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Remarks to the Trade Deficit Review Commission

by

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Thank you for the invitation to address the Commission on the "Impacts of the Trade Deficit on the U.S. Economy." As requested, I will focus my remarks on the macroeconomic aspects of this topic. However, I have also provided some background materials on microeconomic aspects, and will mention these briefly at the end.

My discussion will emphasize the following points:

1. There is *no simple causal relationship* between a country's trade deficit and other areas of macroeconomic performance, such as output growth, job creation or inflation. Trade deficits are determined *together with these* other variables. Further, there is no tendency for deficits to be associated with poor economic performance.

2. U.S. economic performance has been very strong, with continued economic growth and low inflation as well as a rising trade deficit. Forecasts predict continued growth with low inflation, and some further deterioration in the trade deficit over the short to medium-run.

3. Macroeconomic concerns about the large U.S. trade deficit usually relate to the *risk* that such deficits may be unsustainable, and that adjustment may prove disruptive, perhaps requiring a sharp dollar depreciation and high interest rates. However, it is very difficult to infer the likelihood of such scenarios. For example, the IMF projects an orderly adjustment.

4. Because international trade creates winners and losers, large deficits do have significant distributional implications. While the benefits from trade tend to be widely disbursed, the costs are concentrated, for example among workers who lose their jobs as certain industries decline. Policies to address these concerns are most effective, however, when targeted directly on the impacted group. (Please see my paper "Domestic Adjustments to Globalization: United States.")

The primary objective of macroeconomic policy is to raise domestic living standards through sustained economic growth. Stable price inflation (at low -- or in some countries, moderate -- rates) seems to provide an environment that is conducive to such growth.

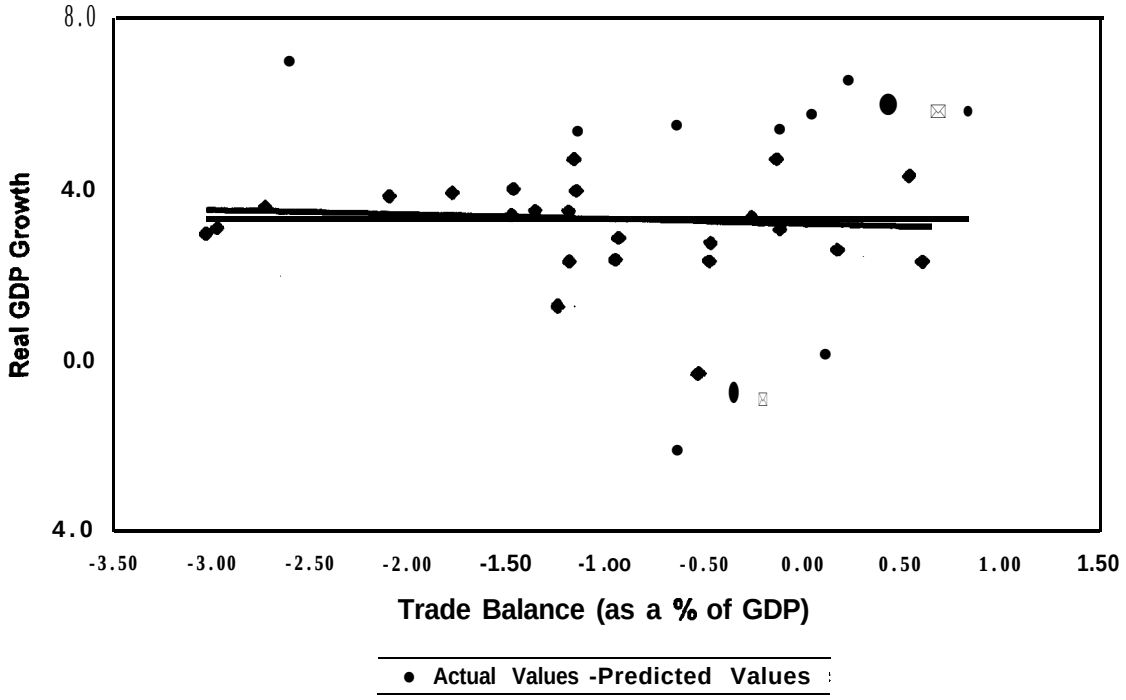
A discussion entitled the "implications" of trade deficits for U.S. macroeconomic performance could be taken to suggest that trade imbalances have a direct influence on the rate at which an economy grows, or on its price stability. In fact, a country's external balance, which reflects the difference between its saving and its investment, is determined together with these other variables. Trade deficits do not "cause" countries to have slower growth rates or higher price inflation.

Perhaps the clearest way to make the point is to look at what has happened to the U.S. economy in recent years. Figure 1 asks whether there is any relationship between annual GDP growth and the annual trade balance as a percentage of GDP. Thus, each of the 3 8 points in the scatter plot represents a different year between 1960 and 1997. There is no correlation between the two series. Years in which the U.S. had a large trade deficit do not tend to be years of relatively low growth. And years in which there was a large trade surplus do not tend to be years of relatively high growth.

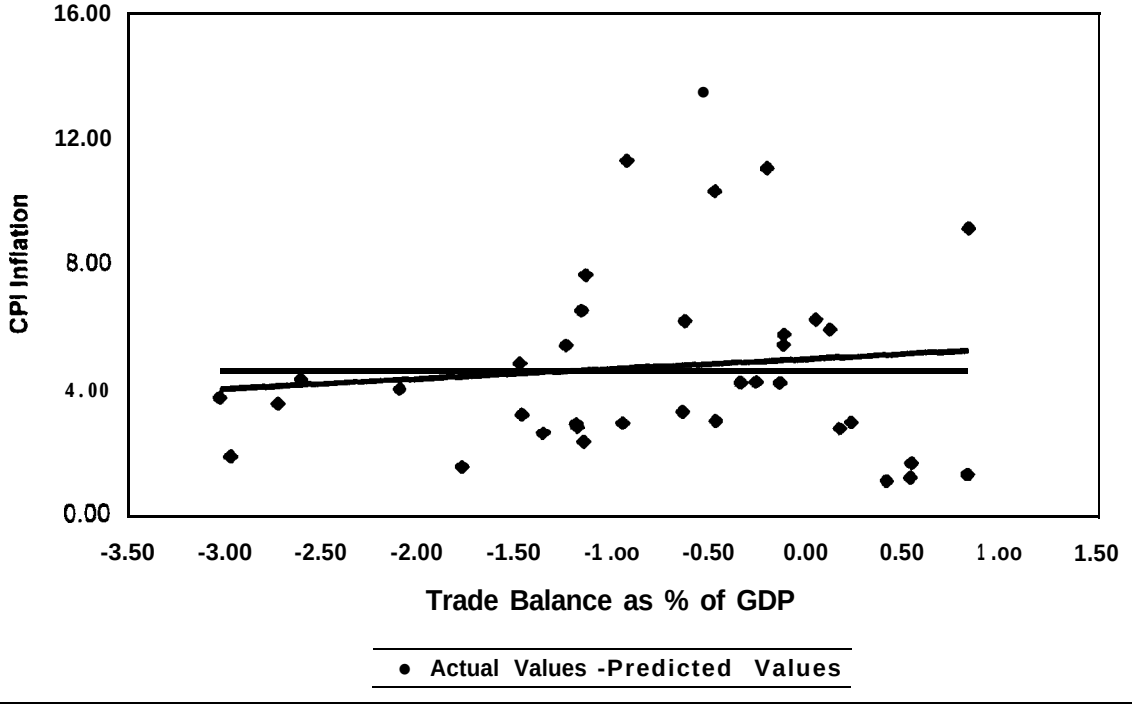
Figure 2 asks a similar question about the relationship between consumer price (CPI) inflation and U.S. trade imbalances. Once again, it illustrates the fact that there is little or no correlation between the two.'

[1] In fact, there is a slight tendency for the U.S. to have trade deficits in years in which inflation is relatively low. These also tend to be years in which the U.S. dollar is relatively strong, encouraging imports while keeping import prices low.

Trade Balance and GDP Growth



Trade Balance and Inflation



What is the current U.S. scenario? U.S. economic performance continues to be very strong. Real GDP growth has been nearly 4% since 1997, bringing the unemployment rate down well below 5%. Inflation has remained in check, with the CPI increasing at just 2-2.5% per annum. In the early years of the current expansion, there was widespread concern that the benefits of the strong U.S. economy appeared to be concentrated among those in the higher income brackets, many of whom had relatively high levels of education. More recently, the strong economy has been evident at all levels, lowering unemployment rates and raising real incomes of traditionally "hard to reach" groups such as black youths. This very desirable performance has been achieved at the same time that the U.S. external deficit has increased significantly, with imports growing more rapidly than exports. Forecasts for the U.S. economy over the next few years typically project GDP growth and CPI inflation both in the 2.5% range, with the current account deficit increasing to perhaps 3.5% of GDP before beginning to decline.

My point here is not that trade imbalances are never a reason for concern. The discussion below considers the macroeconomic perspective. The key point is that in order to make an assessment, one must first look behind a trade deficit (or surplus) to assess its causes – a subject that, I understand, was the focus of an earlier briefing. As stressed by speakers (such as Charles Schultz, my colleague from the Brookings Institution), a country with an external deficit is a country that is

- *importing more than it is exporting*
- *investing more than it is saving* and
- *accumulating more financial liabilities than assets.*

These three ways of looking at a deficit are simply three sides of the same polygon.

In general, we should be much more concerned about a trade deficit that reflects unusually low saving, than one that reflects strong investment. This is because, unlike debts incurred for today's consumption, productive investments promise pay-offs, in terms of higher future production, that will be available to offset any debts incurred to finance today's imports. How does the U.S. look from this perspective? On the one hand, gross domestic investment has increased to nearly 19% of GDP during 1997-98, after averaging just 17.3% during 1993-96. In comparison, investment was roughly 20% of GDP during the 1960s, 1970s and 1980s. So the recent decline in the external balance partly reflects some recovery of (especially private) investment. At the same time, the desirable rise in government saving has been offset by a continued drop in personal saving.[2] Given this decline in saving, the ability to run trade deficits has enabled the U.S. to invest more. From a global perspective, it is also important to point out that the U.S. trade deficits have played an extremely important role in enabling countries such as Korea to recover from the devastating effects of the recent currency crisis .

One could also be concerned about a trade deficit because of possible implications of the net capital inflows that are required to finance it. In the U.S. case, this issue is often framed in terms of the ***sustainability*** of the deficits. What would happen if the rest of the world became unwilling to purchase such a large volume of U.S. assets? Some have worried that in such a scenario, the value of the U.S. dollar could depreciate sharply, causing a very disruptive pattern of adjustments. While it is true that, given its large current account deficits, there is at least some risk of such an outcome. The real

question is its likelihood. I believe that considerable humility is appropriate in making any statements about the future, especially the future behavior of financial markets. At the same time, I note that there are a number of carefully conceived model forecasts of alternative scenarios for the U.S., which depict what can only be described as quite orderly adjustments.

[2] Achieving a recovery of personal saving is a hot research and policy topic at the moment, Unfortunately, there do not appear to be any simply silver bullets.

The Japan Center *for International Exchange* wishes to *thank*

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6 . United States

Susan M. Collins

GROWING infernational economic integration has meant many things for the United States, and hence there are many dimensions to thedomesticadjustment in process. However, the topic that has received the most attention in this context is whether trade—and globalization moregenerally-harms American workers. More specifically, has globalization made adjustment to structural change more difficult by reducing the real earnings of many American workers and increasing the incidence and costs of job loss? To examine these issues, this chapter develops three themes and highlights their interaction.

First, the United States has clearly become more integrated with the global economy. Cross-border flows of goods, services, and capital all have risen sharply since the 1970s. There has also been a significant recent increase in the number of immigrants to the United States. Importantly, increasing integration has qualitative as well as quantitative significance for Americans. The implications go beyond numeric calculations such as the effects of increased imports on demand for domestic production. Historically, the United States has been quite self-sufficient economically. As a large, wealthy country, trade with the rest of the world did not account for a major share of U.S. production or consumption. Americans saw their producers as the unquestioned technological leaders. By and large, Americans did not expect

economic fortunes at home to be tied to developments abroad. In a variety of ways, this environment has changed. Other countries now compete with the United States at the technological frontier. Americans worry that, in terms of math and science, their youth lag behind those in other countries.

Second, although recent U.S. economic performance has been strong overall, the country is struggling with some difficult longer-term problems. These include slow productivity (and hence average real wage) growth and a worrisome increase in wage and income inequality. In particular, the real earnings of less educated American workers wereactually falling until recently. A surprisingly large share of workers express some anxiety about their job security. In response to these developments, many have pronounced the death of the "American dream"-whereby individuals could prosper through hard work and perseverance, and could expect their children to enjoy higher living standards.

Third, rapid growth in a dynamic economy goes hand-in-hand with significant job displacement because workers are forced to move out of less efficient or contracting industries. However, by international standards, the United States does not maintain extensive support programs for displaced workers. Relatively few of those unemployed actually receive unemployment compensation. Furthermore, the United States is in the midst of rethinking its approach toward providing a safety net, as evidenced by the major overhaul of the welfare system now under way. More active policies to assist displaced workers. such as training and job search, are decentralized and fragmented.

The chapter is divided into five sections:

. The integration of the United States with the global economy.
. A summary of recent U.S. economic performance, highlighting worrisome developments in U.S. labor markets.
▪ An assessment of the implications of globalization for American workers, and in particular for the declining relative wage of less skilled workers.
• An overview of the experience of and policies toward displaced workers.
• Some concluding remarks.

THE UNITED STATES IN THE GLOBAL ECONOMY

The United States is becoming more integrated with the rest of the world economy. At the same time, as a large, wealthy country, the United States continues to be somewhat less "open" and more self-sufficient than most other industrial countries.

Increased Integration

Table 1 provides some indicators of economic integration. It shows that U.S. trade in goods and services (exports plus imports) more than doubled from 10.9 percent of gross domestic product (GDP) in 1970 to 25 percent in 1997. Much of this increase occurred during the 1970s.

Trade with nonindustrial countries has grown as a share of total U.S. trade. Between 1980 and 1995, trade with nonindustrial countries (excluding Eastern Europe and the Organization of Petroleum Exporting Countries) grew from 29.2 percent to 37.1 percent of total U.S. exports and from 25.4 percent to 37.5 percent of total U.S. imports. However, the increase in the share of manufactured imports coming from developing economies was somewhat smaller than this overall figuresuggests, rising from roughly 30 percent in the mid-1970s to 36.0 percent in 1992. This is not primarily a reflection of developments in the United States, where trade barriers had already been reduced to low levels in all but a few sectors. Instead, the increase in trade with developing (and transition) economies reflects their dramatic and widespread shift from inward to outward orientation, combined in

Table 1. Indicators of Increased International Integration (% of GDP)

	Exports	Imports	Stock of Foreign Assets in the U.S.		Stock of U.S. Assets Abroad	
			Total	Direct Investment	Total	Direct Investment
1970	5.5	5.4				
1980	100	10.6	180	30	218	77
1990	9.7	109	416	94	379	12.7
1997	11 9	13.1	67.0.	164'	56.1*	20 1*

Sources U S Council of Economic Advisers (1998, Table B-1, 280–281, and Table B107, 401; 1989, Table B-106, 429)

GDP. Grassdomesticproduct
'1996

Asia with rapid rates of economic growth. indeed, the rise in imports from developing economies is largely a story about increased imports from the dynamic Asian economies and, more recently, of increased linkages with Mexico.

Table 1 also shows a significant increase in cross-border ownership of assets. In 1980, the stock of foreign assets in the United States was equivalent to 18.0 percent of domestic GDP. By 1996, this figure had risen to 67.0 percent. Strikingly, between 1980 and 1996, the stock of foreign direct investment (FDI) in the United States jumped from 3.0 percent to 16.4 percent of U.S. GDP (see Graham and Krugman 1991 for an analysis of the implications of FDI in the United States). The final two columns of the table show the rises in U.S. asset holdings abroad.

Savings: Investment and External Imbalances

The United States has had large and persistent trade deficits since the early 1980s. The ability to finance these deficits is related to the increased integration of international financial markets, and to foreigners' continued willingness to expand their net holding of U.S. assets. Decomposing the external imbalance into savings and investment provides a useful perspective on recent developments. This decomposition emphasizes the point that globalization enables the United States to sustain investment rates that are considerably higher than national saving rates.

Net foreign investment, which Is roughly equivalent to the current account, deteriorated from 0.4 percent of GDP in 1980 to minus 3.3 percent in 1987 (table 2). The deterioration reflected sharp declines in both privateand government savings, with domestic investment also declining. Government savings dropped an additional 2.2 percentage points of GDP between 1987 and 1992. However. the U.S. external balance improved because of an even larger decline in investment. The current account deteriorated from 1992 to 1997, but the "anatomy" of this deterioration is quite different from that during the period from 1980 to 1987. Private investment has recovered since 1992. This increased investment has been more than offset by higher (federal) government saving. Recent policy changes to reduce the U.S. budget deficit as well as the budgetary implications of strong economic

Table 2. Savings, Investment, and External Balance (% of GDP)

	Gross National Savings			Gross National Investment			Net Foreign Investment	Statistical Discrepancy
	Private	Govern-ment	Total	Private	Govern-ment	Total		
1980	17.6	2.0	19.6	16.7	3.5	20.2	0.4	1.0
1987	15.5	1.1	16.6	15.9	3.7	19.6	-3.3	-0.4
1992	15.6	-1.1	14.5	12.7	3.3	16.0	-0.8	0.7
1996	14.7	1.9	16.6	14.6	2.9	17.6	-1.7	-0.8

Source: U.S. Council of Economic Advisers (1998, Table B-1, 280, and Table B-32, 318–319)
GDP: Gross domestic product

growth have both contributed to this outcome. Unfortunately, private savings have dropped from an already low level. Thus, longawaited fiscal policy changes are helping to boost government savings. How to raise private savings remains an important but difficult issue.

Immigration

The United States has also seen a recent surge in immigration (see Borjas 1995; Friedberg and Hunt 1995). During the 1980s, the absolute numbers of new immigrants were comparable to peaks reached around the turn of the century, and accounted for roughly a quarter of U.S. population growth. In 1991, irnmigrants were 7.9 percent of the U.S. population [a considerably smaller proportion than in the early 1900s). In comparison, immigrants accounted for 3.1 percent, 8.2 percent, and 15.6 percent of the populations of the United Kingdom. West Germany, and Canada, respectively. Of the U.S. immigrants, 75 percent now come from Asia. Latin America, and the Caribbean. On average, recent immigrants are also somewhat less educated than previous immigrants.

Other Considerations

Increased trade, capital, and labor flows are important features of the U.S. relationship with the global economy. But there are other aspects as well. First. the United States is no longer the world's undisputed leader in terms of its technology, and its relative endowments of physical and human capital. indeed, Edward Learner concludes that in 1965 the United States was "on the edge of the advanced countries

with abundance of both professional workers and also capital. From this uniqueness presumably came relatively great gains from trade and also insulation from competition with the most labor-abundant countries. But by 1988 the United States is only one of many. The United Stales is exceeded in both physical capital and human capital per worker by a collection of OECD countries. [There are also] a group of low-wage countries with ratios of human and physical capital that are high enough to turn these countries into U.S. competitors" (1998, 170–171). Similarly, Collins and Bosworth (1996, 189) present estimates of the convergence between Japan and the United States. Our figures suggest that physical capital per worker in Japan grew from 31 percent of the U.S. level in 1970 to 102 percent of the U.S. level in 1994. Human capital per worker in Japan grew from 80 percent of the U.S. level to 84 percent.

Second, there appears to have been an increase in broad-based U.S. public concern about the implications of competing in a global marketplace. These concerns came to the forefront in the prolonged and heated debated over the pros and cons of further integration with low-wage Mexico through the North American Free Trade Agreement. Ross Perot's characterization of the "great sucking sound" Americans would hear as jobs moved south across the border into Mexico quickly became a household phrase.

Finally, the end of the cold war has altered the context in which the United Slates interacts with other countries. These changes and their implications are difficult to measure, but have clearly shifted the balance between political and economic considerations.

THE CONTEXT OF RECENT U.S. ECONOMIC PERFORMANCE

Overall, the U.S. economy is performing well and continues to look quite healthy relative to other major industrial countries. This view is strongly supported by the main economic indicators. At the same time, the U.S. economy continues to struggle with some difficult problems. The underlying causes of these problems are far from clear, and many people believe that increasing U.S. integration with the rest of the world is to blame. In particular, this has led to a large and growing literature. and to heated debates about whether globalization harms

American workers. The fact that successful remedies are not readily apparent-particularly ones that would provide "quick fixes"-may help to explain the often contentious nature of this debate,

Recent Macroeconomic Developments

Table 3 provides key indicators of recent U.S. economic performance. Real GDP growth ranged from 2.0 percent to 3.8 percent per year from 1992 to 1997. The recent economic expansion has been driven not by increased consumption but by private investment and exports.

Table 3. Recent U.S. Economic Performance (% growth rates)

	1990	1991	1992	1993	1994	1995	1996	1997
Real GDP	1.2	-0.9	2.7	2 3	3.5	2.0	2.8	3.8
Private investment*	- 0 6	-6.4	1.9	7.6	8 0	9.0	9.2	9.7
Personal consumption	1.7	-0.6	2.E	2 9	3 3	2.4	2.6	3.3
Government outlays	3.0	0 6	0.5	–0.9	0 0	0 0	0 5	1.0
Federal	2.0	–0.5	-2 1	-4.2	-3 8	-3.3	-1.3	-1.4
Exports	8.5	6.3	6.0	2 9	8.2	11 1	8.3	12.5
Imports	3.9	-0 7	7.5	8.9	12.2	8.9	9.1	13.9
CPI	5.4	4.2	3 0	3.0	2 6	2.8	3.0	2.3
Unemployment rate†	5.6	6.8	7.5	6.9	6.1	5.6	5.4	4.9

Source: U.S. Council of Economic Advisers (1998, Table B-4, 285, Table B-35, 322, and Table B-63, 353).
GDP: Gross domestic product; CPI: Consumer Price Index.
*Private nonresidentiol fixed Investment.
†Civilian unemployment rate.

Associated with the economic growth has been continued rapid job creation and persistently low rates of unemployment. In particular, unemployment fell from 7.5 percent of the civilian labor force in 1992 to just 4.9 percent in 1997. In 1998, the monthly unemployment rate dropped to 4.4 percent.

Some have claimed that the rapid job growth statistics paint an overly rosy picture of the U.S. labor market. However, the evidence does not support the claim that most of the new jobs are poor jobs with low pay and benefits. A recent Bureau of Labor Statistics study of job creation from 1989 lo 1995 classifies jobs in 90 industry/employment categories as low-, middle-, or high-paying. It finds that employment in low- and high-paying jobs increased by 7 percent and 13 percent, respectively, whereas employment in middle-paying jobs decreased by 3 percent.

Table 3 also shows that U.S. consumer price inflation has remained at or below 3 percent per year since 1992. In fact, many analysts believe that actual price inflation may be even lower than these figures suggest because of difficulties in adjusting for quality changes, the introduction of new products, and the fact that consumers alter their consumption decisions in response to price changes. A recent U.S. Senate-appointed panel concluded that the likely overestimate is around 1.1 percentage points. Other economists argue that other measurement problems offset these upward biases, and that the net effect of the various measurement difficulties is unclear. However, biases in Consumer Price Index inflation rates would affect measures of U.S. productivity and real wages. Although productivity growth and real wage growth may be somewhat higher than available statistics suggest, these statistics still allow us to make inferences about whether productivity and wage growth have slowed down or sped up, and about changes in the distribution of wages.

The persistence of low inflation coupled with low unemployment is a puzzling feature of recent U.S. economic performance. A few years ago. the nonaccelerating inflation rate of unemployment (NAIRU) was widely viewed to be around 6 percent. The fact that the unemployment rate has stayed below 5.8 percent for more than 15 quarters with no apparent acceleration in the inflation rate begs an explanation. One view is that NAIRU has declined. This might have occurred as a result of demographic changes, or shifts in expected real wage gains because of the productivity slowdown or increased competition. Alternatively. special temporary features may be at work. The recent slowdown in U.S. health-care costs may explain why light labor markets have not caused the prices of goods and services to rise. In addition, there seems to be considerable worker anxiety about job loss, which could account for slow wage growth despite relatively low rates of unemployment. Of course, it is difficult to measure such changes in altitudes, to assess their implications, and to tell whether they are temporary or likely to persist.

The sustained economic growth and low rates of unemployment and inflation are all good news about the U.S. economy. In some other areas, the news is much less positive. As a large and growing number of studies have documented, average real wages and compensation have stagnated in the United States. whereas wage and income inequality have increased.

Average Wages: Productivity and Growth

Table 4 shows what has happened to the real average compensation of the American worker during the past three decades. After growing at a rapid 2.7 percent per annum from 1960 lo 1973, growth in average compensation fell sharply to just 0.6 percent from 1973 lo 1995. Nearly all of this decline in earnings growth can be accounted for by the drop in U.S. labor productivity growth from 3.0 percent per annum before 1973 to just 1 percenl from 1973 to 1995. Data suggest that productivity growth may have risen somewhat since 1995; however, it is too early to tell whether this higher rate will be sustained. Most of the rest of the decline can be accounted for by a deterioration in labor's terms of trade—that is, a reduction in the value of goods and services produced by U.S. workers relative to the value of goods and services consumed (Lawrence and Slaughter 1993; Bosworth and Perry 1994). Although the stagnant growth in real earnings of the average worker has not been the focus of the debate over whether globalization is harming American workers, this trend is certainly central lo the underlying concerns about the U.S. labor market.

Table 4. Growth of Average Earnings and Productivity (annualized percentage growth rates)

	Real Compensation	Productivity
1960–1973	2.67	301
1973–1995	0 64	1.02

Source: Author's calculations from U S Bureau of Labor Statistics, Basic Industry Data and Industry Analytic Ratios for the Nonfarm Business Sector.

Note The personal consumption expenditure deflator is used to calculate real compensation Productivity refers to the nonfarm business sector.

Reasons for the well-known productivity slowdown remain unclear. Because this slowdown was experienced in most economies, the causes cannot be purely domestic. However, many analysts believe that increased U.S. capital accumulation, financed by increased national savings, would contribute to a rise in U.S. productivity growth. US. savings and investment remain low by international and historical standards. In this context. it is interesting to consider findings from a recent decomposition of the sources of growth in a large number of countries. These results make it possible to compare developments in the United Stares with those in other parts of the global economy.

Table 5. Decomposition of the Sources of Growth in Output per Worker (%)

	Growth in Output per Worker	Physical Capital per Worker	Human Capital per Worker	Total Factor Productivity
		United States		
1960-1973	1.9	0.5	0.6	0.8
1973-1994	0.6	0.3	0.2	0.1
Difference	-1.3	-0.2	-0.4	6 . 7
		Other Industrial Countries		
1960-1973	4.0	2.3	0.4	2.2
1973-1994	1.7	1.0	0.4	0.4
Difference	-3.1	-1.3	0.0	-1 8
		East Asia		
1960-1973	4.2	2.3	0.5	1.3
1973-1994	4.2	2.5	0.6	1.0
Difference	0.0	0.2	0.1	-0.3
		Latin America		
1960-1 973	3.4	1.3	0.3	1.8
1973-1 994	0.3	0.6	0.4	-0.8
Difference	-3.1	-0.7	0.1	-2.6

Source: Collins and Bosworth (1996, Table 7, 158-159).

Table 5 shows the results of a growth-accounting exercise for the United States as well as 22 other industrial countries, 22 Latin American countries, and seven East Asian countries from 1960 to 1973 and from 1973 to 1994 (see Collins and Bosworth 1996 for details). For each country or region. the third row shows the difference between the two periods. The first column reports growth in output per worker. (Note that this definition of labor productivity differs from the one used in table 4.) Using standard growth-accounting methodology. the growth in output per worker has been decomposed into three portions in the remaining columns of the table. These are the contributions from increases in physical and human capital per worker and a residual. Typically called total factor productivity (TFP) growth, this residual indicates growth in the efficiency with which factors are used in production. Although intended as a proxy for changes in technology and "know-how" more broadly defined, the residual reflects a variety of developments, including political crises and external shocks.

Table 5 shows a 1.3 percentage point fall in the growth of output per U.S. worker between the two periods. Slightly less than half of this

drop (0.6 percentage point) is accounted for by a fall in the contribution of increased physical and especially human capital per worker,

The U.S. experience has been in some ways similar and in other ways quite different from that in other regions. In 1960, the United States was the acknowledged technical leader, with an already high ratio of physical and human capital per worker. Not surprisingly, further accumulations of capital or improvements in technology contributed considerably less to U.S. economic growth from 1960 to 1973 than was true for developing countries, or for other industrial countries on average. After 1973, all regions experienced some slowdown in TFP growth. As a group, the other industrial countries are like the United States in that slower TFP growth accounts for slightly more than half of the overall reduction in growth of output per worker.

Experiences in East Asia and Latin America provide striking contrasts. The East Asian countries saw a relatively small reduction in TFP growth, which was offset by increases in both physical and human capital accumulation to maintain rapid overall growth in output per worker. In Latin America, a drop in the contribution of capital accumu-

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18ge graduates saw their real wages rise by

school graduates between 1979 and 1993. Some (economists and noneconomists) believe that this rising skills gap is attributable to increased international integration, and specifically, to increased integration between the United States and developing economies. In the present context, it is notable that only about a third of the increase in earnings inequality can be attributed to observable differences between workers-including their skill levels.

American workers also appear to be suffering from a lingering anxiety about their labor market prospects. Opinion poll data show a decline in the share of respondents who believe their current jobs are secure. In 1995, only 51 percent believed they were "not at all likely" to lose their jobs within the next 12 months. This share was much lower than the 60 percent in 1991, when the unemployment rate was 6.8 percent, and comparable to the share in 1983. when unemployment was close to 11 percent. Similarly, quit rates are lower than would be expected from historical experience. The evidence IO support the view that jobs are less secure is mixed. Some indicators suggest an increase in the rate of job loss. whereas others suggest that the rate of job loss has fallen. However, the characteristics of those losing their jobs have changed, implying that a broader cross-section of the American labor force can now expect to experience job dislocation.

INTERNATIONAL INTEGRATION AND U.S. LABOR MARKETS

Has growing integration harmed American workers? Is it to blame for the recent difficulties. particularly of less skilled workers, and will it cause even greater dislocations in the future? These questions have been the topic of an often heated debate in the United States. The debate focuses on trying to explain the causes of the increase in the premium paid to skilled relative to less skilled workers.

Circumstantial evidence suggests that globalization has played at least some role. In particular, relative wages of less skilled workers have declined over roughly the same lime period as the increase in trade with developingcountries. Furthermore, stories linking the two are intuitive. (It is much more difficult to explain why globalization should beassociated with increased wage disparity that is not related to skill differences, Most analyses do not focus on the broader rise in

wage inequality, or in other components of family income inequality, even though these trends are arguably central to recent concerns about American workers.) This section summarizes key points that have emerged from the large and complex literature about globalization and the skill premium. [For additional analysis and references, see Collins 1998 and Lawrence 1996.)

Three factors have been identified as possible causes (culprits) for the rise in the U.S. skill premium: globalization, technical change, and U.S. domestic developments. Increased economic integration, particularly with relatively low-wage economies. includes increased immigration and the prevalence of multinational corporations as well as trade in goods and services. Technological change that may be of concern includes developments that are biased toward particular types of factor inputs or toward particular sectors, or both. Factor bias could have implied a shift in relative demand away from less skilled toward more highly Skilled workers. Sector bias could have shifted labor demand away from industries that are relatively inlensive in their use of less skilled labor.

Finally, other relevant developments within the United States include institutional changes such as changes in the role of unions and in therelationships between workers and companies, and the decline in the real value of the minimum wage. Also included are labor supply changes, such as in the skill composition of the U.S. labor force.

The list of possible culprits makes it difficult to empirically assess the causes of the increased skill premium, because each is difficult to measure. Trade flows are often used to measure increased globalization. Rut many international economists have stressed that trade flows are not exogenous indicators of a "globalization change." Instead, imports and exports are endogenous variables that should reflect technological developments as well as changes in the degree of international integration. There are similar problems with changes in the prices of goods and services that are traded internationally. In particular, a large economy such as the United States is unlikely to he a price taker for many items. Explicit policy changes, such as reductions in trade barriers in the United States or its trading partners, could be considered exogenous indicators of increased integration. However, available data on tariffs and quotas are poor proxies for the underlying developments of interest, both because they do not

adequately capturechanges in outward orientation, and because such policy changes are only one piece of the whole picture. Other developments that should be considered important pieces of the "globalization shock" include the rapid growth of productive capacity in US. trading partners in Asia and elsewhere and falling transportation and communication costs.

Technical change is notoriously difficult lo measure. Numerous studies estimate it using the residual, once the effects of more easily measurable contributions of factor inputs are taken into account. It is not surprising, then, that most analyses simply look at how much of the increased skill premium can be explained by measurable changes in trade and immigration and assume that the **remaining unexplained** portion is a measure of the importance of technology (Learner 1998 is an exception) Relatively few studies consider a role for domestic institutional changes, and those that do tend to discuss the changes in qualitative terms.

Two main methodological approaches are used in the existing literature: the quantities or factor-content approach and the prices or Heckscher-Ohlin approach. Each is based on a model that makes simplifying assumptions about how the world works. Each therefore is subject lo limitations. Disagreement among analysts about the best approach helps to explain why the debate about trade and wages has been difficult especially for nonexperts to follow and why research in this area continues to be active.

The faclor-content approach is based on a simple model of labor supply and demand. The basic idea is that exports of goods and services to the rest of the world increase the derived demand for domestic factors of production, whereas imports and immigration from the rest of the world increase the effective supply of lactors of production. Changes in relative supplies of factors can be related to changes in relative wage3 using estimates of demand elasticities. More specifically, although U.S. imports are relatively more intensive in their usage of low-skilled labor than U.S. exports, a rise in net imports should be associated with a rise in the effective supply of less skilled workers, and thus with a fall in their relative wage. A critique of this approach is that it assumes that trade flows can be treated as exogenous indicators of globalization.

A number of analysts have applied the factor-content methodology

to assess the implications of globalization for relative wages, and most (though not all) conclude that trade and immigration account for at most a quarter of the recent increase in the skill premium. Borjas, Freeman, and Katz (1996) conclude that trade and immigration combined can explain 10 percent (1.6 percentage points) of the increase in the premium paid to college graduates relative to high school graduates from 1980 to 1990, with trade and immigration havingsimilareffects. (They also conclude that trade and especially immigration may have been more important factors in the deteriorating position of high school dropouts relative to other workers.)

The other approach is based on the Heckscher-Ohlin model of international trade. In this general equilibrium model, which assumes perfect competition and constant returns to scale, there is no necessary relationship between changes in quantities of factors and changes in factor prices. Instead, the framework highlights a linkage between changes in relative prices of goods and changes in relative prices of factors. (Other implications of the Heckscher-Ohlin model have also been examined.) In the simplest case, with two factors (skilled labor and unskilled labor) and two goods (skill-intensive airplanes and unskilled-intensive apparel), the well-known Stolper-Samuelson theorem states that a fall in the price of apparel relative to airplanes will reduce the price of unskilled relative to skilled labor. The story would be that greater outward orientation in East Asia and other low-wage economies has reduced the world relative price of apparel. However, in extended versions of the model with many goods and many production factors, the relationships between goods and factor prices become somewhat more complex, making it difficult to infer the implications of goods price changes for the price of a particular type of labor.

Those basing their analysis on the Heckscher-Ohlin model stress that if globalization affected relative wages of the less skilled, the channel would be through changes in the relative price of goods that are intensive in their use of less skilled labor. Thus, many studies ask whether relative prices of goods such as apparel have declined. The maintained assumption is that changes in the prices of traded goods reflect exogenous changes in the global economy. Various studies reach somewhat different conclusions, depending in part on which sectors are included, and on how goods prices are adjusted for productivity changes. One carefully cloned analysis (Learner 1998)

concludes that the relative prices of less skill-intensive goods did not fall during the 1980s. But somewhat surprisingly, less skill-intensive goods did become relatively less expensive during the 1970s. The increase in wage disparities, and in particular in the skill premium, occurred during the past 15 years, so that this price evidence does not support the view that globalization has been the main culprit, unless it works with a significant lag.

In sum, existing evidence provides little support for the view that globalization has been at the heart of the recent problems of less skilled American workers, suggesting instead that increased integration accounts for at most a quarter of the fall in the relative wages of the less skilled. Technological change seems likely to explain the largest portion of this shift, However, the problems with existing empirical analyses make it difficult to pin down the causes conclusively. New analyses are exploring whether integration might work through channels that are poorly captured in either the factor-content or the Heckscher-Ohlin approaches.

LABOR MARKET ADJUSTMENT: EXPERIENCE AND POLICY

Any dynamic economy experiences considerable "churning." Each year, some companies (and sectors) thrive, whereas others do poorly. New jobs are created as new companies expand or are created. Jobs are eliminated as companies contract or go out of business. The extensive job creation and destruction cause employment changes for many individual Americans, In particular, some workers will be involuntarily displaced from their jobs.

Because increased integration with the rest of the world economy is associated with structural changes in the domestic economy, globalization should be expected to contribute to the natural churning of the U.S. economy. Reaping the rewards from interactions with the global economy must entail some changes at home.

As has been widely noted, employers in the United States are more likely lo lay off workers (instead of adjusting hours or compensation) than employers in Western Europe or Japan. Furthermore, displaced workers in the United States receive much less assistance-they are largely on their own in preparing for and finding new jobs. Arguably.

this "harsh" climate has contributed to the extent of concern over the possibility that increased international economic integration or any other structural change would harm American workers,

Experiences of Displaced Workers

The economic costs to an individual displaced from his job are substantial. The typical displaced worker suffers a large reduction in earnings (see Leigh 1995; Jacobson 1998). His income often declines in the months prior to actual job loss. Once permanently displaced, significant time is required to find a new job. (Most displaced workers are reemployed within 18 months.) The new job tends to pay lower wages-and this earnings gap (relative to earnings at the previous job) is persistent. One recent study estimated the (present value of the) total earnings loss for the average displaced worker at US$80,000 (Jacobson 1998).

The probability of being displaced appears to have been about the same in the early 1990s as it was in the early 1980s. (Among workers with at least three years on their current job, 3.8 percent were displaced in 1991 and 1992, compared with 3.9 percent in 1981 and 1982.) However, there have been some changes in the composition of displaced workers; in the early 1990s, they were more likely to be older, white collar, and welt educated. [Although older workers have seen a rise in the probability of job loss, this probability continues to be tower for older rather than for younger workers.) The earnings loss associated with displacement has also increased.

Displacement is not predominantly an international trade-related phenomenon On average, industries that face significant import competition do not tend to have higher displacement rates, and most displaced workers do not come from such industries. A recent study by Kletzer (1998) concludes that overall, workers in industries with high import penetration are no more likely to be displaced than workers in other industries. This is true even though a few highly visible sectors with high import penetration, such as apparel, do have high rates of displacement. This finding is consistent with the conclusion of the previous section that factors other than international integration per se explain most of the recent changes in U.S. labor markets.

However, the evidenceon whether workers displaced from import-competing industries face greater hardships is mixed. Such workers

may take longer to become reemployed, and may suffer somewhat greater earnings losses. In particular, Kletzer compares the experiences after job loss for workers who are displaced from import-sensitive industries with those displaced from other industries. The former appear to have more difficulty in finding new jobs. However, these workers are more likely to be female, and tend to be younger and less educated than workers displaced from industries that are not import sensitive. Conditional on worker characteristics, Kletzer finds no difference in reemployment probabilities between the two groups.

Americans are quite responsive to incentives. In particular, the persistent skill premium earned by more educated workers has prompted a significant rise in the percentages of those who complete high school and who go on to higher education. Over time, this labor supply responseshould go a long way toward alleviating what appears IO be a mismatch between the high demand for skilled workers relative to the available supply.

This adjustment mechanism primarily affects new entrants into the labor force. It is much less relevant for older workers, who have been away from school for many years-an important component of those who become displaced. Moreover, not every worker can become highly skilled, or would benefit from additional schooling. Of particular concern in this regard are those who are disadvantaged and/or have weak basic skills.

Assisting Displaced Workers

A variety of U.S. government policies assist displaced workers. It is useful to distinguish between two types. Passive interventions provide general income support and/or supplement the incomes of those who are unemployed. Often also called a "social safety net," they include unemployment insurance (UI), welfare, and earned income tax credits. Active interventions are intended to shorten unemployment spells and/or to increase the earnings potential of workers seeking jobs. Included here would be various types of job search assistance, retraining, and career development programs.

Compared to many other industrial countries, the United States devotes few government resources to either passive or active labor market interventions. For example. in terms of their national incomes, Canada and Germany devote more than three times the amount

devoted in the United States. Japan devotes somewhat less than the United States. However, Japan has an extensive and well-developed training system that is integrated into the general education system and that actively involves private employers.

In terms of passive interventions, concern exists about the small portion of the unemployed who receive unemployment insurance benefits. This proportion declined further during the 1980s. Leigh reports that "at present, although over 90 percent of employed workers hold jobs that are covered by the UI system, less than 30 percent of the unemployed receive UI benefits" (1995.44).

Active interventions in the United States have been characterized as fragmented and unstable (Leigh 1995). Short-term "demonstration" projects are common, often with extensive evaluation, but little follow-up. A plethora of programs are run from different federal, state, and local agencies. The result is a maze that can be confusing, inefficient. and inequitable. However, the evaluations suggest some useful lessons about how such interventions might be improved.

Consider first job search assistance. This might include basic workshops on how to search for a job and a clearinghouse of information to help match job seekers with openings. (A problem with current participating agencies, such as the US. employment service, is that they have limited information about job openings.) Such programs do seem to help some displaced workers find jobs more quickly. Although the net payoffs from such schemes are relatively small, many analysts conclude that such programs are worthwhile because they are relatively inexpensive, and provide a significant "bang-for-the-buck."

Experiences in the United States and abroad suggest that, although far from a panacea, job training can help. There is. however, a widespread perception that other countries do a better job than the United States of training workers. One set of issues involves preparing young workers for the school-to-work transition. Although extremely important, job training for younger workers does not address the concerns of older workers who are more likely to be displaced by trade.

Unfortunately, the evidence about the effectiveness of training programs for older workers is mixed. In particular, it appears that classroom-based training programs are often expensive, with little payoff. Programs that seem to work best are those that are delivered on the job or in worklike settings. In addition, employer involvement is important

in making sure that the skills being taught to workers in the training programs are marketable. However, it is difficult to design a program that helps all displaced workers, particularly those with weak basic skills, and such broadly targeted programs are expensive.

CONCLUDING REMARKS

A healthy, dynamic economy typically undergoes considerable structural change as some sectors expand while others contract. Ahhough beneficial overall, this churning implies some workers are involuntarily displaced from their jobs, and these bear a disproportionate share of the costs of adjustment. Thus, experiences of displaced workers and the availability of policies to assist them are critical components of an economy's domestic adjustment.

The continued strength of the U.S. economy, with its rapid job creation and low rates of unemployment, should ease the problems of worker dislocation overall. However, other aspects of recent U.S. economic performance have been much less positive. In particular, average real wages have stagnated, whereas wage and income inequality has increased. As a result, many low-wage, and particularly low-skilled, Americans have seen their real earnings actually decline since the late 1970s. Overall, American workers are surprisingly anxious about the security of their jobs, and concerned that they may have to bear the costs of adjustment.

Increased integration with the rest of the world economy-especially nonindustrial couniries-has been widely seen as the cause of recent labor market concerns. The strength of this view should be attributed not just to its intuitive nature, and to the similar timing of the two developments, but also to the fact that Americans are undergoing a profound change in how they view their economy relative to the rest of the world-the United States is no longer the clear productive and technical leader. However, extensive empirical analysis fails to find supporl for the view that globalization is the main culprit. Most studies conclude that trade and immigration account for at most a quarter of the fall in relative earnings of less skilled Americans, with technical change and domestic developments explaining the remainder. Furlhermore, industries with high import penetration do not have a higher incidence of job displacement.

Attention to the implications of increased international economic integration has focused on the labor market. Other issues also warrant attention. For example, the United States persists in saving relatively little of its national income. The availability of foreign capital inflows enables the country to finance investment in excess of this low saving rate. A change in this environment could entail major domestic adjustments in both the short and longer run. Additional areas of interest include the implications of a global economy for design of the tax system, and for revising the regulations on the activities of U.S. financial institutions.

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