

The Role of Global Trade in Five Major Economic Challenges

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It is great to be here at DIW Berlin. I want to begin by thanking President Marcel Fratzscher for the opportunity to join you. In my remarks today, I will discuss the role of trade in the global economy. The U.S. and German economies have much in common, both in terms of our successes since the financial crisis and the hurdles we continue to face. The United States and Germany were the first two major crisis-affected countries to recover to pre-crisis levels of GDP. But despite this progress, challenges remain. Here in Europe, you too understand the need for steps to strengthen short-term growth while addressing long-term economic sustainability.

I will focus today on a set of five challenges our economies face over a longer time horizon—each of which will remain with us, regardless of the cyclical performance over the next year or two—and the role of global trade in meeting these challenges. To be clear, however, I will not argue that expanded trade is the sole, or even necessarily the most important, solution to any of these challenges. But I will highlight the ways in which trade can help to address all five.

I will begin with productivity growth, which is necessary but not sufficient for addressing most other economic issues. Next, I will talk more specifically about how those productivity gains translate into higher incomes for typical households, including by improving the quality of middle-class jobs and enhancing household purchasing power. Third, I will discuss the role and limits of trade agreements in solving macroeconomic imbalances. Fourth, I will consider how expanded trade can help us address global climate change more efficiently. Finally, I will talk about the role of trade agreements in addressing global poverty. I will conclude with some broader thoughts about the role of economic integration in matters that extend well beyond the economic realm, including the maintenance of peace and democracy.

Current Efforts to Expand Economic Integration

Before getting to the five challenges and the role that trade plays in general, let me quickly address some specifics related to current negotiations. The first is the Transatlantic Trade and Investment Partnership (T-TIP) that the United States is negotiating with the European Union, an effort that would tie together nearly one-half of the global economy. As we develop a more integrated global market, the European Union and the United States can help shape the rules of global trade in a manner consistent with our shared values and our shared high standards. T-TIP will reduce the unnecessary barriers to trade and investment—like tariffs, red tape, delays, and

¹ I want to thank Maurice Obstfeld, Jennifer Poole, Tim Simcoe, and Eric Van Nostrand for assistance with these remarks.

uncertainty over standards—that obstruct the path connecting entrepreneurs to potential customers. At the same time, our shared commitments to strong labor rights, enforceable environmental protections, and pro-innovation intellectual property rights can demonstrate to the world that we need not sacrifice standards to create opportunity.

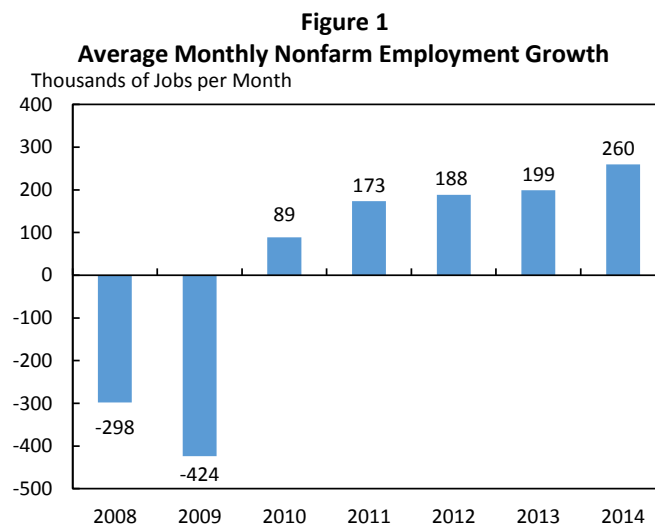
T-TIP addresses trade-related challenges that are specific to the large scale of our relationship. Our bilateral trade amounts to around \$1 trillion annually. That means that even to the extent that tariffs in some industries in our countries are relatively low compared with other countries, the overall cost of these barriers can still be substantial and unnecessary. Moreover, some industries, like food and textiles, still face especially high tariffs. T-TIP would eliminate almost all remaining tariffs between the European Union and the United States, while maintaining our high regulatory standards and promoting a more efficient regulatory environment.

T-TIP complements other regional agreements, like the Trans-Pacific Partnership (TPP) that the United States is negotiating with our partners in the Pacific and the European Union’s ongoing negotiations with Japan and other Southeast Asian nations. In addition, both the United States and the European Union are committed to multilateral efforts through the World Trade Organization (WTO), including the Information Technology Agreement, the Trade Facilitation Agreement, the Trade in Services Agreement, and the Environmental Goods Agreement.

All of these efforts to increase global integration have a common goal: to help us address our economic challenges, beginning with increasing productivity growth.

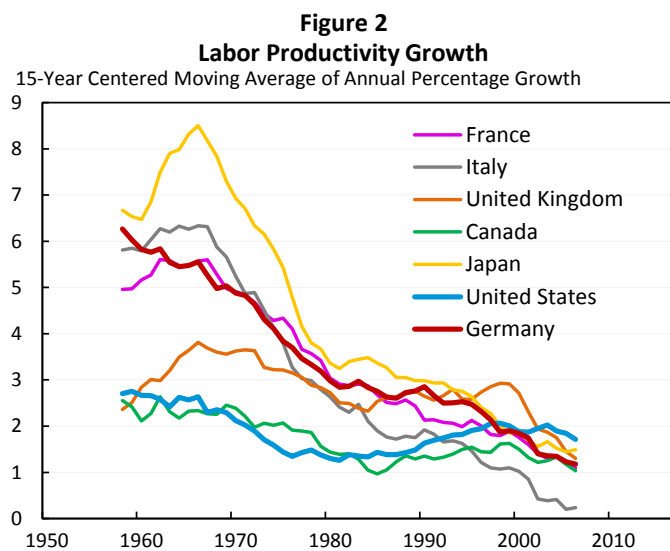
Challenge #1: Productivity Growth

In the last two years, the U.S. economy has grown at a 2.8 percent annual rate, up from the 2.1 percent annual rate in the first three and a half years of the economic recovery. This increased growth has been helped by an accelerating labor market, where the annual pace of job growth has risen each year since the recovery began, as shown in Figure 1. At the same time, the unemployment rate fell faster in 2014 than in any year since the 1980s.



After weathering the initial wave of the financial crisis and recovery better than almost any other nation, Germany has seen its growth slip at least in part due to external events including the euro area crisis. Though German growth surpassed expectations in the most recent quarter and is expected to strengthen further this year, Germany has grown at a 1.3 percent annual rate over the past two years, compared with a 2.4 percent annual rate during the prior three and a half years.

But I want to look beyond the short term toward the longer-term trends in growth, which I find more concerning for all of the advanced economies. As we look to the future, we all face substantial productivity challenges. The United States has seen our productivity growth slow from 2.6 percent annually from 1950 to 1973 to 1.5 percent per year from 1973 to 2013. The United States experienced a relative resurgence of productivity growth since the mid-1990s with the advent of the new economy, as shown in Figure 2. But in the years before the crisis, even this new economy was delivering slower productivity growth.



The other G-7 economies, including Germany, face even bigger challenges with respect to productivity growth. From 1950 to 1973, Germany saw productivity grow at an annual rate of 5.9 percent, but it has slowed to a 2.2 percent annual rate in the roughly four decades since then. Some of this decline is to be expected—the post-war rebuilding and commercialization of wartime innovations were a source of productivity growth that will, hopefully, never be reproduced again. But more worrying is the fact that since 1973, productivity growth in Germany—like in other European economies—has nearly continuously slowed.

There is much that we need to do to boost productivity growth. One important agenda item, and the focus of my remarks today, is expanded trade and deeper economic integration. The traditional economic understanding of trade rests on the argument that it raises the level of output and incomes. But recently, economists have developed a greater appreciation of the ways in which trade can increase the *rate* of innovation, and therefore the rate of economic growth. As Nobel Prize-winning economist Robert Solow wrote, “[r]elatively free trade has the advantage

that the possibility of increasing market share in world markets is a constant incentive for innovative activity.”²

Thanks to the pioneering work of Solow himself more than a half century ago, economists understand innovation in terms of total factor productivity—the total amount of output that can be produced from a given amount of inputs like capital and labor. Trade can expand growth in a number of ways:

- Greater R&D specialization can increase innovation. Greater specialization can increase the amount of knowledge produced per unit of R&D investment if companies in different countries focus on innovating in the areas where they have a comparative advantage. For example, if engineers at one firm focus on improving memory chips, and engineers at another firm focus on improving microprocessors, the R&D productivity of each firm may be higher, leading to better and cheaper computers than if each company had to improve both components simultaneously.
- Trade also helps firms become more productive by accelerating the global flow of ideas. Both exporters and importers are frequently exposed to new ideas and novel tools, materials, or techniques that make them more productive. For example, many multinational companies have systems and standards to promote the diffusion of “best practices” within their global supply chains.³ Learning also occurs when a firm adapts novel ideas to suit its own operating environment, leading to both new goods and greater productivity. For example, many American manufacturers and businesses in other industries have adopted aspects of the “lean” production system, which was originally developed in Japan, and realized substantial productivity benefits by tailoring the underlying ideas to meet their own needs.⁴

Many of the new ideas that diffuse through trade are embodied in intermediate inputs. In fact, roughly half of all U.S. imports are inputs into the production of final goods. Increases in the quality and variety of these inputs can reduce domestic firms’ production costs, thereby inducing importers to expand production and employment. For example, a classic paper shows that a country’s gains from international trade increase substantially when the benefits of cheaper and more varied imported production inputs are taken into account.⁵

- A larger market can increase the incentives for innovation. International trade allows companies to access a larger market, which yields more profit for a given level of

² Solow, Robert M. 2007. “[On Macroeconomic Models of Free-Market Innovation and Growth](#).” In *Entrepreneurship, Innovation, and the Growth Mechanism of the Free-Enterprise Economies*, edited by Eytan Sheshinski, Robert J. Strom, and William Baumol. Princeton, NJ: Princeton University Press.

³ MacDuffie, John Paul and Susan Helper. 1997. “[Creating Lean Suppliers: Diffusing Lean Production Through the Supply Chain](#).” *California Management Review* 39 (4): 118-151; Distelhorst, Greg, Jens Hainmueller, and Richard M. Locke. 2014. “[Does Lean Improve Labor Standards? Management and Social Performance in the Nike Supply Chain](#).” Watson Institute for International Studies Research Paper No. 2013-09.

⁴ Teich, Sorin T. and Fady F. Faddoul. 2013. “[Lean Management—the Journey from Toyota to Healthcare](#).” *Rambam Maimonides Medical Journal* 4, doi:10. 5041/RMMJ. 10107.

⁵ Romer, Paul. 1994. “[New goods, old theory, and the welfare costs of trade restrictions](#).” *Journal of Development Economics* 43 (1): 5-38.

innovation, and therefore raises the incentive to innovate. For example, the global reach of the “App Stores” managed by Apple and Google contributes to the large number of software developers who populate those distribution platforms.

- Finally, even holding market size constant, increased trade can promote innovation by strengthening competition. More than fifty years ago, the Nobel Prize-winning economist Kenneth Arrow pointed out that a monopolist may have relatively weak incentives to innovate, because its innovations do not allow it to “steal” business from competitors.⁶ A similar idea appears in more recent “Schumpeterian” models of innovation and economic growth, where competition can promote growth by increasing the expected payoffs of successful innovation. By bringing companies into a worldwide marketplace, trade greatly increases the incentive for a firm to innovate in order to win business from its competitors, reinforcing the market-size effects discussed above.⁷

However, Schumpeterian models also suggest that too much competition can reduce innovation, because firms will not wish to invest in R&D if their discoveries are easily copied and the resulting profits immediately dissipated.⁸ Intellectual property laws help determine where a country falls on the Schumpeterian spectrum between too little and too much competition, and our trade policies can promote harmonization around a set of rules that strike the appropriate balance for promoting long-run growth and job creation.

Challenge #2: Channeling Productivity Growth to the Middle Class

In both the United States and Germany, median household income today is lower than what it was in 2007. This is the result of the combination of the economic crises we have faced layered on top of a longer-term slowdown in middle-class incomes. This slower income growth over the last several decades is in large part due to the slower productivity growth I have just been discussing, but it also is a consequence of higher inequality, especially in the United States, and a fall in labor force participation rates.

The ways that expanded economic integration will encourage more productivity growth would all help the incomes for typical households. And so would the traditional gains from trade.

The traditional case for trade is based on an exercise in comparative statics: comparing the allocation of production and consumption in autarky (or with trade barriers) to what it would be under free trade (or with reduced trade barriers). Adam Smith was one of the first to frame the problem and some of the earliest analytics were developed by David Ricardo in his theory of comparative advantage—the idea that countries should specialize in and export to other countries

⁶ Arrow, Kenneth J. 1962. “[Economic Welfare and the Allocation of Resources for Inventions.](#)” In *The Rate and Direction of Inventive Activity: Economic and Social Factors*, edited by R.R. Nelson, 609-626. Princeton, NJ: Princeton University Press.

⁷ Bloom, Nicholas, Mirko Draca, and John Van Reenen. 2011. “[Trade Induced Technical Change? The Impact of Chinese Imports on Innovation, IT and Productivity.](#)” *Centre for Economic Performance Discussion Paper* no. 1000.

⁸ Aghion, Philippe, Nick Bloom, Richard Blundell, Rachel Griffith, and Peter Howitt. 2005. “[Competition and Innovation: An Inverted-U Relationship.](#)” *The Quarterly Journal of Economics* 120 (2): 701-728.

what they produce relatively efficiently, and import from other countries what they produce relatively inefficiently.

In the nearly 200 years since Ricardo published his ideas, economists have identified a number of further benefits to trade that fit within this comparative statics paradigm. First, the ability to sell to a larger world market allows firms to take better advantage of increasing returns to scale. Second, much of the expansion in trade is along the “extensive margin,” so reduced tariffs do not merely increase trade in currently traded products but also open up trading opportunities for new firms and new products—including for many small businesses in both the United States and in the European Union that can have a more challenging time accessing international markets. And third, foreign direct investment is especially important for improving overall productive efficiency.

Together these different economic forces translate into two very simple benefits for the middle-class: better jobs and improved living standards. Studies of U.S. manufacturing industries document that, on average, export-intensive industries pay workers up to 18 percent more than non-export-intensive industries.⁹ Extensive economic research shows higher average wages in exporting firms, possibly because those firms are more productive and thus have higher profits, or because they seek out skilled workers to produce high-quality goods.¹⁰ When controlling for industry and worker characteristics, the Council of Economic Advisers (CEA) finds that the average industry’s strong increase in exports over the 1990s and 2000s translated into an additional \$1,300 in annual earnings for the typical worker. That corresponds to more than two months’ worth of an average family’s spending on food. Indeed, increased exports are one route to higher middle-class wages.

Higher living standards result because trade allows countries to specialize in their comparatively productive lines of business. When our trading partners produce goods relatively more efficiently, the United States can import goods at lower prices than if we were to use our scarce resources to produce those goods ourselves. These lower prices raise real wages, helping U.S. consumers purchase more with their current incomes. International trade also offers consumers a wider range of products to choose from—from year-round fresh fruit to affordable clothing—offering value equivalent to 2.6 percent of GDP by one estimate.¹¹ The greater variety of imports available at lower prices also reduces firms’ production costs through imported intermediate inputs, thereby helping American businesses to expand production and employment and increase the wages they can afford to pay. Since World War II, reductions in U.S. tariffs are estimated to have contributed an additional 7.3 percent to American incomes.¹²

⁹ Riker, David. 2010. “[Do Jobs in Export Industries Still Pay More? And Why?](#)” *Manufacturing and Services Economics Brief* no. 2, International Trade Administration, U.S. Department of Commerce.

¹⁰ Bernard, Andrew B., J. Bradford Jensen, Stephen J. Redding, and Peter K. Schott. 2007. “[Firms in International Trade.](#)” *Journal of Economic Perspectives* 21, no. 3: 105-130.

¹¹ Broda, Christian and David E. Weinstein. 2006. “[Globalization and the Gains from Variety.](#)” *The Quarterly Journal of Economics* 121, no. 2: 541-85.

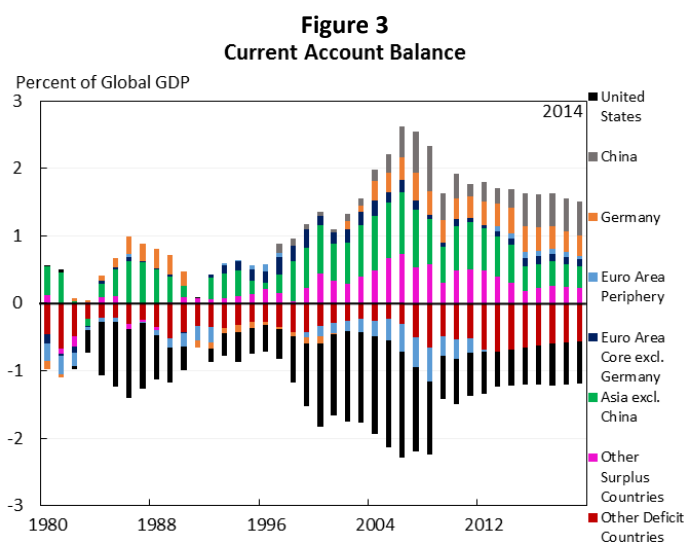
¹² Bradford, Scott C., Paul L. E. Grieco, and Gary Clyde Hufbauer. 2005. “The Payoff to America from Global Integration.” in C. Fred Bergsten ed. [The United States and the World Economy.](#) Institute for International Economics. Washington, DC.

Challenge #3: Addressing Global Imbalances

I want to shift from productivity and incomes to an important factor in macroeconomic stability and sustainable economic growth: the role of global imbalances. Today, a combination of underlying structural economic features and deliberate policy choices have led to an uneven global allocation of saving and investment—with both too much saving and too many countries unwilling to deploy a commensurate portion of that saving flow in the form of internal investment. Overall, according to this view, large, persistent current account deficits driven in part by other countries' current account surpluses threaten the sustainability of global growth. They force a choice between contractionary pressures and market bubbles that can boost consumption in the short run but threaten macroeconomic and financial stability down the road.

It is noteworthy in this regard that the United States has made substantial progress in rebalancing its economy. Our current account deficit fell from 5.8 percent of GDP in 2006 to 2.4 percent of GDP in 2014, the lowest share of our economy since the late 1990s. In part, the reduction in our current account deficit is attributable to our own policies, including the increase in net national saving associated with the reduction in our Federal budget deficit and the dramatic reduction in net petroleum imports. But also in part, the reduction in the U.S. current account deficit reflects a broader move towards rebalancing in much of the rest of the world.¹³

Many other countries have also been successful in rebalancing with the United States just one of many deficit economies seeing a shrinking deficit at the same time that a number of surplus economies have seen smaller surpluses, as shown in Figure 3. China's surplus is notably decreasing as it shifts toward domestic demand and oil exporters as prices fall. Nevertheless other global imbalances have developed. For example, Germany has seen its current account surplus increase to 7.8 percent of its GDP, exceeding China's surplus in absolute terms as well despite the smaller size of the German economy.



¹³ For more detail, see the [International Monetary Fund's *World Economic Outlook: Legacies* \(October 2014\), Chapter 4: Are Global Imbalances at a Turning Point?](#); [Ben S. Bernanke, *Why are Interest Rates So Low, Part 3: The Global Savings Glut* \(April 2015\).](#)

Global imbalances can be understood as being rooted in three factors: macroeconomic policies broadly construed, national exchange rate policies specifically, and other asymmetries across countries, including in trade policies.

The largest source of current global imbalances stems from macroeconomic policies broadly construed. The previous European deficit economies like Spain and Italy have seen a compression in domestic demand, but this adjustment has not been matched by a corresponding increase in domestic demand in surplus economies.

A second source of global imbalances can be currency policies that target an undervalued exchange rate in order to shift global demand. The United States has made progress toward promoting more transparent, market-based exchange rates as a key element of our international economic policy, including through the G-7, the G-20, and in our bilateral economic engagement with countries like China. However, the United States and the broader global economic community will continue to push China to fulfill its Strategic & Economic Dialogue commitments to move towards a market-determined exchange rate.

The third source of global imbalances is other economic asymmetry across countries, including specific asymmetries in the level of government interventions that distort the free flow of trade. For a given set of exchange rates, the openness of the U.S. and European economies combined with the often larger barriers to our exports to the rest of the world can create imbalances.¹⁴

Today's largest current account imbalances stem from macroeconomic policies, and addressing them will require continued efforts in the G-20 and other fora. But that does not detract from the importance of trade agreements in mitigating global imbalances or from continued aggressive actions on exchange rates using multilateral and bilateral tools and channels.

Challenge #4: Global Climate Change

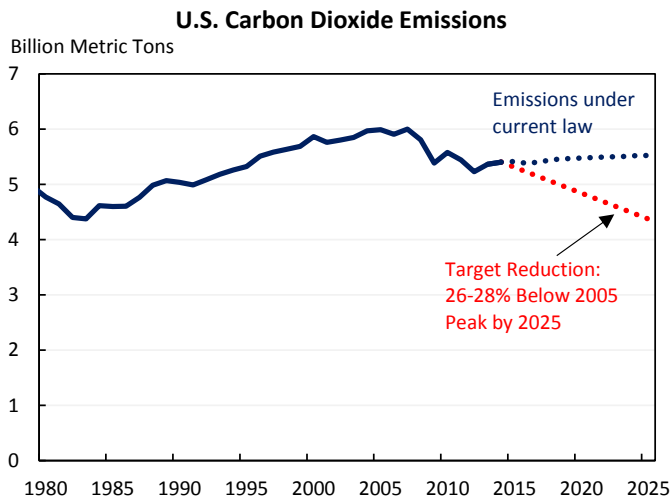
I want to shift gears from more traditionally economic issues to a major challenge faced by the entire world: global climate change. It is well understood that we have already seen an enormous increase in the atmospheric concentrations of carbon dioxide and that it is already warming the planet and increasing the prevalence of extreme weather events. These developments are harming the economy today and will harm it even more in the future. We understand that the sooner we act the less expensive it will be to address the problem.

Addressing climate change will require commitments from countries around the world, something we will be working together on in Paris later this year. The United States, for example, is committed to cut our 2020 emissions by 17 percent relative to 2005 levels. Building on key policies like fuel economy standards we are now on track to hitting this goal, with emissions in 2014 nearly 10 percent below what they were in 2005, as shown in Figure 4. Last November, in a historic joint announcement, we introduced a new goal to cut our emissions by

¹⁴ Economic theory predicts that the exchange rate will adjust as a result of asymmetric reductions in trade barriers, leaving the trade balance unchanged. To the degree this is the case the United States benefits from better terms-of-trade for a given trade balance. However, in some of our trade partners restrictive trade policies are associated with repressed financial systems or other structural factors pushing toward higher saving and/or lower investment.

26 to 28 percent from 2005 levels by 2025, while China committed for the first time to peak its emissions. We are implementing significant and comprehensive policy initiatives to continue driving down emissions, including the Clean Power Plan to reduce emissions in the power sector, phasing in new rules on vehicle emissions, and reducing methane emissions associated with gas extraction.

Figure 4



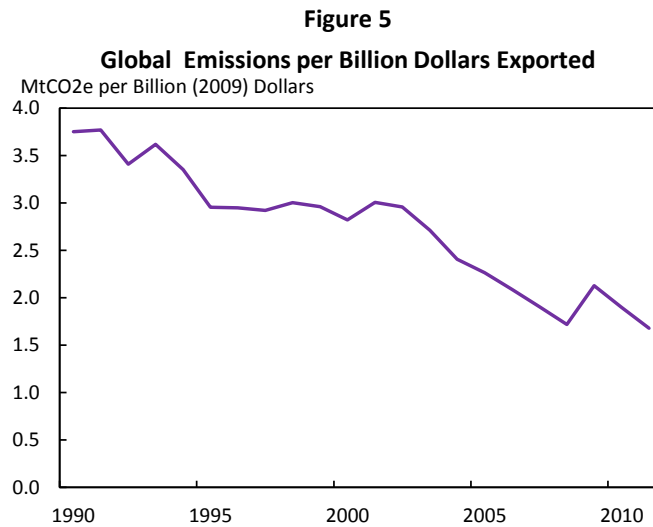
Global momentum on climate change is growing. Countries representing more than 60 percent of global carbon emissions from the energy sector, including Germany, have already put forward commitments and started to act.

Trade cannot solve climate change, but it can help provide us with the ability, motivation, incentives, and tools to address it more efficiently and less expensively. There are two broad channels through which trade can impact the environment: by changing the level of economic activity within trading countries (known as the “scale effect”), and by changing the composition of economic activity among trading countries (known as the “composition effect”). In each channel, there are ways in which trade can help encourage sustainable development and promote environmental protection.¹⁵

With respect to the scale effect, higher productivity expands the economy, tending to increase pollution. But the greater household incomes associated with a larger economy, in turn, can benefit the environment in multiple ways. Higher real incomes create opportunities for investment in research and development in clean technology, allowing countries to develop more green production techniques. Higher real incomes can also generate greater ability and willingness to adopt, enforce, and pay for higher standards of environmental quality. For example, with more disposable income, families might be willing to pay a little extra to buy a hybrid car, or install solar panels for home-electricity generation.

¹⁵ Antweiler, Werner, Brian R. Copeland, and M. Scott Taylor. 2001. “Is Free Trade Good for the Environment?” *American Economic Review* 91, no. 4: 877-908.

Indeed, historical data shows that carbon emissions per dollar exported have declined over time, reflecting the global shift toward cleaner production technologies, as shown in Figure 5.



Compositional changes that occur in the economies of trading partners as trade promotes production specialization also impact the environment. One popular assumption is that greater international specialization will lead to “pollution havens” in poor countries that will increase total emissions. But the empirical evidence suggests otherwise, largely because the capital-intensive sectors with the most emissions are also the ones that comparative advantage would suggest would be more likely to locate in developed countries. This logic indicates that trade could lead to greater specialization and could reduce global emissions, as pollution-intensive production would occur in countries with stricter standards.

Trade agreements are being explicitly crafted to augment these effects. Trade agreements can raise environmental standards in countries that otherwise would not be motivated to raise standards on their own. The United States has a long history of pursuing mutually supportive trade and environmental policies, and has found that strong, enforceable environmental provisions pursued as part of our bilateral and regional trade agreements can help raise our trading partners’ environmental standards, leveling the playing field for workers and businesses in America. Moreover, multilateral agreements like the WTO’s Environmental Goods Agreement that aim to reduce tariffs on green production goods can increase both the incentives for green innovation and the diffusion of green technologies.

Challenge #5: Global Poverty

The final challenge I will discuss is the fact that 2.2 billion people around the world live on less than \$2 per day. We have made historic progress reducing poverty in recent decades. Global poverty declined by nearly half a billion between 2005 and 2010, and the numbers are estimated to fall further in coming years.¹⁶ Largely due to growth in China and India, across-country global

¹⁶ Chandy, Laurence and Geoffrey Gertz. 2011. “Poverty in Numbers: The Changing State of Global Poverty from 2005 to 2015.” Brookings Policy Brief 2011-01.

income inequality recently witnessed the first decline since the Industrial Revolution.¹⁷ A range of research shows that trade has played a role in these developments.

Much of the same logic of comparative advantage that I have been discussing in the context of advanced economies applies in developing countries and emerging markets as well. Research on countries as diverse as Mexico and Vietnam has found that trade agreements and exposure to trade have raised wages.¹⁸ I think it is especially encouraging that it is not just wages today but future economic mobility, as trade has been shown to reduce child labor, increase school attendance, and thus help future generations even more.¹⁹

Research also finds that expanding access to developed markets promotes higher-quality employment in less-developed countries as workers shift from informal to formal employment.²⁰ This is important because jobs in the informal sector are associated with lower wages, lower employee benefits, worse working conditions, and lower job quality.²¹ Trade-induced international competition is another force toward social inclusion and the empowerment of traditionally marginalized groups. The classic Gary Becker model of discrimination predicts that discrimination becomes more costly with increased market competition.²² Therefore, as trade liberalization results in increased competition in the domestic market, discrimination-based wage gaps should narrow. In fact, the empirical evidence supports this theory, with increased trade associated with smaller gender, racial, and immigrant wage gaps.²³

The forces unleashed by trade explain many of these changes, which stem from higher incomes, better quality jobs, expanded consumer choice, and more competition. But the labor standards that are a central part of all of the trade agreements the United States enters into now have also helped complement the direct incentives from the economic changes unleashed by the agreements themselves. Indeed, the United States' existing free trade agreements and those we are currently negotiating are all designed with an eye toward the International Labor Organization's core labor standards. And these higher standards are actually enforced; research has shown that countries that signed Free Trade Agreements (FTAs) with the United States

¹⁷ Milanovic, Branko. 2013. "Global Income Inequality in Numbers: In History and Now." *Global Policy* 4, no. 2. Washington, D.C.: World Bank (May).

¹⁸ Hanson, Gordon H. 2007. "Globalization, Labor Income, and Poverty in Mexico." *Globalization and Poverty*, pp. 417-56. University of Chicago Press; McCaig, Brian. 2011. "Exporting out of Poverty: Provincial Poverty in Vietnam and U.S. Market Access." *Journal of International Economics* 85, no. 1: 102-13.

¹⁹ Edmonds, Eric V. and Nina Pavcnik. 2005. "The Effect of Trade Liberalization on Child Labor." *Journal of International Economics* 65, no. 2: 401-19.

²⁰ McCaig, Brian and Nina Pavcnik. 2014. "Export Markets and Labor Allocation in a Low-Income Country." Working Paper 20455. Cambridge, Mass.: National Bureau of Economic Research.

²¹ Goldberg, Pinalopi K. and Nina Pavcnik. 2003. "The Response of the Informal Sector to Trade Liberalization." *Journal of Development Economics* 72, no. 2: 463-96.

²² Becker, Gary S. 1957. "The Economics of Discrimination." The University of Chicago Press, 2nd edition.

²³ Black, Sandra E. and Elizabeth Brainerd. 2004. "Importing Equality? The Impact of Globalization on Gender Discrimination." *Industrial and Labor Review* 57, no. 4: 540-59; Essaji, Azim, Gregory Sweeney, and Alexandros Kotsopoulos. 2010. "Equality through Exposure to Imports? International Trade and the Racial Wage Gap." *Journal of Economic Policy Reform* 13, no. 4: 313-23; Klein, Michael W., Christoph Moser, and Dieter M. Urban. 2010. "The Contribution of Trade to Wage Inequality: the Role of Skill, Gender, and Nationality." Working Paper 15985. Cambridge, Mass.: National Bureau of Economic Research.

increased enforcement of labor regulations.²⁴ In addition, our analysis of data across countries on efforts to combat the worst forms of child labor shows that U.S. FTA partners are more likely than non-FTA partners to have advanced substantially in combating child labor.

Although T-TIP is an agreement between two advanced economies, it would also make a positive contribution to global development. For example, the harmonization of product standards across two major world economies is expected to boost exports for many other countries.²⁵ Moreover, setting high standards can set an example for other countries to follow.

Finally, while addressing global poverty is a moral imperative in its own right, it also has positive spillovers for the advanced economies. Reduced poverty and expanded incomes would expand the market for our exports while reducing the competitive pressure our workers might otherwise experience as a result of globalization.

Conclusion

Our trade policies have an important role to play in addressing the major economic challenges we face. Global trade can increase growth, help middle-class workers, reduce global imbalances, help address climate change, and contribute to reducing global poverty. These economic reasons are more than sufficient to highlight the importance of T-TIP and other agreements.

But as much as those in my profession might not like to admit it, economics is not the only reason trade is important. Indeed, many of trade's benefits to the United States, the European Union, and the world go well beyond the economic realm. This is well-known in Europe, as a main motivation for the European Coal and Steel Community was the idea that economic cooperation through trade can promote political cooperation. T-TIP will further cement our transatlantic ties, promote the key values shared by the United States and the European Union, and help build a model for the rest of the world. In developing countries, expanded trade ties have been shown to promote human rights, democratic institutions, political and civil liberties, and even potentially to reduce violent conflict.²⁶ These observations just underscore the importance of continuing to work together to promote expanded and deepened economic ties between our countries and others around the world.

²⁴ Dewan, Sabina and Lucas Ronconi. 2014. "U.S. Free Trade Agreements and Enforcement of Labor Law in Latin America." IDB Working Paper Series No. IDB-WP-543.

²⁵ Reyes, José-Daniel. 2011. "International Harmonization of Product Standards and Firm Heterogeneity in International Trade." World Bank Policy Research Working Paper No. 5677.

²⁶ Sykes, Alan O. 2003. "International Trade and Human Rights: An Economic Perspective." John M. Olin Law & Economics Working Paper No. 188. Chicago, Illinois: The Law School of the University of Chicago; Eichengreen, Barry and David Leblang. 2006. "Democracy and Globalization." Working Paper 12450. Cambridge, Mass.: National Bureau of Economic Research; López-Córdova, J. Ernesto and Christopher M. Meissner. 2005. "The Globalization of Trade and Democracy, 1980-2000." Working Paper 11117. Cambridge, Mass.: National Bureau of Economic Research; Martin, Philippe, Thierry Mayer, and Mathias Thoenig. 2008. "Make Trade not War?" *The Review of Economic Studies* 75, no. 3: 865-900.

Notes to Figures and Tables

Figure 1

Source: Bureau of Labor Statistics.

Figure 2

Source: Conference Board, Total Economy Database.

Figure 3

Note: Data on the Chinese current account balance begin in 1997.

Source: April 2015 World Economic Outlook, International Monetary Fund; CEA Calculations.

Figure 4

Source: Energy Information Administration; CEA calculations.

Figure 5

Note: All values deflated using U.S. GDP deflator.

Source: World Resources Institute; World Bank; World Development Indicators.