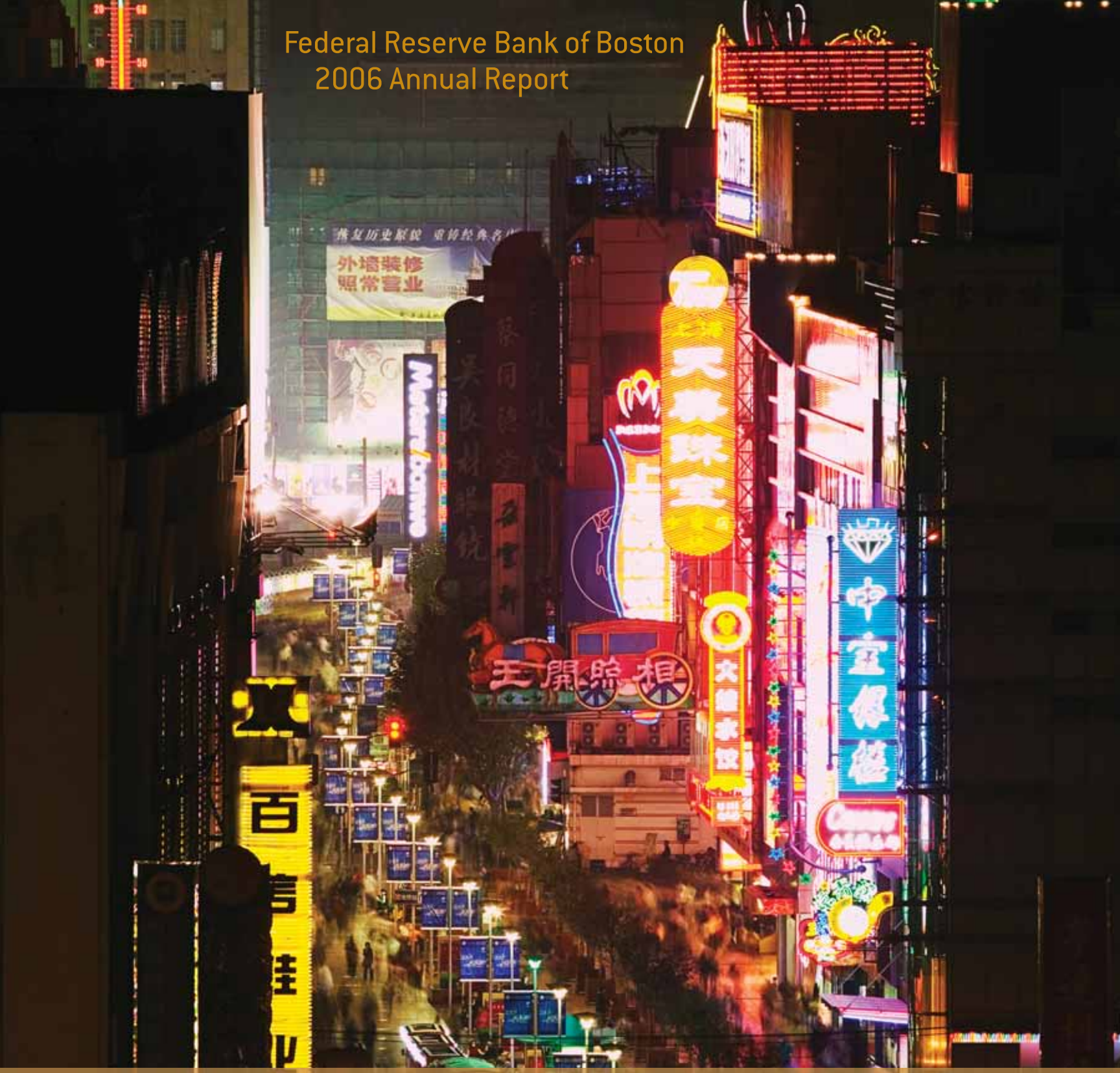
Federal Reserve Bank of Boston
2006 Annual Report



Global Imbalances: As Giants Evolve

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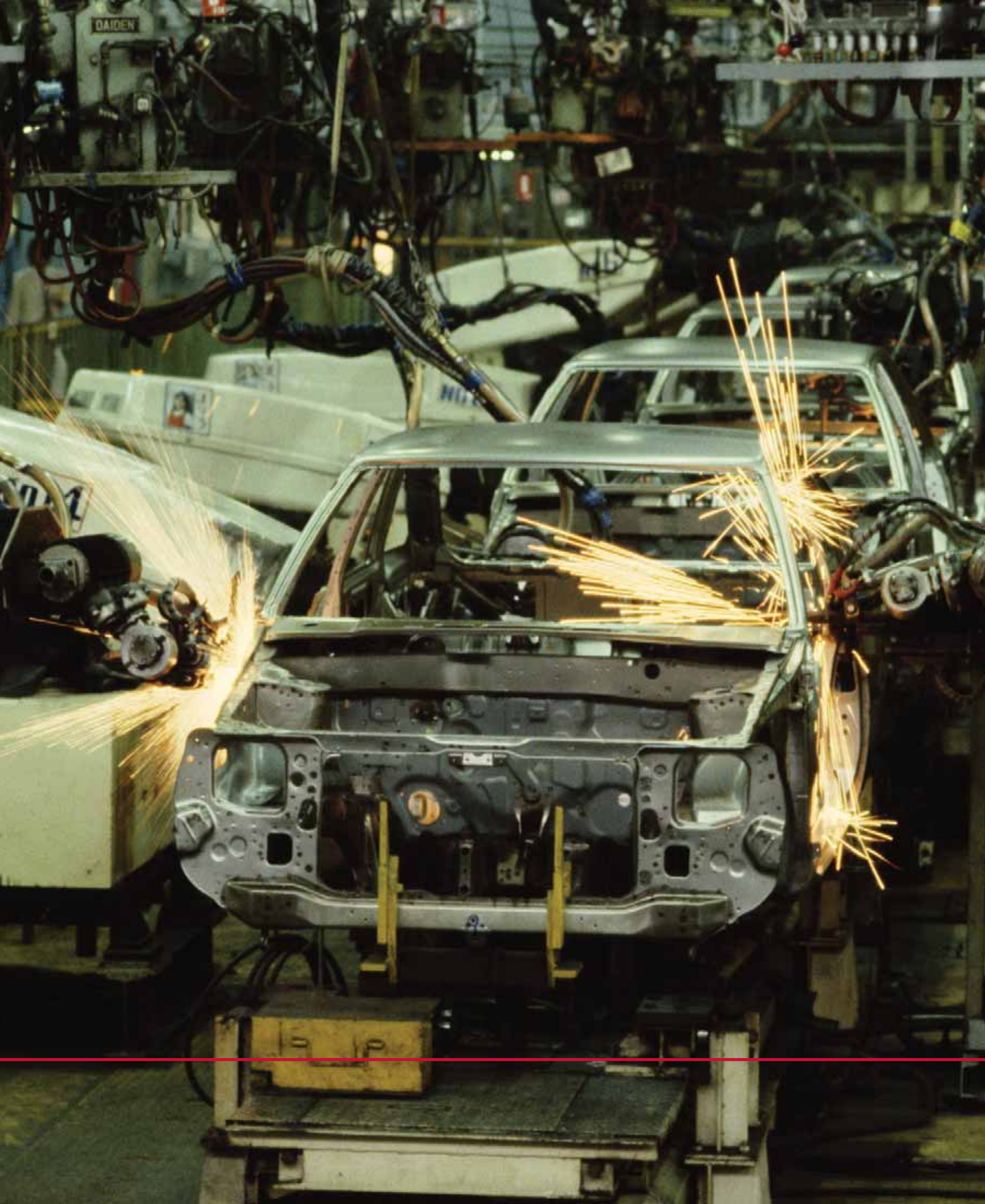

DAIDEN

Letter from the President

As many of you know, I have decided that this year will mark the end of my nearly 40 years with the Federal Reserve System, and 16 years here at the Federal Reserve Bank of Boston. It has been an incredible journey from management trainee in New York to President in Boston, and one for which I am more grateful than I can say. In particular, having the opportunity to lead the outstanding staff at the Boston Bank, to meet the many challenges we have successfully faced, and to see the Bank and its work remain a vital part of the New England community and the Federal Reserve System has been deeply satisfying. I am confident the Bank will continue in its tradition of excellence going forward, and I am proud to have helped make this possible.

It has been a tradition in our Annual Report letters from the President to provide a short sketch of the economy over the past year and some highlights of Bank operations. I see no reason to depart from that tradition, as it has indeed been a challenging and interesting year of transition for the economy and for the Bank.

In 2006, the U.S. economy made a difficult downshift in tempo – a transition from above-trend growth at the start of the year to more moderate growth at the end. But this transition was hardly smooth, as the outlook was buffeted by a rapid deterioration in housing markets and volatile energy prices. However, as has been the case through many challenges over the past decade or more, the economy's underlying resilience shone through. Employment trends were solid, consumption remained strong, business profits surprised on the upside, and foreign demand grew in strength. Through all of this, inflation – stoked by higher energy costs – increased, and then declined toward year-end as oil prices moderated. Taken together, the pattern of solid underlying demand, low unemployment, and rising prices pointed to the need for policy action. In four steps in the first half of the year, the key monetary policy rate moved to 5.25 percent, where it remained at year-end. This increase was necessary to manage the risks to the economic outlook, which became both more balanced and deeper as the year ended.

Economic activity in New England continued to expand at a pace that was slower than that of the nation, at least measured by job growth. Overall, though, regional

Cathy E. Minehan, President
Paul M. Connolly, First Vice President

businesses showed signs of health, with manufactured exports growing and both downtown and suburban office vacancy rates in the Boston market declining below national levels. Indeed, both business and consumer confidence remained relatively high, even in the face of deterioration in housing markets that mirrored the nation's. Residential construction fell sharply in all New England states, and the pace of housing appreciation slowed. More important for New England's families and communities, delinquencies and home foreclosures began to rise, particularly for certain types of mortgages. Clearly, this will be a challenge in 2007.

Within the Bank, we managed many transitions in 2006. We met the challenge of successfully combining our two check-processing operations into one, at Windsor Locks, Connecticut. This supports the shift of the U.S. retail payments system from paper to electronics and reflects the Bank's commitment to providing financial services in the most efficient, effective, and forward-looking ways possible. And on the other side of the globe, our staff installed stored value card software and kiosks at 13 military bases in Iraq and Kuwait – a high-profile example of the innovative work we are doing to support the U.S. Treasury's transformation of its payments services.

At the Boston office, after 11 years of "Big Dig" construction, and our own renovation efforts, we cut the ribbon on a brand-new plaza, both attractive and highly secure. We are a premier site located at a major gateway to the city, and along the new Rose Kennedy Greenway that marks a major transformation of the city of Boston. Both our staff and our tenants have reason to be proud of the building and its place in the city.

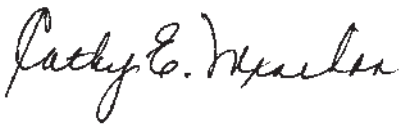
Our 51st research conference focused on transitions, too, under the theme "Global Imbalances – as Giants Evolve." Economists, business leaders, and policy makers from around the world explored the structural changes underlying today's large global imbalances; considered the pressures and opportunities presented by the recent emergence of China and India

in the global economy; and examined how demographic change and the evolution of advanced economies affect international resource flows. These are critical issues facing this country and the world. As we have done in the past, the essay in this Annual Report is devoted to the major themes of the conference, and we hope that this will enable a wider audience to learn from the conference experts.

A critical effort across the Bank last year focused on developing a Vision for our operations in 2010 and planning how to achieve that Vision. Bringing this to fruition will present dynamic and exciting challenges in the years to come. The many activities of the Bank and the ways we pursued our Vision in 2006 are noted in the Bank Highlights section of this report.

Leadership transitions also characterized 2006. The Federal Reserve System experienced an historic transition in 2006, as the chairmanship of the Board of Governors passed from Alan Greenspan to Ben Bernanke. Chairman Bernanke visited with us in June and engaged everyone with his insights and understanding of all that we do. Within our Bank, three members of our board of directors completed their service – Peter Blyberg, President and CEO of Union Trust Company; Kirk Pond, Chairman of the Board of Fairfield Semiconductor International; and our chair, Dr. Blenda Wilson, President and CEO of the Nellie Mae Education Foundation. All of our directors and members of the Bank's advisory groups provide the Bank with invaluable insights and leadership, and we thank them for their service in 2006.

Transitions bring with them a sense of sadness as well as anticipation. I am looking forward to new ways to continue to serve the region and the nation, but I will miss everyone involved with the Bank and the Federal Reserve System. It has been a joy to work with the staff of the Bank and our directors and to develop relationships with so many around the region, in banking, business, government, community organizations, academia, and the nonprofit world. As all of us make the transition to 2007 and beyond, I know we will continue to work together to make the Bank, the region, and the nation stronger.



Re-Balancing Act:
Global Imbalances in a Changing World

Jane Sneddon Little
Vice President and Economist
Federal Reserve Bank of Boston

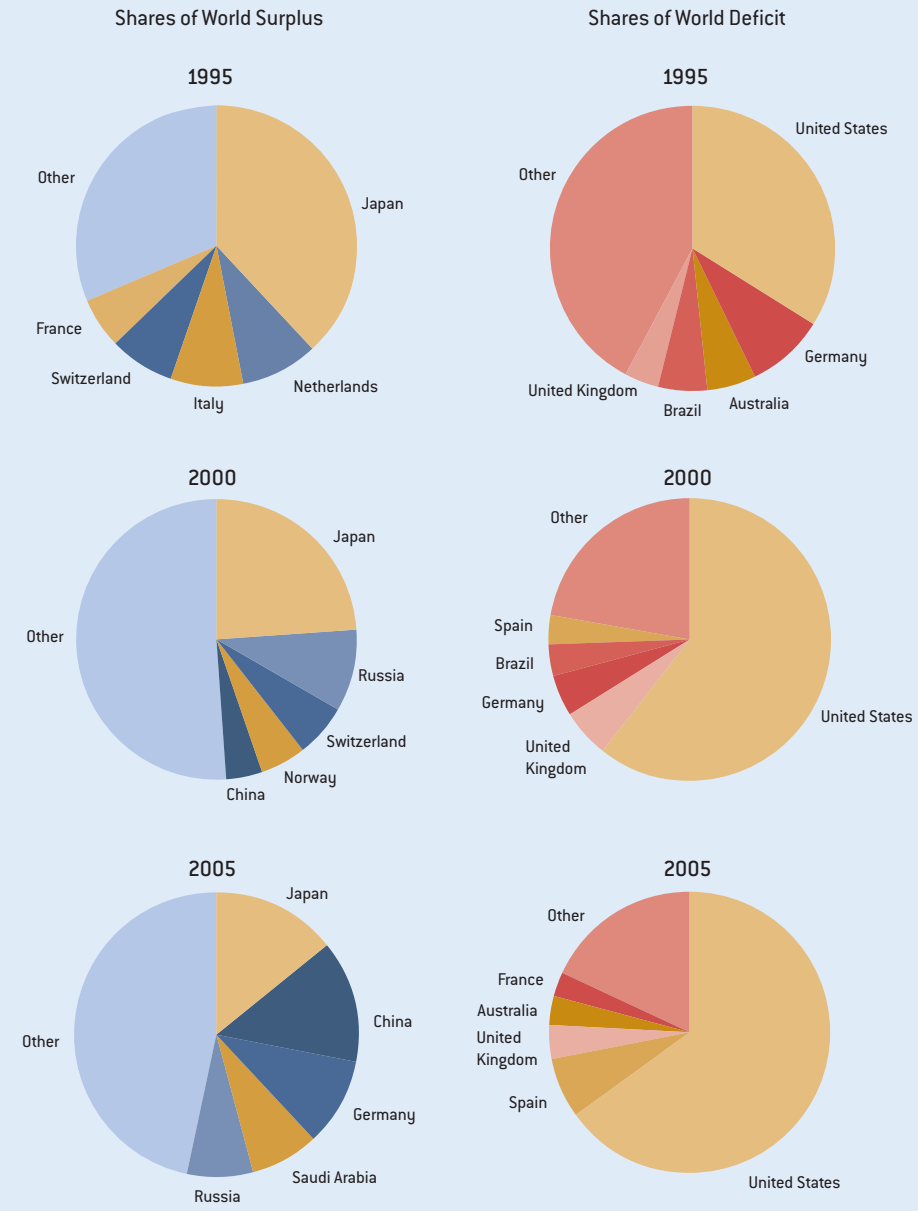
The world has been confronting unusually large current account imbalances[1] for so long now that international policy makers have almost stopped warning that these represent a major risk to the world economic outlook. Almost – but not quite. Seeking to avoid crying wolf, many analysts continue to include disruptive-adjustment scenarios involving sharp dollar depreciation, financial market crises, and global slowdowns in their published forecasts. But now they place these scenarios in boxes, outside the main text, where the reader can easily ignore them.

How big a threat do these imbalances actually represent to the global economy? And how did these imbalances develop – with the United States, on one side, accounting for the bulk of the global deficit and a more variable group – currently Japan, Germany, China, and OPEC – accounting for the bulk of the global surplus (Figure 1)? This arrangement means that the United States has consumed more than it has produced and invested more than it has saved for over 15 years now. Equivalently, our trading partners, some of whom are very poor on a per capita basis, have willingly lent us, a wealthy country, the funds needed to import the resources to fill the gap – now equal to about 6 percent of our GDP (Figure 2). If the United States were a developing country, such behavior would have triggered a crisis long ago. But, of course, the United States is not a developing country.

In assigning blame, foreign policy makers tend to highlight American policy "mistakes" as having led to a decline in public and household saving rates in this country, while U.S. policy makers tend to point to Asian countries' "ill-advised" decision to manage their currencies in terms of the dollar. Such a dollar peg has led, they claim, to too much production with too little domestic

The author thanks Selva Bahar Baziki and Adrienne Hathaway for their excellent research assistance and substantive suggestions. She also thanks Ann Eggleston and Elizabeth Murry for their helpful editorial insights. The essay draws upon and summarizes the views of participants in the Bank's 51st economic conference. The author is indebted to these participants for their valuable perspectives; she remains solely responsible for any misinterpretations.

Figure 1 Global Current Account Imbalances 1995, 2000, and 2005



Source: IMF World Ecoonomic Outlook, September 2006.

consumption – a global savings "glut," in other words, although some observers see an investment dearth instead.

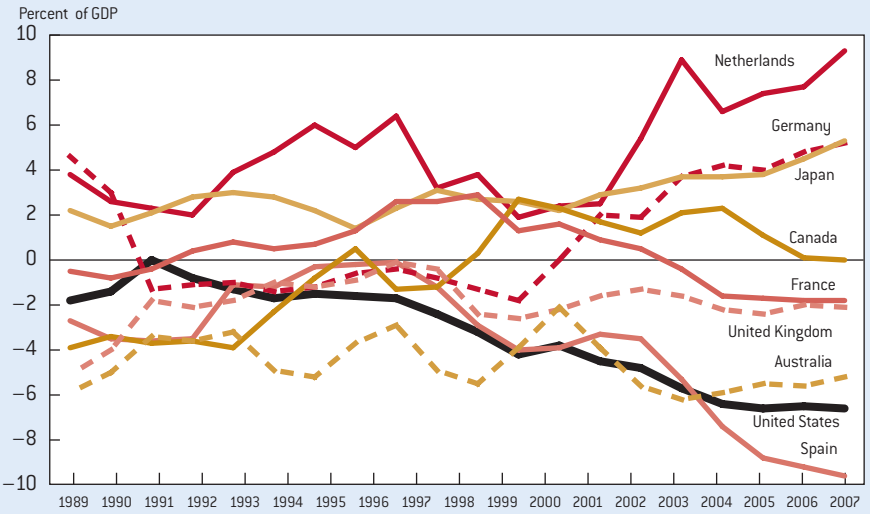
But cyclical imbalances are generally short-lived, and policy mistakes are usually quickly punished. By contrast, persistent imbalances may reflect something more fundamental than short-run policy mistakes. Such enduring imbalances may more likely reflect a major structural shift in the distribution of the world's resources associated with the arrival of the New Giants – China, of course, but also India and the ex-Soviet bloc countries – as key players in the global economy. In particular, the recent addition of hundreds of millions of Chinese and Indian workers to the globally active labor force represents a significant re-weighting of world labor markets. In addition, Japan and Germany – and China with a lag – are stepping into an unprecedented demographic future of secular population decline. In scope and significance, these global resource shifts are not unlike the flows of capital and labor that accompanied the European migrations to the New World and the colonization of India and other regions in earlier periods. (See sidebar on page 10 for the economic importance of

the emerging giants.)

But in contrast with these previous episodes, this time around the capital flows are heading the "wrong way" – from fast-growing developing countries, where returns on investment might presumably be high, to mature wealthy countries. Is this situation sustainable? Simply stabilizing the U.S. current account deficit at its present level relative to GDP would require foreign investors to add U.S. assets worth about 6 percent of U.S. GDP to their portfolios year after year – an uncertain proposition.[2] But if these imbalances do turn out to be sustainable, is that outcome desirable? If not, will adjustment occur smoothly or in response to a crisis? How concerned should policy makers be? Current opinion runs the gamut from "Apocalypse Now" to Panglossian equanimity. What are the potential policy implications?

In response to these puzzles and concerns, the Federal Reserve Bank of Boston organized a conference on "Global Imbalances – as Giants Evolve" in June 2006. Our hope in gathering academics, financial market participants, and policy makers from around the globe was to gain a better understanding of the fundamentals explaining these imbalances and to identify policy responses that might help ease the way to a smooth adjustment. This essay summarizes the conference presentations and discussions. (See box on page 12 for a list of conference presenters. Their names are italicized when they appear in this essay.)

Figure 2 Current Account Balances as a Percent of GDP
Selected OECD Countries, 1989 to 2007*



* 2006 data are preliminary; 2007 data are OECD projections.
Source: OECD Economic Outlook 80 Database.

Déjà Vu?

A wave of international activity between 1870 and 1913 is often characterized as the "First Globalization" and represents another time when technological, economic, and political

Such enduring imbalances… likely reflect a major structural shift in the distribution of the world's resources…

Economic Importance of the Emerging Giants

by Selva Bahar Baziki

By what criteria does one measure an emerging giant? Or determine which countries deserve that title? Everyone agrees that China tops the list – by almost any gauge.[1] But at the Boston Fed conference, *Shankar Acharya* and *Richard Cooper* argued that India should not be "clubbed" with China because India is less globally engaged and contributes little to current payments imbalances. By contrast, *Surjit Bhalla* saw India as "China with a 5- to 10-year lag." Other candidate giants – Brazil, Russia, Eastern Europe, and Africa as wholes – drew only occasional mention. Clearly, the concept of "emerging giant" has many dimensions, a few of which are discussed below and shown in the accompanying tables.

China and India are, respectively, the world's first and second largest countries by population size, second and seventh largest by land area, and fourth and eleventh largest by economic size measured at market exchange rates.[2] Together, they account for 7 percent of world GDP. Both economies, but China more than India, serve as drivers of the world economy: over the course of roughly ten years from 1995, China's annual real GDP growth averaged 9.1 percent, contributing 12.8 percent to world output growth over that time span. India's average for the same period was 6.1 percent, and its contribution, a relatively modest 3.2 percent. In 2005 alone, Chinese GDP grew by 10.0 percent, and India's, by 9.0 percent. Such rates are comparable to those of postwar Japan in the 1960s and South Korea in the 1980s. Although China's and India's growth rates are projected to decelerate, their contribution to world output growth is forecasted to expand over the next 15 years as both become increasingly prominent global players.

Despite their already impressive economic size, China and India still fall well below the world average in terms of GDP per capita. In 2005, China's per capita GDP was $1,449, while India's was $588 – roughly 25 percent and 10 percent, respectively, of the world average of $5,647 at market exchange rates. Using PPP exchange rates, which on the whole provide a better gauge of relative living standards than do the market-exchange-rate numbers, China's 2005 per capita income measured $6,012 – almost 70 percent of the world average; at $3,072, India's was just over 35 percent.

To a degree, these low per capita incomes reflect these countries' histories of rapid population growth. But fertility rates have come down in both countries, with the Chinese rate now at 2 births per woman (1960-2005 average: 3.6), and the Indian rate at 3 (average: 4.4). Population growth in both countries is currently stable at 1 percent a year. The World Bank estimates that China's population will peak in 2032 at 1.5 billion people. Owing to its higher fertility rate, India will surpass China as the most populous country before 2032 and will reach 1.8 billion people by 2050.

GDP in Six Selected Countries – Actual and World Bank Forcasts

Percent	Share of World GDP		Average Annual Real Growth Rate		Average Contribution to World Growth	
	2004	2020	1995-2004	2005-20	1995-2004	2005-20
China	4.7	7.9	9.1	6.6	12.8	15.8
India	1.7	2.4	6.1	5.5	3.2	4.1
United States	28.4	28.5	3.3	3.2	33.1	28.6
Japan	11.2	8.8	1.2	1.6	5.3	4.6
Germany	6.6	5.4	1.5	1.9	3.0	3.3
Brazil	1.5	1.5	2.4	3.6	1.5	1.7
World	100.0	100.0	3.0	3.2	100.0	100.0

Data source: World Bank.

With their populations stabilizing, rapid economic growth and capital deepening have allowed China's and India's still-low per capita incomes to rise rapidly in recent years. With per capita incomes up 58 percent in China and 30 percent in India between 1990 and 2000, these countries have become magnets for foreign direct investment intended to serve their growing middle classes as well as to expand their thriving export base. In 2005, China plus Hong Kong attracted 12 percent of direct investment flows – ranking second after the United Kingdom and ahead of fourth-place United States. Considering developing countries alone, Brazil, Russia, and India ranked third, fourth, and eleventh, respectively.

Selected Indicators of Economic Rank, 2005

2000 USD, unless stated otherwise	United States	EMU	Japan	China	India	World
Real GDP – trillions	11.1	6.6	5.0	1.9	0.6	36.4
Real GDP – rank	1	–	2	4	11	–
Real GDP – share of world	30.4%	18.3%	13.7%	5.2%	1.8%	–
Real GDP growth, yoy	3%	1%	3%	10%	9%	3%
GDP PPP – trillions	11.1	8.1	3.6	7.8	3.4	54.6
GDP PPP – rank	1	–	3	2	4	–
GDP per capita	37,267	21,148	39,075	1,449	588	5,647
GDP per capita – rank	4	–	3	93	121	–
GDP per capita PPP	37,267	25,944	27,817	6,012	3,072	8,477
GDP per capita PPP – rank	2	–	18	76	103	–
Population – millions	297	311	128	1,305	1,095	6,438
Population – rank	3	–	10	1	2	–
Population growth rate	1%	0%	0%	1%	1%	1%
Fertility rate	2	2	1	2	3	3
Land area – rank	3	–	61	2	7	–

Data sources: World Bank, OECD, and IMF. Purchasing Power Parity (PPP) data are 2000 international dollars.

Other important indicators of emerging giant status would have to include the supply of skilled and unskilled workers; the size of the domestic financial markets; share of world trade, world payments imbalances, and official foreign exchange reserves; and demand for natural resources, like oil and coal, and the resulting contribution to carbon emissions and global warming. Obviously, the list goes on and on, and many of these additional aspects were discussed during the conference.

Finally, as *Stephen Bosworth* noted, it may be well to consider how growing economic integration within East Asia or all of Asia – or among China, India, and Russia – is likely to have a multiplicative effect. Ideally, such integration will be politically stabilizing, but it will also clearly magnify the growing economic impact of these emerging giants.

[1] China refers to Mainland China.

[2] At Purchasing Power Parity (PPP) exchange rates (which equalize the price of a common basket of goods across countries and put more weight on the portion of the basket that is not traded internationally), China's economy ranked second and India's fourth in 2005.

This essay summarizes presentations and discussion at the 51st economic conference of the Federal Reserve Bank of Boston, "Global Imbalances – As Giants Evolve," which was held in June 2006. We thank all of the presenters, who are listed below, for their valuable contributions to the success of the conference. The essay includes additional material and also reflects developments through early 2007. Presenters' names are italicized in the essay.

Shankar Acharya
Member, Board of Governors
and Honorary Professor
Indian Council for Research
on International Economic Relations

Abhijit Banerjee
Ford Foundation International Professor of Economics
Massachusetts Institute of Technology

Suzanne Berger
Raphael Dorman and Helen Starbuck Professor
of Political Science
Massachusetts Institute of Technology

Surjit Bhalla
Principal
Oxus Investments

Ambassador Stephen W. Bosworth
Dean, The Fletcher School of Law and Diplomacy
Tufts University

Richard N. Cooper
Maurits C. Boas Professor of International Economics
Harvard University

Alan V. Deardorff
John W. Sweetland Professor of International Economics
Professor of Economics and Public Policy
University of Michigan

Guy Debelle
Head, International Department
Reserve Bank of Australia

J. Bradford DeLong
Professor of Economics
University of California at Berkeley

Richard B. Freeman
Herbert S. Ascherman Professor of Economics
Harvard University

Peter M. Garber
Global Strategist
Deutsche Bank

John Helliwell
Arthur A.E. Child Foundation Fellow
Canadian Institute for Advanced Research

The Honorable Donald L. Kohn
Vice Chairman
Board of Governors of the Federal Reserve System

Laurence J. Kotlikoff
Professor of Economics
Boston University

Lawrence J. Lau
Vice Chancellor
The Chinese University of Hong Kong

Catherine L. Mann
Senior Fellow, Institute for International Economics
Professor of Economics, Brandeis University

Christopher M. Meissner
University Lecturer
University of Cambridge

Eswar S. Prasad
Division Chief
Financial Studies Division
International Monetary Fund

Lawrence H. Summers
Charles W. Eliot University Professor
Harvard University

Alan M. Taylor
Professor and Director
Center for the Evolution of the Global Economy
University of California at Davis

Lixin Colin Xu
Senior Economist
The World Bank

The conference agenda and the presenters' papers and biographies can be found at www.bos.frb.org/economic/conf/conf51/index.htm

developments suddenly provided improved global access to previously untapped resources and the incentive to take advantage of them. The resulting flows of capital and people led to very persistent current account imbalances lasting through much of the period, offering some possible parallels to today's situation.

Beginning in the 19th century, improvements in shipping and communications technology and widespread adoption of the gold standard led to a surge in international migration, trade, and investment through the world's first truly global markets.[3] Steam replaced sail, the telegraph arrived in the 1830s, the first transoceanic cable was laid in 1866, and the Suez Canal opened in 1869. Driven by poverty, famine, religious persecution, and failed revolutions, the stream of people from the European core to sparsely populated North America, Australia, and New Zealand became a flood as 55 million people, one quarter of the European population in 1850, emigrated between 1815 and 1924;[4] 60 percent of the migrants landed in the United States. Capital followed them to the New World, while investment in densely populated Asia accelerated as well. Throughout this period, Britain, the banker – and venture capitalist – to the world, ran a current account surplus that peaked at 9 percent of GDP. Britain was able to run this current account surplus *despite* a persistent trade deficit because it enjoyed significant income from massive foreign assets distributed throughout the empire. By contrast, the "offshoot" countries

settled largely by European immigrants and their offspring ran persistent current account deficits. The United States recorded a current account deficit for most years between 1850 and 1890 as interest payments on its foreign debt more than offset a small trade surplus based on its shipping services. In other words, net flows of investment income played a key role in sustaining these long-term imbalances.

In Britain's case, its net investment earnings reflected both its large net asset position[5] and the gap between the interest it earned on those foreign assets and the interest it paid on its foreign liabilities. According to economic historians *Christopher Meissner* and *Alan Taylor (MT)*, this gap represented Britain's reward for risk taking and its talent for financial innovation, as well as its reputation as a safe investment haven with secure property rights, economic stability, and deep, liquid financial markets. That the sun never set on the British Empire must have helped. But over time Britain's "privilege" as a financial pioneer dwindled as investors in other countries gradually adopted more sophisticated financial instruments and the emerging markets of the day grew less risky.

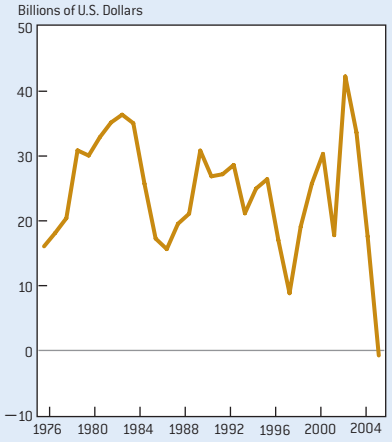
A century later, the United States is now the world's hegemon, a status that again reflects a talent and taste for financial innovation and risk taking as well as its economic strength and financial and political stability. As a result, like 19th century Britain, the United States has been earning more on its foreign assets than it pays on its foreign liabilities – by an amount that averaged 0.5 percent of GDP from 1981 to 2003, as estimated by *MT*. Along with increased leverage, this "privilege" allowed the United States to earn positive investment income on an annual basis through 2005 even as it recorded a growing net debt position for over 20 years (Figure 3). In other words, until very recently this country's net investment earnings helped slow the growth in the U.S. current account deficit.

But as happened in pre-World War I Britain, the U.S. "privilege" has declined over time from 3 percent in the 1960s to 1 percent today, according to *MT*, as other countries have adopted U.S. financial practices. As a result of this decline and the growing U.S. net liability position, in 2006 annual investment income finally turned negative and started to add to the U.S. current account deficit.[6] Thanks to the magic of compound interest, this small change, if continued, could significantly aggravate the stability issue, making the difference between a manageable payments deficit and an imbalance requiring a more painful adjustment.[7]

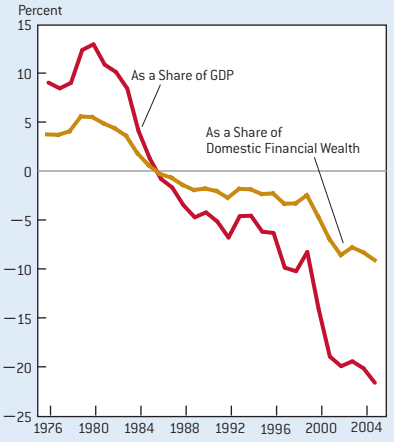
…like 19th century Britain, the United States has been earning more on its foreign assets than it pays on its foreign liabilities…

Figure 3

U.S Net Investment Income
1976 to 2006



Net U.S International Investment Position* as a Share of GDP and as a Share of Domestic Financial Wealth
1976 to 2005



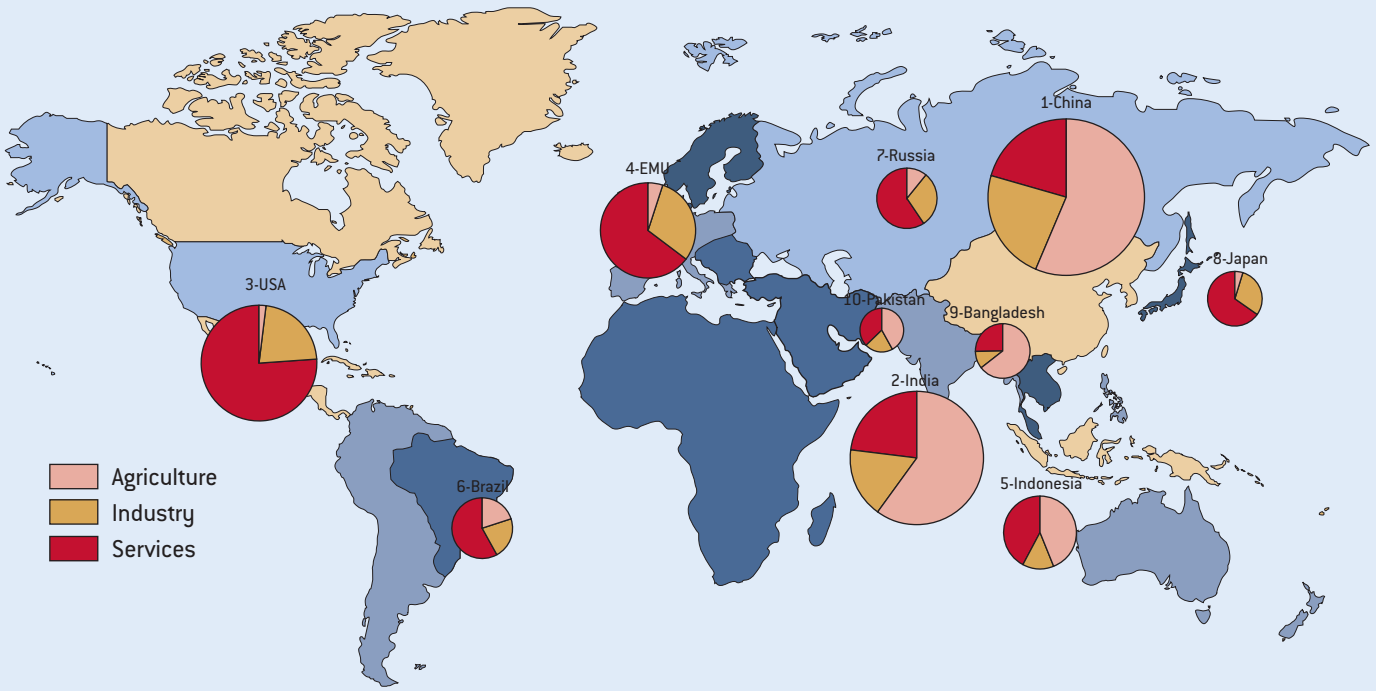
* Net international direct investment position is calculated at current cost.
Source: Bureau of Economic Analysis.

While some argue that China is hardly a "new" player, the country was largely closed to foreign investment from 1949 to the late 1980s.

In this regard, however, the lessons from the First Globalization appear remarkably optimistic since, during that period, payments adjustment was surprisingly smooth. Indeed, *MT* find that adjustment generally occurred without the severe GDP slowdowns typical of many post-World War II corrections. For the "offshoots" and other borrowers that could credibly adhere to the gold standard, the reversal of payments imbalances did not generally involve a banking or currency crisis. Further, the countries that adopted the unforgiving gold standard as proof of good behavior did not suffer greater output losses during an adjustment than did the countries with flexible exchange rates, possibly because labor markets were also more flexible (and wages free to fall) in the early 20th century. Overall, *MT* argue that the capital-poor countries in the First Globalization were able to run sustained deficits with smooth reversals as long as they invested the borrowed capital in productive ways that facilitated export growth and debt repayment. Today, *MT* suggest, the United States' ability to avoid the hard landing and large dollar depreciation predicted by many analysts depends on our ability to maintain market confidence in this country's economic fundamentals.

Others are less sanguine, however. *Suzanne Berger* questions whether foreign capital has in fact been used to build U.S. productive capacity, while *John Helliwell* warns that, in an era of multiple financial centers, the only way the United States can remain a magnet for foreign capital is to continue producing a steady stream of financial and other innovations and unusually high returns. If and when the "luster" disappears, disappointed investors are likely to flee – as in Asia in 1997-98.

Figure 4 Countries with World's Largest Labor Forces, by Sector, 2002



* The area of each pie is proportional to the size of the labor force of the selected region/country. Bangladesh's sectoral distribution data are for 2000; India's are for 2005.
Source: International Labour Organization cited by the World Bank World Development Indicators, U.S. Department of State, Key Labor Indicators.

Labor Market Imbalances

As in the First Globalization, today's stubborn imbalances appear to be rooted (at least in part) in massive shifts in the size and location of the globally accessible labor supply. Indeed, the recent doubling of the globally active labor force may be one of the defining developments of our era. As *Richard Freeman* points out, until the end of the Cold War, China, India, and the ex-Soviet bloc were cut off from the world by trade barriers, capital controls, and restrictions on emigration. But with the collapse of the Soviet Union, China's turn toward market economics, and India's shift away from autarky, the supply of labor "available" to global producers roughly doubled from 1.5 billion to 3 billion people – though a sizable part of this "new" supply remains in unproductive jobs in rural areas and state-owned enterprises (Figure 4). While some argue that China is hardly a "new" player, the country was largely closed to foreign investment from 1949 to the late 1980s. China first welcomed foreign investors in 1982, but the 1989 Tiananmen tragedy scared them off. Almost a decade later, Y2K investments greatly improved Asia's global communications links, and China finally joined the World Trade Organization, earning its "seal of approval," in 2001.

But the arrival of this additional labor supply did not increase the world's capital stock proportionately. Indeed, *Freeman* calculates that with the doubling of the world labor force, the capital-labor ratio fell to 61 percent of what it would have been had China, India, and the ex-Soviet bloc remained isolated. Naturally, "newly arrived" workers have benefited from the opportunity to work with capital and technology from the advanced countries. But comparably skilled workers in advanced countries find themselves in a weakened bargaining position vis-à-vis owners of capital everywhere and could face capital "shallowing" as well.

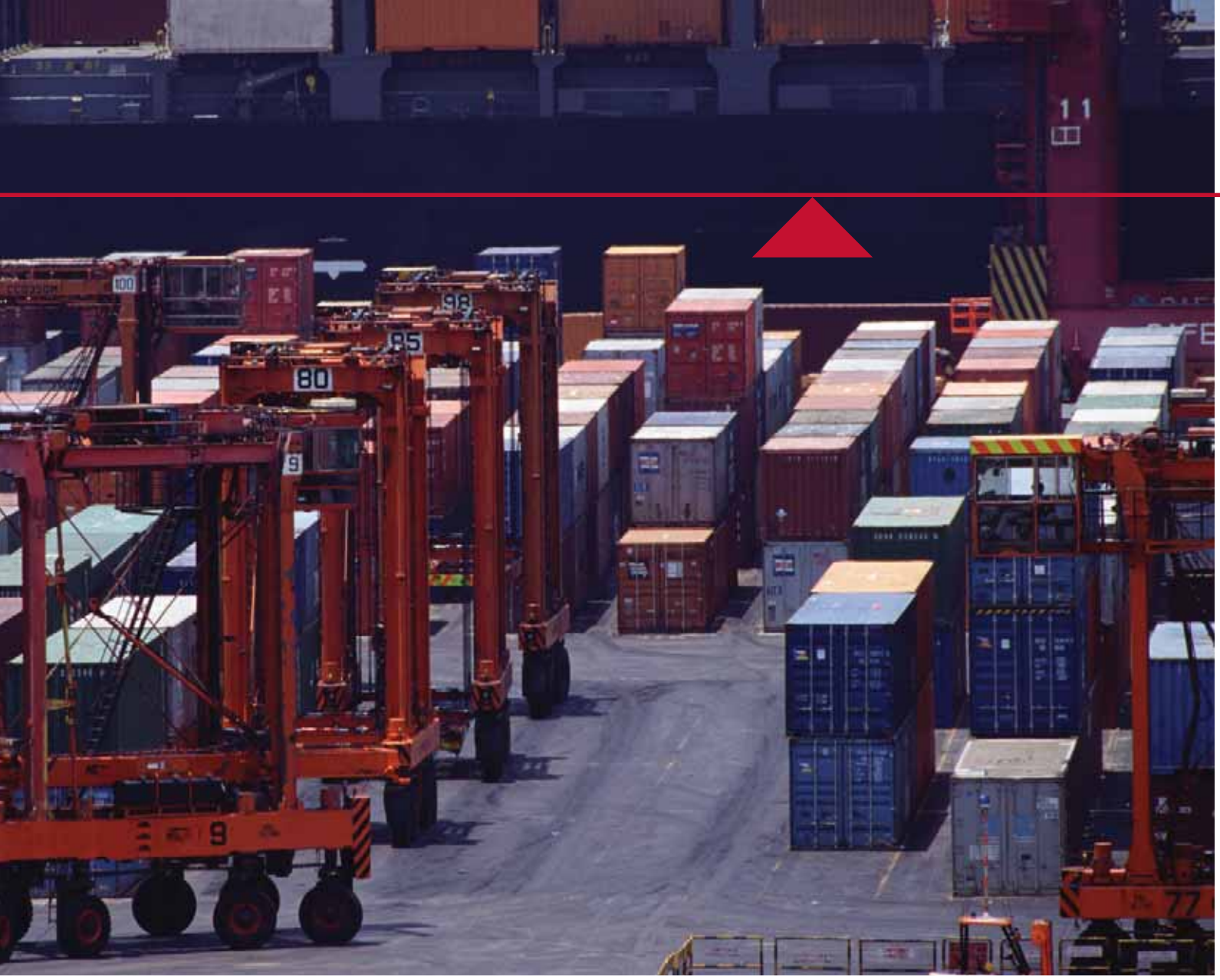
From the perspective of the American worker, China's daunting competitive threat reflects its remarkably low wages. According to the Bureau of Labor Statistics, average hourly compensation in China's manufacturing sector was just 67 cents in 2004. But what producers really care about is relative labor costs adjusted for

China in particular [has] been investing a surprising amount in education and R&D in order to "leapfrog" . . . to higher levels of human capital and technical sophistication . . . .

differences in productivity. And the gap between American and Asian labor costs per unit of output is much smaller than the gap between American and Asian wages. After adjusting for productivity differences, China is probably no more competitive overall than is high-income Hong Kong or Singapore – although the more productive foreign ventures in China's coastal provinces may have a significant competitive advantage. Still, history suggests that this gap between domestic and foreign unit labor costs tends to narrow over time as foreign productivity rises faster than productivity in the United States, but foreign wages rise even faster.

While economists used to argue that American workers would always do well if only they would invest in human capital and move up the technology ladder to "better" jobs ahead of the foreign competition, China and India have not been following the economists' script. Rather they – and China in particular – have been investing a surprising amount in education and R&D in order to "leapfrog" (*Freeman's* phrase) to higher levels of human capital and technical sophistication ahead of schedule. As a result, Dani Rodrik finds that China's export bundle is far more sophisticated than one would expect given its low per capita income.[8] He attributes this success to China's industrial policy and its emphasis on technology transfer.

These Asian investments in human capital have produced some sobering statistics. While the United States accounted for 30 percent of world enrollment in higher education in the 1970s, as *Freeman* points out, this share had fallen to 14 percent by 2000. Similarly, in the 1970s, the United States produced 50 percent of the world's Ph.D.s, but it is expected to grant just 15 percent of the world's doctorates in 2010, when China alone will grant more Ph.D.s in science

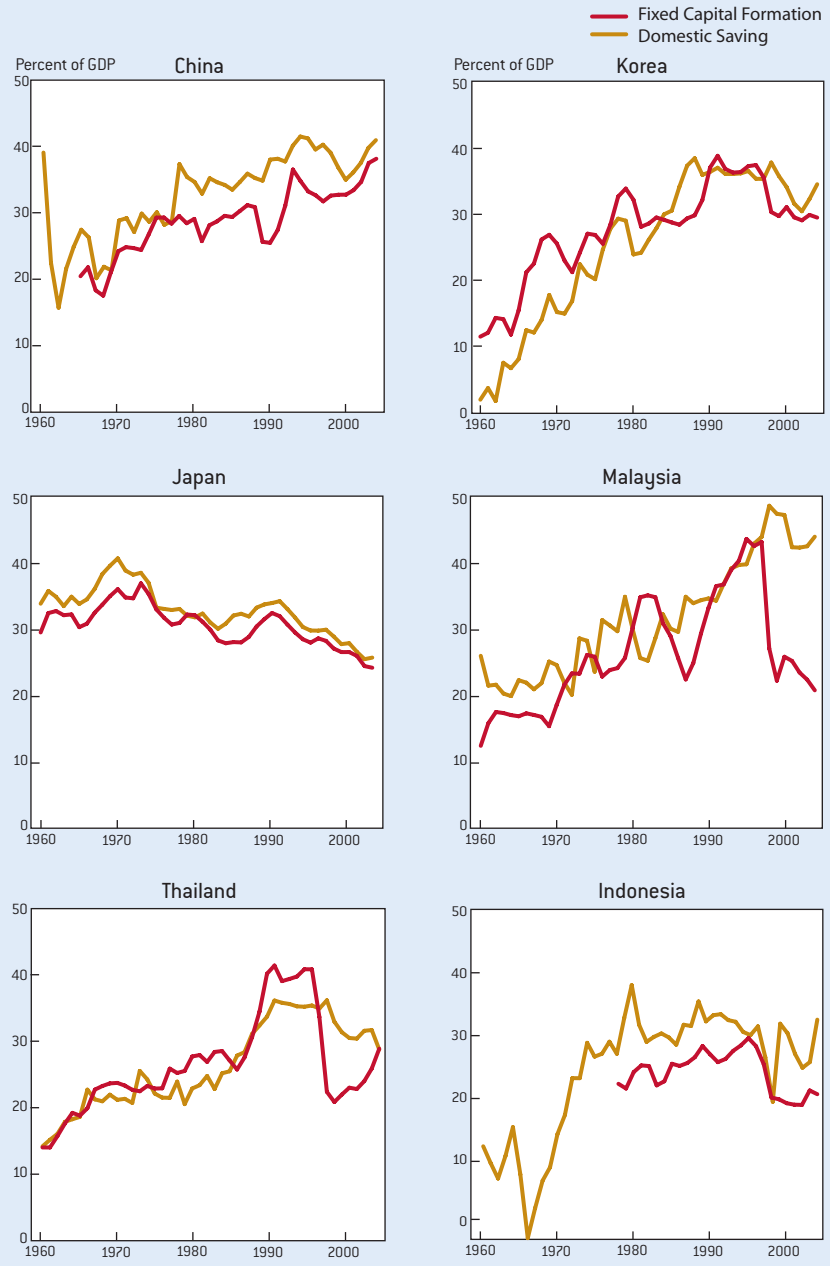


and engineering than the United States.[9] These developments are a matter of concern primarily because maintaining a leading role in high-tech sectors appears to require having a comparative advantage in scientists and engineers as well. Further, *Freeman* notes, innovation seems to depend on scale – on having a critical mass of researchers – rather than on achieving a given proportion of researchers in the workforce. While the United States is most unlikely to lose its critical mass or comparative advantage in high-tech industries any time soon, it could face growing challenges to its leadership role, at least in some sectors.

But beyond this competitive issue, as *Freeman* and *Bhalla* point out, we should rejoice that by bringing modern technology to all, globalization offers the prospect of "making poverty history." According to Judith Banister,[10] the real wages of urban manufacturing workers in China more than doubled between 1990 and 2002, while in India[11] real wages rose at a robust 4 percent a year in the second half of the 1990s. As a result, rapid development has already lifted at least 450 million people out of $1-per-day poverty in China and India in the past 25 years.[12] But these declines in global income inequality have accompanied a highly visible increase in income inequality *within* China; these growing gaps are feeding social tensions, particularly in impoverished rural regions, as the Chinese government is acutely aware.

In the end, China and India will likely follow the path of developing countries before them. Wages and incomes will rise to rough parity with world levels. But the transition will take time. In South

Figure 5 Fixed Capital Formation and Saving in Selected Asian Economies
as a Percent of GDP, 1960 to 2005



Source: World Bank, World Development Indicators.

Korea, it lasted about 50 years, but the enormous scale of China's adjustment is even more daunting. Almost 200 million underemployed Chinese workers with huge incentives to move to better paid jobs in coastal urban areas remain in the countryside. Some 150 million have already moved, and more are following at the rate of more than 5 million a year by OECD estimates.[13] But because the Chinese government is concerned about urban overcrowding and unrest, it is using a variety of schemes like the Hukou system[14] to manage a migration that dwarfs the great European population movements of the 19th century. Still, if China's urban manufacturing wages continue to double every decade, Chinese wages will approach advanced country levels in about 30 years, according to *Freeman's* calculations. He estimates that it may take India 40 to 50 years to reach the same level. Other observers, including *Alan Deardorff* and *Lawrence Lau*, suggest that convergence may take even longer, given the remarkable degree of home bias in consumption and the size of China's labor surplus.[15]

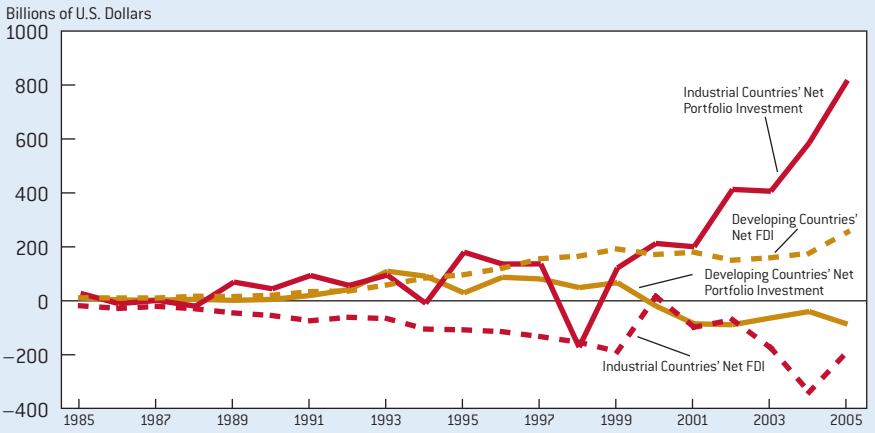
Of course, if Chinese wages are likely to rise somewhat slowly, renminbi (RMB)

appreciation offers an alternative way to narrow the gap between U.S. or E.U. and Chinese labor costs. But the Chinese government remains very cautious about allowing that process to occur. At this writing, in late April 2007, the RMB has risen about 7 percent since China ended its dollar peg in July 2005. This gradual rise reflects Chinese concern that rapid RMB appreciation might harm China's uncompetitive agricultural sector and stir political unrest in the countryside. It might also undermine the inefficient state-owned enterprises and the major banks whose assets are heavily weighted with loans to that sector.

The Essential Complements to Capital

The global distribution of labor and energy resources helps to explain the prevailing pattern of current account deficits and surpluses. But what explains the current pattern of capital flows? In particular, why are poor surplus countries willing to invest so much of their savings in the United States, a mature, wealthy country? Many analysts have found these "wrong way" flows to be a particular cause for concern.

Figure 6 Net Foreign Direct Investment and Net Portfolio Flows: Industrial and Developing Countries
1985 to 2005



Source: International Monetary Fund, *Balance of Payments Statistics Yearbook*, Part 2&3, 1992-2006.

Capital is a requirement for growth; it embodies technology. But to make effective use of capital-cum-technology, as *Brad DeLong* reminds us, countries also need institutions like property rights, the rule of law, good management, and good governance. Unfortunately, these complements to capital tend to be in relatively short supply in many developing countries.[16] So, while economic theory suggests that capital ought to flow toward capital-poor countries, where the returns to investment should be high, in reality most developing countries are forced to raise most of their investment capital domestically.

In the First Globalization, capital did flow from Britain to the "offshoots" and to the periphery as well, but, for the most part, these areas were under British rule. Indeed, the British East India Company literally governed India from the mid 1700s to the mid 1800s. And the offshoot countries were led by people who

. . . to make effective use of capital-cum-technology, . . . countries also need institutions like property rights, the rule of law, good management, and good governance.

had brought British and other European institutions with them. Even so, in the 19th century the U.S. current account deficit generally amounted to about 0.5 to 1.0 percent of U.S. GDP, while investment spending equaled 20 percent of GDP. For the most part, in other words, foreign capital covered only a small portion of the required investment funds.

Today, by contrast, some analysts see net capital flows from China to the United States as a sign of a puzzling savings "glut." But China's situation is actually not unique. Japan has run surpluses for years, with savings outstripping investment even in much of the 1950s. And Malaysia and Indonesia have followed the Japanese path much of the time (Figure 5). Perhaps world capital markets are just a lot less integrated than economists like to think. Indeed, data on *net* capital flows suggest that global capital markets may be less integrated now than they were in the years before World War I – not in scale perhaps, but in scope. Today, much capital flows among the rich nations, for diversification purposes, rather than from rich to poor as was the norm in the 19th century.

But maybe this outcome should only be expected. After all, according to *Abhijit Banerjee* and *Colin Xu*, in countries like China and India, even *internal* capital movements are highly constrained. In this regard, they cite the high cost of monitoring assets and collecting payment from small borrowers and the role of various institutions like the Hukou system and regional protectionism.[17] As a result of these impediments, interest rate spreads between deposit and loan rates or between loans to different borrowers can be enormous, even within a small geographic area,[18] and the marginal product of capital differs widely across regions and within narrow industries in both countries.

Yet, despite these many obstacles, and unlike portfolio capital, foreign direct investment (FDI) does flow to the developing countries on a net basis (Figure 6). And it carries technology, managerial skills, and growth-promoting institutions with it. In addition to serving as a conduit for the complements to capital, FDI is also far more stable than portfolio flows, which are subject to sudden stops and reversals. Thus, as *Brad DeLong* emphasized, we should fervently hope – and governments should work to ensure – that gross and net FDI flows to the developing countries prove "adequate" to the task of providing these crucially important externalities.

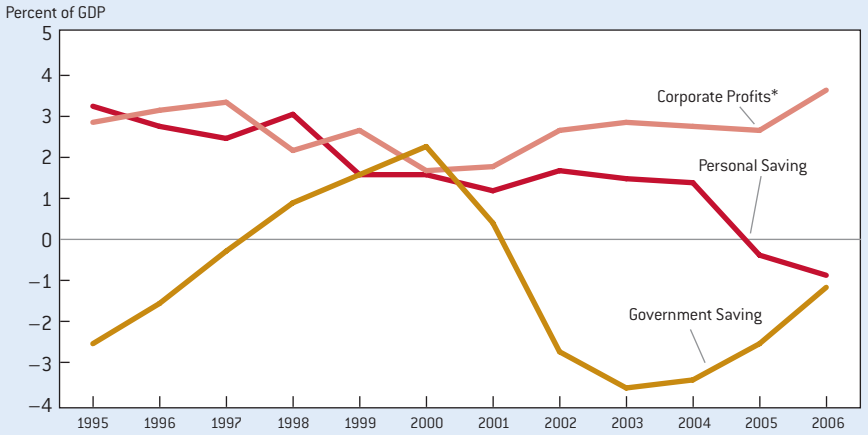
Explaining the Imbalance in Global Savings

The United States is clearly well endowed with the complements to capital.


. . . unlike portfolio capital, foreign direct investment (FDI) does flow to the developing countries on a net basis . . . . And it carries technology, managerial skills and growth-promoting institutions . . . .

Figure 7 Net Saving by U.S. Public and Private Sectors

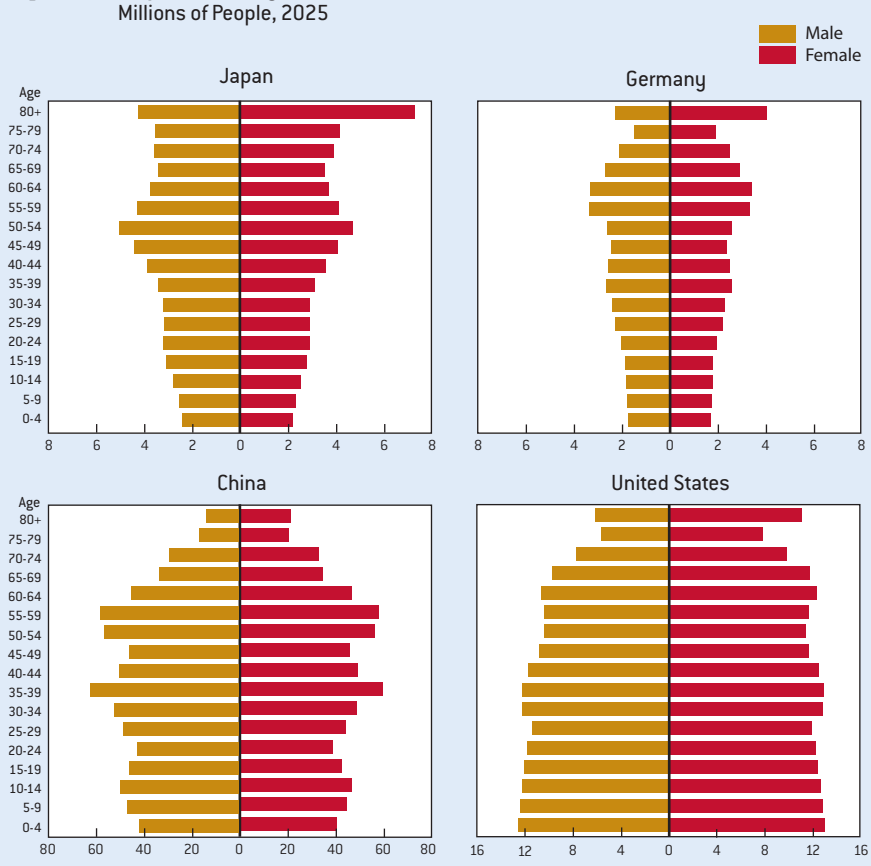
as a Percent of GDP, 1995 to 2006



* Corporate profits includes inventory valuation and capital consumption adjustments.
Source: Bureau of Economic Analysis, Office of Management and Budget.

Figure 8 Population Pyramids

Millions of People, 2025



Source: U.S. Census Bureau.

Why then does the United States, the "world's consumer of last resort," save so little? And why do the major surplus countries – currently Japan, China, Germany, and some of the oil exporters – save so much? In 2004, U.S. gross national saving amounted to just 13 percent of GDP, the lowest ratio in the OECD, while Japan was saving twice and Korea almost three times as much. In the context of the global imbalances, however, what really counts is the match/gap between domestic saving and domestic investment.

According to the U.S. national income accounts, since 1995 the U.S. current account has deteriorated by 5 percentage points of GDP. For the period as a whole, this development matched an increase in the gap between gross investment and private saving amounting to almost 4 percent of GDP plus a small decline in government saving. But these numbers mask big swings in the government fiscal balance, which improved markedly in the late 1990s and then fell by almost 5 percent of GDP from 2000 to 2005. Within the private sector, net corporate saving has risen slightly, while household saving has fallen below zero (Figure 7).

Yet *Richard Cooper* argues that when properly measured, U.S. households actually "save" a lot. Because "saving" is defined as consumption deferred today to raise consumption tomorrow, *Cooper* argues that it should actually include investment in education and durable goods as well as capital gains on wealth (which, thanks to ongoing financial innovations like mortgage equity withdrawals, have become ever more

liquid). Adding in public and private pension claims,[19] American households have a good many sources of future income, he suggests – although, admittedly, the uneven distribution of these resources may be cause for concern. But overall, *Cooper* contends, it is not clear that the *average* household needs to save more – or that it is likely to do so.

Similarly, corporate and government saving/investment are also poorly measured. Corporate R&D, training, and branding are recorded as intermediate business expenses, while government spending on R&D and education are included in consumption, not investment. If U.S. spending on durable goods, education, and R&D were considered saving, then U.S. "saving" would equal over 33 percent of GDP – hardly a sign that the United States is "shortchanging the future," in *Cooper's* view. Making a similar measurement adjustment for other countries boosts their saving rates as well, but generally by less than for the United States.[20] Still, while it is useful to recognize that part of today's "consumption" spending is actually "investment," it is *spending* none the less. Extra saving matched by extra investment does nothing to improve the imbalance between saving and investment reflected in today's current account deficit.

Turning to why the major surplus countries save so much (relative to domestic investment) and invest a great deal in the United States, *Cooper* and others[21] point out that U.S. assets are attractive because the economy remains robust and innovative and because U.S. financial markets offer liquidity, security, and stability. In the major surplus countries, by contrast, investment opportunities are limited relative to the available savings – primarily because of demographic trends. Indeed, *Cooper* suggests, the demographics are key. Low population growth countries, like Japan and Germany, with declining numbers of young adults, have limited need for investment in housing, education, and capital equipment (Figure 8). Moreover, as a result of its one-child policy, China will soon be a low population growth country as well, even though as a developing country, it also faces huge housing and infrastructure needs. In China, thus, investment is extraordinarily high – near 40 percent of GDP – but saving is even higher because of China's inadequate social safety net and underdeveloped capital markets. The United States is an exception among the advanced economies as its fertility rate has remained relatively high, thanks to ongoing immigration on a significant scale.

Why are Japan and Germany not investing their surplus savings in the capital-poor developing countries as economic theory would suggest? The theory as just stated is too simple, *Cooper*

. . . U.S. assets are attractive because the economy remains robust and innovative and because U.S. financial markets offer liquidity, security, and stability.

replies, because risk-averse investors seek a host of legal, political, and financial institutions like the rule of law and secure property rights. Most low- and many middle-income countries do not offer these conditions as the previous section discussed and the recent rise of "resource nationalism" in the oil exporters confirms.[22] By contrast, the United States does offer the required institutions – plus a higher return on investment than most other rich countries.

The demand for U.S. financial assets also reflects the fact that many, perhaps even most, countries are not "comfortable" with freely floating exchange rates, as *Cooper, Garber,*[23] and *Summers* all concur; thus, many governments choose to accumulate foreign exchange reserves and invest them in U.S. Treasury securities at a modest return. In *Cooper's* view, these central banks are acting as financial intermediaries investing abroad on behalf of very conservative private savers (in Japan via the postal savings system) or on behalf of savers still facing capital controls (as in China). And even for developing China, the yield on U.S. government securities may not look so unattractive, given the country's current limited capacity to absorb capital. As symptoms of these limits, *Larry Lau* notes that the Chinese banking system continues to steer funds to unproductive projects, while the government keeps struggling to cool "overheated" investment spending.

Overall, in *Cooper's* judgment, a large U.S. current account deficit is sustainable; indeed it may even be desirable. While the U.S. current account deficit clearly

cannot continue to rise relative to GDP, it can certainly remain near its present relatively high ratio to GDP. Demographic trends in Japan, Europe, and parts of developing Asia will encourage those regions to accumulate external assets to draw down as the population ages. In contrast, the United States has notably different demographics. Although rich and politically mature, it remains in a sense a "young" and "developing" country. The United States is also particularly good at inventing ways to exchange low-risk claims for high-risk assets. No wonder world savers want to invest a portion of their savings in the United States, *Cooper* concludes.

But not everyone agrees. Foremost among those with a less sanguine interpretation of recent trends in the U.S. saving-investment imbalance is *Larry Kotlikoff*. Admitting to little concern about the U.S. current account deficit[24] per se, he focuses instead on the disturbing decline in U.S. *net* investment and even faster decline in U.S. *net* saving relative to GDP.[25] Noting that government consumption has not been unusually high in recent years, *Kotlikoff* blames the fall in U.S. savings on increased private consumption, which now accounts for over 70 percent of GDP, its highest share since World War II. In particular, he points to an increase in consumption by the elderly, which he attributes to a fiscal policy that has been transferring money from the young to the old via Social Security, Medicare, and Medicaid benefits for decades. Citing Smetters and Gokhale, *Kotlikoff* emphasizes that with the aging of the Baby Boom generation, the present value of the fiscal gap – projected government receipts minus projected government expenditures – amounts to $63 trillion.[26] At some point, *Kotlikoff* warns, the U.S. government's looming fiscal gap will spook the financial markets; investors will unload U.S. government securities and dollars, U.S. interest rates and inflation will rise, and a disorderly correction will be underway.

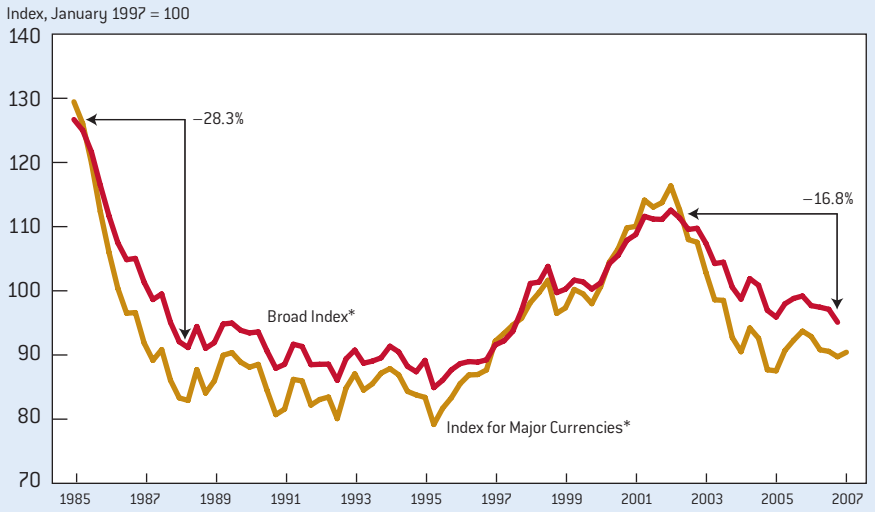
But as several conference participants observed, most other advanced countries face equally difficult fiscal futures, for which – small comfort – they are no better prepared than is the United States. In addition, some attendees suggested that investors already assume that the U.S. government will find ways to modify – or renege on – its commitments to the elderly. More basically, as *Guy Debelle* reminded the group, current account deficits and fiscal deficits are distant cousins, not twins. Curing a fiscal deficit need not cure a current account deficit, or vice versa. In this regard, *Cooper* emphasized that while he is not worried about today's U.S. current account deficit, he strongly agrees with *Kotlikoff* that this country has a very serious fiscal problem related to Medicare – now that Americans have decided that death is "becoming an option."

(How) Will Adjustment Occur? A Continuum of Views

Will adjustment of the current global imbalances occur soon and abruptly or over a more extended period? And will the costs of this reversal be modest and concentrated in the United States, or will

. . . current account deficits and fiscal deficits are distant cousins, not twins. Curing a fiscal deficit need not cure a current account deficit, or vice versa.

Figure 9 Real Trade-Weighted Exchange Value of the U.S. Dollar
First Quarter 1985 to First Quarter 2007



* Countries whose currencies are included in the Index for Major Currencies are Euro Area, Japan, United Kingdom, Switzerland, Australia, and Sweden. Broad Index has 19 additional currencies.
Source: Federal Reserve Board.

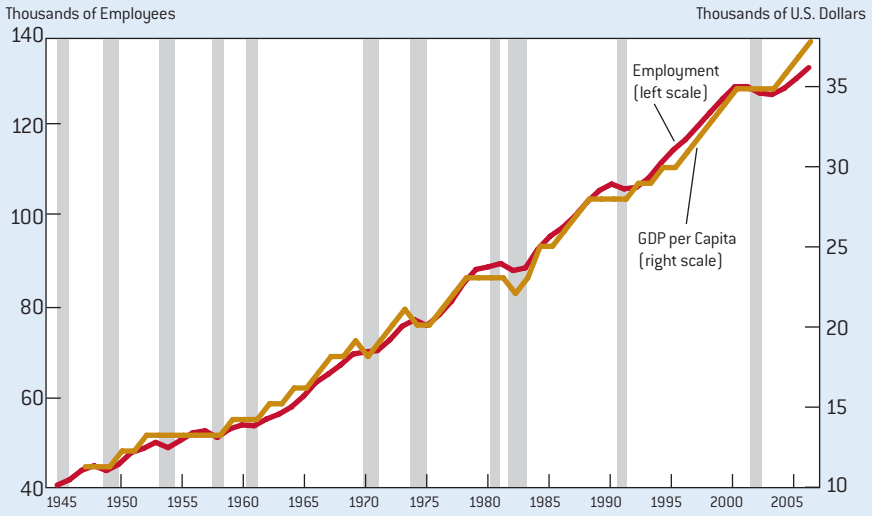
…as the persistence of the global imbalances attests, many players appear to be quite satisfied with the current situation….

they result in a global slowdown? Opinions range along a continuum extending – at the conference, at least – from *Cooper's* confident optimism to *Kotlikoff's* heightened anxiety.

Per force, adjustment – whenever it occurs – will require that U.S. output grow faster than U.S. demand. There is no other way. Narrowing the current gap between U.S. gross domestic demand and output can occur only through some combination of slower U.S. demand growth, faster foreign demand growth, and dollar depreciation to encourage U.S. production and foreign consumption. Thus, foreign officials should stop suggesting that more U.S. saving, particularly by the government, is all that is needed. As *Larry Summers* noted, more U.S. saving without offsetting foreign stimulus would likely result in an unpalatable slowdown in world growth.

But as the persistence of the global imbalances attests, many players appear to be quite satisfied with the current situation – at least for now. In addition to *Cooper* and *Debelle, Dooley, Folkerts-Landau* and *Garber (DFG)* are prominent among the analysts arguing this case. In the *DFG* view, developing countries seek to borrow capital, particularly FDI capital, at least on a gross basis. But to attract gross inflows in this post-colonial era, emerging countries need to accumulate net dollar collateral, which they post in the form of foreign exchange reserves. In addition, and importantly, China and much of Asia are convinced that they need export-led growth to absorb their supplies of underemployed labor. Indeed, China/Asia's vast underemployment and savings are the central driving forces in the Bretton Woods II system[27] – as signaled by world interest rates that have been unusually low, not high. U.S. savings may have fallen, in other words, but the increased

Figure 10 U.S. Total Nonfarm Employment and Real GDP per Capita
1945 to 2006



Source: Bureau of Economic Analysis, Bureau of Labor Statistics, Census Bureau.

supply of foreign savings is the dominant development.

In the advanced countries, moreover, almost everyone is pleased to enjoy real long-term interest rates and core inflation that are somewhat lower – and wealth that is somewhat higher – than would otherwise prevail. In addition, producers who can access Asia's low-cost labor have been co-opted. They no longer clamor for protection and have largely abandoned labor to fight globalization on its own. For political and economic reasons, thus, the Bretton Woods II arrangement has already proved itself to be very stable.

In the *DFG* view, eventual adjustment, when it comes, is likely to involve a slow rise in real interest rates as China becomes more fully integrated into world capital markets; and most of the adjustment in the U.S. trade account will occur as U.S. demand adjusts to these higher real interest rates. The dollar will depreciate against the RMB but only gradually and moderately.[28] Reserve diversification by foreign officials would have little or no lasting effect on dollar-euro exchange rates because dollar-euro assets are close substitutes.

While *Cathy Mann* tends to agree with *DFG* regarding the likely stability of the current imbalances, she questions the desirability of that outcome. She builds her analysis around four Cs: consumption, co-dependency, complacency, and, possibly, crisis. Since the mid 1990s U.S. consumption has increased a good deal as a share of GDP, reinforcing the co-dependent relationship between the United States and its creditors. This co-dependency is based on unhealthy habits – an overemphasis on consumption (in the United States) and production (in China/Asia) – that could last a long time. In China, these habits lead to a misallocation of still-scarce resources; in the United States, to a

…producers who can access Asia's low-cost labor have been co-opted. They no longer clamor for protection and have largely abandoned labor to fight globalization on its own.

dangerous buildup of foreign-owned debt and a risky reliance on a narrowing set of foreign official investors who could tire of accumulating dollar assets at any time. *Mann* warns against complacency – on the part of the private investors and policy makers as well.

In *Mann's* opinion, adjustment requires both slower U.S. growth (brought about by Fed policy, not the integration of Asia into world capital markets) and significant dollar depreciation. Airing a somewhat similar scenario, William Dudley[29] suggested that U.S. household equity and real estate wealth is unlikely to continue growing at the unusually rapid rate of recent years. Thus, household saving will rise, and U.S. demand growth will weaken. As a result, U.S. interest rates will fall, triggering a depreciation of the dollar and, thus, a decline in the U.S. standard of living.[30] Hardly a disaster scenario, Dudley noted, but a plausible unwinding of the current situation.

In the end, *Mann*, joined by *Larry Summers* and indeed a growing minority as the conference progressed, was less certain than the *DFG* group and *Richard Cooper* that adjustment will occur without a crisis – especially since private investors show occasional signs of waking from their complacency. But "crisis" is defined in the mind of the beholder, *Mann* suggests. How benign were the sharp (roughly 30 percent[31]) dollar depreciation of 1985-87 and the ensuing balance of payments adjustments (Figure 9)? Was that a crisis? For the United States, it clearly was not. From Japan's perspective, however, the answer might be yes, since Japan's effort to curb yen appreciation at that time clearly laid the basis for its bubble economy in the late 1980s and the dismal period that followed. While the IMF's *Eswar Prasad* was less ready than *Mann* and *Kotlikoff* to forecast a crisis, as a preventative measure, he urged policy makers to focus on what countries need most for their own internal balance. China, for instance, needs exchange rate flexibility to develop its domestic financial markets and use its capital more effectively, he suggested.

. . . the current highly uneven distribution of world resources strongly suggests that today's payments imbalances could prove remarkably long lasting.

What's to Be Done in Uncertain Times?

What are the policy implications of today's large global payments imbalances? And how pressing is this question, now that the U.S. current account appears to be stabilizing? The improvement reflects the recent slowdown in U.S. relative to foreign growth and a 16-percent decline in the real trade-weighted dollar from its early 2002 peak. Looking ahead, forecasts for the U.S. current account over the next two years are mixed; many expect ongoing improvement, while others see a return to larger deficits relative to GDP.

But whatever the immediate outlook, the current highly uneven distribution of world resources strongly suggests that today's payments imbalances could prove remarkably long lasting. It will likely take at least three decades for Chinese wages to reach world levels – somewhat less

for Eastern Europe, somewhat more for India. Demographic trends are unlikely to reverse, even with (plausible) changes in immigration policies. And it seems improbable that the emerging giants will offer all of the institutional features of mature financial centers any time soon. In the meantime, even a shrinking U.S. payments gap of 5 or 4 percent of GDP remains substantial and would leave the world vulnerable to a sudden bout of disorderly dollar depreciation.

What then should policy makers do to facilitate smooth – if gradual – adjustment? Particularly if this rebalancing act is likely to be stretched out, a primary concern for all must be maintaining the credibility of the monetary and fiscal authorities on both sides of the surplus/deficit divide. For the developing countries, in particular, the main message, loud and clear, is the importance of developing the good legal and social institutions that comprise the essential "complements to capital" found in the world's financial centers. This theme, repeated throughout the conference, was echoed finally by *Larry Summers*, who insisted that it is profoundly important that we find ways to get capital to flow in the "right" direction. Embracing FDI, which serves as a conduit for the complements to capital, was one specific policy prescription. Increased investment in human capital – health and education, especially in rural areas – was another.

Further, although a fixed exchange rate may well hinder the development of a domestic money market in developing countries and clearly interferes with the

For the developing countries, …the main message, loud and clear, is the importance of developing…good legal and social institutions….

. . .monetary policy makers should be catholic in choosing the set of variables they weigh in setting policy. . . .this is no time for the Fed to don a straitjacket by adopting an inflation target.

conduct of an independent monetary policy, many of today's emerging giants continue to embrace this exchange-rate regime for reasons ranging from a dependence on export-led employment growth to fears about reversible capital flows. Thus, as *Summers* put it, the "least expensive lunch" for these central banks may be figuring out how to invest their foreign exchange reserves more profitably.[32] In this regard, China's new initiatives regarding reserve management are an interesting and promising sign.

As for the United States, because monetary policy is a blunt instrument, most conference participants agreed that it would be "nonsense" for the Fed to engineer an outright recession to achieve, at most, a modest decrease in the U.S. current account deficit. Rather, as Governor *Donald Kohn* emphasized, the Fed makes its key contribution to orderly adjustment by maintaining investor confidence in its ability to deliver low, stable inflation. However, a few participants did note that an extended period of low U.S. interest rates undoubtedly contributed to the rise in equity and residential real estate prices in recent years and, thus, through the wealth effect, to strong(er) consumption and investment. Accordingly, *Summers* suggested that monetary policy makers should be catholic in choosing the set of variables they weigh in setting policy, including asset prices and exchange rates in particular.[33] For this reason, he argued, this is no time for the Fed to don a straitjacket by adopting an inflation target.

Unlike monetary policy, fiscal policy is actually well-suited to affecting saving behavior – public saving, obviously, but private saving as well. For instance, policy makers might want to rethink the extent to which we subsidize housing in this country. Maybe subsidizing one dwelling per household would be enough? After all, to facilitate repayment of this country's growing foreign debt, Congress might want to favor productive investment – in science education, say – rather than less productive investment in housing. Even more compelling is the need to deal with the very large fiscal deficits scheduled to arrive over the next 25 to 30 years with the aging and retirement of the Baby Boom generation, absent strong and prompt Congressional action.[34] Today, foreign investors are ignoring this country's irresponsible fiscal stance. Tomorrow, they just might notice.

How workers in advanced countries fare will depend on the balance between the declines in real prices and in real compensation associated with the emergence of the New Giants. Ideally, the global spread of innovative effort and new technologies will increase productivity, lower costs, and raise living standards everywhere. Thus, policy makers should aim to keep rising protectionism at bay by favoring labor over capital (which will be able to take care of itself). Examples of such policies include decoupling health insurance coverage from employment in the United States and encouraging

improved labor standards in the developing countries.[35] Further, maintaining our competitiveness in coming decades will require the United States to invest more in education – in particular, in an education that gets students "hooked" on science and provides a less U.S.-centric view of the world. In particular, Ambassador *Stephen Bosworth* and *Larry Summers* both stressed the need for U.S. students to gain a better understanding of Asian developments and perspectives.

In the end, U.S. policy makers must focus on what they can control, fixing what they can, accepting what they can't, and having the wisdom to know the difference.[36] China – practical and cautious – faces huge domestic challenges and is not likely to be much moved or hurried by U.S. Congressional or Administration pressures. India's challenges are equally daunting. In addressing what they can, U.S. policy makers might well start with what needs to be done for the domestic economy, balancing the needs of current and future generations. As for what they can't control, U.S. policy makers may want to recall that despite – or was it, in part, because of? – the re-emergence of post-war Europe and the arrival of Japan and Korea as major economies thereafter, U.S. employment and living standards have continued to rise, with brief pauses, relentlessly higher (Figure 10). Thus, it seems safe to expect that, despite the transitional challenges, as Chinese and Indian incomes reach world levels over the next 50 years, the impact on global living standards will on balance be positive, far-reaching, and enormous.

Endnotes

[1] The current account balance comprises the balance of trade on goods, services, and income plus unilateral transfers.

[2] As foreigners' U.S. assets rise, so too do U.S. interest payments on those assets; thus, stabilizing the current account -- which includes interest payments -- relative to output requires that the current account deficit grow no faster than nominal GDP. In these days of relatively low inflation, achieving nominal U.S. GDP growth of over 6 percent is no longer a sure bet.

[3] Maurice Obstfeld and *Alan M. Taylor,* "Globalization and Capital Markets," in *Globalization in Historical Perspective*, Michael D. Bordo, *Alan M. Taylor,* and Jeffrey G. Williamson, Chicago: University of Chicago Press, 2003.

[4] Robert Barde, Susan B. Carter, and Richard Sutch, "International Migration," *Historical Statistics of the United States*, vol. 1, Population, New York: Cambridge University Press, 2006.

[5] British net foreign assets reached 200 percent of U.K. GDP in 1913.

[6] After four quarters of negative earnings, the United States had positive net income earnings of $3 billion in the fourth quarter of 2006. Despite this bounce, it seems the United States can no longer count on positive income flows to help moderate the growth of its current account deficit.

[7] Total return on U.S. foreign assets includes capital gains, which have been trending up by *MT*'s estimates. But since the source of these gains is not well understood, *MT* warn against counting on continued increases.

[8] Dani Rodrik (2006), "What's So Special about China's Exports?" *China & World Economy* 14 (5), 1-19.

[9] Of course, many of the new U.S. Ph.D.s will be granted to foreign students who may – or increasingly may not – decide to stay in this country.

[10] "Manufacturing Earnings and Compensation in China," *Monthly Labor Review*, August 2005.

[11] Glinskaya, Elena and Michael Lokshin. "Wage Differentials Between the Public and Private Sector in India," World Bank Policy Research Paper 3574, April 2005, cited by *Freeman*.

[12] Shaohua Chen and Martin Revallion. "How Have the World's Poorest Fared since the Early 1980s?" *The World Bank Research Observer*, vol. 19, no. 2, 2004. *Bhalla* estimates a much higher number in *Surjit S. Bhalla, Imagine There's No Country: Poverty, Inequality, and Growth in the Era of Globalization*, Washington, D.C. Institute for International Economics, 2002.

[13] Anders Reutersward, *Labour Protection in China*, OECD Social, Employment and Migration Working Papers No. 30, November 7, 2005.

[14] Hukou refers to China's household registration system, which operates to control access to public benefits like education, health care, and pension rights. Because the system generally limits such access to an individual's birth place, the government has used Hukou to guide labor mobility across China.

[15] *Shankar Acharya* pointed out that only a small fraction of India's labor force is currently employed in the organized – as distinct from the informal – manufacturing sector. He blames a long history of dysfunctional labor laws.

[16] In this connection, the recent passage of Communist China's new law strengthening property rights (first acknowledged in the Chinese constitution in 2004) is an intriguing development.

[17] Other barriers might include India's caste system and the use of multiple spoken languages – 15 in India and at least eight in China – which tend to foster the separate communities or trust networks that are the focus of *Helliwell's* recent work. See also Arvinder Singh, "Labour Mobility in China and India: The Role of Hukou, Caste, and Community" in *China and India: Learning from Each Other*, Jahangir Aziz, Steven Dunaway, and *Eswar Prasad,* eds.: Washington, DC, International Monetary Fund, 2006.

[18] *Banerjee* mentions a basic deposit rate of 10 percent co-existing with a loan rate of 78.5 percent, and local loan rates varying between 48 percent a year and 5 percent *a day* (16,000 percent a year).

[19] *Cooper* notes that the liabilities for private pensions have been an important spur to corporate saving in recent years.

[20] Raising another measurement issue, *Debelle* noted that capital gains, which are more important for U.S. than for foreign investors, are not included in the current account but do show up in balance sheet measures like wealth. It is more appropriate, he argues, and much more reassuring, to measure U.S. net liabilities to foreigners against U.S. wealth rather than against U.S. GDP (see Figure 3).

[21] See, for instance, Ricardo J. Caballero, Emmanuel Farhi and Pierre-Olivier Gourinchas, "An Equilibrium Model of 'Global Imbalances' and Low Interest Rates," NBER Working Paper 11996, February 2006.

[22] Increased resource nationalism has led host countries, including Venezuela, Bolivia, Russia and Iran to renegotiate access and revenue terms. Russia, for instance, has threatened to revoke oil and gas drilling licenses in Siberia and Sakhalin Island on the basis of "safety violations" and "environmental concerns." Investors also worry that Russia may be intent on renationalizing its energy sector.

[23] As *Peter Garber* sees it, some bloc of countries of varying membership has always needed or wanted the stability of a fixed exchange rate; he expects they will continue to do so "for the foreseeable future." But once their domestic financial markets are more fully developed, and they are able make a credible commitment to keeping inflation low and stable, some of these countries may find it easier to shift to a more flexible exchange rate regime.

[24] Or capital surplus, as *Kotlikoff* prefers to call it.

[25] By contrast, in this context, *Cooper* prefers *gross* to *net* measures of saving and investment, in part because it is gross investment that brings new technology.

[26] This estimate uses rather conservative assumptions regarding health care costs and assumes that future generations face the same net tax rates as today's. See Jagadeesh Gokhale and Kent Smetters, "Measuring Social Security's Financial Problems," NBER Working Paper 11060, January 2005, cited by *Kotlikoff*.

[27] The term "Bretton Woods II," coined by *DFG*, refers to the dollar exchange standard adopted at Bretton Woods, NH, in 1944 and in effect until the United States cut the dollar's ties to gold in 1971. In the original Bretton Woods arrangement, the United States maintained the dollar's value in terms of gold, and other countries pegged to the dollar. Under Bretton Woods II, a group of countries is choosing voluntarily to fix or closely tie their currencies to the U.S. dollar.

[28] Supporting this point, *Larry Lau* argued that once capital controls are removed, private Chinese demand for U.S. dollar assets is likely to prove substantial. He also noted that, given the small share of domestic content in Chinese exports, it would take a large RMB appreciation to reduce Chinese exports notably.

[29] Executive Vice President, Markets Group, Federal Reserve Bank of New York.

[30] *Larry Summers* describes a similar scenario with spillovers to global growth in a March 26, 2007, comment in the *Financial Times* (*Lawrence Summers,* "As America Falters, Policymakers Must Look Ahead," *Financial Times*, March 26, 2007).

[31] From a peak in early 1985 to late 1987, the trade-weighted dollar fell almost 40 percent in real terms against other major currencies.

[32] More recently, the Asian Development Bank has also urged central banks to invest their reserves in infrastructure, human capital, or financial assets earning more than U.S. Treasury securities. It points out that earning an additional 500 basis points on half of the region's reserves would yield a dividend equal to 0.8 percent of Asian GDP. Michiyo Nakamato, "Asia states warned on danger of reserves: ADB advises investment plans to avoid asset bubbles," *Financial Times*, March 28, 2007, page 1. See also ADB, *Asian Development Outlook 2007*, March 2007.

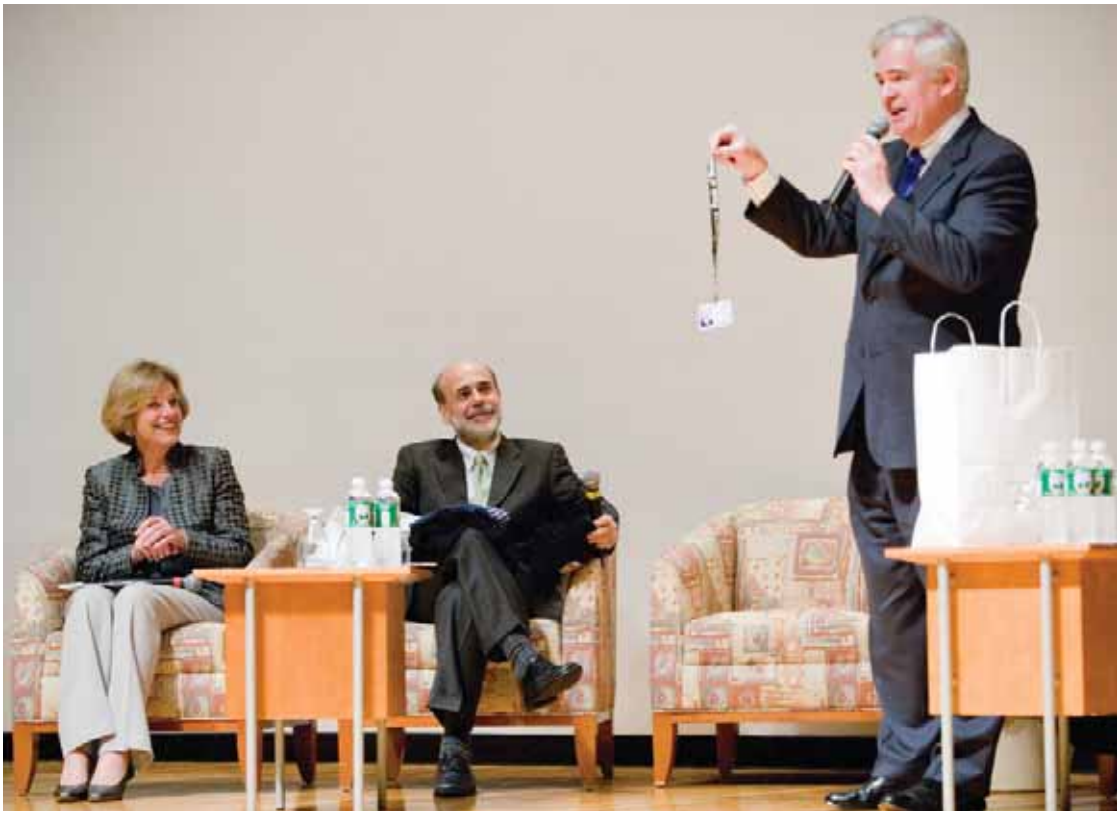
[33] By contrast, *Shankar Acharya* suggested prudential measures to address asset price concerns.

[34] According to the U.S. Comptroller General's January 2007 testimony to the U.S. Senate Budget Committee, under conservative "intermediate" assumptions, expenditures for Social Security, Medicare, and Medicaid are projected to rise from 9 percent of GDP today to 15.5 percent in 2030. As a result, the fiscal deficit will likely deteriorate from near balance in 2001 to minus 20 percent of GDP ("out of control" as the Comptroller General sees it) within 30 years.

[35] *Suzanne Berger* also proposed strengthening U.S. wage insurance programs to help counter the growing popularity of protectionist "remedies."

[36] With apologies to Reinhold Niehbuhr as well as to *Eswar Prasad*, who advocated first setting one's own house in order – not only to reap the immediate internal benefits but also to strengthen the economy against future external shocks.

2006 Bank Highlights:
Our Role in New England and the Nation



The Bank had the pleasure of welcoming Chairman Ben Bernanke for an extended visit in June. It was in truth a welcome back, since as an economist Bernanke had spent time as a visiting scholar at the Bank in 1989 and 1990. During his visit, Chairman Bernanke met with local business leaders, the Bank's leadership and directors, and staff.

In a lively Bankwide gathering, the Chairman answered questions on a wide variety of topics – ranging from economic policy to payments innovations, and from formative experiences in his career to his typical workday. The Chairman also reflected on the fundamental public-service mission of the Federal Reserve System – the motivating sense, shared by staff throughout the System, that the work of the central bank can make a difference to the welfare of average citizens.

The Bank focuses its activities in four major areas:

- *maintaining a safe, efficient, and cost-effective payments system,*
- *conducting economic research to support monetary policy and advance economic understanding,*
- *maintaining a safe and sound banking system, and*
- *sharing our expertise to benefit the public.*

The Federal Reserve Bank of Boston continued to manage significant change in 2006. At the same time, we achieved a variety of successes, passed a number of key milestones, and further refined our view of how the Bank can best serve New England and the nation in the years ahead. Below are Bank highlights of 2006.

Payments Services

Check

• The Bank consolidated its **check processing operations** into one large operation at our Windsor Locks CT office. This successful consolidation provides a highly efficient environment for check processing.

• The transformation from **paper to electronic** check processing accelerated nationally and in New England. By year-end, 34 percent of the Bank's check volume was being deposited in image form or being converted into images for collection. The Bank is a Federal Reserve System leader in Check 21, the national initiative to support electronic check collection.

Cash

• In a move that improves efficiency, our cash services operations began to implement a **custodial inventory program** with New England banks. The program supports the efforts of banks to recirculate currency to meet their customers' demands. This is a more efficient and cost effective approach for banks and their customers.

• Cash services staff held an **annual customer conference** with presentations on cash usage trends, counterfeit activity, and the custodial inventory program.

Stored Value Cards

• A team from the Bank spent almost two months in Iraq and Kuwait implementing the **stored value card program** developed by Bank staff for military personnel on duty overseas. The team provided training, bank account set-up, and overall management as well as equipment installation. Military personnel can use stored value cards to pay for goods and services at overseas bases, eliminating the need for the military to keep stores of cash overseas. Stored value card programs supported by the Bank now operate at 34 military bases worldwide.

Internet Payment Platform

• We conducted some 70 outreach sessions with federal agencies to explain the Internet Payment Platform, a **web-based service** being developed at the Bank to enable federal agencies to process all purchase orders, invoices, and payments information electronically. IPP is on target for implementation in November 2007.

Emerging Payments Research Group

• The Emerging Payments Research Group, a multi-disciplinary team of payments professionals and economists, enhanced our

understanding of consumer payment behaviors and their impact on the payments system. EPRG conducted a three-day conference on consumer behavior and payment choice; developed a case study of online payment service providers; and identified gaps in industry-led **consumer payments research**.

Economic Research and Monetary Policy

Research Department

• The Bank's research economists published a record 26 working papers and public policy discussion papers in 2006, with 20 papers accepted at leading academic journals. Topics of research included the risks posed by **alternative mortgage instruments** in a slowing housing sector; changing estimates of steady-state growth of employment and potential output; and changes in **inflation dynamics**.

• The Bank's June **research conference,** "Global Imbalances as Giants Evolve," examined shifts in the global distribution of labor, capital, and technology, focusing on the recent **emergence of China and India** as important actors in the global economy. The essay in this annual report features this topic and draws on conference presentations.

Center for Behavioral Economics and Decision-Making

• The Bank's Center for Behavioral Economics and Decision-Making, a unit of the research department, co-sponsored a conference on **life-cycle saving and investing**. The conference examined what optimal saving and investing should be, why people deviate from the optimal, practical models for financial planning, innovative products, the role of government, and possible educational initiatives. Follow-up research is planned.

• Working with Public and Community Affairs staff, the Behavioral Economics Center began a number of research projects related to consumer education and protection, including a study of the **efficacy of credit counseling**. The same team also undertook a cooperative effort with the U.S. Treasury to find ways to increase acceptance

of electronic payments among unbanked persons; and a cooperative effort with the Board of Governors to use behavioral economics to inform the development of regulations.

Safe and Sound Banking System

• **New England banks** recorded strong profits in 2006, as was also true for banks nationwide. However, net interest margins continued to narrow, and, in addition, many banks found it more challenging to attract deposits. Deposit growth in New England slowed substantially relative to previous years.

• Bank supervisory staff played a key role in the Federal Reserve System's nationwide program for supervising large financial institutions (LFIs). Staff of the Bank assisted in the development of a governance process involving new models for sharing information, best practices, and risk assessments and helped lead a program of **operational risk assessment** for LFIs.

• Bank staff continued to make important contributions to the System's work on Basel II. "Basel II" is shorthand for a multinational effort to develop international capital standards for large banks. Bank staff prepared two white papers on ways for **quantifying operational risk** with respect to Basel II capital requirements and made numerous presentations on operational risk to national and international audiences.

Outreach

Economic Education

• Visits to the Bank's on-site **New England Economic Adventure** were up by 10 percent in 2006, while "virtual visits" in economic education – that is, hits to the educational materials on our public web site – increased by over 400

percent compared with 2005.

• The Bank hosted a **"Reserve Cup" challenge** that pitted high school teams from each New England state against one another to test their knowledge of personal finance, economics, financial literacy, and the Federal Reserve System. The competition was subsequently televised throughout New England.

• Bank staff developed a second interactive educational tool, *Show Business: The Economics of Entertainment*, to join the web-based game, *Peanuts and Crackerjacks*, as a means to engage students in learning economics. The Bank is emphasizing **interactive instruction**, in the belief that making the learning process fun and engaging makes it more effective.

• Some 30 secondary-school teachers from throughout New England attended a three-day **teacher workshop** hosted by Bank on the topic "globalization and international economics."

New England Public Policy Center

• The Bank's New England Public Policy Center, created in 2005 to focus on economic and public policy issues affecting the region, conducted research on a number of topics, including the **lack of affordable housing**, regional energy needs, and **disparities in non-school costs and revenue capacity** among Massachusetts cities and towns.

• Policy Center staff prepared 18 "rapid-response" memos to address questions posed by regional policy makers and held meetings with policy makers, analysts, and researchers in each of the six New England states to gain intelligence about **emerging issues**.

• **Health insurance** was the focus of "Covering the Uninsured: Costs, Benefits, and Policy Alternatives for New England," a conference sponsored by the Policy Center.

Community and Consumer Affairs

• The Bank worked with regulators in the region to call attention to the growing numbers of mortgage foreclosures. A brochure highlighting **risks associated with alternative mortgages** was developed and broadly disseminated. It is being used in the City of Boston's new home buyer and credit counseling courses.

• Through a conference, discussion paper, and articles in publications, Bank staff explored and spotlighted two

emerging community **economic development strategies**: how public sector pension funds can support community development while earning a market rate of return, and how secondary cities can attract venture capital funding.

• The Bank strengthened its **community affairs outreach**, conducting 81 meetings with government officials, nonprofit groups, businesses, and others throughout the region. These meetings solidified relationships and helped clarify important regional trends.

Community Relations

• Through its FinTech program, the Bank provided **internship opportunities** for 12 Boston students with the objective of enabling and encouraging them to follow careers in financial services. We were pleased to see most participants significantly improve their school grades, and we are now sharing our experience with other major financial services providers.

• Working with the City of Boston, the Bank provided training and volunteer support for the City's **Earned Income Tax Credit campaign** to help eligible working people receive this important benefit. Building on this program, the Bank initiated with the City a consumer **credit repair program** that aims to help consumers make better choices in managing revolving credit.

The Bank in the Community

While many responsibilities of the Federal Reserve Bank of Boston are regional, national, and global in scope, the Bank also seeks to share its expertise with the communities throughout its District in a variety of outreach activities. In addition, Bank staff are engaged in the local community, working and volunteering on many projects and initiatives.

- We Care About Kids
- Community Care Day
- Homeless Children's Holiday Party
- Books and Kids Program
- FinTech Scholars Program
- Math and Kids Program
- United Way
- Boston Summer Jobs Program
- Boston Private Industry Council
- Dearborn Middle School Mentoring Program
- Classroom at the Workplace
- Boston After School Jobs Program
- Job Shadow Day
- School-to-Career Project
- Workforce Development
- Excel High School Partnership
- Mayor Menino's Boston Earned Income Tax Credit Campaign

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James Brett
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Front two rows: Kirk Sykes, Yolanda Kodrzycki, Kathy Weare, Cathy Minehan, William Gurley. Back row : Leslie Kenney, Amar Kapur, Paul Connolly, Gregory Howey.

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The Urban League
of Eastern Massachusetts

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Assistant Vice President

Our Mission

As part of the nation's central bank, the Federal Reserve Bank of Boston promotes sound growth and financial stability in New England and the nation. The Bank contributes to local communities, the region, and the nation through its high-quality research, regulatory oversight, and financial services, and through its commitment to leadership and innovation.

Financials


珠江 新鶴山02 鶴山
中旅僑福 宇航貳號22 深圳
早興 南沙拾捌22 南沙
珠江 蓬萊湖02 江門
珠江 蓮山湖02 蓮花山
香港小輪 港輪貳號22 澳門

Management Assertion

March 5, 2007
To the Board of Directors

The management of the Federal Reserve Bank of Boston ("FRB Boston") is responsible for the preparation and fair presentation of the Statement of Financial Condition, Statement of Income, and Statement of Changes in Capital as of December 31, 2006 (the "Financial Statements"). The Financial Statements have been prepared in conformity with the accounting principles, policies, and practices established by the Board of Governors of the Federal Reserve System and as set forth in the Financial Accounting Manual for the Federal Reserve Banks ("Manual"), and as such, include amounts, some of which are based on management judgments and estimates. To our knowledge, the Financial Statements are, in all material respects, fairly presented in conformity with the accounting principles, policies and practices documented in the Manual and include all disclosures necessary for such fair presentation.

The management of the FRB Boston is responsible for establishing and maintaining effective internal control over financial reporting as it relates to the Financial Statements. Such internal control is designed to provide reasonable assurance to management and to the Board of Directors regarding the preparation of the Financial Statements in accordance with the Manual. Internal control contains self-monitoring mechanisms, including, but not limited to, divisions of responsibility and a code of conduct. Once identified, any material deficiencies in internal control are reported to management and appropriate corrective measures are implemented.

Even effective internal control, no matter how well designed, has inherent limitations, including the possibility of human error, and therefore can provide only reasonable assurance with respect to the preparation of reliable financial statements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

The management of the FRB Boston assessed its internal control over financial reporting reflected in the Financial Statements, based upon the criteria established in the "Internal Control – Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, we believe that the FRB Boston maintained effective internal control over financial reporting as it relates to the Financial Statements.

Management's assessment of the effectiveness of the FRB Boston's internal control over financial reporting as of December 31, 2006, is being audited by PricewaterhouseCoopers LLP, the independent registered public accounting firm which also is auditing the FRB Boston's Financial Statements.

Cathy E. Minehan, President

Paul M. Connolly, First Vice President

Jon Colvin, Principal Accounting Officer

Federal Reserve Bank of Boston

Report of Independent Auditors

PRICEWATERHOUSECOOPERS

To the Board of Governors of the Federal Reserve System
and the Board of Directors of the Federal Reserve Bank of Boston:

We have completed an integrated audit of the Federal Reserve Bank of Boston's 2006 financial statements, and of its internal control over financial reporting as of December 31, 2006 and an audit of its 2005 financial statements in accordance with the generally accepted auditing standards as established by the Auditing Standards Board (United States) and in accordance with the auditing standards of the Public Company Accounting Oversight Board (United States). Our opinions, based on our audits, are presented below.

Financial statements

We have audited the accompanying statements of condition of the Federal Reserve Bank of Boston (the "Bank") as of December 31, 2006 and 2005, and the related statements of income and changes in capital for the years then ended, which have been prepared in conformity with the accounting principles, policies, and practices established by the Board of Governors of the Federal Reserve System. These financial statements are the responsibility of the Bank's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards as established by the Auditing Standards Board (United States) and in accordance with the auditing standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As described in Note 3, these financial statements were prepared in conformity with the accounting principles, policies, and practices established by the Board of Governors of the Federal Reserve System. These principles, policies, and practices, which were designed to meet the specialized accounting and reporting needs of the Federal Reserve System, are set forth in the Financial Accounting Manual for Federal Reserve Banks which is a comprehensive basis of accounting other than accounting principles generally accepted in the United States of America.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Bank as of December 31, 2006 and 2005, and results of its operations for the years then ended, on the basis of accounting described in Note 3.

Internal control over financial reporting

Also, in our opinion, management's assessment, included in the accompanying Management's report on Internal Control Over Financial Reporting, that the Bank maintained effective internal control over financial reporting as of December 31, 2006 based on criteria established in *Internal Control – Integrated Framework* issued by

the Committee of Sponsoring Organizations of the Treadway Commission (COSO), is fairly stated, in all material respects, based on those criteria. Furthermore, in our opinion, the Bank maintained, in all material respects, effective internal control over financial reporting as of December 31, 2006, based on criteria established in *Internal Control – Integrated Framework* issued by the COSO. The Bank's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express opinions on management's assessment and on the effectiveness of the Bank's internal control over financial reporting based on our audit. We conducted our audit of internal control over financial reporting in accordance with generally accepted auditing standards as established by the Auditing Standards Board (United States) and in accordance with the auditing standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. An audit of internal control over financial reporting includes obtaining an understanding of internal control over financial reporting, evaluating management's assessment, testing and evaluating the design and operating effectiveness of internal control, and performing such other procedures as we consider necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

March 12, 2007

Statements of Condition As of December 31, 2006 and 2005 (in millions)

	2006	2005
ASSETS		
Gold certificates	$ 486	$ 510
Special drawing rights certificates	115	115
Coin	27	31
Items in process of collection	96	368
Loans to depository institutions	9	2
U.S. government securities, net	37,393	38,383
Investments denominated in foreign currencies	491	2,405
Accrued interest receivable	321	298
Interdistrict settlement account	124	–
Bank premises and equipment, net	139	131
Other assets	24	24
Total assets	$ 39,225	$ 42,267
LIABILITIES AND CAPITAL		
Liabilities:		
Federal Reserve notes outstanding, net	$ 36,000	$ 34,548
Securities sold under agreements to repurchase	1,413	1,561
Deposits:		
Depository institutions	549	621
Other deposits	4	5
Deferred credit items	352	488
Interest on Federal Reserve notes due to U.S. Treasury	39	1,068
Interdistrict settlement account	–	3,268
Accrued benefit costs	66	58
Other liabilities	10	16
Total liabilities	38,433	41,633
Capital:		
Capital paid-in	396	317
Surplus (including accumulated other comprehensive loss of $7 million at December 31, 2006)	396	317
Total capital	792	634
Total liabilities and capital	$39,225	$ 42,267

The accompanying notes are an integral part of these financial statements.

Statements of Income For the years ended December 31, 2006, and December 31, 2005 (in millions)

	2006	2005
Interest income:		
Interest on U.S. government securities	$ 1,712	$ 1,410
Interest on investments denominated in foreign currencies	13	34
Interest on loans to depository institutions	1	–
Total interest income	1,726	1,444
Interest expense:		
Interest expense on securities sold under agreements to repurchase	65	41
Net interest income	1,661	1,403
Other operating income (loss):		
Compensation received for services provided	47	45
Reimbursable services to government agencies	23	20
Foreign currency gains (losses), net	32	(313)
Other income	15	15
Total other operating income (loss)	117	(233)
Operating expenses :		
Salaries and other benefits	96	88
Occupancy expense	17	15
Equipment expense	13	10
Assessments by the Board of Governors	38	53
Other expenses	53	52
Total operating expenses	217	218
Net income prior to distribution	$ 1,561	$ 952
Distribution of net income:		
Dividends paid to member banks	$ 22	$ 51
Transferred to (from) surplus	86	(1,036)
Payments to U.S. Treasury as interest on Federal Reserve notes	1,453	1,937
Total distribution	$ 1,561	$ 952

The accompanying notes are an integral part of these financial statements.

Statements of Changes in Capital For the years ended December 31, 2006, and December 31, 2005 (in millions)

		Surplus			
	Capital Paid-In	Net Income Retained	Accumulated Other Comprehensive Loss	Total Surplus	Total Capital
Balance at January 1, 2005 (32.8 million shares)	$1 ,638	$1,353	–	$1,353	$2,991
Net change in capital stock redeemed (26.4 million shares)	(1,321)	–	–	–	(1,321)
Transferred from surplus	–	(1,036)	–	(1,036)	(1,036)
Balance at December 31, 2005 (6.3 million shares)	317	317	–	317	634
Net change in capital stock issued (1.6 million shares)	79	–	–	–	79
Transferred to surplus	–	86	–	86	86
Adjustment to initially apply FASB Statement No. 158	–	–	(7)	(7)	(7)
Balance at December 31, 2006 (7.9 million shares)	$396	$403	$(7)	$396	$792

The accompanying notes are an integral part of these financial statements.

1. STRUCTURE

The Federal Reserve Bank of Boston ("Bank") is part of the Federal Reserve System ("System") and one of the twelve Reserve Banks ("Reserve Banks") created by Congress under the Federal Reserve Act of 1913 ("Federal Reserve Act"), which established the central bank of the United States. The Reserve Banks are chartered by the federal government and possess a unique set of governmental, corporate, and central bank characteristics. The Bank serves the First Federal Reserve District, which includes Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and a portion of Connecticut.

In accordance with the Federal Reserve Act, supervision and control of the Bank is exercised by a board of directors. The Federal Reserve Act specifies the composition of the board of directors for each of the Reserve Banks. Each board is composed of nine members serving three-year terms: three directors, including those designated as chairman and deputy chairman, are appointed by the Board of Governors of the Federal Reserve System ("Board of Governors") to represent the public, and six directors are elected by member banks. Banks that are members of the System include all national banks and any state-chartered banks that apply and are approved for membership in the System. Member banks are divided into three classes according to size. Member banks in each class elect one director representing member banks and one representing the public. In any election of directors, each member bank receives one vote, regardless of the number of shares of Reserve Bank stock it holds.

The System also consists, in part, of the Board of Governors and the Federal Open Market Committee ("FOMC"). The Board of Governors, an independent federal agency, is charged by the Federal Reserve Act with a number of specific duties, including general supervision over the Reserve Banks. The FOMC is composed of members of the Board of Governors, the president of the Federal Reserve Bank of New York ("FRBNY") and on a rotating basis four other Reserve Bank presidents.

2. OPERATIONS AND SERVICES

The Reserve Banks perform a variety of services and operations. Functions include participation in formulating and conducting monetary policy; participation in the payments system, including large-dollar transfers of funds, automated clearinghouse ("ACH") operations, and check collection; distribution of coin and currency; performance of fiscal agency functions for the U.S. Treasury, certain federal agencies, and other entities; serving as the federal government's bank; provision of short-term loans to depository institutions; service to the consumer and the community by providing educational materials and information regarding consumer laws; and supervision of bank holding companies, state member banks, and U.S. offices of foreign banking organizations. The Reserve Banks also provide certain services to foreign central banks, governments, and international official institutions.

The FOMC, in the conduct of monetary policy, establishes policy regarding domestic open market operations, oversees these operations, and annually issues authorizations and directives to the FRBNY for its execution of transactions. The FRBNY is authorized and directed by the FOMC to conduct operations in domestic markets, including the direct purchase and sale of U.S. government securities, the purchase of securities under agreements to resell, the sale of securities under agreements to repurchase, and the lending of U.S. government securities. The FRBNY executes these open market transactions at the direction of the FOMC and holds the resulting securities, with the exception of securities purchased under agreements to resell, in the portfolio known as the System Open Market Account ("SOMA").

In addition to authorizing and directing operations in the domestic securities market, the FOMC authorizes and directs the FRBNY to execute operations in foreign markets for major currencies in order to counter disorderly conditions in exchange markets or to meet other needs specified by the FOMC in carrying out the System's central bank responsibilities. The FRBNY is authorized by the FOMC to hold balances of, and to execute spot and forward foreign exchange ("FX") and securities contracts for, nine foreign currencies and to invest such foreign currency holdings ensuring adequate liquidity is maintained. The FRBNY is authorized and directed by the FOMC to maintain reciprocal currency arrangements ("FX swaps") with two central banks and "warehouse" foreign currencies for the U.S. Treasury and Exchange Stabilization Fund ("ESF") through the Reserve Banks. In connection with its foreign currency activities, the FRBNY may enter into transactions that contain varying degrees of off-balance-sheet market risk that results from their future settlement and counter-party credit risk. The FRBNY controls credit risk by obtaining credit approvals, establishing transaction limits, and performing daily monitoring procedures.

Although the Reserve Banks are separate legal entities, in the interests of greater efficiency and effectiveness they collaborate in the delivery of certain operations and services. The collaboration takes the form of centralized operations and product or service offices that have responsibility for the delivery of certain services on behalf of the Reserve Banks. Various operational and management models are used and are supported by service agreements between the Reserve Bank providing the service and the other eleven Reserve Banks. In some cases, costs incurred by a Reserve Bank for services provided to other Reserve Banks are not shared; in other cases, the Reserve Banks are billed for services provided to them by another Reserve Bank.

Major services provided on behalf of the System by the Bank, for which the costs were not redistributed to the other Reserve Banks, include Internet and Directory Services, National Check Image Archive Services, Financial Support Office, and Centralized Accounting Technology Services.

During 2005, the Federal Reserve Bank of Atlanta ("FRBA") was assigned the overall responsibility for managing the Reserve Banks' provision of check services to depository institutions, and, as a result, recognizes total System check revenue on its Statements of Income. Because the other eleven Reserve Banks incur costs to provide check services, a policy was adopted by the Reserve Banks in 2005 that required that the FRBA compensate the other Reserve Banks for costs incurred to provide check services. In 2006 this policy was extended to the ACH services, which are managed by the FRBA, as well as to Fedwire funds transfer and securities transfer services, which are managed by the FRBNY. The FRBA and the FRBNY compensate the other Reserve Banks for the costs incurred to provide these services. This compensation is reported as a component of "Compensation received for services provided," and the Bank would have reported $52 million as compensation received for services provided had this policy been in place in 2005 for ACH, Fedwire funds transfer, and securities transfer services.

3. SIGNIFICANT ACCOUNTING POLICIES

Accounting principles for entities with the unique powers and responsibilities of the nation's central bank have not been formulated by accounting standard-setting bodies. The Board of Governors has developed specialized accounting principles and practices that it considers to be appropriate for the nature and function of a central bank, which differ significantly from those of the private sector. These accounting principles and practices are documented in the *Financial Accounting Manual for Federal Reserve Banks*

("Financial Accounting Manual"), which is issued by the Board of Governors. All of the Reserve Banks are required to adopt and apply accounting policies and practices that are consistent with the Financial Accounting Manual and the financial statements have been prepared in accordance with the Financial Accounting Manual.

Differences exist between the accounting principles and practices in the Financial Accounting Manual and generally accepted accounting principles in the United States ("GAAP"), primarily due to the unique nature of the Bank's powers and responsibilities as part of the nation's central bank. The primary difference is the presentation of all securities holdings at amortized cost, rather than using the fair value presentation required by GAAP. Amortized cost more appropriately reflects the Bank's securities holdings given its unique responsibility to conduct monetary policy. While the application of current market prices to the securities holdings may result in values substantially above or below their carrying values, these unrealized changes in value would have no direct effect on the quantity of reserves available to the banking system or on the prospects for future Bank earnings or capital. Both the domestic and the foreign components of the SOMA portfolio may involve transactions that result in gains or losses when holdings are sold prior to maturity. Decisions regarding securities and foreign currency transactions, including their purchase and sale, are motivated by monetary policy objectives rather than profit. Accordingly, market values, earnings, and any gains or losses resulting from the sale of such securities and currencies are incidental to the open market operations and do not motivate decisions related to policy or open market activities.

In addition, the Bank has elected not to present a Statement of Cash Flows because the liquidity and cash position of the Bank are not a primary concern given the Bank's unique powers and responsibilities. A Statement of Cash Flows, therefore, would not provide any additional meaningful information. Other information regarding the Bank's activities is provided in, or may be derived from, the Statements of Condition, Income, and Changes in Capital. There are no other significant differences between the policies outlined in the Financial Accounting Manual and GAAP.

The preparation of the financial statements in conformity with the Financial Accounting Manual requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of income and expenses during the reporting period. Actual results could differ from those estimates. Unique accounts and significant accounting policies are explained below.

a. Gold and Special Drawing Rights Certificates

The Secretary of the U.S. Treasury is authorized to issue gold and special drawing rights ("SDR") certificates to the Reserve Banks.

Payment for the gold certificates by the Reserve Banks is made by crediting equivalent amounts in dollars into the account established for the U.S. Treasury. The gold certificates held by the Reserve Banks are required to be backed by the gold of the U.S. Treasury. The U.S. Treasury may reacquire the gold certificates at any time and the Reserve Banks must deliver them to the U.S. Treasury. At such time, the U.S. Treasury's account is charged, and the Reserve Banks' gold certificate accounts are reduced. The value of gold for purposes of backing the gold certificates is set by law at $42 2/9 a fine troy ounce. The Board of Governors

allocates the gold certificates among Reserve Banks once a year based on the average Federal Reserve notes outstanding in each Reserve Bank.

SDR certificates are issued by the International Monetary Fund ("Fund") to its members in proportion to each member's quota in the Fund at the time of issuance. SDR certificates serve as a supplement to international monetary reserves and may be transferred from one national monetary authority to another. Under the law providing for United States participation in the SDR system, the Secretary of the U.S. Treasury is authorized to issue SDR certificates somewhat like gold certificates, to the Reserve Banks. When SDR certificates are issued to the Reserve Banks, equivalent amounts in dollars are credited to the account established for the U.S. Treasury, and the Reserve Banks' SDR certificate accounts are increased. The Reserve Banks are required to purchase SDR certificates, at the direction of the U.S. Treasury, for the purpose of financing SDR acquisitions or for financing exchange stabilization operations. At the time SDR transactions occur, the Board of Governors allocates SDR certificate transactions among Reserve Banks based upon each Reserve Bank's Federal Reserve notes outstanding at the end of the preceding year. There were no SDR transactions in 2006 or 2005.

b. Loans to Depository Institutions

Depository institutions that maintain reservable transaction accounts or nonpersonal time deposits, as defined in regulations issued by the Board of Governors, have borrowing privileges at the discretion of the Reserve Bank. Borrowers execute certain lending agreements and deposit sufficient collateral before credit is extended. Outstanding loans are evaluated for collectibility, and currently all are considered collectible and fully collateralized. If loans were ever deemed to be uncollectible, an appropriate reserve would be established. Interest is accrued using the applicable discount rate established at least every fourteen days by the Board of Directors of the Reserve Bank, subject to review and determination by the Board of Governors.

c. U.S. Government Securities and Investments Denominated in Foreign Currencies

U.S. government securities and investments denominated in foreign currencies comprising the SOMA are recorded at cost, on a settlement-date basis, and adjusted for amortization of premiums or accretion of discounts on a straight-line basis. Interest income is accrued on a straight-line basis. Gains and losses resulting from sales of securities are determined by specific issues based on average cost. Foreign-currency-denominated assets are revalued daily at current foreign currency market exchange rates in order to report these assets in U.S. dollars. Realized and unrealized gains and losses on investments denominated in foreign currencies are reported as "Foreign currency gains (losses), net" in the Statements of Income.

Activity related to U.S. government securities, including the premiums, discounts, and realized and unrealized gains and losses, is allocated to each Reserve Bank on a percentage basis derived from an annual settlement of interdistrict clearings that occurs in April of each year. The settlement also equalizes Reserve Bank gold certificate holdings to Federal Reserve notes outstanding in each District. Activity related to investments denominated in foreign currencies is allocated to each Reserve Bank based on the ratio of each Reserve Bank's capital and surplus to aggregate capital and surplus at the preceding December 31.

d. Securities Sold Under Agreements to Repurchase, and Securities Lending

Securities sold under agreements to repurchase are accounted for as financing transactions and the associated interest expense is recognized over the life of the transaction. These transactions are reported in the Statements of Condition at their contractual amounts and the related accrued interest payable is reported as a component of "Other liabilities."

U.S. government securities held in the SOMA are lent to U.S. government securities dealers in order to facilitate the effective functioning of the domestic securities market. Securities-lending transactions are fully collateralized by other U.S. government securities and the collateral taken is in excess of the market value of the securities loaned. The FRBNY charges the dealer a fee for borrowing securities and the fees are reported as a component of "Other income."

Activity related to securities sold under agreements to repurchase and securities lending is allocated to each of the Reserve Banks on a percentage basis derived from the annual settlement of interdistrict clearings. Securities purchased under agreements to resell are allocated to FRBNY and not allocated to the other Reserve Banks.

e. FX Swap Arrangements and Warehousing Agreements

FX swap arrangements are contractual agreements between two parties, the FRBNY and an authorized foreign central bank, to exchange specified currencies, at a specified price, on a specified date. The parties agree to exchange their currencies up to a prearranged maximum amount and for an agreed-upon period of time (up to twelve months), at an agreed-upon interest rate. These arrangements give the FOMC temporary access to the foreign currencies it may need to intervene to support the dollar and give the authorized foreign central bank temporary access to dollars it may need to support its own currency. Drawings under the FX swap arrangements can be initiated by either party acting as drawer, and must be agreed to by the drawee party. The FX swap arrangements are structured so that the party initiating the transaction bears the exchange rate risk upon maturity. The FRBNY will generally invest the foreign currency received under an FX swap arrangement in interest-bearing instruments.

Warehousing is an arrangement under which the FOMC agrees to exchange, at the request of the U.S. Treasury, U.S. dollars for foreign currencies held by the U.S. Treasury or ESF over a limited period of time. The purpose of the warehousing facility is to supplement the U.S. dollar resources of the U.S. Treasury and ESF for financing purchases of foreign currencies and related international operations.

FX swap arrangements and warehousing agreements are revalued daily at current market exchange rates. Activity related to these agreements, with the exception of the unrealized gains and losses resulting from the daily revaluation, is allocated to each Reserve Bank based on the ratio of each Reserve Bank's capital and surplus to aggregate capital and surplus at the preceding December 31. Unrealized gains and losses resulting from the daily revaluation are allocated to FRBNY and not allocated to the other Reserve Banks.

f. Bank Premises, Equipment, and Software

Bank premises and equipment are stated at cost less accumulated depreciation. Depreciation is calculated on a straight-line basis

over the estimated useful lives of the assets, which range from two to fifty years. Major alterations, renovations, and improvements are capitalized at cost as additions to the asset accounts and are depreciated over the remaining useful life of the asset or, if appropriate, over the unique useful life of the alteration, renovation, or improvement. Maintenance, repairs, and minor replacements are charged to operating expense in the year incurred.

Costs incurred for software during the application development stage, either developed internally or acquired for internal use, are capitalized based on the cost of direct services and materials associated with designing, coding, installing, or testing software. Capitalized software costs are amortized on a straight-line basis over the estimated useful lives of the software applications, which range from two to five years. Maintenance costs related to software are charged to expense in the year incurred.

Capitalized assets including software, buildings, leasehold improvements, furniture, and equipment are impaired when events or changes in circumstances indicate that the carrying amount of assets or asset groups is not recoverable and significantly exceeds their fair value.

g. Interdistrict Settlement Account

At the close of business each day, each Reserve Bank assembles the payments due to or from other Reserve Banks. These payments result from transactions between Reserve Banks and transactions that involve depository institution accounts held by other Reserve Banks, such as Fedwire funds transfer, check collection, security transfer, and ACH operations. The cumulative net amount due to or from the other Reserve Banks is reflected in the "Interdistrict settlement account" in the Statements of Condition.

h. Federal Reserve Notes

Federal Reserve notes are the circulating currency of the United States. These notes are issued through the various Federal Reserve agents (the chairman of the board of directors of each Reserve Bank and their designees) to the Reserve Banks upon deposit with such agents of specified classes of collateral security, typically U.S. government securities. These notes are identified as issued to a specific Reserve Bank. The Federal Reserve Act provides that the collateral security tendered by the Reserve Bank to the Federal Reserve agent must be at least equal to the sum of the notes applied for by such Reserve Bank.

Assets eligible to be pledged as collateral security include all of the Bank's assets. The collateral value is equal to the book value of the collateral tendered, with the exception of securities, for which the collateral value is equal to the par value of the securities tendered. The par value of securities pledged for securities sold under agreements to repurchase is deducted.

The Board of Governors may, at any time, call upon a Reserve Bank for additional security to adequately collateralize the Federal Reserve notes. To satisfy the obligation to provide sufficient collateral for outstanding Federal Reserve notes, the Reserve Banks have entered into an agreement that provides for certain assets of the Reserve Banks to be jointly pledged as collateral for the Federal Reserve notes issued to all Reserve Banks. In the event that this collateral is insufficient, the Federal Reserve Act provides that Federal Reserve notes become a first and paramount lien on all the assets of the Reserve Banks. Finally, Federal Reserve notes are obligations of the United States and are backed by the full faith and credit of the United States government.

"Federal Reserve notes outstanding, net" in the Statements of Condition represents the Bank's Federal Reserve notes outstanding, reduced by the currency issued to the Bank but not in circulation, of $3,020 million and $4,424 million at December 31, 2006 and 2005, respectively.

i. Items in Process of Collection and Deferred Credit Items

"Items in process of collection" in the Statements of Condition primarily represents amounts attributable to checks that have been deposited for collection and that, as of the balance sheet date, have not yet been presented to the paying bank. "Deferred credit items" are the counterpart liability to items in process of collection, and the amounts in this account arise from deferring credit for deposited items until the amounts are collected. The balances in both accounts can vary significantly.

j. Capital Paid-in

The Federal Reserve Act requires that each member bank subscribe to the capital stock of the Reserve Bank in an amount equal to 6 percent of the capital and surplus of the member bank. These shares are nonvoting with a par value of $100 and may not be transferred or hypothecated. As a member bank's capital and surplus changes, its holdings of Reserve Bank stock must be adjusted. Currently, only one-half of the subscription is paid-in and the remainder is subject to call. By law, each Reserve Bank is required to pay each member bank an annual dividend of 6 percent on the paid-in capital stock. This cumulative dividend is paid semiannually. A member bank is liable for Reserve Bank liabilities up to twice the par value of stock subscribed by it.

k. Surplus

The Board of Governors requires the Reserve Banks to maintain a surplus equal to the amount of capital paid-in as of December 31 of each year. This amount is intended to provide additional capital and reduce the possibility that the Reserve Banks would be required to call on member banks for additional capital.

Accumulated other comprehensive income is reported as a component of surplus in the Statements of Condition and the Statements of Changes in Capital. The balance of accumulated other comprehensive income is comprised of expenses, gains, and losses related to defined benefit pension plans and other postretirement benefit plans that, under accounting principles, are included in comprehensive income but excluded from net income. Additional information regarding the classifications of accumulated other comprehensive income is provided in Notes 9 and 10.

l. Interest on Federal Reserve Notes

The Board of Governors requires the Reserve Banks to transfer excess earnings to the U.S. Treasury as interest on Federal Reserve notes, after providing for the costs of operations, payment of dividends, and reservation of an amount necessary to equate surplus with capital paid-in. This amount is reported as a component of "Payments to U.S. Treasury as interest on Federal Reserve notes" in the Statements of Income and is reported as a liability in the Statements of Condition. Weekly payments to the U.S. Treasury may vary significantly.

In the event of losses or an increase in capital paid-in at a Reserve Bank, payments to the U.S. Treasury are suspended and earnings are retained until the surplus is equal to the capital paid-in.

In the event of a decrease in capital paid-in, the excess surplus, after equating capital paid-in and surplus at December 31, is distributed to the U.S. Treasury in the following year.

m. Income and Costs Related to U.S. Treasury Services

The Bank is required by the Federal Reserve Act to serve as fiscal agent and depository of the United States. By statute, the Department of the Treasury is permitted, but not required, to pay for these services.

n. Assessments by the Board of Governors

The Board of Governors assesses the Reserve Banks to fund its operations based on each Reserve Bank's capital and surplus balances as of December 31 of the previous year. The Board of Governors also assesses each Reserve Bank for the expenses incurred for the U.S. Treasury to issue and retire Federal Reserve notes based on each Reserve Bank's share of the number of notes comprising the System's net liability for Federal Reserve notes on December 31 of the previous year.

o. Taxes

The Reserve Banks are exempt from federal, state, and local taxes, except for taxes on real property. The Bank's real property taxes were $5 million for each of the years ended December 31, 2006 and 2005, and are reported as a component of "Occupancy expense."

p. Restructuring Charges

In 2003, the Reserve Banks began the restructuring of several operations, primarily check, cash, and U.S. Treasury services. The restructuring included streamlining the management and support structures, reducing staff, decreasing the number of processing locations, and increasing processing capacity in some locations. These restructuring activities continued in 2004 through 2006.

Note 11 describes the restructuring and provides information about the Bank's costs and liabilities associated with employee separations. The costs associated with the impairment of certain of the Bank's assets are discussed in Note 6. Costs and liabilities associated with enhanced pension benefits in connection with the restructuring activities for all of the Reserve Banks are recorded on the books of the FRBNY. Costs and liabilities associated with enhanced post-retirement benefits are discussed in Note 9.

q. Implementation of FASB Statement No. 158, Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans

The Bank initially applied the provisions of FASB Statement No. 158, *Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans*, at December 31, 2006. This accounting standard requires recognition of the overfunded or underfunded status of a defined benefit postretirement plan in the Statements of Condition, and recognition of changes in the funded status in the years in which the changes occur through comprehensive income. The transition rules for implementing the standard require applying the provisions as of the end of the year of initial implementation with no retrospective application. The incremental effects on the line items in the Statement of Condition at December 31, 2006, were as follows (in millions):

	Before Application of Statement 158	Adjustments	After Application of Statement 158
Accrued benefit costs	$ 59	$ 7	$ 66
Total liabilities	$ 38,426	$ 7	$ 38,433
Surplus	$ 403	$ (7)	$ 396
Total capital	$ 799	$ (7)	$ 792

4. U.S. GOVERNMENT SECURITIES, SECURITIES SOLD UNDER AGREEMENTS TO REPURCHASE, AND SECURITIES LENDING

The FRBNY, on behalf of the Reserve Banks, holds securities bought outright in the SOMA. The Bank's allocated share of SOMA balances was approximately 4.772 percent and 5.116 percent at December 31, 2006 and 2005, respectively.

The Bank's allocated share of U.S. Government securities, net, held in the SOMA at December 31, was as follows (in millions):

	2006	2005
Par value:		
U.S. government:		
Bills	$13,219	$13,879
Notes	19,200	19,448
Bonds	4,749	4,749
Total par value	37,168	38,076
Unamortized premiums	416	451
Unaccreted discounts	(191)	(144)
Total allocated to the Bank	$ 37,393	$ 38,383

At December 31, 2006 and 2005, the fair value of the U.S. government securities allocated to the Bank, excluding accrued interest, was $37,979 million and $39,266 million, respectively, as determined by reference to quoted prices for identical securities.

The total of the U.S. government securities, net, held in the SOMA was $783,619 million and $750,202 million at December 31, 2006 and 2005, respectively. At December 31, 2006 and 2005, the fair value of the U.S. government securities held in the SOMA,

excluding accrued interest, was $795,900 million and $767,472 million, respectively, as determined by reference to quoted prices for identical securities.

Although the fair value of security holdings can be substantially greater or less than the carrying value at any point in time, these unrealized gains or losses have no effect on the ability of a Reserve Bank, as a central bank, to meet its financial obligations and responsibilities, and should not be misunderstood as representing a risk to the Reserve Banks, their shareholders, or the public. The fair value is presented solely for informational purposes.

At December 31, 2006 and 2005, the total contract amount of securities sold under agreements to repurchase was $29,615 million and $30,505 million, respectively, of which $1,413 million and $1,561 million were allocated to the Bank. The total par value of the SOMA securities that were pledged for securities sold under agreements to repurchase at December 31, 2006 and 2005 was $29,676 million and $30,559 million, respectively, of which $1,416 million and $1,563 million was allocated to the Bank. The contract amount for securities sold under agreements to repurchase approximates fair value.

The maturity distribution of U.S. government securities bought outright, and securities sold under agreements to repurchase, that were allocated to the Bank at December 31, 2006, was as follows (in millions):

	U.S. Government Securities (Par Value)	Securities Sold Under Agreements to Repurchase (Contract Amount)
Within 15 days	$1,937	$1,413
16 days to 90 days	8,632	–
91 days to 1 year	8,834	–
Over 1 year to 5 years	10,697	–
Over 5 years to 10 years	3,228	–
Over 10 years	3,840	–
Total allocated to the Bank	$37,168	$1,413

At December 31, 2006 and 2005, U.S. government securities with par values of $6,855 million and $3,776 million, respectively, were loaned from the SOMA, of which $327 million and $193 million, respectively, were allocated to the Bank.

5. INVESTMENTS DENOMINATED IN FOREIGN CURRENCIES

The FRBNY, on behalf of the Reserve Banks, holds foreign currency deposits with foreign central banks and with the Bank for International Settlements and invests in foreign government debt instruments. Foreign government debt instruments held include both securities bought outright and securities purchased under agreements to resell. These investments are guaranteed as to principal and interest by the issuing foreign governments.

The Bank's allocated share of investments denominated in foreign currencies was approximately 2.395 percent and 12.706 percent at December 31, 2006 and 2005, respectively.

The Bank's allocated share of investments denominated in foreign currencies, including accrued interest, valued at foreign currency market exchange rates at December 31 was as follows (in millions):

	2006	2005
European Union Euro:		
Foreign currency deposits	$150	$689
Securities purchased under agreements to resell	53	245
Government debt instruments	98	452
Japanese Yen:		
Foreign currency deposits	62	333
Government debt instruments	128	686
Total allocated to the Bank	$491	$2,405

At December 31, 2006 and 2005, the fair value of investments denominated in foreign currencies, including accrued interest, allocated to the Bank was $490 million and $ 2,410 million, respectively. The fair value of government debt instruments was determined by reference to quoted prices for identical securities. The cost basis of foreign currency deposits and securities purchased under agreements to resell, adjusted for accrued interest, approximates fair value. Similar to the U.S. government securities discussed in Note 4, unrealized gains or losses have no effect on the ability of a Reserve Bank, as a central bank, to meet its financial obligations and responsibilities.

Total System investments denominated in foreign currencies were $20,482 million and $18,928 million at December 31, 2006 and 2005, respectively. At December 31, 2006 and 2005, the fair value of the total System investments denominated in foreign currencies, including accrued interest, was $20,434 million and $18,965 million, respectively.

The maturity distribution of investments denominated in foreign currencies that were allocated to the Bank at December 31, 2006, was as follows (in millions):

	European Euro	Japanese Yen	Total
Within 15 days	$105	$62	$167
16 days to 90 days	57	29	86
91 days to 1 year	59	53	112
Over 1 year to 5 years	80	46	126
Total allocated to the Bank	$301	$190	$491

At December 31, 2006 and 2005, there were no open foreign exchange contracts.

At December 31, 2006 and 2005, the warehousing facility was $5,000 million, with no balance outstanding.

6. BANK PREMISES, EQUIPMENT, AND SOFTWARE

A summary of bank premises and equipment at December 31 is as follows (in millions):

	2006	2005
Bank premises and equipment:		
Land	$27	$27
Buildings	123	119
Building machinery and equipment	28	27
Construction in progress	5	3
Furniture and equipment	65	63
Subtotal	248	239
Accumulated depreciation	(109)	(108)
Bank premises and equipment, net	$139	$131
Depreciation expense, for the year ended December 31	$11	$9

The Bank leases space to outside tenants with remaining lease terms ranging from 1 to 11 years. Rental income from such leases was $10 million and $11 million for the years ended December 31, 2006 and 2005, respectively, and is reported as a component of "Other income." Future minimum lease payments that the Bank will receive under noncancelable lease agreements in existence at December 31, 2006, are as follows (in millions):

2007	$10
2008	10
2009	9
2010	9
2011	8
Thereafter	32
Total	$78

The Bank has capitalized software assets, net of amortization, of $2 million and $3 million at December 31, 2006 and 2005, respectively. Amortization expense was $2 million for each of the years ended December 31, 2006 and 2005. Capitalized software assets are reported as a component of "Other assets" and the related amortization is reported as a component of "Other expenses."

Assets impaired as a result of the Bank's restructuring plan, as discussed in Note 11, include processing equipment. Asset impairment losses of $148 thousand for the period ending December 31, 2005, were determined using fair values based on quoted market values or other valuation techniques and are reported as a component of "Other expenses." The Bank had no impairment losses in 2006.

7. COMMITMENTS AND CONTINGENCIES

At December 31, 2006, the Bank was obligated under noncancelable leases for premises and equipment with remaining terms of approximately 6 years. These leases provide for increased rental payments based upon increases in real estate taxes, operating costs, or selected price indices.

Rental expense under operating leases for certain operating facilities, warehouses, and data processing and office equipment (including taxes, insurance and maintenance when included in rent), net of sublease rentals, was $2 million and $1 million for the years ended December 31, 2006 and 2005, respectively. Certain of the Bank's leases have options to renew.

Future minimum rental payments under noncancelable operating leases, net of sublease rentals, with remaining terms of one year or more, at December 31, 2006, are as follows (in thousands):

	Operating
2007	$511
2008	559
2009	559
2010	559
2011	559
Thereafter	427
Future minimum rental payments	$3,174

At December 31, 2006, there were no other material commitments or long-term obligations in excess of one year.

Under the Insurance Agreement of the Federal Reserve Banks, each of the Reserve Banks has agreed to bear, on a per incident basis, a pro rata share of losses in excess of one percent of the capital paid-in of the claiming Reserve Bank, up to 50 percent of the total capital paid-in of all Reserve Banks. Losses are borne in the ratio that a Reserve Bank's capital paid-in bears to the total capital paid-in of all Reserve Banks at the beginning of the calendar year in which the loss is shared. No claims were outstanding under the agreement at December 31, 2006 or 2005.

The Bank is involved in certain legal actions and claims arising in the ordinary course of business. Although it is difficult to predict the ultimate outcome of these actions, in management's opinion, based on discussions with counsel, the aforementioned litigation and claims will be resolved without material adverse effect on the financial position or results of operations of the Bank.

8. RETIREMENT AND THRIFT PLANS

Retirement Plans

The Bank currently offers three defined benefit retirement plans to its employees, based on length of service and level of compensation. Substantially all of the Bank's employees participate in the Retirement Plan for Employees of the Federal Reserve System ("System Plan"). Employees at certain compensation levels participate in the Benefit Equalization Retirement Plan ("BEP")

and certain Reserve Bank officers participate in the Supplemental Employee Retirement Plan ("SERP").

The System Plan is a multi-employer plan with contributions funded by the participating employers. Participating employers are the Federal Reserve Banks, the Board of Governors, and the Office of Employee Benefits of the Federal Reserve Employee Benefits System. No separate accounting is maintained of assets contributed by the participating employers. The FRBNY acts as a sponsor of the System Plan and the costs associated with the Plan are not redistributed to other participating employers.

The Bank's projected benefit obligation, funded status, and net pension expenses for the BEP and the SERP at December 31, 2006 and 2005, and for the years then ended, were not material.

Thrift Plan

Employees of the Bank may also participate in the defined contribution Thrift Plan for Employees of the Federal Reserve System ("Thrift Plan"). The Bank's Thrift Plan contributions totaled $4 million for each of the years ended December 31, 2006 and 2005 and are reported as a component of "Salaries and other benefits" in the Statements of Income. The Bank matches employee contributions based on a specified formula. For the years ended December 31, 2006 and 2005, the Bank matched 80 percent on the first 6 percent of employee contributions for employees with less than five years of service and 100 percent on the first 6 percent of employee contributions for employees with five or more years of service.

9. POSTRETIREMENT BENEFITS OTHER THAN PENSIONS AND POSTEMPLOYMENT BENEFITS

Postretirement Benefits other than Pensions

In addition to the Bank's retirement plans, employees who have met certain age and length-of-service requirements are eligible for both medical benefits and life insurance coverage during retirement.

The Bank funds benefits payable under the medical and life insurance plans as due and, accordingly, has no plan assets.

Following is a reconciliation of beginning and ending balances of the benefit obligation (in millions):

	2006	2005
Accumulated postretirement benefit obligation at January 1	$50.6	$42.6
Service cost-benefits earned during the period	1.1	0.9
Interest cost on accumulated benefit obligation	2.8	2.7
Actuarial loss	6.7	7.2
Contributions by plan participants	1.5	1.2
Benefits paid	(4.1)	(4.0)
Accumulated postretirement benefit obligation at December 31	$58.6	$50.6

At December 31, 2006 and 2005, the weighted-average discount rate assumptions used in developing the postretirement benefit obligation were 5.75 percent and 5.5 percent, respectively.

Discount rates reflect yields available on high-quality corporate bonds that would generate the cash flows necessary to pay the plan's benefits when due.

Following is a reconciliation of the beginning and ending balance of the plan assets, the unfunded postretirement benefit obligation, and the accrued postretirement benefit costs (in millions):

	2006	2005
Fair value of plan assets at January 1	–	–
Contributions by the employer	2.6	2.8
Contributions by plan participants	1.5	1.2
Benefits paid	(4.1)	(4.0)
Fair value of plan assets at December 31	–	–
Unfunded postretirement benefit obligation	$58.6	$50.6
Unrecognized prior service cost		3.8
Unrecognized net actuarial loss		(3.2)
Accrued postretirement benefit cost		$51.2

Amounts included in accumulated other comprehensive loss are shown below (in millions):	
Prior service cost	$2.8
Net actuarial loss	(9.9)
Total accumulated other comprehensive loss	$(7.1)

Accrued postretirement benefit costs are reported as a component of "Accrued benefit costs" in the Statements of Condition.

For measurement purposes, the assumed health care cost trend rates at December 31 are as follows:

	2006	2005
Health care cost trend rate assumed for next year	9.00%	9.00%
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate)	5.00%	5.00%
Year that the rate reaches the ultimate trend rate	2012	2011

Assumed health care cost trend rates have a significant effect on the amounts reported for health care plans. A one percentage point change in assumed health care cost trend rates would have the following effects for the year ended December 31, 2006 (in millions):

	One Percentage Point Increase	One Percentage Point Decrease
Effect on aggregate of service and interest cost components of net periodic postretirement benefit costs	$0.6	$(0.5)
Effect on accumulated postretirement benefit obligation	6.9	(5.8)

The following is a summary of the components of net periodic postretirement benefit expense for the years ended December 31 (in millions):

	2006	2005
Service cost-benefits earned during the period	$1.1	$0.9
Interest cost on accumulated benefit obligation	2.8	2.7
Amortization of prior service cost	(0.9)	(1.0)
Total periodic expense	3.0	2.6
Curtailment gain	–	(1.7)
Net periodic postretirement benefit expense	$3.0	$0.9

Estimated amounts that will be amortized from accumulated other comprehensive loss into net periodic postretirement benefit expense (credit) in 2007 are shown below (in millions):

Prior service cost	$(1.0)
Actuarial loss	0.6
Total	$(0.4)

Net postretirement benefit costs are actuarially determined using a January 1 measurement date. At January 1, 2006 and 2005, the weighted-average discount rate assumptions used to determine net periodic postretirement benefit costs were 5.50 percent and 5.75 percent, respectively.

Net periodic postretirement benefit expense is reported as a component of "Salaries and other benefits" in the Statements of Income.

The recognition of a curtailment gain is the result of restructuring programs that are described in Note 11. The curtailment gain associated with restructuring programs announced in 2004 was recognized when employees left the Bank in 2005.

The Medicare Prescription Drug, Improvement and Modernization Act of 2003 established a prescription drug benefit under Medicare ("Medicare Part D") and a federal subsidy to sponsors of retiree health care benefit plans that provide benefits that are at least actuarially equivalent to Medicare Part D. The benefits provided under the Bank's plan to certain participants are at least actuarially equivalent to the Medicare Part D prescription drug benefit. The estimated effects of the subsidy, retroactive to January 1, 2004, are reflected in actuarial loss in the accumulated postretirement benefit obligation.

There were no receipts of federal Medicare subsidies in the year ended December 31, 2006. Expected receipts in the year ending December 31, 2007, related to payments made in the year ended December 31, 2006, are $196 thousand.

Following is a summary of expected postretirement benefit payments (in millions):

	Without Subsidy	With Subsidy
2007	$3.4	$3.2
2008	3.7	3.4
2009	3.9	3.6
2010	4.1	3.8
2011	4.4	4.1
2012-2016	23.4	21.3
Total	$42.9	$39.4

Postemployment Benefits

The Bank offers benefits to former or inactive employees. Postemployment benefit costs are actuarially determined using a December 31 measurement date and include the cost of medical and dental insurance, survivor income, and disability benefits. The accrued postemployment benefit costs recognized by the Bank for each of the years ended December 31, 2006 and 2005, were $6 million. This cost is included as a component of "Accrued benefit costs" in the Statements of Condition. Net periodic postemployment benefit expense included in 2006 and 2005 operating expenses were $934 thousand and $27 thousand, respectively, and are recorded as a component of "Salaries and other benefits" in the Statements of Income.

10. ACCUMULATED OTHER COMPREHENSIVE INCOME

Following is a reconciliation of beginning and ending balances of accumulated other comprehensive loss (in millions):

	Amount Related to Postretirement Benefits other than Pensions
Balance at December 31, 2005	–
Adjustment to initially apply FASB Statement No. 158	(7)
Balance at December 31, 2006	$(7)

Additional detail regarding the classification of accumulated other comprehensive loss is included in Note 9.

11. BUSINESS RESTRUCTURING CHARGES

In 2003, the Bank announced plans for restructuring to streamline operations and reduce costs, including consolidation of check operations and staff reductions in various functions of the Bank. In 2004 and 2005 additional consolidation and restructuring initiatives were announced in the Check, Treasury Direct, System Purchasing Services (SPS), and FedImage operations. These actions resulted in the following business restructuring charges (in millions):

			Year Ended December 31, 2006		
	Total Estimated Costs	Accrued Liability 12/31/2005	Total Charges and Adjustments	Total Paid	Accrued Liability 12/31/2006
Employee separation	$3.0	$1.7	$(0.4)	$1.3	–

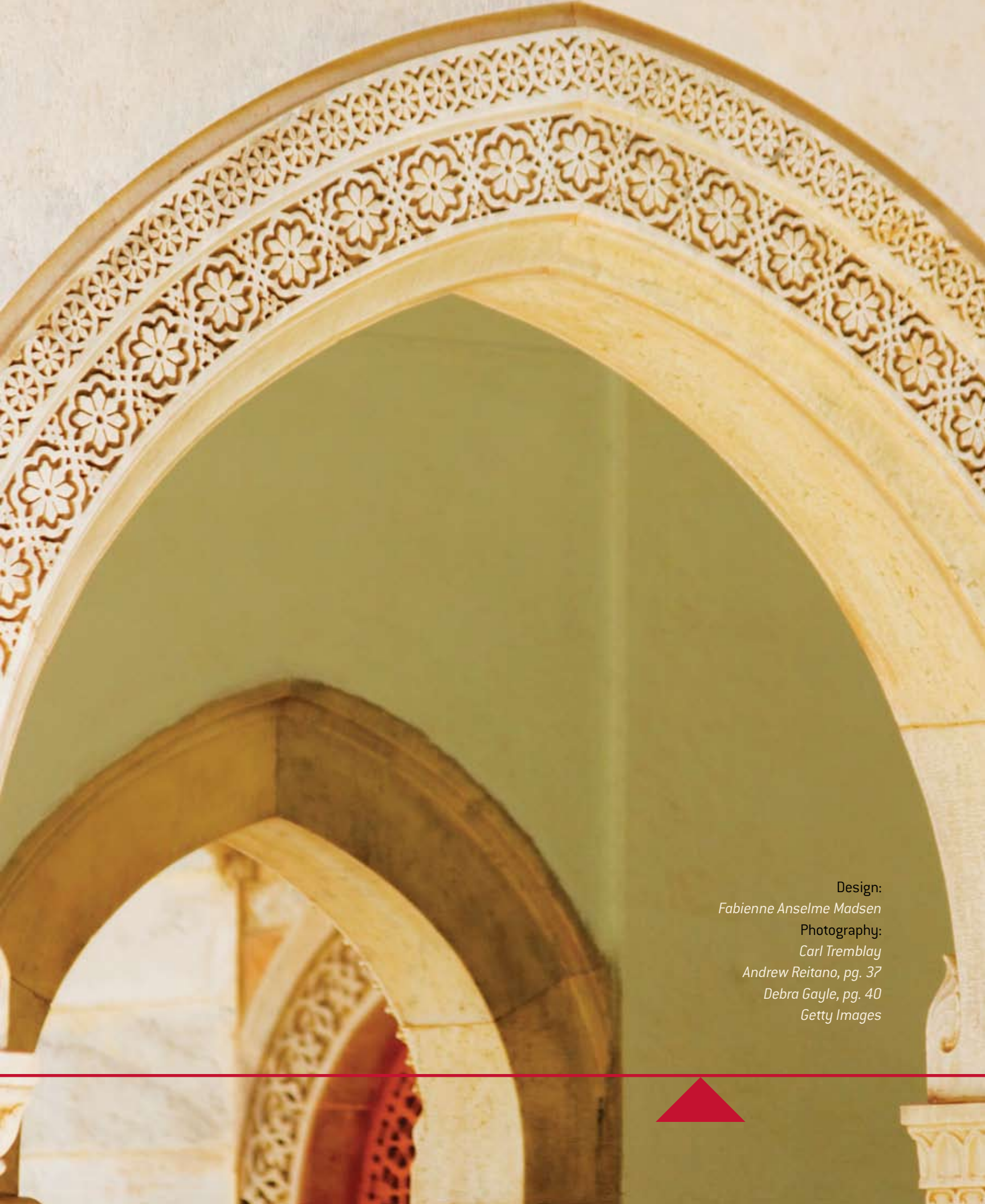
Adjustments to the accrued liability are due to changes in the estimated restructuring costs. There were no charges recognized in 2006.

Employee separation costs are primarily severance costs related to identified staff reductions of approximately 200, including 2 staff reductions related to restructuring announced in 2005. Costs related to staff reductions for the years ended December 31, 2005 are reported as a component of "Salaries and other benefits" in the Statements of Income.

Restructuring costs associated with the impairment of certain Bank assets, including software, buildings, leasehold improvements, furniture, and equipment, are discussed in Note 6. Costs associated with enhanced pension benefits for all Reserve Banks are recorded on the books of the FRBNY as discussed in Note 8. Costs associated with enhanced postretirement benefits are disclosed in Note 9.

The Bank completed its announced plans in April 2006.

The firm engaged by the Board of Governors for the audits of the individual and combined financial statements of the Reserve Banks for 2006 was PricewaterhouseCoopers LLP (PwC). Fees for these services totaled $4.2 million. To ensure auditor independence, the Board of Governors requires that PwC be independent in all matters relating to the audit. Specifically, PwC may not perform services for the Reserve Banks or others that would place it in a position of auditing its own work, making management decisions on behalf of the Reserve Banks, or in any other way impairing its audit independence. In 2006, the Bank did not engage PwC for any material advisory services.



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