900-2030

GDP per capita (1990 international $)

	1900	**1950**	**1990**	**2001**	**2030**
W. Europe	2,893	4,579	15,966	19,256	30,503
U.S.	4,091	9,561	23,201	27,948	44,286
*Other W.O.	3,435	7,424	17,902	21,718	42,694
Japan	1,180	1,921	18,789	20,683	32,774
West	**2,952**	**5,649**	**18,781**	**22,509**	**35,932**
E. Europe	1,438	2,111	5,450	6,027	12,334
F. USSR	1,237	2,841	6,878	4,626	9,508
L. America	1,109	2,506	5,053	5,811	8,949
China	545	439	1,858	3,583	11,174
India	599	619	1,309	1,957	6,103
Other Asia	802	918	3,084	3,997	12,465
Africa	601	894	1,444	1,489	1,987
Rest	**749**	**1,091**	**2,713**	**3,377**	**8,304**
World	**1,262**	**2,111**	**5,157**	**6,049**	**11,689**

Population (millions)

	1900	**1950**	**1990**	**2001**	**2030**
W. Europe	234	305	377	392	392
U.S.	76	152	250	285	358
*Other W. O.	10	24	48	55	67
Japan	44	84	124	127	121
West	**364**	**565**	**800**	**859**	**938**
E. Europe	71	87	122	121	120
F. USSR	125	180	289	290	295
L. America	65	166	443	531	666
China	400	547	1,135	1,275	1,477
**India	285	359	839	1,024	1,414
Other Asia	145	393	1,005	1,228	1,426
Africa	110	227	627	821	1,319
Rest	**1,200**	**1,959**	**4,460**	**5,290**	**6,717**
World	**1,564**	**2,524**	**5,260**	**6,149**	**7,655**

GDP (billion 1990 international $)

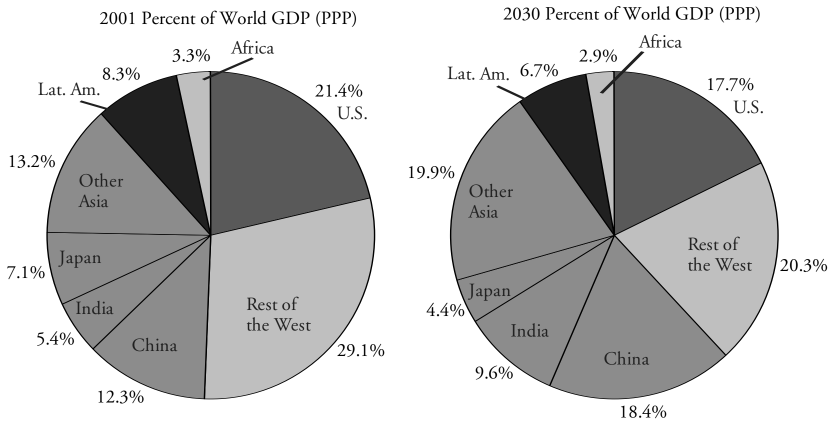
	1900	**1950**	**1990**	**2001**	**2030**
W. Europe	676	1,396	6,033	7,550	11,964
U.S.	313	1,456	5,803	7,965	15,851
*Other W.O.	34	180	862	1,190	1,914
Japan	52	161	2,321	2,625	3,975
West	**1,075**	**3,192**	**15,020**	**19,331**	**33,704**
E. Europe	102	185	663	729	1,480
F. USSR	154	510	1,988	1,343	2,805
L. America	72	416	2,239	3,087	5,960
China	218	240	2,109	4,570	16,504
India	171	222	1,098	2,003	8,630
Other Asia	116	361	3,099	4,908	17,775
Africa	66	203	905	1,223	2,622
Rest	**899**	**2,137**	**12,101**	**17,863**	**55,776**
World	**1,974**	**5,330**	**27,122**	**37,194**	**89,480**

Source: "Evidence to the Select Committee on Economic Affairs, House of Lords," submitted by Angus Maddison, Feb. 20, 2005

**1950 population including Bangladesh and Pakistan would have been 444 million, and growth rate 0.89 percent.

Note: "*Other W.O." refers to Australia, Canada, and New Zealand.

Chart 1



United States, Europe[5] and the countries Maddison calls "other Western offshoots," Canada, Australia, and New Zealand is expected to decline from 70 percent to 38 percent. The share produced by Asia is expected to rise from 19 percent to 52 percent.[6]

Maddison projects that by 2030 Chinese GDP will account for more than 18 percent of global GDP measured in PPP terms and will have overtaken U.S. GDP, also measured in PPP terms (Chart 1). India is projected to be at about half the (PPP) GDP of China.

Let me note that although I will use the PPP numbers, they are seriously misleading.[7] In PPP terms, World Bank (WB) data show Chinese GDP at 69 percent of U.S. GDP in 2005. But, at market exchange rates, Chinese GDP was only 18 percent of U.S. GDP last year (Chart 2). It is the dollar values that represent the current weight of countries in the international economy. We should bear in mind that, using market exchange rates, Japan has the largest economy in Asia, about double the size of China's. Measured at market exchange rates, Asia accounted for 25 percent of global GDP in 2005, well below the 40 percent that PPP data imply.

Chart 2

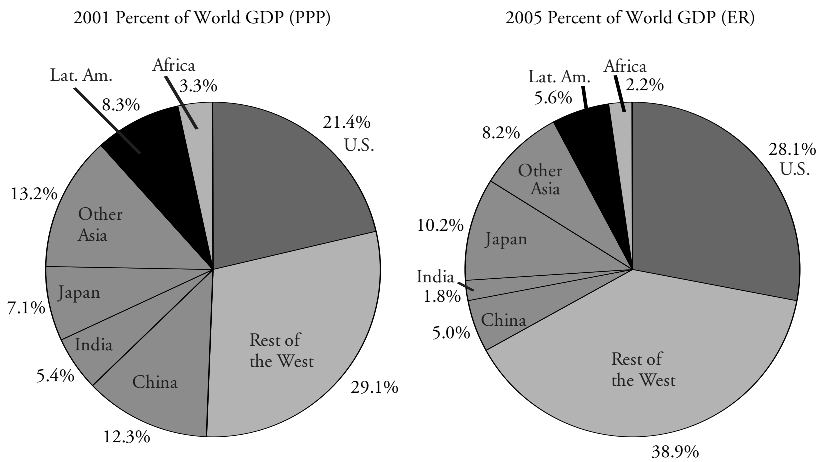
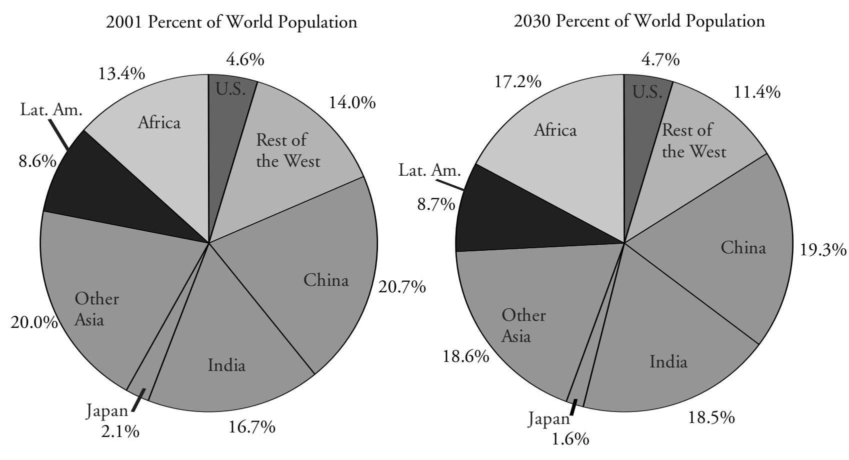


Chart 3



The share of Asia in global population is projected to remain roughly constant during the period 1950-2030, rising from 55 percent to 58 percent (Chart 3). By contrast, the share of the current "West" (excluding Japan) will decline from 30 percent to 16 percent of the global population. Global population is expected to grow by about 20 percent in the next 25 years and much more rapidly than that in Africa.

However measured, we are now in a process in which, in economic terms, the West is in relative decline, and Asia is rising. In a longer-term perspective, this is both the rise of Asia and also the recovery of Asia—for, according to Maddison,[8] as late as 1820, when the Industrial Revolution was getting under way, Asia accounted for more than 70 percent of the world's population and 59 percent of world GDP.

Although I will talk mainly about China and India, it is important when considering the rise of Asia to recall that Japan, the second largest economy in the world, already has risen. And we also should note less than 15 years ago, the Asian miracle was regarded as primarily a phenomenon of Japan, Korea, and the Association of Southeast Asian Nations (ASEAN).

In focusing on the rise of Asia, I leave out areas and issues that are extremely important for the future of the global economy and polity. Among them are the economies of the Middle East and other challenges of development, especially in Africa, Latin America, and parts of Asia.

In discussing the rise of Asia, I will take up five issues in more detail: first, the rise of China; second, that of India; third, regional developments; fourth, implications for the world economy; and fifth, political implications.

The rise of Asia: China

How long will the rapid growth of China continue? There are important historical precedents in the region, Japan, Korea, and the ASEAN countries.[9] Their histories tell different stories: that of Japan, for which almost full catch-up is possible—although it is hard to know whether we should start counting from 1868 or from 1945; that of Korea, which sustained exceptionally rapid growth, is possible for more than 40 years; and that of ASEAN, for which long growth spurts are possible.

China already has been growing at rates in excess of 10 percent on average for more than a quarter-century, and its policymakers have demonstrated considerable economic management skills, not least in warding off foreign pressures for revaluation. The regional precedents suggest that China can keep growing at very high—but declining—rates for a long while. Further, if the maximum potential growth rate is related to the distance of the economy from the frontier—as determined by per capita income levels in the most advanced economies—China's rapid growth can continue well beyond 2030. For even in 2030, according to Maddison's projections, PPP income per capita in China will be only one quarter that in the United States. And the fact that the bulk of China's labor force remains rural, and to a considerable extent agricultural, reinforces the view that China's Arthur Lewis-type growth process could have a long way to run.

If the Chinese economy were to continue to grow in real terms at a rate of 7 percent greater than that of the U.S. economy at a constant exchange rate—as it has for more than 20 years—its GDP would indeed overtake that of the United States in about another quarter-century. Further, the yuan is likely to appreciate during that period relative to the dollar, *ceteris paribus* (that is, with unchanged domestic growth rates) reducing the length of the catch-up period.

But China faces considerable challenges, and the economy is unlikely to continue growing at 10 percent for another quarter-century. Notable among the challenges are: exchange rate management and realignment; financial sector reform; state enterprise reform; resource and environmental constraints; the aging population; development (or redevelopment) of a social safety net; reduction of social gaps, especially between country and city; and political transition.

China's exchange rate management has until now been impressive and successful from the viewpoint of its goal of supporting export-led growth. It has come at the cost of a massive and costly buildup of foreign exchange reserves, but with surprisingly low costs in terms of inflation. At some point—perhaps because of inflationary pressures and the costs of the continuing reserve buildup—the process of exchange rate appreciation that other countries in the region, including Japan and Korea, have experienced will have to begin. And that will likely contribute to reducing the growth rate of the economy in real terms.[10] Given China's saving rate,[11] it is likely that when the process of secular appreciation of the yuan gets under way, the currency will appreciate at a rate that maintains a sizeable continuing surplus in the current account, as has happened in the case of Japan.

Financial sector and state enterprise reform are closely related. One way of thinking of the occasional recapitalizations of China's banks is as a fiscal process, in which the banks provide loans to enterprises that are in effect repaid by the state through later recapitalizations. It appears that progress is being made in reforming the financial system, but, as of now, it remains a point of vulnerability and an obstacle to a rapid opening of the capital account and flexibility of the exchange rate.

China faces the problem of a rapidly aging population. While this will be a problem from the viewpoint of fiscal transfer programs (which, however, are on a proportionately much smaller scale than in richer countries), the processes of urbanization and industrialization can continue by drawing on the massive rural population. Environmental issues will have to be dealt with, and it is clear from the trends in global commodity prices that China may well face continuing adverse terms of trade changes as well as rising domestic resource costs.

Income disparities in China between the coast and inland provinces, the cities and the countryside, and the rich and poor have been growing rapidly and are receiving increasing attention from the government. These, combined with the breakdown of the social safety net of earlier times, produce social and political tensions that could threaten the continuation of the growth process. And political pressures associated with the desire for democratization, which tend to rise as income levels increase, constitute another source of tension.

The Chinese economy suffers from one disadvantage that the other Asian miracle economies did not: It is already very large. This raises the question of whether it can continue to rely on exports to power its growth—for the capacity of the rest of the world to absorb Chinese exports must be determined by the global growth rate.[12] The answer is that China probably cannot continue to rely on export-led growth, and, therefore, that the switch to domestic-demand-led growth, which has been talked about for some time, is essential if growth is to continue in the range of 7 percent to 10 percent per annum range.

Is China vulnerable to a 1990s-style Asian financial crisis? There are some negative symptoms. The first is a share of investment in GDP that according to the official data exceeds 40 percent. This cannot be efficient; it must be part of the process of generating bad loans and is reminiscent of precrisis investment rates in some of the Asian crisis economies. The second is a financial system that remains weak. But some of the vulnerabilities that led to the Asian crisis are *not* present: China does not have a current account deficit; there are not massive short-term capital flows; and capital controls appear to be relatively effective, even if not fully watertight. Further, foreign exchange reserves are so large that it is hard to imagine a successful attack on the currency. On balance, a 1990s-style international financial crisis appears highly unlikely.

What about other types of crises? The growth processes in Japan, Korea, and the other rapidly growing countries of East Asia were punctuated by occasional economic crises. Since the modern Chinese economic reform process began around the end of the 1970s, there has been only one major economic (and political) crisis. This is an unusual record, even among the extraordinary records of its Asian neighbors. Chinese economic management has benefited from careful study of the history of its neighbors, and—despite the long list of potential problems just noted—there are no obvious sources of likely crises in the near term.

But trees do not grow to the sky. And trends that appear inevitable at one point of time can appear doomed from the perspective of only a decade or two later. In brief, to continue rolling out the clichés, it is difficult to forecast, especially about the future, and it would be unwise to assume that China will be immune to future economic crises.

Nonetheless, even if there were to be a crisis or other interruptions to growth in the future, it is reasonable to believe that Chinese growth will continue at a rate that on average well exceeds that of countries at the current frontier of economic development. The Chinese economy will be the largest in the world, measured in dollars at market exchange rates, within the lifetimes of many of today's symposium attendees.

The rise of Asia: India

GDP in China and India were roughly similar in 1950.[13] Since then, China has grown much more rapidly than India. Its growth spurt is both more recent and modest than that of China. At present Indian GDP, measured in exchange-rate mediated dollars, is approximately the same as that of South Korea and behind Japan and China. In these terms, Indian GDP in 2005 was $785 billion (WB data), 12th largest in the world, in a group of five countries with very similar GDPs (Brazil, South Korea, India, Mexico, and Russia, in that order).

In PPP terms, according to WB estimates, India had the fourth largest economy in the world in 2005, almost as large as Japan, a bit under half the size of PPP GDP for China. And the GDP of India has been growing at rates approaching 8 percent in recent years, less than that of China, but nonetheless impressive. It's possible that if China did not exist, today we would be talking about the Indian miracle.

India's growth prospects are enhanced by the existence of a more market-oriented financial system than that of China; a more flexible and well-managed exchange rate system; a more market-oriented monetary policy; the existence of a legal framework that is more developed and more predictable than that of China; and a stable democratic political system that enables the country to deal with social tensions within its political framework. Its growth prospects are set back by its so-far-slow pace of integration into the global economy, the slow pace of the legal process, excessive fiscal deficits, the political inability to pursue the reform process with as much determination as has China, an extensive bureaucracy, and excessive state regulatory intervention in the economy. Indeed, the greatest reason to be optimistic about India's future growth process is that considering it has grown so well in the last 15 years without a sustained deep reform process, it will certainly do much better if and when the reform process deepens.

While Indian growth rates have not yet reached Chinese levels, the Indian economy appears on the whole to be more robust. India experienced a major foreign exchange crisis in 1990. One response was the start of the reforms of the first half of the 1990s. Since then, the exchange rate has become more flexible, the growth rate has risen, and some reforms have continued. While no economy is guaranteed against crises, the Indian economy looks less vulnerable to a major crisis than it was more than a decade ago. But there are antireform strands in Indian politics that could result in policy changes that reduce the growth rate well below its potential.

The rise of Asia: Regional developments

There are already important and rapidly developing economic linkages among parts of Asia, particularly in East Asia, where a grouping of ASEAN plus Japan, China, and Korea seems to be emerging. The politics of such a grouping are not simple, for the Japan-China relationship is evolving as the Chinese economy grows and as it becomes clearer that China will overtake Japan at some point in the not-too-distant future. The implications of this change can be summarized by noting Japan is the largest shareholder in the Asian Development Bank (ADB), and, by tradition, appoints its head; the formation of an Asian Monetary Fund during the Asian crisis in 1998 was not strongly supported by China; and China will want to play a greater role in any future regional institutions than it does in the ADB.

Some in East Asia talk of following the example of Europe by improving trade and financial links, and later moving to a common market and unified financial system. It is recognized that this will take a long time, but those involved note correctly that it took the European Union (EU) a long time to evolve to its current condition. The European equilibrium is simplified by the fact that no single country dominates the EU, whereas China likely would be the dominant power in an East Asian union. For many years, Europe was driven by the Franco-German determination to build a structure that would prevent any future wars. Possibly East Asia could eventually be driven by a similar process through a China-Japan reconciliation, though recent trends have not been in that direction. One could imagine Japan eventually playing a role similar to that of the United Kingdom in Europe, as a leading member, but one whose views on the nature of the organization may often differ from other leading members.

At present, there is much talk of an East Asian common currency. Whether there would be a basis for such a currency depends on how China's financial and currency management systems evolve. Since China would eventually be dominant in an East Asian economic bloc, its preferred currency arrangements will determine the eventual outcome. The non-Chinese members probably would like to have a common currency so as to have some impact on regionwide monetary policy, but it would be up to China whether it would grant that role. Here again, one could see Japan playing an independent role by retaining its currency, like the United Kingdom does in Europe.

Further to the west, a large economic bloc could eventually develop around India, but that prospect is inhibited by the strained relations between India and Pakistan. The dynamics of a South Asian economic bloc built around India would be different from those of East Asia because, unlike in the case of China, there is no Japan—no advanced industrial economy—in the neighborhood.

The rise of Asia: Economic implications

The rise of Asia, especially the rise of East Asia and of India, is already reshaping the world economy. Concerns over globalization have become a prominent part of the economic debate in Europe and the United States. The focus is the impact from the millions of Chinese and Indian workers who are entering the global labor force on the wages of less-skilled workers in the West.

One often hears the view that "China has a comparative advantage in everything." This is an argument that every economist can demolish, but doing so does not diminish the anxiety level. Part of the anxiety must derive from the discomforts of the adjustment process forced by the dynamism of Asia, and part must derive from the fact that the wages of unskilled workers in the West may be adversely affected by such competition. Policy can deal with these consequences through adjustment aid and education. But unless that is done, the negative fallout from this competition will likely continue.

The last time I heard this degree of anxiety was during the Asian crisis, when many of China's neighbors expressed the same concerns. At the time, I asked people whether they would prefer to have a prosperous or a poor neighbor. Most opted for the prosperous neighbor, though I often had the sense that they might prefer their neighbor progress at a more measured pace.

By now, most of the developing countries and most of China's neighbors can count the gains from China's (and India's) booming growth. China's voracious appetite for raw materials, which has produced a boom in commodity prices, has helped many developing countries, as well as commodity-rich industrial countries, such as Australia. China's investments in Africa—where Indian companies also have long been active—have lately received media attention. China's and India's energy needs have helped push oil and other energy prices to their highest sustained levels and have contributed to the prosperity of energy producers in the Middle East, Russia, central Asia, and Africa, where there are now many oil exporters. China's and India's energy needs have driven their oil companies into the international arena, competing for sources of upscale oil. IBM laptops are becoming Chinese. An Indian steel company is now the world's largest. The trends are unmistakable.

The global economy has been growing rapidly by historical standards in the last few years, despite concerns over global imbalances. In particular, the years 2004-2006 will see high growth rates in Latin America and Africa because of the rise of Asia as well as the global engine of U.S. growth.

Asian growth has benefited greatly from the relatively open international trading system that was built up after World War II. All the East Asian miracle economies pursued export-led growth strategies, with the bulk of the exports going to industrial countries in the West. The recent failure of the Doha Round is deplorable, particularly if it is final, mainly because it reduces the opportunities that some of the poorest countries would have had to export agricultural products. But opportunities to increase industrial exports still remain open to most developing countries.

The basis for the current international economic system—and it is a system—was designed by the victors of World War II. The implications of the rise of Asia and of emerging market countries for the international financial system will be at the center of attention at the meetings of the International Monetary Fund (IMF) and WB in Singapore next month. The newcomers want to play a bigger role in the international agencies, and they should.[14] It is to be hoped that the current dominant forces in the IMF and WB will make the necessary room, though, historically, the established powers have lagged in making room for others. While the newcomers want to play a bigger role in setting the rules of the game, it is not clear what rules they would like to change and whether they will want to radically change the international system. To do that, they will need to further develop the analytic capacity to formulate proposals for change, a process that will involve strengthening research and policy research institutions, and the mechanisms through which they affect policy.

However, the impact of China and India on the international financial system does not depend mainly on the size of their quotas in the international financial institutions. It depends more on how important Shanghai, China (or Shanghai-Hong Kong), and Mumbai, India, become as financial centers. It is difficult to develop a new financial center, and some—like Paris—have declined in importance relative to where they stood a century ago. Others, like Tokyo and Hong Kong, have become important, but do not yet compete with London and New York. If China indeed becomes the largest economy in the world; develops a market-based monetary policy; gradually liberalizes the capital account of the balance of payments and allows the exchange rate to float; and can develop the necessary legal framework for the efficient operation of the financial markets, then there would be a good reason for Shanghai-Hong Kong to blossom as a financial center. If that were to happen, we could imagine the yuan becoming a major international currency, along with the dollar and the euro. But that is likely to take a long time. And it is an interesting question as to what language will be spoken in that market. I would bet on English.

Mumbai has a language advantage; a market-based monetary policy and a flexible exchange rate; a more market-based financial system; and a more-developed legal system than has Shanghai. But the potential size of the domestic economy will probably cause Mumbai to develop more slowly than Shanghai as an international financial center. Nonetheless, there is every reason to believe it will become an increasingly important player in the international financial markets.

The rise of Asia: Political implications

So far, the international economic system has dealt reasonably well with its changing economic geography. While there are major concerns about how the U.S. current account deficit will be unwound, the failure of the Doha Round, protectionism more generally, and the effects of the entry of another billion low-wage workers into the international economy, the overall impact of the rise of Asia on the international system seems to have been favorable for most other countries. In addition, the rapid growth of Asian economies has contributed to an extremely rapid decline in global poverty in the last quarter-century.

It is easy to describe crisis scenarios, particularly with regard to the unwinding of the U.S. current account deficit—and many delight and profit from doing so. But, overall, it seems that the international economy and its market and governmental organizations have sufficient flexibility, and perhaps even the wisdom, needed to deal with the required adjustments.

The potential political consequences of the economic rise of two more great powers, and the relative decline of others, could be more worrying. The economic rise of both Germany and Japan in the second half of the 19th century and into the 20th century was accompanied by their growing military might, increasing assertiveness, and, eventually, terrible wars. The rise of the Soviet Union and of international communism also was associated with major wars and political instability, in this case, around the world.

Are we more sophisticated now than the world was a hundred years ago? How long can the *Pax Americana* (American Peace) continue to maintain stability in Asia? How wise will the sole superpower be in its future dealings in Asia? How, in the long run, will the relationship between Russia, with its underdeveloped and underpopulated east, and China, with its massive population directly to the south, develop? Can China and India take their rightful places in the world and in their regions without further major military confrontations? Does the fact that China and India are nuclear powers (so is Pakistan) make the situation more stable as well as more dangerous, or just more dangerous? How will a potentially nuclear Iran influence the equilibrium? How important is the North Korean nuclear threat, and how long is Japan willing to remain non-nuclear in the face of that and other threats?

These questions are too complicated for economists to answer. Probably, somewhere in a parallel universe, political scientists are discussing them. Perhaps—but not very likely—the parallelism will extend to their concluding that the political issues are likely to be resolved peacefully, and that the economic issues appear intractable. Whatever they conclude, the answers to these political questions, even more than the economic issues we have been discussing, will be key to the future of the world.

Author's note: The author is grateful to conference participants for helpful comments and to Nir Klein and Mark Nulman for their assistance.

Endnotes

[1]See, for example, Paul Krugman, *Geography and Trade*, MIT Press, 1991.

[2]See John Luke Gallup and Jeffrey Sachs, with Andrew Mellenger, "Geography and Economic Development," *Annual World Bank Conference on Development Economics*, 1998, pp. 127-188.

[3]Brazil, Russia, India, and China have been identified by Goldman Sachs as the key economies of the future.

[4]Krugman (1991).

[5]I have taken a generous view of the extent of Europe by including eastern Europe and the former Soviet Union. This means that Russia is not included in Asia for purposes of this paper, a view that is at best only half right.

[6]Maddison includes parts of the Middle East, such as Turkey, in Asia.

[7]Why then should one use the PPP data? Mainly because they do take into account differences between current and likely future exchange rates, which are relevant to future comparisons among countries; in part, because they are available and systematic.

[8]Organisation of Economic Co-operation and Development, 2001, *The World Economy, A Millennial Perspective*, Table 3-1c (p. 127) and Table 1-1 (p. 28).

[9]Maddison (2001, p. 143) presents data on the growth performance of the countries of "Resurgent Asia." The average annual growth rate of per capita PPP GDP for the period 1950-1999 of China, Hong Kong, Malaysia, Singapore, South Korea, Taiwan (China), and Thailand was 4.4 percent. The growth rate of Chinese per capita PPP GDP was highest among the periods shown by Maddison (1950-1973, 1973-1990, 1990-1999) in the last decade of the 20th century, at 6.4 percent. The most rapid and sustained growth performance during the period was that of South Korea, which averaged 6 percent (per capita, PPP) during the 50 years. Note that Maddison lists data for Taiwan separately from those of China; in Maddison's data, in 1950 Taiwanese GDP (PPP terms) was approximately 3 percent that of China, and, by 1999, it had reached 8.5 percent of that of China.

[10]However, its impact on the growth rate of the dollar value of Chinese GDP would be smaller.

[11]China's high saving rate has been attributed in part to the absence of a convincing social safety net and to uncertainty about future economic growth. In addition, high-growing economies have generally been high savers, a feature that the late Franco Modigliani used to assert was fully consistent with the life-cycle hypothesis.

[12]I am grateful to Lew Alexander of Citigroup for raising this question.

[13]Maddison (2001, p. 214) shows Chinese (PPP) GDP at $240 billion (in 1990 PPP dollars) and Indian GDP at $222 billion. According to Maddison's estimates, per capita PPP GDP in India generally exceeded that in China until 1978.

[14]Some of these issues have their counterparts on the political side, for instance, the debate over the reform of the United Nations, especially the Security Council. In this regard, it helps that China is already one of the permanent members of the council.