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Trade, Trade Barriers, and Trade Deficits: Implications for U.S. Economic Welfare

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Craig K. Elwell
Specialist in Macroeconomics
Government and Finance Division

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Summary

This report provides an overview of the economics of international trade that may be helpful for consideration of many recurring international economic policy issues. It is intended as a general explanation of mainstream economic principles that may be considered in gauging the economic significance of trade issues as well as the trade-offs inherent in many policy choices. A fundamental tenet of economics is that international trade is a means to a higher standard of living for all trading nations. The post-war era has seen a rapid expansion of trade and the United States has been a major participant in this process both as a trading nation and as a leader in the steady lowering of barriers to trade worldwide. The significant benefit of trade does not come without disruption and cost, however. Gaining the benefit of trade and also treating equitably those hurt by trade is often a difficult public policy issue.

There is recurring congressional concern about the effect of trade on U.S. economic welfare. Current issues include bilateral and multilateral trade liberalization initiatives, steel dumping, export controls, and the rapidly growing trade deficit. This report provides a brief overview of the economic arguments for free trade, common arguments for trade barriers, and the cause and economic significance of persistent large trade deficits. A central theme is that the economic benefit of specialization and trade is a fundamental aspect of economic life whether for the individual, region, or nation. This benefit is mutual, enriching each trader; moreover, the gain from trade can accrue to a trading partner even if that partner is less efficient in the production of all tradable goods. Trade can also lead to economic gains by allowing a fuller use of economies of scale and by inducing productive innovation. Trade is, however, a disruptive force as well, advancing the economic position of relatively efficient activities, but diminishing that of relatively less efficient activities. This process will often place significant economic and social costs on workers and industries in adversely affected activities.

Arguments for trade barriers come in many forms but none is generally accepted by economists. Trade barriers are often seen as a redress to the social and economic costs of trade or as a way of enhancing economic advantage. In most cases, however, economists argue protection from trade imposes costs on the economy that exceed the benefits obtained. These costs can arise from inefficient resource allocation, intractable implementation, and foreign retaliation.

The trade deficit is not a necessary aspect of trade, nor is it caused by foreign trade barriers. A trade deficit is rooted in macroeconomic behavior at home and abroad. The deficit is a means for the nation to spend beyond current production, with a like sized inflow of borrowed foreign capital that funds the added spending. Spending beyond current production, particularly on investment, can confer significant benefits. But, borrowing will entail some level of cost as debts are repaid.

This report will be updated infrequently with changes in economic knowledge and with current trade data.

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The Growing Importance of Trade to the U.S. Economy

The American economy has experienced steady and substantial growth of international trade since the end of World War II. Total trade (the combined value of exports and imports) as a share of gross domestic product (GDP) has risen from around 10% in the 1950s to about 26% in 2005. Even this large increase may understate the rising impact of trade on the economy because of the large share of services output, much of which is *non-tradable*, in U.S. GDP. For example, looking at merchandise exports as a share of total *tradeable* output for the United States shows growth from near 4% in 1950 to more than 40% in 2005. For the United States, however, international trade is still much less important than in other industrial economies, where, as in most European countries, trade often exceeds 50% of GDP.[1]

The rising integration of the American economy with the world economy has been facilitated by technical advances that have reduced the natural barriers of time and space that separate national economies. Integration has also been facilitated by recurrent multi-national policy actions that have steadily lowered various man-made barriers to international exchange. The United States has always played a leading role in pursuing these trade liberalization initiatives. As natural and man-made barriers have fallen, the considerable economic advantages of trade have induced large increases in the international exchange of goods, and a mutual gain in the economic well-being of trading nations.

Why Do Countries Trade?[2]

Trade occurs because it is *mutually enriching*, with a positive economic effect like that caused by technological change, whereby economic efficiency is increased, allowing greater output and consumption from the same endowment of productive resources. Think of international trade as a productive process, with U.S. exports as the inputs and foreign imports as the output. But, most importantly, it is a more efficient productive process that provides American consumers with goods and services they want at a lower cost than can domestic producers. The notion "exports

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[1] See International Monetary Fund, *World Economic Outlook*, June 2005.

[2] For a fuller discussion, see N. Gregory Mankiw, *Principles of Economics* (New York: Dryden Press, 1997), pp. 45-57.

are good and imports are bad," often colors public policy debates about international trade. As the cited analogy suggests, from a macroeconomic perspective both exports and imports are "good." The benefit of free trade is attached to the product received, not in the product given. The United States want imports, and exports are how they are paid for. This is an exchange of something of value to acquire something of greater value. And what is gained from such exchange is increased by anything that allows the United States to exchange a smaller volume of exports for any given volume of imports (i.e., by a reduction in the export cost of imports).

Like technological change and other market forces, international trade creates wealth by inducing a reallocation of the economy's scarce resources (capital and labor) into relatively more efficient activities and away from less efficient activities. In the case of international trade, however, the more efficient activities are located beyond the nations borders. Such reallocation can be characterized as a process of "creative destruction" generating a net economic gain to the overall economy, but also being disruptive and costly to workers in adversely affected industries. These displaced workers will likely bear significant adjustment costs and many may find work only at a lower wage. Although economic analysis almost always indicates that the economy-wide gains from trade exceed the costs, the perennially tough policy issue is how to secure those gains for the wider community while dealing equitably with those who are hurt by the process.[3]

Specialization, Comparative Advantage, and Gains from Trade

The importance of the *gains from trade* is clearly evident in individual economic behavior. Rather than a person building his or her own automobile, providing his or her own medical services, or producing his or her own food, it far more efficient for an individual to specialize in the production of some good or service in which he or she is good at and trade these (indirectly with the use of money) for most other goods or services that are desired. Such specialization and trade clearly allow each person to consume far more than would be possible if he or she were completely self-sufficient. The same is true for a country, albeit to a less extensive degree in most cases (i.e., U.S. imports of goods and services amount to about 15% of GDP).

Economics also tells us that the gains from specialization and trade are mutual, occurring even if the trading parties have an absolute advantage or disadvantage in the efficiency with which they produce *all* tradable goods. All that is required is a difference in relative efficiency, that is, a difference among countries in the rate at which the output of one good must be curtailed to expand production of another good. (In other words, a difference in *opportunity costs* exists). If these rates are different, then each country has a *comparative advantage* in the production of one of the goods, creating the potential for gains from trade. In this circumstance, each

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[3] For further discussion of the nature and significance of integrated global markets, see Thomas Friedman, *The Lexus and the Olive Tree* (London: Harper Collins, 2000); Martin Wolf, *Why Globalization Works* (New Haven: Yale University Press, 2004); and Gary Burtless, Robert Z. Lawrence, and Robert Litan (Washington D.C.: The Brookings Institution, 1998).

country can improve its economic well-being by *producing what it does (relatively) best and trading for the rest*. A nation does not compete with its trading partners, it engages in mutually beneficial exchange with them. Therefore, business metaphors such as "competitiveness" that are relevant to the individual firm are unlikely to be useful in understanding the "two-way" nature of trade and significance of the mutual gains from trade.

This principle of comparative advantage would explain, for example, why the $200 per hour attorney, despite being able to type very fast and accurately, would still find it more efficient to employ a secretary for $25 an hour to do that job. The income gained from using the time he or she would spend typing to practice law would likely more than compensate for the cost of the secretary. (The opportunity cost of the attorney typing for one hour exceeds the cost of the using a secretary for that task.) Similarly, the secretary gains by spending more time typing and less time attempting to practice law. (The pay from typing exceeds the opportunity cost of not practicing law.)

Differences in comparative advantage will arise between countries because of differences in the relative abundance or scarcity of the factors of production. Comparative advantage will be found in those activities that make intensive use of the abundant productive resource. For example, compared with many other countries, the United States, with a relative abundance of high-skilled labor, will find that specialization in the production of goods that use high-skilled labor intensively will, with trade, raise national income. In contrast, China, which has a relative abundance of low-skilled labor and relative scarcity of high-skilled labor, would find that specialization in the production of goods that use low-skilled workers intensively would, with trade, raise that country's real income. (Differences in productive technology among countries could also create differences in relative efficiency and form a basis for trade.)

Comparative advantage can emerge in the production of intermediate products as well as final products. With some increasingly fragmentable production processes, it may be more efficient to produce a particular component in one country, another component in a second country, and assemble the final product in a third country. It is also found that comparative advantage will vary over the *life cycle* of a product. At the stage of innovation and product development where high-skilled workers and specialized capital are required, an economy with an abundant endowment of such resources like the United States would be the more efficient location for production. At a later stage in the product's *life*, with greatly expanded sales, a settled technology, the capability for standardized production, and a falling price, production would be more efficient in an economy with an abundance of low-wage labor such as in China.

It is important to highlight that the gains from trade will most often arise from there being *differences between the trading partners*, not just economic differences but social, political, geographical, or demographic differences can be of significance as well.[4] This explains why many economists do not find useful the sports metaphor

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[4] The exception would be a difference caused by a man-made barrier to trade, such as a (continued...)

commonly used in trade policy discussions — the need for a "level playing field" among trading partners. If each person, region, or country were alike in every way there would be little to gain from trading. This observation may be particularly important when considering the merits of U.S. trade with poorer, less economically advanced countries, who will very often have sharply different economic, cultural, and other characteristics. Economic theory indicates that using these differences to generate trade will be an important means by which a rich or poor nation can improve its economic well-being.

Other Sources of Gains from Trade

Trade is also enriching to the extent it allows countries to take greater advantage of *economies of scale*. The longer a production run, the lower unit production costs may be. Many products require huge initial investments in research and development as well as large investments in a highly specialized physical plant and equipment. The ability to reach a larger world market through international trade can greatly reduce average production costs and the final price consumers must pay for the product.

In addition, open markets and international trade can increase the *flexibility* of an economy. Trade can enhance an economy's ability to respond quickly and efficiently to rapidly changing economic conditions in the global market place by improving access to foreign markets, resources, and technologies.

Further, trade can increase the *competitive pressures* in the market place, pushing firms to cut waste, keep prices down, improve quality, and raise productivity. Such pressure can also be an effective check against the use of monopoly power and in general a clear benefit to the nation's consumers.

Finally, trade can accelerate the pace of *technical advance* and boost the level of productivity. By raising the expected rate of return to successful innovation and spreading research and development costs more widely, trade can propel a higher pace of innovation. With more competitive pressure firms must quickly adopt new practices, or risk business failure. Greater international trade can also enhance the exchange of technical knowledge among countries as human and physical capital may move more freely. Economic theory suggests that these inducements will increase an economy's *rate of growth*, causing, not just a one-time boost to economic welfare, but a persistent increase in income that gets steadily larger as time passes.[5]

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[4] (...continued)
tariff. In this case, removal of the "difference" through elimination of the tariff would increase the gains from trade and economic well-being.

[5] Another possible benefit of more open trade for the United States can arise because its level of trade barriers is already very low relative to most other trading partners. Therefore, a removal of those barriers would likely have a stronger positive effect on the demand for U.S. exports than it will on U.S. demand for imports. This can cause a rise in the relative price of U.S. exports. A rising export price will increase the import purchasing power of any given *volume* of U.S. exports and increases the gains from trade to the United States.

Measuring the Gains from Trade

Through these several forces, economists reason that free international trade will raise the efficiency of the world economy and improve the living standard of most trading nations. Moreover, these gains are permanent, accruing to the economy each year, and making their full significance better measured by a cumulative gain over the stretch of decades. In the postwar era international trade worldwide has grown three times as fast as a briskly advancing world output, leaving little doubt that trade has made an important contribution to the growing prosperity of the United States and the world economy. Initiatives such as the creation of the European Union, implementation of Uruguay Round of market openings, and the North American Free Trade Agreement (NAFTA) all speak to the importance of trade. It is also apparent that trade has played an important role in the dramatic transformation of the emerging economies in East Asia.

Many studies have measured the benefits of trade to be sizable, with the overall gain typically growing with the degree of openness to international trade. For example, a 1999 study by Frankel and Romer looked at data from 123 countries to assess the relationship between openness to trade and the growth of real per capita income. They found that each percentage point increase in openness (as measured by the sum of exports and imports as a percentage of GDP) led to a 0.34 % increase in real per capita income. For the United States between 1960 and 1997, there was a 12.7% increase in *openness* to trade and an associated 4.3% increase in real per capita income, and they expected this gain to increase as the time period is extended into the future.[6] A 2003 study by Catherine Mann looked at the economic consequences of the globalized production and international trade of information technology (IT) hardware. It found that increased IT hardware trade between 1995 and 2002 generated a cumulative gain of $230 billion to the U.S. economy.[7]

The likely sizable benefits derived from trade's inducement for the development of new products, provision of an enhanced array of products, and generation of increased productivity are not easy to measure. Therefore, it is likely that the full magnitude of the gains from trade are underestimated in most quantitative studies.[8]

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[6] Jeffery Frankel and David Romer, *Does Trade Cause Growth?*, NBER Working Paper No. 5476, June 1999.

[7] Catherine L. Mann, *Globalization of IT Services and White Collar Jobs: the Next Wave of Growth*, International Economics Policy Briefs, no. pb03-11 (Washington: IIE, Dec. 2003).

[8] For more evidence on the gains from trade, see Edward E. Leamer and James Levinsohm, "International Trade Theory: The Evidence," in *The Handbook of International Economics, vol. 3* (Amsterdam: North Holland, 1995), and Douglas A. Irwin, *Free Trade Under Fire* (Princeton NJ: Princeton University Press, 2003), pp.29-54.

The Economic Effect of Trade Barriers[9]

If international trade is economically enriching, imposing barriers to such exchanges will prevent the nation from fully realizing the economic gains from trade and must reduce welfare. Protection of import-competing industries with tariffs, quotas, and non-tariff barriers can lead to an over-allocation of the nation's scarce resources in the protected sectors and an under-allocation of resources in the unprotected tradeable goods industries. In the terms of the analogy of trade as a more efficient productive process used above, reducing the flow of imports will also reduce the flow of exports. Less output requires less input. Clearly, the exporting sector must lose as the protected import-competing activities gain.

But, more importantly, from this perspective the overall economy that consumed the imported goods must also lose because the more efficient production process — international trade — cannot be used to the optimal degree, and, thereby, will have generally increased the price and reduced the array of goods available to the consumer. Therefore, the ultimate economic cost of the trade barrier is not a transfer of well-being between sectors, but a permanent net loss to the whole economy arising from the barriers distortion toward the less efficient the use of the economy's scarce resources.

The United States and other nations have made great progress in the post-war era in reducing trade barriers. The average tariff among industrial nations has been reduced from near 50% after WW II to near 5% today.[10] Barriers in many developing economies have also fallen but are still generally higher than those of the industrial economies. These remaining impediments to trade, nevertheless, have significant economic costs. A 1994 estimate of the economic cost of existing U.S. barriers in 21 highly protected sectors was $70 billion per year, with economic cost per protected job ranging from $100,000 to more than $1 million and averaging about $170,000.[11]

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[9] Man-made trade barriers come in several forms. Two common manifestations are tariffs and quotas. Tariffs are a tax on imported goods. Quotas are a limit on the quantity of a good that can be imported. A variant of the quota is the voluntary export restraint (VER), where the exporting country imposes the restriction. Other barriers against imports (often called non-tariff barriers) include local content requirements, national procurement policies, and unduly protracted health, safety, and customs procedures. The magnitude of the negative effect on economic welfare will likely vary with the type of barrier used. In general, for a given level of protection quota-like restrictions carry a greater potential for reducing welfare than do tariffs. Tariffs, quotas, and non-tariff barriers lead too few of the economy's resources being used to produce tradeable goods. An export subsidy can also be used to give an advantage to a domestic producer over a foreign producer. Export subsidies tend to have a particularly strong negative effect because in addition to distorting resource allocation, they reduce the economy's terms of trade. In contrast to tariffs, export subsidies lead to an over allocation of the economy's resources to the production of tradeable goods. For a fuller discussion of the nature and implications of different forms of trade barriers, see W. M. Corden, *The Theory of Protection* (Oxford: Clarendon Press, 1971).

[10] OECD, *Indicators of Tariff and Non-tariff Barriers*, Paris, various issues.

[11] See Gary Clyde Hufbauer and Kimberly Ann Eliott, *Measuring the Costs of Protection* (continued...)

In all 21 cases, the cost of protection was far higher than the workers average annual earnings and far higher than any likely worker adjustment program would cost.

A 2004 study of eight industrial nations, including the United States, provides estimates of the extent of integration among these economies and the welfare gains from further integration.[12] On the question of extent of integration, it was found that despite considerable lowering of trade barriers over the post-world war II sizable barriers still existed (in 1999), with average product prices differing by a third.

On the welfare gains from further integration, it was found that removal of the remaining trade barriers among these eight countries would lead to an increase in global GDP of more than $500 billion (in 1997 dollars) or 2.1% of global GDP. The gain to the U.S. alone was estimated to be about $77 billion (in 1997 dollars) or about 1% of GDP. Highlighting the greater gain associated with a multi-lateral lowering of trade barriers, this study also estimated the gains to each of the eight countries if each removed their trade barriers unilaterally. In this circumstance, the GDP increase for the United States is pared to $30 billion or 0.4% of GDP.

In general, the welfare gains to the United States are smaller then those of the other eight countries. This is thought to occur for three reasons: one, U.S. trade barriers were already lower than those in the other countries; two, trade represents a comparatively smaller share of economic activity in the U.S. economy; and three, there are increases in import prices because of the huge size of the U.S. market, causing some deterioration of the terms of trade and an associated decrement to economic welfare.

The issue, however, is not just whether to continue removing barriers but whether to resist the erection of new barriers. The world economy saw the most rapid removal of trade barriers and greatest increase in economic integration in the years between 1870 and 1913. During most of the first half of the 20th century, trade barriers grew sharply, reversing the substantial trade liberalization achieved in the previous century. During World War I, world trade had been tightly controlled. Nations grew more insular in the 1920s and sentiment for trade protectionism grew in Europe and the United States, causing a creeping up of tariff rates over the period. The onset of the Great Depression accelerated this pattern. In the United States, the Smoot-Hawley Tariff of 1930 raised tariffs on manufactured goods to a lofty 48%. Swift retaliation by Europe and Britain followed. In the aftermath, it is estimated that between 1929 and 1932 the value of world trade fell by 70%. An outcome that doubtless only exacerbated the ongoing collapse of economic activity across the world economy. Therefore, much of the effort towards free trade in the post-World

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[11] (...continued)
in the United States (Washington: Institute for International Economics, 1994).

[12] Scott Bradford and Robert Z. Lawrence, *Has Globalization Gone Far Enough*? *The Cost of Fragmented Markets* (Washington: Institute for International Economics, 2004).

War II era has involved reversing and guarding against the re-erection of those protectionist structures.[13]

Common Arguments for Trade Barriers

Demands for the preservation or augmentation of trade barriers continues to be part of the public debate over trade policy. Five of the more common arguments for trade barriers are evaluated below for their likely economic effects.

Jobs Are Destroyed by Trade. It is asserted that trade has created jobs for foreign workers at the expense of American workers. It is more accurate to say that trade both creates and destroys jobs in the economy just as other market forces do. Economy-wide, trade creates jobs in industries that have comparative advantage and destroys jobs in industries that have a comparative disadvantage. In the process, the economy's composition of employment changes, but according to economic theory there is no *net* loss of jobs due to trade. Over the course of the last economic expansion, from 1992 to 2000, U.S. imports increased nearly 240%. Over that same period, total employment grew by 22 million jobs and the unemployment rate fell from 7.5% to 4.0% (the lowest unemployment rate in more than 30 years.)[14] Foreign outsourcing by American firms, which has been the object of much recent attention, is a form of importing and also creates and destroys jobs, leaving the overall level of employment unchanged.[15]

There are two complementary reasons for increased international trade not leading to any net job loss. First, the Federal Reserve, using monetary policy, can set the overall level of spending in the economy to a level consistent with full employment.[16] Although deviations from full employment can occur, a well-run

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[13] See Kevin H. O'Rourke and Jeffery G. Williamson, "Trade, Growth and Distribution Since 1500," National Bureau of Economic Research, Working Paper 8955, May 2002.

[14] These data can be found in the most recent annual report of the Presidents Council of Economic Advisers. Since the end of the recession in late 2001, the labor market has responded slowly, with the unemployment rate continuing to rise even as economic growth strengthened. Relatively weak aggregate spending, caused by a number of recent economic shocks, is the most likely cause of poor employment growth. For a fuller discussion, see CRS Report RL32047, *The "Jobless Recovery" From the 2001 Recession: A Comparison to Earlier Recoveries and Possible Explanations*, by Mark Labonte and Linda Levine.

[15] See CRS Report RL32484, *Foreign Outsourcing: Economic Implications and Policy Responses*, by Craig K. Elwell and CRS Report RL32350, *Deindustrialzation of the U.S. Economy: The Roles of Trade, Productivity, and Recession*, by Craig K.Elwell.

[16] Economies always have some amount of unemployment. Each economy will tend to have a natural rate of unemployment around which the actual unemployment rate fluctuates. This natural rate will also represent the rate at which the economy is effectively at full employment because a lower rate of unemployment would not be sustainable due to the inducement of a higher rate of inflation. The natural rate is not zero because at any point in time there will be some people who are changing jobs and other people who normal market forces have temporarily displaced. The more fluid the economy's labor markets the lower its natural rate of unemployment is likely to be. For most of the last 30 years, the U.S. (continued...)

monetary policy will minimize the incidence and duration of such episodes and help keep the total level of employment high in most years with or without outsourcing, trade deficits, or trade in general. To give some perspective on the relation between "job loss"and total employment, as well as the potential significance of foreign outsourcing in this dynamic process, consider that in any quarter of 2000, at the peak of the last economic expansion, with total employment at about 111 million, *gross* job losses tallied between 8.5 and 9.0 million. Nevertheless, the economy at that time was operating at the lowest rate of unemployment in 40 years. Over the whole course of that expansion, gross job loss actually rose as the unemployment rate steadily fell. But with adequate economy-wide spending, it was possible to create job gains that more than offset job losses. In the far weaker labor market of 2003, *gross* job losses per quarter measured 7.2 to 7.8 million. Gross job gains in 2003 were at about the same as losses, leaving total employment steady. In each quarter of 2004 and 2005, however, gross job gains exceeded gross job losses by between 200,000 to 900,000 jobs, causing the U.S. unemployment rate to fall from 6% to 5%. This occurred despite the U.S. economy's total level of trade (exports plus imports) growing from $2.6 trillion to $3.3 trillion over the same period. In either time period, *gross* job losses occurred on a scale far greater than that attributed to foreign outsourcing alone.[17]

Second, against the economic backdrop of adequate aggregate spending, any increase in the purchase of imports will tend to generate an equal increase in the sale of the country's exports of goods or assets. This outcome follows from the fundamental economic requirement that imports must be paid for and exports are the only means for making that payment. The export sold does not have to be a currently produced good or service, it can also be the sale of an asset such as a deposits in a bank account, shares of stock, bonds, or real property, but in the end when tallied across transactions in goods and assets, a nation's trade is always in balance in the sense that any imbalance in goods trade must be offset by a compensating imbalance in asset trade. Both types of export sales will have a positive effect on domestic output and employment, countering across the whole economy the negative effect of increased imports. In short, the U.S. deficit in trade is offset by the surplus in capital flows.

There is no denying that with international trade there will be short-run hardship for some, but economists maintain the whole economy's living standard is raised by such exchange. They view these adverse effects as qualitatively the same as those induced by purely domestic disruptions such as shifting consumer demand or technological change. In that context, economists argue that easing adjustment of those harmed is economically more fruitful than protection given the net economic benefit of trade to the total economy.

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[16] (...continued)
economy's natural rate was judged to be in the 5.5% to 6.0% range. Since the mid-1990s, the natural rate has likely fallen to the 4.5% to 5.0% range. Most often an appropriate level of aggregate spending is that consistent with employment at the natural rate.

[17] U.S. Department of Labor, Bureau of Labor Statistics, *Business Employment Dynamics*, various issues.

Worker Wages Are Hurt by Trade. Many people believe that imports from countries with low wages has put downward pressure on the wages of Americans. There is no doubt that international trade can have strong effects, good and bad, on the wages of American workers. The plight of the worker adversely affected by imports comes quickly to mind. But it is also true that workers in export industries benefit from trade. Moreover, all workers are consumers and benefit from the expanded market choices and lower prices that trade brings. Yet concurrent with the large expansion of trade over the past 25 years, real wages (i.e., inflation adjusted wages) of American workers grew more slowly than in the earlier post-war period, and the inequality of wages between the skilled and less skilled worker rose sharply. Was trade the force behind this deteriorating wage performance?

The effect of trade on wages in the U.S. economy has been the focus of numerous studies over the past 10 years, and the conclusions that may be drawn from these efforts are as follows:

- As regards the slow growth of the average real wage from the mid-1970s to the late 1990s, increased trade is not seen as being the cause of that sluggish performance, rather the identified reason was slow productivity growth. Labor's share of the economic pie was not getting smaller; the economic pie just was not growing as fast.[18] When productivity accelerated in the late-1990s average real wages also increased at a faster pace. That the level of wages is most often reflective of the level of worker productivity also explains why higher wage American workers are not necessarily at a disadvantage to lower wage foreign workers. The critical comparison is of unit labor costs, not of the level of wages. The high productivity that is the basis of a high wage means that unit labor costs can be lower in the high-wage economy than in the low-wage economy because productivity in low-wage economies is commensurately low as well.

- As regards trade and increased wage inequality, the research indicates that trade was a contributing factor, but a minor one, accounting for perhaps 10% to 20% of the observed increase in wage inequality. It would seem then that from the standpoint of the economy as a whole, trade with low-wage economies has not triggered a "race to the bottom."

A likely important reason for the small effect of trade on wages for the U.S. economy was that trade with low-wage countries was still relatively small, amounting to less than 2% of GDP in 2000. In fact, among U.S. trade partners the average wage level in manufacturing relative to the U.S. manufacturing wage level grew from 60% in 1975 to 76% of the U.S. level in 2000.[19] This has occurred because many trading

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[18] This conclusion is also confirmed by the absence of any deterioration in labor's share of national income, which has remained at about 70% throughout the post-World War II era.

[19] U.S. Department of Labor, Bureau of Labor Statistics, "A Perspective on U.S. and Foreign Compensation Costs in Manufacturing," *Monthly Labor Review*, vol. 125, no. 6 (June 2002), (continued...)

partners who were once low-wage economies have, with open trade and steady economic growth, become high-wage economies. As the once poor have moved up the income ladder, they have also withdrawn from the production of goods that use low-skill and low-wage labor intensively and these products are then imported from the newer emerging economies. China has picked up this task, as other East Asian economies have withdrawn, and, in turn, as these economies did when Japan shifted away from this type of production. So U.S. trade with low-wage economies is not rising to a significant degree; rather, it is shifting location.

Economies of scale are also a factor that likely helps hold up industrial wages in the face of low-wage foreign competition. Scale effects are thought to be a significant force in many industries and, when present, would tend to increase worker productivity and decrease unit labor costs. It is also possible that the increase of competition itself spurs companies to higher levels of efficiency that also lowers unit labor costs and helps preserve a higher wage level.

Another reason for the small impact of trade on wages in the United States is that as the once low-wage economies have absorbed current technology, raised the capital intensity of their production, and transformed to high-wage economies; two events occur: one, they produce less of the goods typically produced by low-wage workers; and two, they increase their demand for the products produced by low-wage workers. The two effects exert upward pressure on the wages of these workers, including any producing similar labor-intense products in the United States. This outcome is consistent with the evidence that for the United States the relative price of unskilled, labor-intensive, import competing goods rose in the 1980s and 1990s. Based on this evidence, it can be argued that trade with low-wage economies is likely to have improved wages in the United States, at least in the sense that they are higher than they otherwise would be.[20]

It is also apparently true that import penetration by labor-intense products has not changed greatly, but the location of that production has. Reviewing the period 1994 through 2003, the Council of Economic Advisors concludes that for United States the increase in share of total U.S. imports accounted for by imports of goods from China has been largely offset by a decrease in the share of goods imports from other Pacific Rim countries. Therefore, many of the export jobs in non-China Asia are migrating to China, so the distributional effects of this change fell on workers in China and the Pacific Rim economies rather than workers in the United States.[21]

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[19] (...continued)
pp. 36-49.

[20] Jagdish Bhagwati and Vivek Dehejia, "Freer Trade and Wages — Is Marx Striking Again," in Jagdish Bhagwati and Marvin Kosters, eds., *Trade and Wages:Leveling Wages Down?* (Washington: AEI Press, 1995), pp. 36-75.

[21] This also suggests any restriction placed on China's imports to the United States would not increase domestic output, rather it would increase the output of the Pacific Rim economies whose exports to the United States would increase as they become a replacement for restricted Chinese goods. For a discussion of this and other aspects of trade with China, see *The Economic Report of the President* (Washington: GPO, 2004), pp. 65-68 and CRS
(continued...)

Of course, it cannot be ruled out that if trade with relatively low-wage economies does grow in importance, the negative effects on U.S. worker wages of such trade would grow in significance. Yet, there is probably an upper bound to this effect, for it is possible that in the future with only relatively moderate differences between home and foreign production costs, *complete specialization* would occur. That is, the United States would no longer produce much of what is imported from low-wage foreign economies. Since the United States would then no longer have industries that use low-wage labor intensively, there would be no downward pressure on domestic wages caused by such trade. To the extent that this pattern of trade allows for a fuller realization of economies of scale and lowers product prices, domestic workers' real wages could be increased. The change in the location of U.S. imports from low-wage economies noted above suggests that a sizable amount of such specialization may have already occurred.

It is also known that industries that export pay wages that are, on average, higher wages than industries that compete with imports. Therefore, as a rising level of trade and outsourcing creates jobs in exporting industries, and destroys jobs in import-competing industries there is a tendency for the average industrial wage to rise. It is also useful to keep in mind that the U.S. economy is still largely domestic in orientation, with perhaps as much as two-thirds of the labor force working and having wages determined in activities largely unaffected by trade.

Economic analyses indicates that it is very unlikely that growing international trade has had much to do with the slowdown in real wage growth and unlikely that trade has caused more than a minor share of rising wage inequality. In the United States, the slower productivity growth evident from the mid-1970s to the mid-1990s is seen as the principal cause of slow real wage growth in this period. The experience during the 1992-2000 period shows that despite a rapidly rising level of imports real hourly earnings in the U.S. manufacturing sector (the sector most strongly effected by trade but one with relatively high productivity growth in this period) rose 26%.[22] For trade to have reduced the relative wages of lower skilled workers there would need to be an associated fall in the market price of those import-competing goods that are produced using lower-skilled workers intensively. This has not occurred.[23]

A more likely reason for increased wage inequality is the presence of a bias in recent technological change toward greater use of higher skilled workers economy-wide, tending to pull up their wages relative to those of the less skilled. Other factors

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[21] (...continued)
Report RL32165, *China's Exchange Rate Peg : Economic Issues and Options for U.S. Trade Policy*, by Wayne M. Morrison and Marc Labonte.

[22] BLS data as reported in the 2003 Economic Report of the President, p. 376.

[23] See Robert Lawrence and Matthew Slaughter, *International Trade and the American Worker: Giant Sucking Sound or Small Hiccup? Brookings Papers on Economic Activity* (Washington: Brookings Institution, 1993).

that are thought to have made minor contributions to wage inequality are immigration, deunionization, and a falling real minimum wage.[24]

National Security Is Threatened by Trade. Some industries, or at least components of some industries, are vital to national security and possibly may need to be insulated from the vicissitudes of international market forces. This determination needs to be made on a case-by-case basis since the claim is made by some who do not meet national security criteria. Such criteria may also vary from case to case. It is also true that national security could be compromised by the export of certain *dual-use* products that, while commercial in nature, could also be used to produce products that might confer a military advantage to U.S. adversaries. Controlling such exports is clearly justified from a national security standpoint; but, it does come at the cost of lost export sales and an economic loss to the nation. Minimizing the economic welfare loss from such export controls hinges on a well-focused identification and regular re-evaluation of the sub-set of goods with significant national security potential that should be subject to control.[25]

Special Industries with Unique and Substantial Economic Potential Will Not Mature Without Protection from Trade. In theory, there can be "special" industries, which, if given government nurturing, including protection from international trade, will grow to generate large economic returns in the future. But without this public support these special industries will not emerge or will occur at too small a scale. While there are many variants of the argument for government promoting particular industries, two have some plausible economic merit. One is support for industries that will have the potential to generate substantial economic benefits to other sectors, but only a fraction of those benefits can be appropriated by the firm. If left to the private market this will lead to under-investment in the socially desirable activity. The second type of special industry that could warrant government support is a new endeavor that will only exist in a highly concentrated market structure (i.e., oligopoly) where sizable monopoly profits are likely to be emerge. Claiming the lion's share of those profits will depend on which nation gets there first and which nation can be deterred from trying. Government support can influence which nation ultimately claims those monopoly profits. In both cases, the role of government support is to overcome a "market failure"and by doing so raise the economic well-being of the nation.

The generation of new ideas is often the activity of central economic importance for economic well-being. Because an idea can have limited excludability it can be difficult for the firm to fully appropriate the economic benefits of the idea it has created. The new idea may easily spill over to benefit other enterprises without compensation accruing to its creators. In this environment, without government

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[24] For further discussion, see CRS Report 98-441, *Is Globalization the Force Behind Recent Poor U.S. Wage Performance?: An Analysis*, by Craig K. Elwell.

[25] It is beyond the scope of this report, but it is worth noting that there is a sizable body international relations literature on the question of whether economic integration reduces the likelihood of war. See for example: Richard Rosecrance, *The Rise of the Trading State: Commerce and Conquest in the Modern World* (New York: basic Books, 1986).

support the firm will not have the incentive to invest in the knowledge-creating process at a level that the whole society would find most economically beneficial.

This is a theoretically valid argument for government support for an industry that generates significant benefits that are external to the firm. In practice, however, it is a problematic endeavor.[26] To be economically effective such support needs to be targeted at the knowledge that would not otherwise be produced. This is likely a difficult task. Even if the right target is identified, it will be virtually impossible to know what amount of support is called for because these types of activities to not carry a market price from which to judge relative scarcity. A tariff or other forms of protection from international competition is likely to be too blunt an instrument to achieve this goal as it is likely to create other costly distortions. At the international level knowledge nurtured at considerable expense by one nation may be easily appropriable by industries in other nations, tending to reduce any national advantage to accrue from supporting a special firm.

The other theoretically valid argument for government promotion of a particular industry is based on the possible existence of "strategic industries." These are industries in which only a very few firms would be able to operate profitably. In this oligopolistic market structure, firms will likely have a significant degree of monopoly power and the potential to earn above normal profits. Capturing those profits would increase the home nation's economic well-being. In this environment, nations may be tempted to compete for those profits. Without government support those profits will most likely be appropriated by the first few firms to establish themselves in the industry. Subsequent entry by other firms would be deterred as they can only expect to incur losses. This outcome can be altered if the government of one country gives support, with an export subsidy for instance, sufficient to assure that whether firms from other nations enter or not, its firm will earn a profit. Because any unsubsidized firm would now earn losses they will be deterred from entry. The subsidized firm is said to have a strategic advantage over its potential competitors, so this type of action has been called *strategic* trade policy. In theory, a well placed subsidy to assure the timely entry and successful operation of the "strategic industry" can actually raise economic well-being in the home economy.

Again, although it is conceptually possible for a strategic trade policy to raise national economic well-being, its practical significance has been widely questioned by economists. Perhaps the greatest doubt as to the efficacy of strategic trade policy is that the information required for the government to successfully execute the policy most likely exceeds what would be readily available. Economic theory indicates that the conditions needed for the execution of a successful strategic trade policy are many and a favorable outcome will be extremely sensitive to small deviations from any of those necessary conditions. This means that pursuing such a policy with substantially incomplete information could easily result in subsidies supporting more inefficiency than efficiency, and leading to more loss than profit. Further, if large subsidies are to be handed out without all necessary information available, policy

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[26] For a discussion of the problematic success of industrial policy in practice in several industrial countries, see Paul Krugman and Maurice Obstfeld, *International Economics: Theory and Policy* (New York: Harper-Collins, 1994), pp. 287-296.

makers can anticipate some politicalization of the process and the rising probability that more subsidies will be given than can be analytically justified. Success is likely to be even less tractable if trading partners can be expected to retaliate against a policy that will clearly make them worse off. Finally, economic studies have suggested that even if the policy is well implemented, the realized gains could be very small. For all these reasons, it is unlikely in practice that trade protection to support strategic industries would raise economic welfare.

Unfair Competition Undermines the Benefits of Trade. Can trade be beneficial if all parties do not abide by the same rules and regulations? Economic theory says it can. If another country chooses to give a subsidy to an exporting industry, buying those now-cheaper exports will hurt domestic industries that compete with those foreign goods, but it will benefit the domestic consumers who purchase them. Economists assert that the gain to consumers will typically exceed the loss to producers and workers. Therefore, from the standpoint of overall economic welfare, here defined as increased national income, an efficient economic response may be to accept the gain in real income offered by the subsidized foreign goods and facilitate the adjustment of the adversely affected home workers to more efficient endeavors.

Similarly, many economists see a possible economic advantage of buying foreign goods produced under different labor and environmental standards. They view differences in such standards as a basis for creating comparative advantage and realizing mutual gains from trade. In addition to the economic benefit to the U.S. economy, for many poor nations the ability to use such advantages to produce a tradeable good today may offer the best vehicle to increased productivity and a steadily rising living standard in the future. Despite the economic gain to the United States, trade on this basis can undermine long held domestic norms of "fair" market conduct. It is at the core of many domestic disputes regarding trade and trade barriers as many see trade as eroding labor and environment standards. If deviation from these norms is unacceptable in domestic transactions, it may be hard to justify them in international exchanges.

Yet it is also probably unrealistic to expect U.S. trading partners to be just like the United States in these practices. Poor countries with much lower levels of productivity simply cannot afford the American level of wages and labor standards.[27] Rich or poor, other countries often have different social and economic priorities and may choose to live with very different environmental standards. One thing that is clear from the economic history of the now-rich industrial nations: With rising income there also came rising labor and environmental standards. It can be plausibly assumed that many now poor countries will follow a similar path, and that trade can be an important means for achieving higher income.

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[27] See Stephen Golup, *Does Trade with Low-Wage Countries Hurt American Workers* (Federal Reserve Bank of Philadelphia, 1998).

Another common activity widely seen as an unfair trade practice is foreign dumping of exports.[28] Dumping can hurt particular workers and firms and is not acceptable under U.S. law. But, to believe that total economic welfare is reduced by dumping, the premise that there can be a price that is too low has to be accepted. Price cutting is a basic element of competition, widely practiced in the domestic economy, that leads to greater efficiency and economic gain to consumers. Actions to prevent dumping curtail the benefit of such competition in international commerce. An exception would be instances of dumping that are "predatory" and part of a plan to establish monopoly power. Such predatory practices would ultimately reduce economic welfare and preventing them is in a nation's economic interest. Because predatory pricing is rare, economists place little merit in most claims of dumping. Nevertheless, the number of antidumping actions has risen precipitously in the past 15 years. Once the protectionist tool of choice of a few rich nations, antidumping actions are now being emulated by many other nations.

The discussion so far shows that mainstream economics gives little reason to expect that deviations from free trade improve a nations economic well-being, yet trade barriers persist. This most likely occurs because barriers have very focused benefits accruing to well-defined groups with a concentrated political voice, while the barriers costs are often widely dispersed over the population among people with less natural cohesion and a more diluted political voice. Economic analysis demonstrates that the protected groups gain, however, is most often at the greater expense of the wider community.[29] The tough policy question is finding an acceptable reconciliation of the conflicting goals of improved economic efficiency that comes with open trade and social equity that is often compromised by more open trade, without necessarily relying on trade barriers.

In the post-WW II era, most large market economies have prospered, but they have also maintained a "social bargain," whereby society is asked to embrace the wealth-building power of the open market economy in return for an acceptable degree of cushioning from the periodic social disruption and cost that also comes with that process. In effect workers in these economies have been given an amount of *social insurance* to ameliorate the risk to job and income inherent in the operation of markets. Extending this idea, the case can plausibly be made that with more open trade that risk increases and a commensurate enhancement of that social insurance is called for.

Thus to secure the economic benefits of reduced trade barriers and more open trade, societies may, in the interest in economic equity and social cohesion, extend and improve that social insurance. This would point toward government policies to better provide for temporary support of income, to better provide for worker retraining, and to better provide for geographic mobility.[30]

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[28] For a fuller discussion, see CRS Report RL31468, *Dumping of Exports and Antidumping Duties: Implications for the U.S. Economy*, by Craig K. Elwell.

[29] See Gary Clyde Hufbauer and Kimberly Ann Eliott, *Measuring the Costs of Protection in the United States* (Washington: Institute for International Economics, 1994).

[30] For a discussion of striking a balance between fairness and free trade, see Dani Rodrik,. (continued...)

The persistence of trade barriers is also a consequence of the slow, incremental process that the world's economies have used to reduce those barriers. Although a unilateral reduction or removal of a nation's trade barriers would most often improve its economic well-being, it is rarely used.[31] The steady reductions of tariffs and other trade barriers by the world's economies over the past 60 years was largely achieved by successive rounds of multilateral reductions. Since WW II, there have been eight major multilateral trade agreements, the most recent being the Uruguay Round, which was completed in 1994.[32] This is a slow process with each round taking many years to negotiate and implement a partial reduction of existing barriers. Yet it is a process that confers significant advantages, not likely to occur with unilateral action. First, the economic gains are likely to be considerably larger if all economies reduces their barriers, because gains arise from the freer flow of both imports and exports. Second, multilateral action gets exporters on board with consumers to broaden political support for the market opening process. And third, the multilateral process develops an institutional framework for dispute settlement that better insures that once reduced barriers stay down, and institutional momentum that keeps the trade liberalization process moving forward through successive rounds.

The Trade Deficit[33]

The U.S. trade deficit has risen, more or less steadily since 1992.[34] It reached $805 billion in 2005, more than doubling in size since 2001, and with a cumulative increase of more than $700 billion since 1995.[35] As a share of GDP the trade deficit over the past decade has risen from less than 2% of GDP to reach a record 6.4% in 2005. In the 1990s, the trade deficit grew despite good export sales in those years. The 2001 recession reduced the trade deficit, but with economic recovery it has grown larger and economic projections point to the trade deficit continuing to grow

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[30] (...continued)
Has Globalization Gone too Far? (Washington: Institute For International Economics, 1997).

[31] There are plausible scenarios where nations, if left only with the use of unilateral action, might see their best option to choose protection, while in a multilateral framework they would see that a better result comes from choosing mutual barrier reduction. Thus the use of the multilateral option would reduce the risk of trade wars. This is an example of a situation called the "prisoner's dilemma," where individual action always leads to an outcome inferior to the outcome from collective.

[32] Preliminary negotiations called the Doha Development Agenda have occurred to set the stage for the initiation of a ninth round of multilateral negotiations to achieve further reductions of trade barriers worldwide.

[33] For a fuller discussion, see CRS Report RL31032, *The U.S. Trade Deficit: Causes, Consequences, and Cures*, by Craig K. Elwell.

[34] The trade deficit measure used here is the "current account balance." This is the nation's most comprehensive measure of international transactions in goods, services, and investment income.

[35] For details of U.S. trade performance in 2004, see U.S. Department of Commerce, Bureau of Economic Analysis, "News Release: U.S. International Transactions," Mar. 16, 2005.

this year to more than $800 billion, assuming the economic expansion maintains momentum.

But, it is not necessary that an economic expansion generate a large trade deficit. A rising current account deficit (or a falling surplus) over the course of a brisk economic expansion is not a remarkable event for the U.S. economy. In the 1960s, brisk economic growth steadily eroded a small current account surplus. In the 1970s, modest deficits occurred with each economic expansion. However, in the 1980s and 1990s, the size of the trade deficits increased greatly. Cyclical factors certainly at times played some role in this phenomenon, particularly in recent years with the U.S. growing rapidly relative to most major trading partners. Trend forces are also at work, however, inclining the U.S. economy toward generating large trade deficits in all but recession conditions.

The trade deficit widens as the economy expands, not because of trade barriers abroad, not because of foreign dumping of imports, and not because of any inherent inferiority of U.S. goods on the world market, but primarily because of underlying macroeconomic conditions at home and abroad. In effect, the U.S. economy spends more than it produces, and this excess of demand is met by a net inflow of foreign goods and services leading to the U.S. trade deficit.[36] Of course, the U.S. trade deficit is only possible if there are foreign economies that produce more than is absorbed by their current spending and are able export the surplus. Trade deficits and trade surpluses are jointly determined. International capital flows will allow a mutually favorable reconciliation of these domestic spending-production imbalances. These imbalances will be sensitive to the short-run effects of the business cycle (at home and abroad) as well as long-term effects of trends in spending and production. But, these imbalances will not be efficiently changed by trade policies that try to directly alter the levels of exports or imports such as tariffs, subsidies, or quotas.

A Saving — Investment Imbalance

National spending-production imbalances are most usefully analyzed from the standpoint of national saving and investment behavior. Saving is just the flip side of the same phenomenon (an excess of spending essentially translates into a deficiency of savings) but has the advantage of more clearly rooting the phenomenon in the international asset market transactions, which is the key to understanding the mechanism that generates aggregate trade imbalances.

It is an economic identity that the amount of investment undertaken by an economy will be equal to the amount of saving — that is, the portion of current income not used for consumption — that is available to finance investment. But for a nation this identity can be satisfied through the use of both domestic *and foreign*

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[36] It is useful to remember that "income"/ "spending" are the flip side of "production"/ "output." Any given value of production generates an equal value of income. Thus the income the economy earns can support spending sufficient to purchase the economy's current output. With international trade, however, it is possible for there to be a divergence of spending and production through the borrowing and lending of current income and output between nations.

saving, or domestic and *foreign investment*. Therefore, a saving-investment imbalance is a relationship between domestic saving and investment and one that can only occur if foreign saving or investment are available to satisfy the overall saving investment identity.[37] In a relatively open world economy with reasonably fluid and well functioning international capital markets, capital flows from lender to borrower are the means by which the saving of one country can finance the investment of another. With a willing lender and a willing borrower, flows of capital from one nation to another can achieve *overall* saving-investment balance for both nations. If international capital flows did not occur domestic investment could be no larger or smaller than domestic saving.

Differences in the level of interest rates between economies are what induces saving (capital) flows between countries as international investors seek out higher rates of return. A nation with a "surplus" of domestic saving over domestic investment opportunities will tend to have relatively low domestic interest rates because the domestic supply of loanable funds (i.e., saving) exceeds the domestic demand for loanable funds (i.e., investment) pushing down interest rates (i.e., the price of loanable funds). As a result, this economy will also likely see some portion of domestic saving flow outward, attracted by more profitable investment opportunities abroad. This net outflow of purchasing power, which generally can only be used to purchase goods (or assets) denominated in the country's currency, will, through changes in exchange rates, induce a like-sized net outflow of real goods and services — a trade surplus. Japan is an example of a nation that in recent decades has produced large net outflows of saving to the U.S. and other nations.

Conversely, another nation that finds its domestic saving falling short of desired domestic investment will tend to have relatively high domestic interest rates because the domestic demand for loanable funds exceeds the domestic supply of loanable funds. As a result this economy will likely attract an inflow of foreign saving, attracted by the higher rate of return. and that inflow will help support domestic investment. Such a nation becomes a net importer of foreign saving (income), able to use the borrowed purchasing power to acquire foreign output, and leading to a like sized net inflow of foreign output — a trade deficit. That deficit augments the output available to the domestic economy, allowing the nation to invest beyond the level of domestic savings. (In recent years, a large share of this inflow of capital has been the result of official purchases of dollar assets by foreign governments that are most often not prompted by relative rate of return. Therefore, these purchases can run counter to the direction of capital flows induced by private investors. This contra-movement of capital will most often modulate the impact of private capital flows, but not likely to offset or reverse the impact of those flows.)

The purchase of a foreign asset will require the use the appropriate foreign currency. Therefore, asset market transactions will also change the demand for and

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[37] Saving in a macroeconomic framework is the portion of current income that is left after households, businesses, and government pay for their current consumption. A household that diverts some amount of current income to a bank, mutual fund, or government bond is saving. Similarly the tax revenue that the government has left after paying for its spending is (public) saving.

supply of national currencies needed to purchase foreign assets, causing changes in currency exchange rates, which, in turn, induce an equivalent sized net flow of goods (i.e., trade deficits and trade surpluses) between economies. The exchange rate acts as the equilibrating mechanism, stimulating imports and dampening exports so as to generate a net inflow (outflow) of goods that is in line with the net inflow (outflow) of capital. A net inflow of capital bids up the exchange rate and the exchange rate will increase by enough induce an equivalent net inflow of goods — a trade deficit. A net outflow of capital bids down the exchange rate and the exchange rate will decrease by enough to induce an equivalent net outflow of goods — a trade surplus.

The United States has in recent years had a rising shortfall of domestic saving relative to domestic investment and has received a growing net inflow of foreign capital to bridge this gap. In 2000, at the peak of the previous economic expansion, the U.S. gross saving rate (total savings as a percent of GDP) was 18%, the gross investment rate was 22%, with the difference being made up by an inflow of foreign saving (or lending) equal to 4%. Since then, the U.S. saving rate has fallen reaching 13.5% of GDP in 2005. Because of the 2001 recession and its after effects, the U.S. gross investment rate fell, but since 2003 it has risen to 19.7% in 2005. Again, the saving investment gap was bridged by an inflow of foreign saving equal to 6.4% of GDP.

This rising inflow of foreign capital caused a steady appreciation of the dollar through early 2002. The dollars rise, in turn, lead to a steady rise of the trade deficit. The recent depreciation of the dollar suggests that the size of the net inflow of capital to the United States may be ebbing and, with some time lag, this will lead a slowing of the rate of increase in the trade deficit and untimely induce a shrinking of that imbalance. The ebbing of foreign capital inflows by private investors is most likely due to some reduced attractiveness of the American economy as a destination for investment in the wake of recession, slow economic recovery, low interest rates, corporate malfeasance, and war. Of more enduring significance for the path of the dollar and the trade deficit is the now large share of dollar assets in the investment portfolios of foreign investors causing those investors to prudently seek to increase the diversity of their portfolios by moving away form dollar assets. While further depreciation of the dollar is expected in the near-term, the intensity and duration of this trend is problematic. Also weigh the prospect of accelerating economic growth in the United States, weak growth abroad, continuing large official purchases of dollar assets, and the interest raising effect large federal budget deficits will tend to raise the relative rate of return on dollar assets, boost their attractiveness to foreign investors, and exert upward pressure on the dollar and tend to widen the trade deficit.

What is certain, however, is that so long as domestic saving in the United States falls short of domestic investment and an inflow of foreign saving is available to fill all or part of the gap, the United States will run a trade deficit of commensurate size.

The Benefits and Costs of Foreign Debt

A trade deficit is not necessarily undesirable. Increasing current spending beyond current means need not be imprudent behavior. Borrowing is widely and usefully done by individuals and businesses and so too by countries. Trade deficits

in the 1990s were a means to help finance an elevated level of domestic investment and may be so again if the current economic expansion gains momentum. Investment augments the nation's future productive possibilities and is a boon to economic growth and long-term economic welfare.

Of course borrowing carries a cost as the lender at least demands that interest be paid on the borrowings. This "debt service cost" is a burden the borrower must carry tomorrow for living beyond his or her means today. A person's judgement about the desirability or undesirability of the trade deficit may hinge on the benefits gained from that added spending relative to the debt service burden that is also incurred. That decision may depend on how the foreign borrowing is used. If used to finance investment (that raises productive capacity), the economy's future output may increase by an amount sufficient to meet debt service costs and also add to the output available for domestic uses. If used to finance public or private consumption, there will be no enhancement of productive capacity, and meeting future debt service costs must come at the expense of future living standards.[38]

Through the end of 2004, the United States *net* accumulation of foreign obligations (i.e. the value of U.S. assets abroad minus the value of foreign assets in the United States) is about $2.5 trillion. This net indebtedness will continue to grow so long as there is a net inflow of foreign funds caused by the shortfall of domestic saving relative to domestic investment.[39] The current debt service burden of Americas stock of foreign debt can be roughly judged from changes in the net investment income component of the current account balance, which tallies income earned *from* U.S. foreign investments in foreign assets against U.S. payments *to* foreigners for their investments in U.S. assets. In 2005, the surplus in the U.S. investment income account declined to $1.5 billion , from $30.4 billion in 2004. The investment income balance is a tally of what U.S. foreign investments earn against what foreign investments in the U.S. earn. This erosion was generally consistent with the rapid growth of foreign assets in the United States relative to the stock of U.S. assets in the rest of the world. Since 1998, the surplus in investment income has exhibited a general rising trend, despite the continued growth of U.S. net

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[38] Whether used for investment or consumption, such borrowing and lending between nations is *intertemporal trade.* These are exchanges of current goods for claims on future goods and can also be seen as a type of gain from trade. If there are differences in the valuation of current versus future consumption between countries then gains from trade are possible. The borrower gains by being able to consume now beyond what his or her current income allows. The lender gains by being able to consume more in some future period. International capital flows are thus facilitating a more efficient use of global saving and a more optimal pattern of spending over time. Some see the current pattern of intertemporal trade as troublesome because it is a flow of capital (saving) from poor developing economies to a much richer U.S. economy. The opportunities for investment would be expect to be higher in the capital poor developing economies and the need for saving higher in the United Sates with its rapidly aging labor force and, therefore for capital to flow form the U.S. to the developing economies. For further discussion of this a typical pattern of international borrowing and lending, see Ben S. Bernanke, Speech "The Global Saving Glut and the U.S. Current Account Deficit," Board of Governors, The Federal Reserve, Mar. 10, 2005.

[39] U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, July 2004.

indebtedness to the rest of the world. This surplus reached $46.3 billion in 2003 and fell to $30.4 billion in 2004. The persistence of the U.S. investment income surplus most likely reflects the interplay of several forces. First, U.S. investments abroad on average earn a higher return then do foreign investments in the United States. This differential is thought to result from a higher incidence of mature, high yielding, assets in the U.S. investment portfolio, greater risk exposure, and the special status of the dollar as the worlds reserve currency of choice. Second, the sharp fall of interest rates has translated into a fall in the rate of return as a large portions of U.S. debt is repeatedly rolled-over. Third, in the period 2002 to 2004, a falling dollar, particularly against the Euro, leads to a rise in the foreign currency value of U.S. foreign assets and the associated earnings.

In the long run, it seems likely that the United States' large stock of foreign indebtedness will come to dominate movement of the investment income balance and lead to steadily larger deficits in this balance. The investment income deficits of the recent past have been very moderate in size; however, this payment could easily grow to $100 billion or more in the near future. This is far from insolvency, but a net *outflow* of resources to foreigners of that size would be a significant decrement to the annual rate of advance of the nation's living standard and a decrement that can get larger. Some observers maintain that it is a burden that needs to be curtailed.

Dependence on foreign capital often raises concerns about economic and financial instability that could be associated with these often volatile asset flows. A sharp retreat from dollar assets by foreign investors could send such a sizable shock to the United States and other industrial economies that might induce recession here and abroad. There are good reasons to doubt that a sharp, damaging turnaround in foreign capital flows is likely.[40]

However, recent experience with the panic of foreign investors, such as the Asian financial crisis of the late 1990s has shown that such behavior most often results from the growing likelihood that in the face of weak economic growth and dwindling foreign exchange reserves, creditors would not be repaid, that debt service payments were doubtful. This occurred when country's that had borrowed substantial amounts abroad that was denominated in foreign currencies found the rising value of those currencies relative to the home currency made it doubtful that they could continue to pay debt service. These are not risk factors that have much relevance to the circumstances of the United States, which has strong growth and does not fix its exchange rate, and is able to borrow abroad in its own currency. In addition, a large proportion of foreign investments made in the United States have been long-term in nature and not particularly prone to quick changes in commitment.

It is very likely that many foreign investors generally see the U.S. economy as a bastion of long-run economic strength and will continue to invest for long-term gain. Further, since the dollar is the worlds *reserve currency* of choice, the ongoing demand for liquidity and a store of value that the dollar serves undergirds the desire

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[40] On the subject of sustainability of the trade deficit see CRS Report RL33186, *Is the U.S. Current Account Sustainable*, by Marc Labonte.

to hold dollar assets, particularly short-term assets such as treasury bills that function essentially as an international currency.

Another possible cost of large persistent trade deficits is that they are very likely to lead to more calls for costly protection from foreign competition. Economic analysis indicates that since such measures have no effect on the macroeconomic factors that cause a trade deficit, they will not reduce it.

Reducing the Trade Deficit

The mechanics of the saving-investment relationship in an internationally open economy such as the United States suggests that there are essentially three ways the trade gap can be reduced: one, the rate of domestic investment falls; two, the level of domestic saving rises; or three, some combination of one and two occurs. Macroeconomic policy, the use of monetary and fiscal policy tools, can in theory effect changes in these variables. Monetary policy, by raising domestic interest rates and braking economic activity, can lower the rate of domestic investment and likely narrow the trade deficit. It is also possible that the adjustment to a smaller current account deficit would be initiated by a reduction in preference of dollar assets by foreign investors. A diminished inflow of foreign capital, absent any increase in domestic saving, would tend to increase domestic interest rates and force so as to force a reduction of domestic investment consistent with the smaller inflow of foreign capital and overall saving-investment balance. (At the extreme, a recession would likely dramatically reduce the trade deficit as it did in 2001.) Because of its negative effects on economic growth, decreasing the rate of domestic investment is not generally considered the most desirable economic course to follow, however.

The second course to a smaller trade deficit, raising the domestic saving rate, while having considerable economic merit, is a very problematic goal for macroeconomic policy. As explained above, fiscal decisions on taxing and spending influence the deficit or surplus position of the federal budget and the rate of public saving. As seen in the late 1990s, a rise in the U.S. overall saving rate as a consequence of a rising public saving rate stemmed from the sharp swing of the federal budget from a deficit to a surplus of in 2000. But budget deficits have returned and the government saving rate has fallen accordingly. Given the political nature of budget deliberations, it seems very problematic whether the federal budget can be an exploitable policy tool for reducing the trade deficit.

Can macroeconomic policy lift the low private saving rate? Proposals have been made to use the tax code to raise incentives for saving by households. Careful analysis reveals that such proposals most often have uncertain effects on the saving-investment balance, as they tend to raise both saving and investment or merely shift saving from source to another with no net gain.[41] Other proposals, such as individual retirement accounts, may just redistribute saving, raising the household rate (a little), but lowering the public rate by an offsetting amount.

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[41] See CRS Report RL30873, *Saving in the United States: How Has It Changed and Why Is It Important?*, by Brian Cashell and Gail Makinen.

Economic policy abroad can also work to reduce the U.S. trade deficit. Polices to increase the pace of economic growth abroad, as well as policies to help shift the locus of economic growth from net exports toward domestic demand. And also tend to reduce the outflow of saving from these economies into the U.S. economy. If such policies are concurrent with U.S. policies to raise domestic saving, a smaller trade deficit can occur without a reduction in domestic investment in the United States. Otherwise a smaller inflow of foreign capital will induce a reduction in the trade deficit by forcing a reduction of domestic investment.

Regardless of the posture of economic policy here and abroad, foreign investors can step back from the purchase of dollar assets in response to greater rates of return outside of the United States, or in an attempt to increase the diversification of their portfolios, now overly stocked with dollar assets. Such a move would decrease capital inflows to the U.S. market, and reduce saving available to the United States. The trade deficit, with a time lag, would tend to fall. But lacking an increase in the rate of domestic saving, interest rates would rise, and the rate of domestic investment would also fall.

The depreciation of the dollar exchange rate from 2002 to 2004 was ,in part, the consequence of foreign investors reducing there purchases of dollar assets. This pattern was reversed in 2005, however, with a renewal of strong demand for dollar assets resulting from the interaction of rising short-term interest rates in the United States and a large volume of petroleum export earning looking for a safe and liquid resting place. It seems probable that the behavior of foreign capital inflows to the United States will hinge on a balancing of the attractiveness of dollar assets against the risk to foreign investors of holding to large a share of dollar assets in their portfolios. The outcome of this calculation is subject to a large degree of uncertainty, but it does seem clear that the pressure for diversification away from dollar assets is rising rapidly.

Conclusion

For economists, the case for free trade is strong and compelling. A reduction of impediments to the flow of goods among nations will raise each trading nation's economic welfare. This conclusion has been repeatedly validated by studies of trade liberalization policies such as the Uruguay Round Agreement and North American Free Trade Agreement.[42]

However, public debate over such initiatives makes very clear that many Americans do not share economists' optimism about the virtues of free trade. Some of this antipathy might arise from economic concerns that U.S. workers and industries hurt by trade do not receive equitable compensation and other adjustment assistance. Allaying this concern, some economists argue, is best achieved by efforts to augment and refine the various government programs that help to support and retrain workers displaced and hurt by market forces.

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[42] For example, see Nora Lustig, Barry Bosworth, and Robert Lawrence, *Assessing the Impact of North American Free Trade* (Washington: Brookings Institution, 1992).

Others may simply doubt that trade is beneficial. If unconvinced by the various technical studies, they might consider that the United States *itself* gives clear evidence of the virtue of free trade. This country comprises 50 separate political entities that under the Constitution are required to allow unfettered trade among themselves. Specialization has occurred, interstate trade has grown, and national economic welfare has benefitted.[43] Certainly U.S. economic welfare would be reduced if barriers to interstate trade were erected. Economists view the benefits of interstate trade as of the same nature as the benefit of international trade. In policy deliberations, of course, national economic welfare will be considered in conjunction with political, social, and national defense issues that will also influence trade policy

[43] The 50 states, of course, have the same labor and environmental standards.