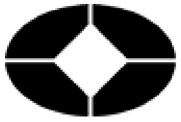

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Ben S Bernanke: Embracing the challenge of free trade – competing and prospering in a global economy

Remarks by Mr Ben S Bernanke, Chairman of the Board of Governors of the US Federal Reserve System, at the Montana Economic Development Summit 2007, Butte, Montana, 1 May 2007.

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Trade is as old as humanity, or nearly so. Archaeological sites demonstrate that ancient peoples traded objects such as rare stones and shells across fairly long distances even in prehistoric times (Guisepi, 2000). Over the centuries, with stops and starts, the volume of trade has expanded exponentially, driven in large part by advances in transportation and communication technologies. Steamships replaced sailing ships; railroads succeeded canal barges; the telegraph supplanted the Pony Express. Today, in a world of container ships, jumbo jets, and the Internet, goods and many services are delivered faster and more cheaply (in inflation-adjusted terms) than ever before.[1]

Today I will discuss the crucial economic benefits we receive from the ongoing expansion of international trade. I will also address the adverse effects of trade and some possible ways to mitigate them. I will argue that one possible response to the dislocations that may result from trade – a retreat into protectionism and isolationism – would be self-defeating and, in the long run, probably not even feasible. Instead, our continued prosperity depends on our embracing the many opportunities provided by trade, even as we provide a helping hand to individuals and communities that may have suffered adverse consequences.

The benefits of trade

At the most basic level, trade is beneficial because it allows people to specialize in the goods and services they produce best and most efficiently. For example, we could conceivably all grow our own food and provide our own medical care. But because farming and medicine require special knowledge and skills, a far more efficient arrangement is for the farmer to specialize in growing food and for the doctor to specialize in treating patients. Through the specialization made possible by trade, the farmer can benefit from the doctor's medical knowledge and the doctor can enjoy lunch. The opportunity to trade allows everyone to play to his or her own strengths while benefiting from the productive skills of the whole community. Indeed, economists have demonstrated that trade between two people can be beneficial even if one of them is more skilled than the other at *every* task, so long as the more-skilled person specializes in those tasks at which he or she is relatively more productive.

What applies to individuals applies to nations as well. Two centuries ago the economist David Ricardo famously observed that, if England specialized in making cloth while Portugal specialized in producing wine, international trade would allow both countries to enjoy more of both goods than would be possible if each country produced only for domestic consumption and did not trade. As in the case of individuals, this conclusion applies even if one country can produce both cloth *and* wine more cheaply than the other, so long as each country specializes in the activity at which it is relatively more productive. A telling confirmation of Ricardo's insight is that, when nations go to war, their first order of business is often to try to block the other's access to trade. In the American Civil War, the North won in large part because its blockade of Southern ports prevented the Confederacy from exporting its cotton. In the twentieth century, the fact that Great Britain and its allies were able to disrupt German trade more successfully than Germany could impede the flow of goods into and out of Great Britain bore importantly on the ultimate outcomes of both world wars.

Patterns of trade are determined by variations in a number of factors, including climate, the location of natural resources, and the skills and knowledge of the population. I suppose that one could grow roses commercially here in Montana for Valentine's Day, but it would likely require climate-controlled greenhouses complete with artificial lighting – very expensive. A much less costly solution is for Montanans to grow and sell wheat, then use the proceeds to buy roses from localities where the weather is balmy in February.

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[1] Hummels (2006). Bernanke (2006) provides a brief history of globalization.

This is all standard textbook material, and it may well leave you unconvinced of the importance of international trade. After all, the United States is a big country, and we can certainly achieve many of the benefits of specialization by trading within our own borders. How important is it for the health of our economy to trade actively with other countries? As best we can measure, it is critically important. According to one recent study that used four approaches to measuring the gains from trade, the increase in trade since World War II has boosted U.S. annual incomes on the order of $10,000 per household (Bradford, Grieco, and Hufbauer, 2006).[2] The same study found that removing all remaining barriers to trade would raise U.S. incomes anywhere from $4,000 to $12,000 per household. Other research has found similar results. Our willingness to trade freely with the world is indeed an essential source of our prosperity – and I think it is safe to say that the importance of trade for us will continue to grow.

In practice, the benefits of trade flow from a number of sources. By giving domestic firms access to new markets, trade promotes efficient specialization, permits economies of scale, and increases the potential returns to innovation.[3] U.S. firms increasingly seek to expand production and profits through new export opportunities; indeed, U.S. exports grew about 9 percent in real (that is, inflation-adjusted) terms last year. Export-oriented U.S. manufacturing industries include producers of aircraft, construction equipment, plastics, and chemicals. The United States also excels in the manufacture and export of sophisticated capital goods and scientific equipment. Outside of manufacturing, a number of U.S. high-tech companies, including software developers and online service providers, are world leaders in their fields. American films and music attract large worldwide audiences. Montana's exports include wheat, metal ores, and high-tech materials that are critical to the production of semiconductors.

Firms that emphasize exports are among America's most dynamic and productive companies. Relative to firms that produce strictly for the domestic market, exporters tend to be more technologically sophisticated and to create better jobs. Among U.S. manufacturers, for example, exporters pay higher wages and add jobs more rapidly than non-exporters (Bernard and Jensen, 1999). A significant portion of U.S. international trade is conducted by multinational firms; studies show that these firms generally pay higher wages than purely domestic firms, both in the United States and in developing countries (Doms and Jensen, 1998; Bhagwati, 2004, p. 172). U.S. firms with a global reach tend to be better diversified and are better able to respond to new market opportunities wherever they may arise.

Exports are important, but so are imports. Without trade, some goods would be extremely expensive or not available at all, such as the Valentine's Day roses of my earlier example or out-of-season fruits and vegetables. Trade also makes goods available in more brands and varieties; examples include automobiles, consumer electronics, garments and footwear, wines, and cheeses. One of the great attractions of globalization is that it brings to consumers the best of many cultures. And of course, global trade allows many types of goods, especially consumer goods, to be purchased at lower prices. Lower prices help all consumers but may be especially helpful to those with tight budgets. Indeed, a number of the large, import-intensive retail chains in the United States are focused on low- and moderate-income consumers, who benefit from being able to buy a wide variety of lower-priced goods.

Another substantial benefit of trade is the effect it tends to have on the productivity of domestic firms and on the quality of their output.[4] By creating a global market, trade enhances competition, which weeds out the most inefficient firms and induces others to improve their products and to produce more efficiently. The U.S. manufacturing sector, which is perhaps the sector most exposed to international competition, has achieved truly remarkable increases in its productivity in the past decade or so. In addition, international supply chains, made possible by advances in communication and transportation, reduce costs and increase the competitiveness of U.S. firms. Trade also promotes the transfer of technologies, as when multinational firms or transplanted firms bring advanced production methods to new markets.

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[2] The estimates ranged from $7,000 to $13,000.

[3] Cox and Alm (2007) discuss the benefits of trade in the modern global economy.

[4] Bernard and Jensen (1999) find that exporting firms are more productive than non-exporters. Bernard, Jensen, and Schott (2006) document the tendency of trade to reduce production at low-productivity plants and to increase output at high-productivity plants in the United States, a shift that raises average productivity.

Trade and finance are closely linked and mutually supporting, and in recent decades international financial flows have grown even more quickly than trade volumes. The globalization of finance plays to the strengths of U.S. financial institutions and financial markets. The United States has a large surplus in trade in financial services, and U.S. firms are leaders in providing banking, investment, and insurance services to the world. Financial openness allows U.S. investors to find new opportunities abroad and makes it possible for foreigners to invest in the United States. The ability to invest globally also permits greater diversification and sharing of risk.

Trade benefits advanced countries like the United States, but open trade is, if anything, even more important for developing nations. Trade and globalization are lifting hundreds of millions of people out of poverty, especially in Asia, but also in parts of Africa and Latin America (Bhagwati, 2004). As a source of economic growth and development in poor countries, trade is proving far more effective than traditional development aid (Easterly, 2006). The transition economies of central and eastern Europe have also benefited greatly from trade, especially trade with the rest of the European Union. A recent study by the World Bank compared two groups of developing countries, dubbed the "globalizers" and the "nonglobalizers." Collectively, the globalizers have doubled the ratio of trade to their gross domestic product (GDP) over the past twenty years, in part because of sharp cuts in tariffs on imports; the nonglobalizers, collectively, have seen a decline in their trade-to-GDP ratio over the same period (Dollar and Kraay, 2004). Among the globalizers, economic growth accelerated from 2.9 percent per year in the 1970s, to 3.5 percent in the 1980s, to 5 percent in the 1990s. In contrast, the nonglobalizers have seen their growth decline from 3.3 percent per year in the 1970s to 0.8 percent in the 1980s and 1.4 percent in the 1990s. The study also found that, among the globalizers, absolute poverty declined significantly and the degree of income inequality changed little.[5]

If trade is so beneficial, why do we sometimes see political resistance to freer, more open trade? Notably, negotiations in the so-called Doha Round of trade talks now under way have proceeded very slowly, notwithstanding a consensus among economists that all countries involved would enjoy substantial benefits from further trade liberalization. One important reason is that, although trade increases overall prosperity, the benefits for some people may not exceed the costs, at least not in the short run. Clearly, the expansion of trade helps exporting firms and their workers. As consumers, nearly all of us benefit from trade by gaining access to a broader range of goods and services. But some of us, such as workers in industries facing new competition from imports, are made at least temporarily worse off when trade expands. Because the benefits of trade are widely diffused and often indirect, those who lose from trade are often easier to identify than those who gain, a visibility that may influence public perceptions and the political process. That said, the job losses and worker displacement sometimes associated with expanded trade are a legitimate economic and social issue. In the remainder of my remarks, I will focus on the impact of trade on U.S. jobs – both positive and negative – and discuss some possible policy responses.

Trade and jobs

Does opening U.S. markets to foreign producers destroy jobs at home? The expansion of trade or changes in trading patterns can indeed destroy specific jobs. For example, foreign competition has been an important factor behind declining employment in the U.S. textile industry, including in my home state of South Carolina. Job loss – from any cause – can create hardship for individuals, their families, and their communities. I will return shortly to the question of how we should respond to the problem of worker displacement.

For now, however, I will point out that trade also creates jobs – for example, by expanding the potential market overseas for goods and services produced in the United States, as I have already discussed. Trade creates jobs indirectly as well, in support of export activities or as the result of increased economic activity associated with trade. For example, gains in disposable income created by lower consumer prices and higher earnings in export industries raise the demand for domestically produced goods and services. Domestic production and employment are also supported by expanded access to raw materials and intermediate goods. The U.S. jobs created by trade also tend to offer higher pay and demand greater skill than the jobs that are destroyed – although a downside is that, in the short run, the greater return to skills created by trade may tend to increase the wage differential

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[5] Refer also to Bhagwati (2004).

between higher-skilled and lower-skilled workers and thus contribute to income inequality (Bernanke, 2007).

The effects of trade on employment must also be put in the context of the remarkable dynamism of the U.S. labor market. The amount of "churn" in the labor market – the number of jobs created and destroyed – is enormous and reflects the continuous entry, exit, and resizing of firms in our ever-changing economy. Excluding job layoffs and losses reversed within the year, over the past decade an average of nearly 16 million private-sector jobs have been eliminated each year in the United States, an annual loss equal to nearly 15 percent of the current level of nonfarm private employment.[6] The vast majority of these job losses occur for a principal reason other than international trade (Kletzer, 2001; Bernanke, 2004). Moreover, during the past ten years, the 16 million annual job losses have been more than offset by the creation of about 17 million jobs per year – some of which, of course, are attributable to the direct and indirect effects of trade. Truly, the U.S. labor market exhibits a phenomenal capacity for creative destruction.

If trade both destroys and creates jobs, what is its overall effect on employment? The answer is, essentially none. In the long run, the workings of a competitive labor market ensure that the number of jobs created will be commensurate with the size of the labor force and with the mix of skills that workers bring. Thus, in the long run, factors such as population growth, labor force participation rates, education and training, and labor market institutions determine the level and composition of aggregate employment. To see the irrelevance of trade to total employment, we need only observe that, between 1965 and 2006, the share of imports in the U.S. economy nearly quadrupled, from 4.4 percent of GDP to 16.8 percent. Yet, reflecting growth in the labor force, employment more than doubled during that time, and the unemployment rate was at about 4-1/2 percent at both the beginning and end of the period. Furthermore, average real compensation per hour in the United States has nearly doubled since 1965.

Although many readily accept that balanced trade does not reduce aggregate employment, some might argue that the United States' current large trade deficit must mean that the number of U.S. jobs has been reduced on net. However, the existence of a trade deficit or surplus, by itself, does not have any evident effect on the level of employment. For example, across countries, trade deficits and unemployment rates show little correlation. Among our six Group of Seven partners (the world's leading industrial countries), three have trade surpluses (Canada, Germany, and Japan). However, based on the figures for February of this year, the unemployment rates in Canada (5.3 percent) and in Germany (9.0 percent) are significantly higher than the 4.5 percent rate in the United States; and Japan's unemployment rate, at 4.0 percent, is only a bit lower.[7] Factors such as the degree of flexibility in the labor market, not trade, are the primary source of these cross-country variations in unemployment.

What about outsourcing abroad?

The debate about the effects of trade on employment has been intensified by the phenomenon of outsourcing abroad, or "offshoring." Offshoring has been driven by several factors, including improvements in international communication, the computerization and digitization of some business services, and the existence of educated, often English-speaking workers abroad who will perform the same services for less pay. A portion, though not all, of these wage differentials reflects differences in skills and productivity; for example, outsourced programming work is usually simpler and more routine than programming done in the United States.

The increase in outsourcing abroad has led to dire predictions about a wholesale "export" of U.S. jobs in coming years. Although globalization and trade will continue to be forces for economic change, concerns about a massive loss of jobs due to offshoring do not seem justified. Companies have found

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[6] According to the Bureau of Labor Statistics (BLS), over the past ten years, gross job losses in the United States have averaged about 7.8 million per quarter. Multiplying 7.8 million by 4 suggests that about 31 million U.S. jobs come to an end each year. This figure includes temporary layoffs, seasonal closings, and other short-term job losses; some research suggests that longer-term job losses amount to about half of the total (Davis, Haltiwanger, and Schuh, 1996). Dividing 31 million gross job losses by 2 yields about 16 million long-term job losses each year.

[7] February 2007 is the latest month for which these rate comparisons are available. The data are from the Bureau of Labor Statistics, which has adjusted them to approximate the U.S. definition of unemployment.

outsourcing abroad profitable primarily for jobs that can be routinized and sharply defined. Certainly, advancing technology will continue to increase the feasibility of providing services from remote locations. For the foreseeable future, however, most high-value work will require creative interaction among employees, interaction which is facilitated by physical proximity and personal contact. Moreover, in many fields, closeness to customers and knowledge of local conditions are also of great importance. These observations suggest that, for some considerable time, outsourcing abroad will be uneconomical for many types of jobs, particularly high-value jobs.[8]

Moreover, a balanced discussion of outsourcing abroad should reflect that, just as U.S. firms use the services of foreigners, foreign firms make considerable use of the services of U.S. residents. Many do not realize that, in contrast to its trade deficit in goods, the United States runs a significant trade surplus in services – particularly in business, professional, and technical services. This country provides many high-value services to users abroad, including financial, legal, engineering, architectural, and software development services, whereas many of the services imported by U.S. companies are less sophisticated and hence of lower value.[9] A recent study of twenty-one occupations that are most likely to be affected by outsourcing found that net job losses were concentrated almost exclusively in the lower-wage occupations and that strong employment gains have occurred in the occupations that pay the highest wages.[10] Further expansion of trade in services will help, not hurt, the U.S. economy and the labor market.

Just as discussions of the outsourcing of business services tend to ignore the services U.S. firms sell to other countries, so do discussions of the movement of jobs offshore ignore the fact that foreign firms also move jobs to the United States. Between 1996 and 2004 (the most recent data available), the employment of U.S. residents by majority-owned nonbank affiliates of foreign companies operating within the United States increased by about 1 million jobs. In 2004, U.S. affiliates of foreign companies accounted for more than $500 billion in value added (about half in manufacturing) and about $180 billion in exports. Globalization and offshoring work both ways.

Responding to job displacement

Although trade has many positive effects in the labor market, nothing I have said this morning is intended to minimize the real costs imposed on workers and communities when new competition from abroad leads to job losses and displacement. What can be done to help workers who lose their jobs as a consequence of expanded trade?

Restricting trade by imposing tariffs, quotas, or other barriers is exactly the wrong thing to do. Such solutions might temporarily slow job loss in affected industries, but the benefits would be outweighed, typically many times over, by the costs, which would include higher prices for consumers and increased costs (and thus reduced competitiveness) for U.S. firms. Indeed, studies of the effects of protectionist policies almost invariably find that the costs to the rest of society far exceed the benefits to the protected industry. In the long run, economic isolationism and retreat from international competition would inexorably lead to lower productivity for U.S. firms and lower living standards for U.S. consumers (Bernanke, 2004).

The better approach to mitigating the disruptive effects of trade is to adopt policies and programs aimed at easing the transition of displaced workers into new jobs and increasing the adaptability and skills of the labor force more generally. Many suggestions for such policies have been made. Currently, the government's principal program for helping workers displaced by trade is the Trade Adjustment Assistance program, which is up for renewal before the Congress this year. As now structured, the program offers up to two and a half years of job training, allowances for job search and

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[8] The economic importance of physical proximity is the underlying reason that people and businesses are willing to pay high rents and other costs to live in or near major cities, where they can be near large numbers of other people and businesses that have related expertise and interests.

[9] Another type of service in which the United States has a strong export position is higher education. In 2005-06, U.S. institutions of higher learning trained nearly 600,000 foreign students, of whom about half were studying for graduate and professional degrees. Many foreign students who study in the United States spend at least some time here subsequently, adding their skills to those of the domestic workforce (Institute of International Education, 2006).

[10] Mann (2006, pp. 140-41) analyzes changes from 1999 to 2004. Updating the analysis with 2005 data from the Bureau of Labor Statistics does not change these results. Some of the low-wage occupations, such as data entry and word processing, may have lost jobs to automation rather than outsourcing.

relocation, income support for eligible workers, and health insurance assistance for some. Elements of other proposals being discussed (Kletzer and Rosen, 2006; Kling, 2006; Mann 2003, 2004) include job-training tax credits and wage insurance, which would help offset pay cuts that often occur when displaced workers change jobs. Another approach is to focus on establishing policies that reduce the cost to workers of changing jobs, for example, by increasing the portability of pensions or health insurance between employers. As new technologies expand the range of occupations that may be subject to international competition, measures to assist affected workers become all the more important. It would not be appropriate for me to endorse specific programs; that is the prerogative of the Congress. However, I can safely predict that these and other policy proposals to address concerns about worker displacement will be the subject of active debate in coming years.

More generally, investing in education and training would help young people entering the labor force as well as those already in mid-career to better manage the ever-changing demands of the workforce (Bernanke, 2007). A substantial body of research demonstrates that investments in education and training pay high rates of return to individuals and to society as a whole (Acemogulu and Angrist, 2001; Becker, 1964; Card, 1999; Topel, 2004). Importantly, workforce skills can be improved not only through K-12 education, college, and graduate work but also through a variety of expeditious, market-based channels such as on-the-job training, coursework at community colleges and vocational schools, extension courses, and online training. An eclectic, market-responsive approach to increasing workforce skills is the most likely to be successful.

Whatever the specific approaches chosen, helping workers who have lost jobs – whether because of trade or other causes – to find new productive work is good for the economy as well as for the affected workers and their families. Moreover, if workers and their families are less fearful of change, political pressure in favor of trade barriers or other measures that would reduce the flexibility and dynamism of the U.S. economy would be reduced (Kull, 2004).

Conclusion

To sum up, international trade in goods, services, and assets, like other forms of market-based exchange, allows us to transform what we have into what we need or want under increasingly beneficial terms. Trade allows us to enjoy both a more productive economy and higher living standards.

Of course, current trading arrangements are far from perfect. Some features of the world trading regime, such as excessive restrictions on trade in services and the uneven protection of intellectual property rights, are both unfair and economically counterproductive. Working through the World Trade Organization or in other venues, we should continue to advocate the elimination of trade distortions and barriers in our trading partners even as we increase the openness of our own economy. We should also work to ensure that both we and our trading partners live up to existing agreements under the World Trade Organization. When trading partners do not meet their obligations, we should vigorously press our case. Ultimately, a freer and more open trading system is in everyone's best interest.

Although expansion of trade makes the U.S. economy stronger, as I have noted today, the broad benefits of trade and the associated economic change may come at a cost to some individuals, firms, and communities. We need to continue to find ways to minimize the pain of dislocation without standing in the way of economic growth and change. Indeed, the willingness to embrace difficult challenges is a defining characteristic of the American people. With our strong institutions, deep capital markets, flexible labor markets, technological leadership, and penchant for entrepreneurship and innovation, no country is better placed than the United States to benefit from increased participation in the global economy. If we resist protectionism and isolationism while working to increase the skills and adaptability of our labor force, the forces of globalization and trade will continue to make our economy stronger and our citizens more prosperous.

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David Dodge: Bank of Canada’s views on the Canadain economy and its monetary policy objective

Opening statement by Mr David Dodge, Governor of the Bank of Canada, to the House of Commons Standing Committee on Finance, Ottawa, 1 May 2007.

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Good morning, Mr. Chairman and members of the Committee. We appreciate the opportunity to meet with your committee, which we usually do twice a year, following the release of our *Monetary Policy Report*. We believe that these meetings help us to keep Members of Parliament and, through you, all Canadians, informed of the Bank's views on the economy and about the objective of monetary policy and the actions we take to achieve it.

When Paul and I appeared before the Finance Committee last October, we noted then that the outlook for growth in the Canadian economy had been revised down slightly from earlier expectations. In our latest *Monetary Policy Report*, which we released last Thursday, we noted that Canada's economic growth did indeed slow, but recently, inflation has been higher than expected. After considering the full range of indicators, the Bank now judges that the Canadian economy was operating just above its production capacity in the first quarter of this year.

We expect that, over the projection horizon, domestic demand will continue to be the main driver of growth in Canada. With the U.S. slowdown now expected to be somewhat more prolonged than previously projected, net exports should exert a slightly greater drag on Canada's growth in 2007. The Canadian economy is now projected to grow by 2.2 per cent in 2007 and 2.7 per cent in both 2008 and 2009. This would return the economy to its production capacity in the second half of 2007 and keep it there through 2008 and 2009.

Core inflation should remain slightly above 2 per cent over the coming months, given pressures on capacity and the impact of higher core food prices. But with the economy projected to return to its production capacity in the second half of this year and with further easing of pressures from housing prices, upward pressure on core inflation is expected to moderate, bringing the core inflation rate back to 2 per cent by the end of 2007.

Total CPI inflation is projected to rise above the 2 per cent inflation target in the second half of this year, peaking below 3 per cent near the end of 2007 before returning to the target by mid-2008.

We at the Bank continue to judge that the risks to our inflation projection are roughly balanced, although there is now a slight tilt to the upside.

Last Tuesday, the Bank left its key policy rate unchanged at 4 1/4 per cent. The current level of the policy interest rate is judged, at this time, to be consistent with achieving the inflation target over the medium term.

Mr. Chairman, Paul and I will now be happy to answer your questions.

Davíð Oddsson: The commercial banks are more resilient

Opening statement by Mr Davíð Oddsson, Chairman of the Board of Governors of the Central Bank of Iceland, on behalf of the Board of Governors at a Press Conference on the occasion of the publication of the Bank's *Financial Stability 2007*, 25 April 2007.

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In its analysis published in *Financial Stability* at the beginning of May 2006, the Central Bank of Iceland's finding was that the financial system was broadly sound, but more challenging waters lay ahead. Two main causes of concern were identified: macroeconomic imbalances and uncertainty about the commercial banks' refinancing of their foreign borrowing. Refinancing was successfully completed. However, macroeconomic imbalances increased. A year ago the focus was on short-term risks on the liabilities side of the financial companies' balance sheets, but now it has shifted more to the long-term asset quality.

The most pressing economic policy task is to restore stability. The conclusion of large investments in the aluminium and power sectors will automatically reduce imbalances, but other adjustment has been slower than expected. Increased foreign debt service has delayed the unwinding of the current account deficit, which will hardly be brought down to a sustainable level without a substantial contraction in demand. The latest forecast in *Monetary Bulletin* in March 2007 indicates that such a contraction lies ahead, as growth of investment and private consumption slows down. As discussed in this report, a depreciation of the króna coinciding with a fall in asset prices – possibly originating in tighter global financial conditions – could amplify the forecast contraction.

The necessary reduction of pressures in the economy will squeeze businesses and households, many of which are vulnerable due to heavy debt. They could withstand a short-lived reversal, but a lasting contraction would be difficult to weather.

In late autumn 2005, after a surge in borrowing by Icelandic banks in international bond markets, investors revised their risk assessments of the banks. CDS spreads and secondary market yields on their issues increased. The banks deferred further borrowing in the European bond markets, which had been their main source of funding. Foreign analysts and agencies published negative reports about the banks and the state of the Icelandic economy. The climate turned most adverse at the end of February 2006 after Fitch Ratings changed Iceland's sovereign outlook from stable to negative, claiming *inter alia* that the banks' tight financing could have implications for the Treasury.

This situation and its aftermath squeezed the banks for a while, forcing them to respond firmly to the uncomfortable position that had arisen. They made efforts to explain the structure and organisation of the Icelandic banks. The banks adjusted certain aspects of their operations and cross-ownership in response to relevant criticisms, and refuted what was less relevant with both communication and successful business performance. Temporarily they needed to look beyond their traditional markets for funding, with issuance in the US and Japan. The problem that loomed around this time a year ago is a thing of the past and terms in the secondary market are more favourable again.

The Central Bank underlines that global market conditions can take a sudden turn for the worse and it is important to be on the alert and prepared for such a contingency.

The current episode of ample liquidity and lower interest rates which has been ideal for risk-seeking investors may change unexpectedly. Short-term interest rates have been rising in most markets recently and capital costs are no longer so favourable. The Icelandic banks are better equipped for such a reversal than a year ago, because experience has taught them to extend and disperse their borrowing, and build up substantial liquid reserves in foreign currency. In 2006 the spotlight was on the banks' liquidity risk. Now that this risk has ebbed, the focus has shifted to credit risk and the potential impact of higher interest rates and a depreciation of the króna.

Amidst the turbulence of 2006, the banks slowed down their credit growth and expansion of their balance sheets. No major foreign financial companies were acquired and equity exposures were reduced. Nonetheless, it is natural to consider their credit risk and vulnerability towards a fall in asset prices.

Icelandic households' debts with credit institutions have soared in recent years, especially average-income and young households. Debt service has not risen by the same proportion, due to rising incomes and easier credit terms, and arrears are at a low. However, some borrowers have stretched their capacity to the limit and the most indebted group has seen its debt grow substantially as a proportion of income and assets in recent years. Conditions will not need to change much to cause them serious difficulties. The bulk of household debt is in the form of CPI-indexed mortgage loans, making low inflation critical. Household debt in foreign currency was very low, but has been increasing. High levels of foreign currency-denominated debt could prove questionable for households with no income in foreign currency. Since house prices are currently buoyant, they are likely to rise by less than general inflation or even fall in nominal terms. Household equity could shrink under such conditions.

Business profitability appears to have been strong in 2006, in spite of a massive increase in financial expenses from exchange rate losses on foreign borrowing, higher interest expenses and a substantial increase in interest-bearing debt. Debt of listed companies grew as a ratio of equity and the same is probably true of other businesses. Higher debt levels leave them more vulnerable to a contraction in the economy.

Equity prices have soared in Iceland in recent years. One explanation for the increase may be that Icelandic companies were undervalued by the markets, for example by international comparison, and another that bold investment ventures have driven up their value. But risk and high yield often go hand in hand and it must be assumed that equity prices can fall just as easily as rise.

The Central Bank has assessed the banks' credit portfolio quality on the basis of geographical and sectoral distribution. It is no longer enough to focus solely on activities in Iceland, because three-quarters of the banks' total lending on a consolidated basis was to non-residents, especially in the other Nordic countries and the UK. The assessment indicates that the banks' loss provisioning is more than adequate to meet expected losses. However, this view must be tempered by hefty credit growth in recent years and the large increase in leveraged buyouts and forward contracts connected with them. House prices are at a historical peak in real terms and may unwind. Equity prices reflect expectations of ongoing rapid output growth, but such sentiment can quickly reverse, as recent experience has shown. Arrears and impairment are minimal, but both may be expected to increase in the coming years.

One major vulnerability of the Icelandic economy at present is the risk of a rapid and unforeseen rise in international interest rates and premia. Short-term rates have already risen widely and may go up further. Long-term rates have not changed much but could begin to climb. Premia are prone to change at short notice due to shifts in investors' risk assessments or risk-seeking.

The Icelandic economy has never been so sensitive to changes in global markets, which could significantly affect it. It is critical to achieve some redress of imbalances before external conditions tighten.

Strange as it may sound, the banks' efforts to hedge against the effect of a conceivable depreciation of the króna on their equity ratios has increased the market risk on their foreign exchange exposures. Credit institutions fulfil the Central Bank's rules on foreign exchange balance, but have been permitted to maintain separate additional currency balances. Thus the banks' capital positions are well hedged against a conceivable depreciation of the króna, but a short-term appreciation cannot be ruled out. The banks' customers, on the other hand, are less protected against shocks from a depreciation, although data from the banks show that most of their borrowers of foreign currency-denominated loans also have substantial currency earnings and thereby a natural hedge against exchange rate movements.

Financial Stability 2006 reported on a Central Bank stress test of the impact of a serious shock involving a simultaneous large rise in global interest rates, depreciation of the króna and fall in asset prices. This simulation has now been repeated using new data and assuming an even larger depreciation and decrease in house prices. Were all these shocks to coincide, estimates show that the contraction in national expenditure could prove considerably greater than in the Central Bank's most recent macroeconomic forecast in *Monetary Bulletin* in March 2007. The pressure on the financial

sector will be determined to some extent by the pace of the adjustment and the banks' own responses to it. Although the adjustment would ultimately be greater if it occurred slowly, a very rapid contraction would deliver such a jolt to the finances of many households and businesses that loan losses would result.

It is likely that a range of risks will have to be faced, but efforts must be made to minimise the probability of a financial crisis that could harm potential output and living standards. In the final analysis, the critical factor is how strong and well equipped the financial system is to withstand shocks, i.e. its resilience.

The crucial factor behind the Central Bank's assessment that the financial system is now more resilient to shocks is the banks' stronger liquidity and equity positions than a year ago. The major commercial banks have a diversified income base that extends to many countries. Another advantage is the somewhat different business models they have used in their expansion. Their diversified assets give less reason to fear the consequences of an unexpected strain on the financial system.

Iceland's strong fiscal position underpins the banks' international credit ratings. Other important factors have been the strengthening of Iceland's foreign reserves and the Central Bank's capital. Both measures represent natural responses to changes caused in the Central Bank's operating environment by the very rapid expansion of the commercial banks, especially abroad.

Although the main function of a financial stability report is to highlight risks, factors conducive to strengthening the long-term economic outlook should also be duly noted. Iceland's economy is advanced, transparent and dynamic. The population is relatively young, well educated and quick to adapt to technological and scientific innovations. A strong fully funded pension system has been built up and, unlike other countries, there is no reason to fear for its sustainability. GDP per capita ranks with the highest in the world, and the economic and social infrastructure is solid. The openness of the economy results in a smaller effect from a contraction in domestic demand on employment than might be expected.

The authorities shape the framework in which businesses and the financial system operate. Through its membership of the European Economic Area, Iceland enjoys similar operating conditions to those within the European Union. Nonetheless, it retains various features that influence economic advancement, such as a rather business-friendly tax environment, efficient public administration and flexible labour market. Extensive and rapid transformation of the financial sector puts supervisory agencies under pressure. The Financial Supervisory Authority (FME) has been granted an increasingly wide remit in recent years and its activities have been strengthened. One task is to monitor the banks' transactions with main shareholders and executives.

Payment and settlement systems are a key component of an efficient and sound financial system. Steps have recently been completed towards bringing their regulatory framework into line with international best practice. Although such work tends to go relatively unnoticed, it is crucial for enhancing security of settlements and reducing technical risks.

The main financial sector vulnerabilities are presented in the table below. The first three relate to macroeconomic imbalances that could cause a further widening of the current account deficit, higher external debt and a depreciation of the króna. Vulnerability on these counts is no less than a year ago, and higher global interest rates and premia could have widespread repercussions. On the other hand, much of the uncertainty about the banks' access to financing has been dispelled and they have built up ample liquid reserves. Under such conditions, the focus shifts to asset quality.

The second table highlights factors that contribute to financial system resilience. The most noteworthy development is the banks' stronger position in the form of ample liquidity and capital adequacy ratios which are very acceptable and historically high.

On the whole, the Central Bank's finding is that the financial system is broadly sound. It is equipped to withstand shocks to the economy and financial markets, to mediate credit and payments, and to redistribute risks appropriately. In other words, it is capable of performing its function in an orderly and efficient way. Iceland's banking system meets the demands made of it and performs well on stress tests conducted by the Central Bank and FME.

Table 1 Main vulnerabilities

Risk	***Explanation***
Exchange rate developments	Macroeconomic imbalances are pronounced. The current account deficit poses the risk of a depreciation of the króna. Shifts in carry trades and other exposures could catalyse a sudden turnaround. The FX market relies on three market makers and is still relatively thin. Some borrowers from the commercial banks have little or no hedge against exchange rate movements.
Global interest rates and premia	In recent years, interest rates and premia have been at a historical low. Interest rates have begun to climb and sooner or later premia will rise again, increasing corporate financing costs.
Terms of trade	Export prices could drop and oil prices rise. Unfavourable developments could widen the current account deficit and erode national income. Economic and social infrastructure is sound. The Central Bank's macroeconomic forecast assumes a deterioration in the terms of trade.
International market funding	High dependence on market funding and deposits on call makes credit ratings and global market conditions crucial for the commercial banks. Experience shows that credit assessment can shift suddenly.
Asset quality of commercial banks	Rapid credit growth often eventually leads to poorer loan quality. Loans with equities as collateral are substantial. Prices of equities and real estate are buoyant. Although arrears and impairment are at a low, they are unlikely to remain so over the next few years.

Table 2 Resilience

Resilience	***Explanation***
Economy	The economy is flexible and in the past has shown itself capable of tackling cyclical swings through adjustment of imports. Investment and output growth have been robust. The long-term economic outlook is favourable.
Strength of the commercial banks	The commercial banks' liquidity and capital ratios have never been higher. They have built up liquidity in foreign currency and secured refinancing into 2008. Profitability is strong from the bank's diverse operations and assets are diversified.
Institutional and supervisory framework	Iceland's framework is the EEA Agreement and its guidelines are international best practice and transparency. Economic and social infrastructure is sound. Financial supervision has been boosted and extensive cross-border cooperation is in place.
Payment and settlement systems	Payment system infrastructure is largely electronic and efficient. Steps have been taken to enhance security and contingency plans. Systems meet international standards.
Fiscal position	The Treasury's position is strong with consecutive fiscal surpluses. Net external Treasury debt, including foreign reserves, is virtually zero. No pension gap is foreseeable.

Rasheed Mohammed Al Maraj: Brief review of Bahrain's financial market developments

Speech by His Excellency Rasheed Mohammed Al Maraj, Governor of the Central Bank of Bahrain, at the TradeQuest Challenge Awards Presentation and Luncheon, Manama, 28 April 2007.

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Your Excellencies, Distinguished Guests, Ladies and Gentlemen, Good Afternoon.

Assalam Alaikum Wa-Rahmatullahi Wa Barakatuh

It is a pleasure for me to be here today, and to show my support for the TradeQuest Challenge programme. I should like to take this opportunity to thank all those who have supported this initiative, be they the financial community, the schools, or the participants and their parents.

Programmes such as these are collective efforts, and require the support of many. However, I should like to thank in particular the Bahrain Institute of Banking & Finance and the American Association of Bahrain, for their efforts in jointly establishing and managing this annual competition.

Special congratulations are of course also due to the students who took part in this year's competition, for their commitment to learning about the world of financial markets and investment.

Before we start presenting the students with their well-earned certificates, I hope you will allow me if just say a few words about the significance of this programme, and its relevance to the development of Bahrain's financial markets.

Bahrain, as I am sure you are all aware, has a long and distinguished track record as the leading financial centre in the GCC. Today, financial services accounts for almost 27% of the country's GDP, and creates an equally significant share of high value added employment in the economy. It is no exaggeration to say that the health of the financial services industry is of strategic importance to the continued economic well-being of this country.

A key element in our success as a nation in this field has been the emphasis placed on developing our own human resources. International and regional institutions come to Bahrain, in part, because there is a relatively strong supply of well qualified Bahrainis whom they can hire. In turn, this country benefits from the wealth that is created by these financial institutions, and the training and experience gained in the workplace.

Fundamental to this human resources equation, is that we have people who understand finance and develop an interest in working in this industry. Programmes such as these, therefore, play a valuable role in introducing young people to the world of finance, and hopefully giving them an interest in possibly pursuing a future career in the financial services industry.

For those who have set their sights on other careers, the experience gained from this programme nonetheless still provides participants with an understanding of the world of business and finance, and the opportunity to develop analytical skills, which will serve them well in other fields of activity.

For those of you sufficiently interested in the world of finance to pursue it further, I would encourage you to do so. The financial sector in Bahrain is growing strongly and represents many varied opportunities, be it within banking, insurance or the capital markets.

I expect this growth to continue going forward, and the CBB is facilitating this process with its own efforts aimed at updating regulations and supervisory capacity.

To conclude, programmes such as these serve a valuable role in helping educate our younger generation about the world of finance and investment in a practical and relevant manner, and thus ultimately in helping support the further development of our financial services sector.

On that note, I thank you all again, and congratulate the students on their participation.

Audrey E Anderson: Effective conglomerate and consolidated supervision in the Caribbean

Opening remarks by Mrs Audrey E Anderson, Senior Deputy Governor of Bank of Jamaica, at the Caribbean Group of Banking Supervisors/Financial Stability Institute seminar "Conglomerate and Consolidated Supervision", Kingston, 11-13 April 2007.

*   *   *

Good morning ladies and gentlemen. It is a pleasure for me to welcome you, both on behalf of the Bank of Jamaica as well as the Caribbean Group of Banking Supervisors to this seminar on "Conglomerate and Consolidated Supervision" being facilitated by the Financial Stability Institute of the BIS.

I would wish to extend a warm Jamaican welcome to all our visitors from overseas, and especially to **Mr. Amarendra Mohan**, Senior Financial Sector Specialist with the Financial Stability Institute. Mr. Mohan is the primary coordinator of this seminar and will also be sharing with us, on some technical and practical aspects of the supervision of banking groups.

We are also very pleased to have the privilege of the participation of a team of specialist presenters from several overseas jurisdictions who have accepted the FSI's invitation to address the seminar. We have with us this morning:

- **Mr. Denis Sicotte,** formerly of OSFI and now a colleague of Mr. Mohan at the Financial Stability Institute.
- **Mr. Christian Otto**, Head of Group at the Frankfurt Regional Office of the Deutsche Bundesbank responsible for internationally active banks.
- **Mr. Steven P Merriett**, Senior Supervisory Financial Analyst for the Federal Reserve Board's Division of banking Supervision and Regulation.
- **Mr. Thordur Olafsson** of CARTAC who is no stranger to members of the Caribbean Group of Banking Supervisors, having participated in our Annual conference in 2006 and who also acted as facilitator through the agency of CARTAC, for specialized bank supervision training programs and other technical assistance in the region. Thordur also has the distinction of having been Legal Counsel and later Head of Bank Supervision for the Central Bank of Iceland, proving as we have done at the Bank of Jamaica with our own Legal Counsels, that lawyers can make excellent bank supervisors.
- **Mrs. Greta Mitchell Casselle**, Senior Financial Sector Expert with the International Monetary Fund, and formerly a Senior Advisor at the U.S. Office of the Comptroller of the Currency and the U.S. Treasury. Greta is also not a stranger to the Caribbean, having served on several IMF missions to Jamaica and elsewhere in the region, took part in Jamaica's initial Core Principles Review and later our 2005 FSAP, as well as participated in several CGBS conferences.

There are also other speakers whom we anticipate hearing from over the next few days, who are not here this morning but who I would also wish to recognize at this time.

- **Mr. Franz McConney** the Regional Head of Operational Risk at the FirstCaribbean International Bank who will be providing some industry perspectives on risk management and governance in a financial group; and
- **Mr. Gregor Heinrich**, the Chief Representative at the BIS Americas office located in Mexico City, who will be joining us on Friday and will address the seminar on the on the role and work of that office.

We welcome and thank all the speakers for joining us this week and look forward to your respective contributions to the subject at hand.

To our supervisory colleagues from across the Caribbean, … and I note that we have representatives from nine regional jurisdictions (other than Jamaica) – we are pleased to be your hosts over the next few days and trust that the dialogue, experiences and approaches shared will serve to advance our

individual and collective efforts to enhance our framework and capability to conduct effective conglomerate and consolidated supervision.

The matter of consolidated supervision is very much at the forefront of the supervisory agendas of our member countries. In recent years we have seen growth in financial groups not only in our domestic markets but also in our regional markets, as institutions have sought to defend and increase market shares, gain competitive edge and increase margins. This growth has accelerated significantly in recent years, facilitated in particular, by technological innovations and the lowering of trade barriers.

Most notably for us here in the Caribbean, the advent of the Caribbean Single Market and the prospect of the eventual Single Economy, has seen the removal of certain legal, economic and trade barriers, making it a bit easier for regional financial integration. Over the past decade a number of large regional groups have emerged:

- through diversification into non-deposit financial services;
- through mergers and acquisitions of banking and non banking financial entities; as well as
- through cross border forays.

First Caribbean International Bank readily comes to mind as one such group, as does RBTT/Guardian Life, Sagicor/Life of Jamaica, National Commercial Bank/ AIC to name some – all regional conglomerates with a presence in several regional markets and with product offerings spanning the gamut of financial operations …. here I speak of not only banking, but securities dealing, insurance, money services, pension fund management, and mutual funds.

…. And even as we gather here this morning, there are reports of the possibility of further mergers and acquisitions.

This trend in cross border expansions and conglomeratisation (if I dare to coin such a word), poses a number of challenges and concerns to us supervisors in the region. Primary among these are:

- A heightening of systemic risk domestically and regionally, as financial systems become:
  - increasingly integrated and interconnected; and also as
  - the markets become increasingly concentrated, with fewer and larger institutions.
- Secondly, this trend underlines and emphasizes the need to establish effective mechanisms for information sharing between supervisors, so as to facilitate the monitoring and assessment of potential contagion risks that may originate with entities outside the purview of the domestic authorities.
- And of course, we are faced with the even greater potential for regulatory arbitrage becoming not only a domestic, but a real regional issue.

Against the background of this regional integration of our financial markets, and recognizing that the effective implementation of Consolidated Supervision cannot be the responsibility of one Caribbean Island but must be collectively assumed by the region – the Caribbean Group of Bank Supervisors (CGBS) has adopted a collaborative approach to this issue. In fact, some years ago, the CGBS established a special Technical Working Group with the specific mandate to address the issues of concern. These, in particular include:

- The necessary harmonization of laws and supervisory standards across the region
- A harmonized approach to the restructuring of Financial Groups
- A standardized accounting and reporting framework
- Information Sharing between regional regulatory agencies, and
- Critical training of bank examiners in the region (hence our request for a seminar such as the current one.)

Although much has been accomplished through cooperative efforts, much remains to be done. A significant achievement has been the signing of a Memorandum of Understanding during 2004, initially by those **8** jurisdictions in which the FirstCaribbean International Bank operates. However, in light of the potential for broader application of the MOU, some other CGBS jurisdictions have subsequently

become signatories to this MOU. Additionally, a number of individual jurisdictions also have bi-lateral agreements in place both within and outside the region.

These Information Sharing Agreements have in some instances, also facilitated the conduct of joint examinations of some entities.

Towards, harmonization of supervisory standards, the CGBS Technical Working Group has also been looking at the minimum features to be embodied in respective legislation and supervisory frameworks. A number of proposals have been put forward and have received the endorsement of the Group of CARICOM Central Bank Governors. These include:

- The need to have cross jurisdictional consistency in regulatory reporting and definitions, inclusive of the definitions of what constitutes "capital base" and "acceptable group structures", in order to avoid regulatory arbitrage.
- The need for regulators to have the ability to prescribe in legislation, the accounting treatment to be used for reporting to the regulator for prudential purposes (especially in instances where conventional accounting treatment or IFRS standards are at variance or inconsistent with more stringent prudential standards promoted for deposit taking entities).
- The need to ensure that the approach taken in amending legislation to conduct consolidated supervision, is consistent with the revised Basel Core Principles.
- The need to further enhance the relationship between the Regulator and the External Auditors if risk based supervision is to be conducted efficiently, since regulators must be able to place reliance on the work of the external auditors.
- And finally, the need for the development of legislation to address the entry protocols and scope of foreign regulators who wish to perform on-site examinations in member jurisdictions.

While the region remains fully committed to applying international best practice standards within respective supervisory frameworks, and is working collaboratively in this regard, the Group however, remains concerned that:

- Small, emerging economies with inchoate/nascent financial markets such as ours, are expected to implement the same international standards developed within the context of, and for application in, large developed economies with sophisticated and highly developed financial systems;
- Multilateral agencies (such as the IMF and World Bank under their Financial Sector Stability Assessment Programmes (FSAPs), assess the region's financial system framework and infrastructure on the basis of the standards designed for more developed markets, and these assessments inform international opinion on our financial systems and supervisory framework, with significant implications for foreign investment;
- Furthermore, while the best practice standards are established in the Core Principles by the Basel Committee, there is not always the requisite technical guidance needed to interpret the application of the standards. I make specific reference here to the principles that address consolidated supervision of a banking group where a banking group is defined as the bank and its offices, subsidiaries, affiliates and joint ventures, both domestic and foreign. Where I believe further guidance is needed, is in case of group structures such as several in our Caribbean region, that do not fit the classical banking group structure – where for example, the bank is neither parent nor the dominant or significant member of the group, (but which may include other types of regulated financial activities).

  The need for this guidance from Basel assumes even greater significance within the context of recommendations being made under FSAP reviews, for the prompt and full implementation of consolidated and conglomerate supervision.

We therefore, would wish to use this forum to urge the international standard setters and assessors to immediately take on board the need to provide detailed and specific guidance with regards to the conglomerate supervision of such group structures, within the context of the Core Principles. In fact, it is our hope that, *in the interim*, this seminar will serve to clarify several of the practical issues with which we are grappling and provide us with clear pointers as to the way forward. In a sense we have

had to break new ground on this issue, developing methodology that is underpinned by the fundamental prudential principles, but which seek to address our unique situation.

I would wish to share with you this morning some of the specific initiatives in which the Bank of Jamaica (BOJ) has been involved in recent years towards the ultimate aim of a having a comprehensive framework in place for consolidated supervision. These have included:

- Establishment of a Financial Regulatory Council (FRC) in 1999, Chaired by the Bank of Jamaica and with representation from the Financial Services Commission – the supervisory authority with oversight responsibility for the non-deposit taking financial sector in Jamaica (i.e. securities dealers, insurance companies, pension funds, unit trusts and mutual funds). This Council was determined necessary to ensure that the necessary legal channels exist for critical communication, collaboration and information sharing especially as regards dually licensed institutions, but more generally, to ensure a coordinated policy approach to regulation of the entire financial system and so also reduce the potential for regulatory arbitrage. To ensure full coverage of all critical issues impacting the system, the Council's membership also includes representation from the Jamaica Deposit Insurance Corporation (JDIC), the Ministry of Finance and the Solicitor General.
- The BOJ also proposed legislative amendments which were passed in 2002 which have enhanced our powers to more effectively carry out consolidated supervision of any corporate group which includes a deposit-taking licensee. These amendments allow for supervisory reach to holding companies, thus enabling such entities to be monitored on a similar basis as its subsidiary banking entity, specifically as it relates to the management of risks and assessment of capital adequacy requirements across the entire group.
- These statutory amendments also prohibit the existence of "mixed" conglomerates. Where such groups do exist, the BOJ now has the power to direct a restructuring in order to facilitate the establishment of a financial holding company, to which the banking entity would report. In exercise of such powers, the BOJ has required, and is currently monitoring, restructuring exercises being undertaken by some of our licensees. The focus of our restructuring requirements has of course been to have, in the final analysis, "supervise-able" groups, with ownership and corporate structures which are not opaque, are fully regulated, and where non-financial risks issuing from other commercial undertakings are kept separate from the financial group.

  Audited financials of **all** group entities are also required to be provided to the BOJ, and in addition to its rigorous "fit and proper" due diligence on the principals of licensees, the BOJ now also conducts similar due diligence exercises on the principals of holding companies. The legislation also allows for BOJ to undertake examinations of the bank holding company and to require information of any other group member as determined necessary.
- Further legislative review is underway – in particular an Omnibus statute is intended to amalgamate the various existing pieces of legislation governing banking type entities, into a single overarching statute to create a level playing field across all deposit-taking entities, while preserving the peculiarities of each sub-sector (in the main in the building societies and credit unions sub-sectors). Very significantly, this legislation will also incorporate operational financial holding company regulations which will establish very specific prudential principles for such entities.

I know that several of the jurisdictions represented at this seminar, also have legislation under review or legal amendments already in train to expand their powers for consolidated supervision. I trust that as you interact over the next three days, with supervisors of differing backgrounds and industry practitioners, this will be found to be mutually beneficial in informing further development of our respective supervisory frameworks and practices.

In closing, let me once again express our appreciation to the Financial Stability Institute for its support of training for senior level supervisors in this region, and also to the other organizations, that have so willingly provided facilitators for this seminar.

I wish for all our participants, a very productive week, as you draw on the wealth of experience represented in this room.

We are very pleased to be your hosts and hope that in the near future, you will have the opportunity to again visit our island, but this time to relax and possibly take in the Semi-finals of the Cricket World Cup, and more fully enjoy the hospitality and culture that is so uniquely Jamaican.

Thank you.

Frederic S Mishkin: Globalization and financial development

Remarks by Mr Frederic S Mishkin, Member of the Board of Governors of the US Federal Reserve System, to the New Perspectives on Financial Globalization Conference, International Monetary Fund, Washington DC, 26 April 2007.

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In the United States and many other countries, students learn that the key to success is hard work. Yet when we look at many developing countries, we see people who work extremely hard for long hours. Their wages are low, and so they remain poor. And as a whole, their countries remain poor. If hard work does not make a country rich, what does?

The right institutions are essential. Nobel laureate Douglass North defines institutions as the "rules of the game in a society, or, more formally, humanly devised constraints that shape human intervention." (North, 1990, p. 3). Among the institutions that are most crucial to economic growth are those that enable a country to allocate capital to its most productive uses. Such institutions establish and maintain strong property rights, an effective legal system, and a sound and efficient financial system.

In recent years, the field of economic development has come to the conclusion that "institutions rule" and are critical to economic growth.[11] An extensive literature focuses on financial development as a significant force driving economic development.[12]

However, developing good institutions that foster financial development is not easy: It takes time for institutions to evolve and adapt to local circumstances. In addition, vested interests in poor countries often oppose the necessary reforms because they believe that such reforms will weaken their power or allow other people to cut into their profits. How can poorer countries overcome these obstacles? How can they change the distribution of power to forge the political will to promote institutional reform? The answer is globalization.

I should note that the opinions I will express today are my own and not necessarily those of my colleagues on the Federal Open Market Committee (FOMC).

Elements of institutional reform

Before examining the role of globalization in promoting financial development, let's first look briefly at what steps must be taken to build an institutional infrastructure that will ensure a well-functioning financial system.

1. Develop strong property rights

Strong property rights are needed to encourage productive investment because it will not be undertaken if the returns on investment are likely to be taken away by the government or others. Hernando de Soto, in his important book *The Mystery of Capital*, argues that the inability of the poor in

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[11] A large literature shows the importance of good institutions to economic growth. See, for example, North and Thomas (1973); Hall and Jones (1999); Acemoglu, Johnson, and Robinson (2001); Easterly and Levine (2001); Rodrik, Subramanian, and Trebbi (2002); Easterly and Levine (2003); Glaeser and others (2004); and the recent survey by Acemoglu, Johnson, and Robinson (2005). Kaufmann and others (1999) also point to the importance of various aspects of good governance.

[12] An excellent nontechnical survey of the extensive empirical evidence on the link between financial development and economic growth can be found in World Bank (2001). See also Levine (2004) and Schmukler (2004).

developing countries to acquire property rights is a central reason that they are unable to gain access to capital and so remain mired in poverty. For example, the use of collateral is a crucial tool that helps the financial system make loans because it reduces losses when loans go sour. A person who would pledge land or capital for a loan must, however, legally own the collateral. Unfortunately, as de Soto has documented, legalizing the ownership of capital is extremely expensive and time consuming for the poor in developing countries. In one of his many astonishing examples, obtaining legal title to a dwelling on urban land in the Philippines required taking 168 bureaucratic steps through 53 public and private agencies over a period of 13 to 25 years.

2. Strengthen the legal system

A legal system that enforces contracts quickly and fairly is an essential step in supporting strong property rights and financial development. For example, lenders write restrictive covenants into loan contracts to prevent borrowers from taking on too much risk, but such covenants have value only if they can be legally enforced. An inefficient legal system in which loan contracts cannot be enforced will prevent productive lending from taking place. If setting up legitimate businesses or obtaining legal title to property is too expensive, the poor will never have access to the legal system and will be cut off from lending that could help them start small businesses and escape poverty.[13] Setting up a simple business in the United States generally requires only filling out a form and paying a nominal licensing fee. In contrast, de Soto's researchers found that legally registering a small garment workshop in Peru required 289 days; at 6 hours per day, the cost was about $1,200, which was approximately thirty times the monthly minimum wage. The lack of property rights for all but the very rich, as documented by de Soto, is a serious impediment to financial development.

3. Reduce corruption

Government is often the primary source of financial repression in developing countries. Rapacious governments whose rulers treat their countries as personal fiefdoms are not uncommon: We have seen these governments in Saddam Hussein's Iraq, Robert Mugabe's Zimbabwe, and Ferdinand Marcos's Philippines. Even officials in less tyrannical governments have been known to use the power of the state to get rich. Not surprisingly, then, many governments pay lip service to property rights but do not encourage a rule of law to protect them.

Eliminating corruption is essential to strengthening property rights and the legal system. When corrupt officials demand bribes, they reduce the incentives for entrepreneurs to make investments. The ability to buy off judges weakens the enforcement of legal contracts that enable the economic and financial system to function smoothly.[14]

4. Improve the quality of financial information

High-quality financial information is essential to well-functioning financial markets. If lenders cannot figure out what is going on in a firm, they will be unable to screen out good from bad credit risks or to monitor the firm to ensure that it does not take on too much risk at the lender’s expense. To make reliable and accurate information more accessible, accounting standards must be high enough so that prospective lenders can make sense of what is in a business’s books. Rules that require businesses to disclose information must be enforced to enable prospective investors to make sensible decisions about whether the business deserves to get their hard-earned money.

5. Improve corporate governance

For people to be willing to buy stocks, another way to channel funds to business, rules must be established to ensure that the managers of corporations act in the stockholders’ interest. If managers find it easy to steal from the corporation, or to use funds for their own personal use rather than for the benefit of the company, no one will want to invest in the company. Finding the right balance of control

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[13] A discussion of how the costs of doing business vary across a number of countries is in World Bank (2005)

[14] Research finds that increases in corruption are associated with lower growth (for example, Mauro, 1995). Wei (1997) also finds that corruption significantly reduces foreign direct investment, which is generally considered to be beneficial to growth.

between management and stockholders is a challenge with which even we in the United States continue to struggle.

6. Develop sound, prudential regulation and supervision of the banking system

Banks are the main institutions that allocate credit in developing countries. The skills necessary for bank officers to assess risks and make good lending decisions are critically important and often scarce. Poor lending policies may cause too much capital to be channeled toward low-return projects and insufficient capital to be directed toward the high-return projects needed to propel income and growth. Moreover, deterioration in banks' balance sheets caused by insider lending or excessive risk-taking that leads to a proliferation of bad loans can cause banks to cut back sharply on lending, with negative effects on the economy. If the deterioration in banks' balance sheets is severe enough, it can result in banking and currency crises that substantially disrupt the economy, phenomena that unfortunately have been all too common in developing countries over the past several decades.[15] Preventing banking crises must start with prudential *regulation*, in which rules set by the government ensure that banks have sufficient capital and manage risks well. To guarantee that these regulations are enforced, the government must also engage in prudential *supervision*, in which it monitors banks by examining them on a regular basis to ensure that they are complying with government regulations.

The role of microfinance in developing countries is receiving much attention these days. Microfinance is a positive development; it has clearly helped substantial numbers of poor people escape poverty, and the Nobel Peace Prize awarded to Muhammad Yunus for his pioneering efforts in this area was certainly well deserved.[16] However, microfinance is not a substitute for the institution building I am talking about here.

Globalizing to advance institutional reform

Now that we understand what kinds of institutions are needed to promote financial development and economic growth, let's turn to the question of how developing countries can improve the likelihood that these institutions are developed.

One of the most powerful weapons for stimulating institutional development is globalization. Wealth is not something that can be attained by remaining closed off to the rest of the world. Poorer countries would do better by embracing globalization – that is, opening their financial markets and their markets for goods and services to other nations so that funds, goods, and, often, the ideas that accompany them can flow in. Such inflows can help them achieve reforms that build productivity and wealth that will benefit all their citizens. Of course, countries need to take care that the foundations of the fundamental institutions discussed above are in place, and they must monitor the pace of reform.

Opening financial markets

Now let's look at how opening financial markets to foreigners promotes financial development.

Globalizing the domestic financial system by opening financial markets to foreigners encourages financial development and growth in wealth in two ways. First, opening financial markets to foreign capital directly increases access to capital and lowers its cost for those with productive investments to make.[17] We know that labor is cheap in poor countries, and so we might think that capital would be especially productive there. Just think of how hugely profitable a factory might be in a country where wages are one-tenth of those in the United States. Although some of that differential would likely reflect the higher productivity of American workers, capital should, nevertheless, have extremely high returns in such countries, and, in principle, we should expect substantial flows of capital from rich

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[15] A survey of the literature that links a lack of sufficient prudential regulation and supporting institutions to excessive risk-taking and the possibility of a subsequent banking crisis is in Demirguc-Kunt and Detragiache (2005). Dell'Ariccia and Marquez (2006) also argue that under certain circumstances lending booms can make the banking system more unstable and can lead to a higher probability of a banking crisis.

[16] The literature on microfinance is vast. One thorough discussion is in Armendariz de Aghion and Morduch (2005).

[17] When stock markets in emerging-market countries are opened to foreign capital, dividend yields fall, average stock prices increase, and liquidity goes up. See Levine and Zervos (1998); Bekaert, Harvey, and Lumsdaine (2002); and Henry (2000a,b).

countries (where the returns on capital should be relatively low) to poor countries (where they should be far higher). Such capital flows could lead to substantial benefits for poor countries in the form of larger capital stocks, higher productivity, and more rapidly growing incomes.

In fact, as we well know, at present capital flows are moving, on net, from poor countries to rich ones, that is, in a direction opposite to the one we would expect. Many reasons have been proposed for this apparent paradox, but one of them certainly is the weakness of financial systems in poor countries, as described earlier. This point leads us to a second benefit of financial globalization: Opening markets to foreign financial institutions promotes reforms to the financial system that improve its functioning. Allowing foreign financial institutions to operate in an emerging-market country brings in expertise and best practices, such as those designed to screen good from bad credit risks and to monitor borrower activities to reduce the amount of risk they take.[18] Because of their familiarity with more-advanced financial systems, foreign financial firms also are likely to increase the pressure on the domestic government to institute reforms that will make the financial system work more effectively.

As domestic financial institutions start to lose business to better-run and more trustworthy foreign institutions, they will realize the need for a better legal and accounting infrastructure that will make it easier for them to make loans to new customers. Domestic financial institutions will then be far more likely to advocate for and support the reforms that achieve this result.

Of course, this is not to say that in a genuinely corrupt and anticompetitive environment financial globalization, by itself, can still engender an efficient, dynamic, and modern financial system. Recent research has shown that when some countries opened up to international capital markets too soon in the absence of some basic supporting conditions, vulnerabilities to sudden stops of capital flows increased. Thus, some preconditions must exist with respect to a minimum level of institutional quality, financial market development, and macroeconomic stability before financial globalization can further improve financial market and institutional development.[19] That said, given these preconditions and some constituency for progress and reform, financial globalization can be a powerful force in support of such efforts.

Opening trade in goods

Next, let’s consider how opening domestic markets to foreign goods can promote the development of better institutions.

Although not immediately obvious, opening domestic markets to foreign goods, known as "trade liberalization," can be a key driver of financial development. It can weaken the political power of entrenched business interests that might otherwise block institutional reforms, a point that is emphatically made by Rajan and Zingales (2004) in their book *Saving Capitalism from the Capitalists*. Trade liberalization, which promotes a more competitive environment, will lower the revenue of entrenched firms so that they will need greater access to external sources of capital. Thus, they will be more likely to support reforms that promote a deeper and more efficient financial system. In fact, research indicates that a deeper financial sector is positively associated with greater trade openness (Rajan and Zingales, 2003; Svaleryd and Vlachos, 2002).

Free trade also promotes financial deepening by reducing corruption. High tariffs breed corruption because importers have incentives to pay customs officials to look the other way when the importers avoid tariffs by smuggling in goods. Not surprisingly, countries that restrict international trade are found to be more corrupt (Ades and Di Tella, 1994).

Even when developing countries are unwilling to tear down all barriers to imports of foreign goods, they can still generate incentives for institutional reform by removing obstacles that prevent domestic producers from engaging in international trade. Facilitating production for overseas markets creates a greater need for a well-functioning financial system because, to compete effectively in the international arena, firms need better access to capital. If they can’t get capital, they won’t be able to make the

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[18] This argument is made in World Bank (2001) and Goldberg (2004).

[19] An excellent discussion of the literature on financial globalization using a unified conceptual framework is in Kose and others (2006). Studies focusing more specifically on the necessary preconditions for, and the appropriate sequencing of, financial reforms, macroeconomic policies, and institutional development, on the one hand, and capital account liberalization, on the other, include Eichengreen (2001), Alfaro and others (2004), and Klein (2005).

investments they need to increase productivity and price their goods competitively. Accordingly, international trade creates a demand for reforms that will make the financial system more efficient.

The case of China

We are seeing how the globalization of trade is driving financial reform in China. As Chinese enterprises increasingly enter international markets, they need a better financial system that can ensure that the allocation of their high domestic savings is done efficiently and is responsive to market developments. Although it has taken time, globalization is helping to generate the demand for an improved financial system, which is driving the reform process.

The Communist leadership recognizes that the old development model must change. The government has announced that state-owned banks are being put on the path to be privatized and has allowed foreign investment in China's banking system ($20 billion in 2005).[20] The government is also engaged in legal reform to make contracts more enforceable. In August 2006, the National People's Congress enacted a new bankruptcy law that gives creditors greater protection if a firm goes bankrupt, and last month it approved a law that gives individuals more legal protection for their property.[21]

China, of course, is an example of a country that has actively encouraged exports as a means of propelling its economic growth and development. To some extent, China may have gone too far in its use of policy to promote export growth. Increased reliance on market-determined prices will help ensure that the allocation of resources into the export sector does not exceed their efficient use. The goal should be to raise productivity toward world-class standards in all sectors of the economy. Recently China's authorities have agreed that some rebalancing of the sources of growth away from exports and toward domestic demand is in order. Among China's East Asian neighbors, the importance of developing industries to meet demand for domestic uses also is receiving increasing attention.

The problem of export restrictions

Nevertheless, developing production for exports may still be useful for those countries at the lowest rungs of the developmental ladder, and it is surprising that many of the world's poorest developing countries still not only do not encourage an export orientation but in fact maintain a regime of taxes, restrictions, and other policies that effectively discourage it. This problem remains especially serious in some African economies and may help explain why their growth performance has been so disappointing.

The primary way that governments discourage exports is by imposing large taxes on them. Because high export taxes are one method of obtaining revenue, governments may be attracted to them to solve their budget problems. They may also use these taxes to punish their political opponents, who are often involved in a particular export industry. The government can then distribute the resulting revenue to their supporters.

The most pernicious forms of export taxes are those that are hidden through the government's setting a fixed official exchange rate that artificially keeps the domestic currency at a value well above what it would be worth in terms of foreign currency (say, U.S. dollars) in a free market. The government then makes it illegal to sell dollars for the larger amount of domestic currency that could be obtained in the black market. The difference between the official exchange rate and the free, black-market rate (often called the "black-market premium") imposes a tax on exporters because they are forced to sell the dollars they earn to the government or to the central bank at the official rate, and thus they receive a much lower price for their goods in terms of the domestic currency.

Although in recent decades a great many countries have abandoned currency controls and dismantled their black markets, such controls still exist in some of the poorest economies, especially in Africa. In some countries, the tax from the black-market premium is confiscatory. An example from history illustrates this point. In 1982 Ghana had a black-market premium of more than 1,000 percent, and so exporters of cocoa (primarily from a tribe different from that of the ruling government party) were getting only 6 percent of the world price. Given such a high tax rate, it came as no surprise that cocoa

[20] The four largest state-owned banks, with 70 percent of China's bank deposits, are scheduled to be privatized in the following order: the Construction Bank, the Bank of China, the Industrial and Commercial Bank, and the Agricultural Bank.

[21] The new law becomes effective on June 1, 2007, but reportedly will not apply to state-owned enterprises until 2008.

exports, which had accounted for 19 percent of Ghana's gross domestic product in the 1950s, accounted for only 3 percent by 1982 (Easterly, 2001, p. 222). During the twenty years when the black-market premium was so high, the average income of Ghanaians fell 30 percent.

Like many such unwarranted controls on economic life, high black-market premiums also breed corruption, with all its negative effects, because they create strong incentives to bribe officials or to smuggle goods to avoid paying the black-market-premium tax. (Indeed, one of the reasons that governments in poorer countries often use this method of taxation rather than an explicit tax is that it allows government officials to get rich from the bribes they receive.)

Other gains from trade liberalization

Although we have been focusing on how globalization promotes financial development, we shouldn't forget that trade globalization, which involves both trade liberalization and an export orientation, is a key driver of economic growth for reasons additional to those already mentioned.[22]

The first economics course that college students encounter always teaches the concept of comparative advantage: By trading with another country, you can focus your production on what you are really good at so that your productivity will be high. This higher productivity then leads to higher economic welfare.

Trade liberalization, more importantly, promotes competition in domestic markets, which in turn forces domestic firms to increase productivity and make better products, both of which drive economic growth. If a foreigner produces a better product that can be imported, domestic firms must make a better product at a lower price to keep selling their product at home. One graphic example of how trade promotes competition occurred in India, which up until 1991 had protected its tool industry with a 100 percent tariff (tax on imports). After the Indian government cut the tariff sharply, Taiwanese firms initially grabbed one-third of the Indian market. Over the next decade, however, Indian firms boosted their productivity almost to the levels of Taiwanese firms, thereby winning back the domestic market. Eventually Indian tool firms became so efficient that they were able to start selling their goods abroad and became substantial exporters.[23]

Decreasing barriers to imports also helps promote exports. Increased competition from imports lowers the profits firms can earn by focusing solely on the domestic market, and so they naturally concentrate more of their energy on exporting. Moreover, trade liberalization helps developing countries gain access to foreign markets in advanced countries, as illustrated by the fact that the United States, through free-trade agreements, has been more willing to lower tariffs for countries such as Mexico and Chile if they do the same for the United States.

Empirical evidence indicates that trade liberalization has positive effects on productivity and economic growth for both importing and exporting countries: It has even been found to be associated with more-rapid increases in life expectancy and a reduction in infant mortality.[24] Yet, as is often the case in economics, empirical evidence is never completely clear cut: Some economists question whether the evidence strongly supports a positive link between trade liberalization and growth.[25] Nonetheless, the logic of the benefits of trade liberalization and the preponderance of the evidence supporting its positive effects lead most members of the economics profession, including me, to the following conclusion: Trade liberalization is highly beneficial not only for the overall economy but also for its

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[22] Indeed, almost all economists think that trade liberalization, a key element of globalization, is a good thing. For example, in Kearl and others (1979), 97 percent of economists agreed (generally or with some provisions) with the statement that "tariffs and import quotas reduce general economic welfare." A typical view advocating trade liberalization is expressed by Jagdish Bhagwati, one of the most prominent trade theorists in the world, in Bhagwati (2004).

[23] This example comes from Weil (2005, p. 322) and is described more extensively in Dollar and Collier (2001).

[24] The literature on the effects of trade liberalization on growth and poverty is immense. See the surveys in Temple (1999); Bourguignon and others (2002); Winters, McCulloch, and McKay (2004); and Wolf (2004). Earlier studies found that trade openness was associated with higher growth rates (Dollar, 1992; Sachs and Warner, 1995; and Edwards, 1998). However, because the direction of causation from this evidence is difficult to establish, other researchers have used instrumental variable procedures to establish causality from trade liberalization to growth (for example, Frankel and Romer, 1999). Using a different approach to identify the direction of causation, Lee, Ricci, and Rigobon (2004) also find that trade openness has a positive effect on growth.

[25] For example, Harrison (1996) and especially Rodriguez and Rodrik (2000).

constituent sectors. The resulting economic growth is a rising tide that raises all boats and is an important tool for poverty alleviation.

But even if trade liberalization is not adopted, giving domestic producers the opportunity to sell goods to rich countries' markets can be an important engine for growth in the world's poorest countries. One crucial way that governments in developing countries can encourage exports is by providing the transportation infrastructure – ports, roads, and airports – that make it easier for businesses to send their goods abroad. Because foreigners don't have a natural predilection to buy your goods, you have to be supercompetitive – your goods have to be better and cheaper than the goods made in foreign countries. Domestic firms have to focus even more on being highly productive, and boosting productivity will lead to rapid economic growth.

Japan's experience shows what focusing on exporting can accomplish. In the immediate aftermath of World War II, Japan was a poor country. Its economic infrastructure had been destroyed by the war. To convince Americans and others to buy Japanese products, Japanese firms had to produce goods that were cheaper and better than their American-made counterparts. As a result, the export industries in Japan became enormously productive and supercompetitive. Productivity grew, and three decades after World War II, Japan became one of the richest countries in the world.

South Korea, one of the great Asian success stories even with its crisis in the late 1990s, had very high barriers to trade until the 1990s, and its early development strategy did not include opening its domestic market to foreign goods. However, through its export sector, South Korea has participated fully in global markets, and this participation has been a key to its success. South Korea's development strategy focused on promoting its export sector, and it is the export sector that led to high productivity and economic growth. Indeed, all examples of successful growth stories in developing economies (China, Japan, South Korea, Singapore, Taiwan, Chile) have involved export sectors that met the test of international competition, and some of these economies have also pursued trade liberalization.

In almost all the industrializing East Asian economies, future growth will likely have to follow a more balanced path that relies less on exports and more on production for the domestic market. Such adjustments are needed not only to secure such economies' further development but also to alleviate the pattern of external imbalances around the global economy. It is in the world's poorest countries – especially in Africa and Latin America – that additional participation in global markets has the highest priority.

Only by embracing global markets can developing countries raise living standards.[26] Trade liberalization has a critical role to play in economic growth by directly stimulating domestic firms to become more productive. And along with financial globalization, it can also encourage emerging-market economies to develop the institutions that foster financial development. Globalization should be one of the highest priorities for developing countries.

The role of advanced countries

Can we in the advanced countries help? Yes, we can do so by supporting the opening of our markets to goods and services from emerging-market countries. By encouraging these countries to increase their participation in global markets, we create exactly the right incentives for them to implement the hard measures that will enable them to grow rich. As we have seen, exporters have strong incentives to be productive so that they can take advantage of access to our markets, and thus they will make the investments needed for growth. They also will push for the institutional reforms to make financial markets more efficient and promote financial deepening. By getting financial markets to work well, exporters will have access to the capital they need to increase their business.

Opening our markets to emerging-market countries is an important way that those in advanced countries can help emerging-market economies become successful. While providing aid to poor countries can, in the right circumstances, help eradicate poverty, it often will not work because it usually does not create the right incentives to promote economic growth. A handout is almost never as effective as a hand up.

[26] The finding in Jones and Olken (2005) that growth take-offs are primarily associated with large and steady expansions in international trade provides further support for this view.

Some are concerned about the consequences for us if we in the United States allow free competition in our markets for goods and services from countries where wages are low. Keeping many countries poor and their workers unproductive may seem to be to our benefit. But as shown in the examples of post-World War II recovery in Europe and Japan, and in the rapid growth in the 1970s and 1980s in the newly industrialized economies of Asia, higher standards of living throughout the global economy actually work to our benefit. Prosperity in our trading partners creates growing markets for U.S. exports of high-value goods. And over time, as workers' productivity abroad rises, so will their wages and incomes. It is true that the changes brought about in our economy by globalization impose significant costs on *some* domestic workers. We need to develop policies to help those workers without undermining the global trading system. The costs to us of damaging that system would far outweigh the benefits that some might gain from protectionist measures. Promoting trade liberalization helps us not only do good but also do well.

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