Consumer Benefits from International Trade

Trade Policy should Focus much more on Consumers

May 14, 2015

INTRODUCTION AND SUMMARY

Trade and the public interest. Policymakers should act in the “public interest,” and it is incumbent upon them to determine with some specificity what that means because it may not be clear in particular contexts. Thus, before discussing trade policy—trade barriers in particular—one should ask, what is the public's interest in international trade?

People engage in voluntary trade because they gain something from it. The premise of our market economy is that people should be able to pursue their interests and engage in trade freely, and that the government should place conditions on trade in legal goods and services only in as far as the trading activity itself gives rise to a public nuisance or risk. From this perspective, it is difficult to see the sense of the government pursuing specific aims by holding back supplies of goods and services that the general population would gladly buy and consume.

The motive for trading across national borders is no different from that for trading within national borders; yet international trade is regarded differently. The presumption is that the national government is a gatekeeper, that it should control imports in particular, and not just for consumer protection, and that it should promote exports, i.e., promote sales to consumers in other countries.

Even though international trading hubs through history have been virtually synonymous with extraordinarily high living standards, these presumptions for centuries have made it necessary for economists to devise special arguments to demonstrate that engaging in international trade makes a country better off.

It is generally recognized that antitrade policies contributed to the Great Depression and the descent into World War II and that the international agreements and institutions to facilitate trade after the War promoted economic recovery and improved international relations. Nevertheless, today’s opponents of trade often argue that trade has become “unfair.”

Consumer interests too often are secondary to other considerations in trade policy.

Consumer welfare is the object of foreign trade, the same as domestic trade.

International trade has widespread benefits and in particular for low-income families.

Holding back trade to serve specific interests rarely is in the public interest.

Opponents of international trade who claim it harms workers

– Forget that workers are consumers too;
– Tend to exaggerate import-related job losses;
– Ignore that trade can boost overall employment during recessions and long-term.

The government should address bad practices in international commerce directly rather than by limiting trade.
Focus on consumers. The purpose of this commentary is not to explore what is or is not fair or harmful about international trade today. The purpose is to draw attention to what should be a much fuller public interest determination for trade policy. Policies that serve the public interest must consider the consumer benefits from trade and assign considerable weight to them. Whatever reasons the government finds for intervening in international trade, its benefits to domestic consumers should matter a great deal.

Consumer benefits should be a prominent part of any trade discussion and weighed against the reservations opponents to trade liberalization raise. From a public interest perspective, the government should keep any policy responses to particular concerns with imports and their effects as focused as possible and guard the benefits of trade to the consuming public very carefully.

It is important to recognize that the time has long passed when imports consisted mostly of luxury items only the rich could afford. The leading U.S. import companies are Wal-Mart, Target, Home Depot, Dole, Lowes, and Sears. The everyday goods that “big box” stores in particular bring into the country are available at affordable prices that can help consumers with modest incomes stretch their budgets. Imports benefit ordinary people and especially lower income households.

More study needed of consumer benefits. International trade benefits consumers in different ways and through various channels, some of which take time. Many economic studies that demonstrate the beneficial nature of trade use aggregate measures such as GDP to show how economic growth and the national standard of living rise over time with trade liberalization. But they lack the immediacy and concreteness of arguments against trade, or more precisely against imports, that evoke images of closing factories and laid-off workers.

This analysis reviews a number of studies that focus directly on consumer benefits from imports. The studies take varying approaches and do not nearly capture all the consumer benefits, but they indicate that the gains to consumers are large. There are not nearly enough such studies. The dearth of studies that directly measure consumer benefits specifically and the findings of the ones that exist should induce the government to routinely

- Sponsor studies of consumer benefits from international trade;
- Compare consumer benefits of trade liberalization with the domestic adjustment costs;
- Aim policy intervention narrowly at the adjustment costs rather than broadly at holding back trade.
**INTERACTION BETWEEN TRADE AND INCOME**

Americans’ average household income is easily $10,000 per year higher as a result of trade expansion in the past half century.\(^1\) One recent study even puts the figure as high as $13,600.\(^2\) The United States is the largest import and the second largest export country in the world but in percentage terms trades less than its peers because the volume of internal trade is larger by virtue of the country’s size. The U.S. import-to-GDP ratio last year, for example, was 16.5 percent; Germany’s was 40 percent. Three-fourths of the 34 OECD member countries have import-to-GDP ratios above 30 percent.

The most successful economies in the world trade extensively. The countries whose industries are most competitive with U.S. industry and those with the highest living standards (as identified by OECD’s Better Life Index, for instance) are highly engaged in international trade. The Scandinavian countries, Switzerland, the Netherlands, Germany, Japan, Hong Kong, and Singapore, to name only a few, all have sizable imports and exports relative to their domestic output. Within the euro zone, the leading countries have the highest proportions of imports and exports, whereas the members facing the most severe economic and fiscal challenges, Cyprus, Greece, Italy, Portugal, and Spain, have the lowest ratios of imports and exports to GDP (although still higher than the United States).

Figure 1 on page 4 shows imports, exports, and GDP on a per capita basis for nearly all countries in the world. Countries with annual GDP per capita above $25,000 have imports of $5,000 per capita or higher. One observation relevant to the current debate over further trade liberalization is that the proportion of external trade in the United States has much room to grow before it reaches the levels in many other advanced economies.

International trade, especially at an advanced level, is a market driven phenomenon. The great diversity of traded items is characteristic of developed, market-based economies in which imports account for a substantial share of people’s income. A country’s economic system has much to do with the volume and form of its trade. Centrally controlled economies tend to trade on simpler terms for a narrower range of items and at lower volume.

The causality between international trade and economic growth and living standard can run in either direction. Foreign trade can increase income but higher income can also lead to more trade. Technology and domestic

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Figure 1: GDP, IMPORTS AND EXPORTS PER CAPITA

Data source: The World Factbook of the CIA. (Most data points are 2014 estimates, some are older. Foreign GDP is converted to U.S. dollars at purchasing power parity.)

Selected Countries Identified:
- Hong Kong
- Singapore
- United Arab Emirates
- Switzerland
- Luxembourg
- Belgium
- Netherlands
- Norway
- Kuwait
- South Korea
- Canada
- U.K.
- Japan
- United States
- Puerto Rico
- Czech Republic
- Slovakia
- Hungary
- Mexico
- Russia
- Greece
- North Korea
- Cuba
- China
- Iran
economic policy affect foreign trade volume as well and make it difficult to isolate trade related effects.

A study by Frankel and Romer overcomes the problem of causality by relating a country’s trade to its geographic characteristics that affect the cost of conducting foreign trade: size, distance to other countries, shared borders, and whether it is landlocked. Geographic attributes are independent of income and government policy, and the difference they make for trade leads to the conclusion that trade, in fact, raises income. Countries that face relatively high trading costs trade less and have lower incomes than countries that face relatively low trading costs and trade more. The relation between the geographic component of trade and income in the Frankel and Romer study suggests that a rise of one percentage point in the ratio of trade-to-GDP increases income per person by at least one-half percent and likely by as much as two percent.4

**MEASURING CONSUMER BENEFITS OF TRADE**

**Components of consumer benefits.** International trade benefits consumers by lowering prices, improving quality, and widening selection. These benefits are not only the direct result of imported consumer goods entering domestic markets, but also of the price and product responses by domestic vendors. In addition, imported commodities and intermediate goods enable domestic producers to lower their cost and enhance retail offerings. Lastly, international trade requires production for export as well, which induces a reallocation of domestic resources relative to autarky toward specialization in a nation’s comparative advantage. Thus, foreign trade generates consumer benefits that derive in part directly from imports and in part from responses by the domestic economy.5

Rather than trace the ways in which trade delivers benefits or quantify their component parts, most economic studies of international trade use aggregate measures such as the value of imports plus exports relative to output or income at the national level to quantify the gains from trade. Few studies focus on consumer benefits specifically.

**Trade’s contribution to consumer share of national income.** A study by Langenfeld and Nieberding6 applied the Frankel and Romer finding and similar ones of other studies to U.S. international trade expansion from 1992 to 2002. They calculated the implied increase in domestic consumer benefit

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3 “Does Trade Cause Growth?” by Jeffrey A. Frankel and David Romer, *American Economic Review*, 89, No. 3 (June 1999), 379-399. The United States is the largest importer and second largest exporter in the world, but because it is a large country, most trade is internal. Relative to GDP, imports and exports combined are only 30 percent. (When calculating GDP, exports are added and imports are subtracted.)


5 See Appendix I for a fuller discussion.

from imports per household and found that during this period increased
imports accounted for 15 to 20 percent of the total increase in annual real
disposable income per household, i.e., between $1,583 and $2,080 of $10,387
(2002 dollars), depending on whether trade expansion boosts economic
growth by 1.5 or 2 percent. For the same period, the authors estimated an
increase of $1,229 from five trade agreements based on a United States
International Trade Commission (USITC) study, and they found an increase of
$1,613 in annual real disposable income per household using a trade-to-
income factor from the 1998 Economic Report of the President.

The study refers to a comparable finding reported by Ambassador Robert
Zoellick in 2002, the U.S. trade representative at the time, to the Senate
Finance Committee. According to Zoellick, the North American Free Trade
Agreement (NAFTA) and the Uruguay Round trade agreement generated
added income and lower taxes (referring to hidden import taxes) of about
$1,300 to $2,000 a year (1996 dollars) for the average family of four in
America. He believed at the time that new trade negotiations, including the
Doha Round, could deliver a further annual income gain of nearly $2,500 to
the average American family of four.

These estimated benefits reflect only particular advances in trade
liberalization, not total trade. Langenfeld and Nieberding estimated that the
consumer benefit from trade in total was almost six percent of real median
household income or nearly $2,500 per household in 2002 (p. 47). In 2013,
real median household income was $52,250, six percent of which would be
$3,135. While substantial, the estimates are only of “static” gains; “dynamic”
gains are larger because they grow over time in real terms (see Appendix I).

Lower prices. There is no more direct way to benefit consumers than
with lower prices. The theory of comparative advantage points out that
international trade can lower prices if trading partners move their
respective resources to the areas of their relative strengths in production. In
addition to cost savings from specialization, competition from abroad also
may push prices down closer to operating cost. A recent study of 325
manufacturing industries from 1997 to 2006 found that a one percent
increase in import market share decreased producer prices by 2.35
percent.

Both factors—optimization of resource allocation and lower

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7 The Toyo Round, the Uruguay Round, NAFTA, and Free Trade Agreements with
Canada and Israel.
8 Janet Yellen was chair of the Council of Economic Advisers at the time.
9 Robert B. Zoellick, “Statement before the Committee on Finance of the U.S. Senate,”
10 “The effect of low-wage import competition on U.S. inflationary pressure,” by
503. Domestic firms also may lower their prices preemptively if their markets
become contestable due to trade liberalization so that the import market share does
not necessarily reflect the full domestic price response.
mark-ups—imply that internationally traded goods will decline in price relative to non-traded goods.\textsuperscript{11}

In his book *Mad About Trade,\textsuperscript{12}* Daniel Griswold groups a diverse set of U.S. goods and services by whether their prices had risen more or less than the Consumer Price Index (CPI)\textsuperscript{13} from the beginning of 2000 to the end of 2007. With few exceptions, the prices of goods and services most exposed to foreign competition rose less than the CPI and several fell substantially, whereas the prices of those insulated from foreign competition all rose, most of them substantially.

Figure 2 shows the price changes reported by Griswold as well as the price changes since then, from 2008 to 2014. The items to the left are tradable except for wireless telephone service and eye care and the items to the right are in the non-trade sector except for bread, fresh fruits, vegetables and prescription drugs.\textsuperscript{14}

**Figure 2:**

There is a remarkable divergence in prices between goods that compete with imports and those that do not.

The prices of many everyday products tend to rise or fall depending on whether they are in the non-tradable or tradable sector of the economy.

Televisions, toys, dishes and flatware are examples of the former; their prices declined by between 45 and 93 percent in the last decade and a half. Dry cleaning, haircuts, and motor vehicle repair are among the latter and rose in price between 40 and 70 percent during that time. (The numbered items all are identified in Appendix II.)

\textsuperscript{11} International trade also may reduce inefficiencies that can creep into producers' operations, so-called X-inefficiency, when domestic competition is lacking.

\textsuperscript{12} *Made About Trade, Why Main Street America Should Embrace Globalization*, Daniel T. Griswold, CATO Institute, 2009, Table 2.1, p. 15.

\textsuperscript{13} Consumer price index for all urban consumers (CPI-U), U.S. Department of Labor, Bureau of Labor Statistics.

\textsuperscript{14} Reimport restrictions protect exported patented prescription drugs when their prices abroad are lower than in the United States. As Griswold points out, drug reimport restrictions are one trade topic where the policy debate recognizes domestic consumer benefits explicitly (p. 16).
The Bank of International Settlements found a similar price divergence in the United States, the euro area, and Japan between largely tradable “core” goods (excluding food and energy) and largely non-tradable domestic services. Since the mid-1990s through 2007, prices for core goods increased by declining percentages and even fell for a number of years (blue line), while service prices (green line) continued to rise by percentages that have remained virtually constant from the late 1990s onward.

**Figure 3: Trends in Relative Prices of Goods and Services**


**Greater variety.** The theory of comparative advantage, particularly the familiar two-country, two-product exposition, suggests that while trade induced specialization reduces costs, the products remain the same. This is a much too limited inference. Consumers may gain from trade even if there are no price changes of existing goods. International trade also increases the quality and variety of products that are available to consumers.15

Growth in U. S. import product variety has been an important source of consumer gains from trade. As reported in a study by Broda and Weinstein, the share of imported goods in U.S. GDP more than doubled from 4.8 percent to 11.7 percent and import varieties rose from 71,420 to 259,215 between 1972 and 2001.16 The authors arrive at a measure of the consumer welfare gain from increased variety by applying the type of adjustment made to cost-of-living indices, such as the CPI, that aim to reflect changing consumer

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16 The study defines a variety as a particular good, such as red wine, produced in a particular country, such as France. “Globalization and the Gains from Variety,” Christian Broda and David E. Weinstein, *The Quarterly Journal of Economics*, May 2006, p. 550.
preferences (i.e., the changing composition of a representative basket of purchases), product quality improvements, and new kinds of goods. To the extent that a price index does not capture these changes, it overstates the cost of living. Relative to the variety-adjusted import price index that Broda and Weinstein constructed, the conventional import price index had an upward bias of 28 percent over the period.

For the lower, variety-adjusted import prices, the authors estimated the “compensating variation,” meaning the income consumers would be willing to give up in order to keep the full incremental variety of imports. Broda and Weinstein estimated that for access to the net new varieties added each year, consumers would have paid up to 0.1 percent of their income and in 2001 would have paid 2.6 percent of their income to keep the selection from falling back to the level available in 1972.

A paper by Mohler and Seitz using the same methodology on 27 European Union (EU) member countries for the period 1999 to 2008, found positive consumer welfare gains in all but five countries (two of which were not significantly different from zero). Notably, the gains were largest among new member countries and smaller among long-time members, particularly the four largest economies, France, Germany, Great Britain, and Italy. The economies of these major, long-time EU members had well-established trade links within the EU as well as globally prior to the period of study whereas the new members experienced substantial trade liberalization, especially within the EU. Mohler and Seitz separated EU from non-EU trade and found that the former made a much bigger difference for the new members than the latter, presumably because EU membership facilitates trade mostly with other members. They also found that new members are able to catch up to the incumbent members in terms of the trade benefits they realize.

The Mohler and Seitz findings highlight that the kind of welfare gain from trade liberalization they consider, increased variety, is lasting but static; a given reduction in trade barriers generates a constant gain in welfare.

Who are the consumers receiving these benefits? The consumer surplus from import variety is for the nation as a whole. It can be expressed as a percentage of national income or output (GDP). Since aggregate measures are used to compute it, one cannot draw inferences about which consumers benefit. But the days are gone when imports were predominantly luxury goods only the rich could afford, such as gems, ivory, and silk. Not only can many more people afford these kinds of goods today, imports largely are mass-produced consumer products. The first column in Table 1 shows

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18 Broda and Weinstein, p. 543. These are percentages of national income or GDP; they represent the so-called consumer surplus from import variety.
many items in the shopping carts of average Americans, so the trade benefits do reach the general population.

One can go a step further and say that foreign trade disproportionately benefits modest to low-income people. The top five U.S. import companies are Walmart, Target, Home Depot, Dole, Lowes, and Sears. One study by Hausman and Leibtag of super stores, mass merchandizers and club stores, so-called big box stores, shows they confer substantial benefits on consumers that are proportionately larger the lower the income. Households with less than $10,000 in annual income benefit 50 percent more than the average benefit realized. In total, the existence of big box stores makes consumers better off by the equivalent of 25 percent on average of annual food spending. While the authors only studied food items, these stores sell a wide range of products, many of them imported and/or affected by import competition. Another study by Basker uses 10 nonfood products and finds considerable downward price movement for Wal-Mart.

Jason Furman, the current chairman of the Council of Economic Advisers, in a 2005 paper computed the welfare gain from the Hausman-Leitag study in dollar savings as $782 per household in 2003. Taking into account that lower income families spend a larger share of their income on food, he showed that they benefit proportionately more than higher income families, namely by a welfare increase of 6.5 percent of income in the lowest quintile compared with an average of 1.5 percent (see Table 2).

<table>
<thead>
<tr>
<th>Pretax Income Quintile</th>
<th>Welfare Increase</th>
<th>Welfare Increase as Percent of Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottom</td>
<td>$530</td>
<td>6.5%</td>
</tr>
<tr>
<td>Second</td>
<td>$678</td>
<td>3.2%</td>
</tr>
<tr>
<td>Third</td>
<td>$779</td>
<td>2.1%</td>
</tr>
<tr>
<td>Fourth</td>
<td>$932</td>
<td>1.5%</td>
</tr>
<tr>
<td>Fifth</td>
<td>$1,126</td>
<td>0.9%</td>
</tr>
<tr>
<td>All</td>
<td>$782</td>
<td>1.5%</td>
</tr>
</tbody>
</table>


Big box retailers are among the largest import companies and confer substantial benefits on a wide segment of consumers, especially lower income families.

He reported that the savings from all goods at Wal-Mart alone are enormous—a total of $263 billion in 2004, or $2,329 per household.24

In testimony before the Senate Finance Committee in 2004 cited earlier, Ambassador Zoellick made the following observation:

> Arguing for trade barriers is like arguing for a tax on single working moms, because that’s who pays the most in import taxes as a percentage of household income. Our goal is to cut those hidden import taxes—while other countries cut theirs too—to give working families a boost (p. 41).

**Trade Liberalization And Employment**

It is not the purpose of this commentary to analyze the various objections to trade liberalization or those based specifically on employment or wage effects, but it is important to point out that the objections for the most part are narrowly focused.

**Workers are consumers too.** The ultimate purpose of foreign trade is to gain access to goods and services that otherwise would not be available or affordable, and workers are also consumers. Furman observed that eight in ten Americans shop at Wal-Mart, and the Hausman-Leibtag study found that

> While we do not estimate the costs to workers who may receive lower wages and benefits, we find the effects of supercenter entry and expansion to be sufficiently large so that overall we find it to be extremely unlikely that the expansion of supercenters does not confer a significant overall benefit to consumers (p. 2).

A fundamental governing principle of domestic economic policy is to preserve the freedom of citizens to pursue their own interests. Trade barriers interfere with people’s ability to purchase goods and services, which presumptively is in their interest as long as trade is voluntary and should be their right as long as the objects of trade are legal. Barring or restricting economic activity, be it within or across national borders, constrains that freedom for everyone within and outside the labor force.25

While there may be costs to some from trade liberalization, there are costs and risks to all activities, which do not justify stopping the activities. In response to traffic fatalities, for example, the government does not restrict vehicle purchases; it requires safety features and promotes accident prevention. Loss of income that may result from trade liberalization in import-competing industries should shape policies pertaining to training and income support but not initiate restrictive trade policy, which should be designed based on consumer welfare considerations.

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24 Based on a Global Insight study that Wal-Mart commissioned and that Furman cites at length. It lists lower import prices as one of Wal-Mart’s contributions.

25 The federal government’s use of trade sanctions as a foreign policy tool arguably overrides citizens’ right to buy and sell what they want.
Does trade cost jobs? The most prominent objection to trade liberalization is that it is bad for workers, which as a general proposition is not true. First, it ignores that (a) imports lower prices for consumer goods, (b) imports lower input costs for domestic producers, and (c) trade liberalization increases demand for exports. In all three respects, trade has expansionary employment effects. Second, critics of trade liberalization tend to overstate the labor market effects on import-competing industries. Perhaps the most famous example is the “giant sucking sound” from jobs moving south that NAFTA supposedly would cause but was never heard. Two decades after going into effect, economists still debate whether NAFTA has caused a net gain or a net loss in U.S. jobs, but there is agreement that it created export-related jobs in the United States that in general pay about 18 percent more than jobs supporting domestic sales only.26

Trade skeptics often claim that foreign producers have an unfair advantage based on a variety of bad practices and “substandard” conditions that have hurt U.S. manufacturing in particular (see Appendix III). But manufacturing output has risen while employment has declined because technology is changing the nature of manufacturing. Indeed, advancing technology is causing manufacturing employment to decline all over the world.27

A study by the Organization for Economic Co-operation and Development (OECD) of trade, national income, and employment in the G20 found that trade liberalization increases employment during recessions and can do so long-term as well.28 This is not surprising when one recalls that trade barriers made the Great Depression much worse and that reducing them would have been supportive of employment in the near term and that long-term trade has the growth enhancing effect discussed earlier.

CONCLUSION

The true purpose and effect of trade is the welfare of citizens in and out of the workforce who consume goods and services. The benefits are permanent and cumulative—every step to liberalize trade raises them—whereas the costs of trade adjustments do not accumulate and diminish over time.

One should imagine the first thing being reported in connection with trade policy were the chances of prices declining and new and better products becoming available. If the population was more aware of the benefits in selection, quality, and purchasing power conferred by imports, there might be greater popular desire for trade liberalization, especially if there were more commentary of the following kind:

There is no doubt that globalization has brought significant benefits to American consumers. It’s lowered prices on goods once considered luxuries, from big-screen TVs to peaches in winter, and increased the purchasing power of low-income Americans. It’s helped keep inflation in check, boosted returns for the millions of Americans now invested in the stock market, provided new markets for U.S. goods and services, and allowed countries like China and India to dramatically reduce poverty, which over the long term makes for a more stable world. 29

This passage is from *The Audacity of Hope*. President Obama might have proclaimed these truths from the outset of his presidency in order to promote the cause of trade liberalization.

If the second thing reported were the wage and employment pressures some domestic workers experience from foreign competition, the popular response presumably would be to help them by the same means the government uses in recessions or when technology supplants job functions.

International trade at scale is an equalizer. The “stateless elites,”30 do not need commercial imports, they fly to where they get what they want or pay for personal delivery. The most expensive cars in the world are bought, built, and shipped to order. The neighborhood Honda dealership, on the other hand, sells its models to ordinary people.

Unfortunately, the government’s power to act as gatekeeper attracts special interest groups that divert popular attention away from the true purpose and effect of trade. The diversion links trade to losses in jobs and wages that are often exaggerated and not juxtaposed with consumer welfare gains.

Estimates of welfare gains from trade vary depending on methodology, timeframe, the particular change in trade policy from which they emanate, and the particular kind of consumer benefits included, but they are substantial. “Static” benefits alone easily could be over $3,000 annually per household. It would be extremely useful to have more studies for a more definitive and comprehensive quantification of consumer benefits from

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30 Larry Summers, former director of the National Economic Council, used this term in “America needs to make a new case for trade,” *Financial Times*, April 27, 2008.
trade liberalization for comparisons with the costs of domestic trade adjustments. The government should sponsor more such studies.

Putting off trade liberalization to avoid the cost of trade induced adjustments itself is not costless. Protected industries tend to become inefficient and fall behind technologically, and economies that trade less, grow less. Consider the contrast between North Korea in the bottom graph and South Korea among the world’s more affluent economies in the top graph of Figure 1.

Exhibit A: Trade vs. No Trade

North Korea looks like it is part of the ocean while South Korea can afford to have lights on at night.

The essential conclusion is that any disadvantages from trade liberalization should be addressed by means other than holding back trade. That approach is virtually guaranteed not to be in the public interest.
Appendix I: Gains from International Trade

**Static gains.** There are different components to the gains from trade. Consumer satisfaction increases as citizens can buy preferred baskets of different goods at lower prices and better quality. The cost of production decreases as trading partners specialize in what they do best, their so-called comparative advantage, and enable consumers to consume larger quantities of what they prefer. These gains, in the first instance, derive from reallocating existing resources within each trading country and allowing goods to be purchased and shipped across national borders to better meet existing consumer preferences. These gains are “static” in the sense that once resources have been reallocated optimally, there is no further gain; consumers experience a one-time improvement in welfare.

If trade is liberalized further to include more goods and more countries, resources will be reallocated still more efficiently, and consumers will gain another increase in welfare, but the gain will not continue to increase. If technologies relevant to trading activity improve, such as in shipping and communications, more trade will take place and increase welfare, but again only by a limited amount for a given degree of improvement. It is important to keep in mind that the estimates of consumer benefits discussed in the main text are only static.

**Dynamic gains.** International trade takes place in a particular institutional setting but the forces at work essentially are no different from the domestic economy. Access to more and larger markets may enable firms to realize economies of scale that reduce the cost of production and to obtain better technology that improves the production process. Increased competition among producers from different countries can spur efficiency gains and motivate innovation. These dynamic effects can lead to increased rates of economic growth and sustain continual increases in living standards.

**Economic integration.** Advancing communications and transportation technologies can enhance the dynamic effects of trade as they bring countries closer in effect that are geographically separated. Economic integration means that capital, labor, and technologies move across national borders which movement tends to bring about coordination of technical, regulatory, and professional standards, of taxes, possibly of currency exchange rates even culminating in monetary union, and possibly the use of a common language. These forms of economic integration have unified the U.S. economy, the EU is working hard to achieve them, and they are bringing about progressive “globalization” of national economies around the world. Relative to international trade in goods and services by itself, economic

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31 See, for example, “Gains from Trade when Firms Matter,” Mark J. Melitz and Daniel Trefler, *Journal of Economic Perspectives*, Volume 26, Number 2, Spring 2012, pp. 91–118. The authors address the links between the market-expanding effect of trade liberalization, competition, efficiency, and innovation and cite recent research on the subject.
integration improves resource allocation further and promotes the spread of new technologies that continually raise living standards in developed countries and enable more and more developing countries to accelerate their economic growth.

**Indirect benefits.** Finally, there are indirect benefits from trade and economic integration in the form of greater economic stability and a lesser likelihood of armed conflict among nations with close economic ties.\(^{32}\)

**Measuring trade benefits.** The benefits from trade are overwhelmingly positive and obviously manifest in vastly improved living standards over any significant period. All economic activity, if it is voluntary and sustained, culminates in consumer benefits, its ultimate purpose, so trade studies at the national level use aggregate economic concepts to measure them and may see no need to distinguish static from dynamic trade benefits or necessarily separate them from those of various forms of economic integration.\(^{33}\)

Making these distinctions is not easy in any case. Common forces drive domestic economic growth and international trade, such as advances in communications technology; economic liberalization within a country that often goes hand in hand with trade liberalization; and rising domestic incomes that lead to increased demand for foreign goods. These interrelationships make it difficult to isolate the effects of trade liberalization and progressive international economic integration makes it even more difficult.

Nevertheless, every domestic market transaction in the first instance is associated with consumer and producer surplus. All productive economic activity ultimately culminates in consumable goods and services that impart consumer welfare via different channels and on different timelines,\(^{34}\) but the question remains what adding foreign supply (imports) and foreign demand (exports) does to consumer and producer surplus in the near term. It should be standard procedure to quantify the direct and immediate trade benefits to consumers, without which there would be no imports in the first place but that is not the case. Studies that address this question usually look

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\(^{32}\) There are adjustment costs to trade and economic integration, but the gains are permanent and cumulative whereas the costs are transitory, unless governments impose integration along one or more dimensions by fiat in which case it may not fit the circumstances. The euro zone is finding that it may have taken monetary integration too far, for example. However, the view that trade liberalization and economic integration driven by market and technological forces can have greater costs than benefits runs up against the fact that they derive from voluntarily actions. To stop them requires denying people choices and freedom of action.

\(^{33}\) See, for example, “The Payoff to America from Global Integration,” by Scott C. Bradford, Paul L. E. Grieco, and Gary Clyde Hufbauer for various approaches to estimating the gains from trade, including one that focuses on consumer benefit from increased variety; *The United States and the World Economy: Foreign Economic Policy for the Next Decade*, Chapter 2, C. Fred Bergsten, Peterson Institute for International Economics, January 2005.

\(^{34}\) Producers either spend their surplus on consumption as well or save it in which case it will be invested to produce future goods.
only at the effect on producer profits and worker compensation, which import competition tends to reduce and export demand tends to increase in the affected markets. Incremental import quantities do not affect an individual consumer's budget nearly as much as it may affect a domestic business's profit or a worker's income in the tradable sector. Consumers are more dispersed than workers of a particular industry and the incremental consumer benefits from prospective trade liberalization are not obvious to the average citizen. Hence, consumers are not disposed to organize in support of advancing trade liberalization, which may help explain the imbalance in the kind of trade studies conducted.

Appendix II: Competition and Price Changes

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 PCs and peripheral equipment</td>
<td>-80.7%</td>
<td>-50.8%</td>
<td>35 College tuition and fees</td>
<td>71.9%</td>
<td>38.3%</td>
</tr>
<tr>
<td>2 Televisions</td>
<td>-70.8%</td>
<td>-76.8%</td>
<td>34 Inpatient hospital services</td>
<td>65.9%</td>
<td>51.5%</td>
</tr>
<tr>
<td>3 Toys</td>
<td>-36.0%</td>
<td>-33.1%</td>
<td>33 Veterinarian services</td>
<td>58.8%</td>
<td>31.5%</td>
</tr>
<tr>
<td>4 Dishes and flatware</td>
<td>-25.3%</td>
<td>-27.1%</td>
<td>32 Dental services</td>
<td>44.7%</td>
<td>20.8%</td>
</tr>
<tr>
<td>5 Wireless telephone services</td>
<td>-20.0%</td>
<td>-12.6%</td>
<td>31 Admission to sporting events</td>
<td>44.7%</td>
<td>19.3%</td>
</tr>
<tr>
<td>6 Infants' and toddlers' apparel</td>
<td>-14.6%</td>
<td>3.8%</td>
<td>30 Bread</td>
<td>41.0%</td>
<td>21.1%</td>
</tr>
<tr>
<td>7 Men's and boys' apparel</td>
<td>-13.3%</td>
<td>3.6%</td>
<td>29 Household electricity</td>
<td>40.9%</td>
<td>17.7%</td>
</tr>
<tr>
<td>8 Sports equipment</td>
<td>-12.2%</td>
<td>-9.8%</td>
<td>28 Cable and satellite TV and radio service</td>
<td>35.8%</td>
<td>17.9%</td>
</tr>
<tr>
<td>9 Men's footwear</td>
<td>-5.7%</td>
<td>13.3%</td>
<td>27 Prescription drugs</td>
<td>33.3%</td>
<td>25.5%</td>
</tr>
<tr>
<td>10 Women's and girls' apparel</td>
<td>-5.7%</td>
<td>0.5%</td>
<td>26 Admission to movies, theaters, concerts</td>
<td>32.5%</td>
<td>10.7%</td>
</tr>
<tr>
<td>11 New cars and trucks</td>
<td>-4.7%</td>
<td>7.3%</td>
<td>25 Garbage and trash collection</td>
<td>32.2%</td>
<td>21.7%</td>
</tr>
<tr>
<td>12 Musical instruments &amp; accessories</td>
<td>-3.5%</td>
<td>5.0%</td>
<td>24 Rent of primary residence</td>
<td>32.0%</td>
<td>17.6%</td>
</tr>
<tr>
<td>13 Women's footwear</td>
<td>3.8%</td>
<td>5.7%</td>
<td>23 Motor vehicle repair</td>
<td>31.5%</td>
<td>18.8%</td>
</tr>
<tr>
<td>14 Breakfast cereal</td>
<td>7.4%</td>
<td>11.1%</td>
<td>22 Fresh fruits and vegetables</td>
<td>30.8%</td>
<td>9.8%</td>
</tr>
<tr>
<td>15 Roasted coffee</td>
<td>9.9%</td>
<td>13.9%</td>
<td>21 Full service meals and snacks</td>
<td>23.6%</td>
<td>18.8%</td>
</tr>
<tr>
<td>16 Peanut butter</td>
<td>12.0%</td>
<td>39.1%</td>
<td>20 Haircuts and other personal care services</td>
<td>25.6%</td>
<td>11.2%</td>
</tr>
<tr>
<td>17 Sugar and artificial sweeteners</td>
<td>16.8%</td>
<td>10.2%</td>
<td>19 Laundry and dry cleaning services</td>
<td>24.6%</td>
<td>17.3%</td>
</tr>
<tr>
<td>18 Eyeglasses and eye care</td>
<td>16.9%</td>
<td>7.3%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Items</td>
<td>24.4%</td>
<td>11.8%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appendix III: Allegations against International Trade

Allegations against foreign producers and governments include that they

- Subsidize their export industries and hinder import competition in their own markets, if not outright by quotas or tariffs, then by regulatory discrimination;
- Bias their government procurement practices;
- Manipulate their currency exchange rate versus the U.S. dollar;
- Steal U.S. intellectual property;
- Fail to protect the environment; and
- Exploit their labor with low compensation and poor working conditions or allow multinational corporations to do so.

Certainly since NAFTA, U.S. trade negotiations have addressed matters on this list and promise improvement through the terms of trade formally agreed upon as well as the economic growth resulting from trade with the United States.
Claims that foreign suppliers sell below cost or “dump” their goods in the United States (part of the first point above) is the most common complaint but typically does not furnish an appropriate cost measure, explain how foreign sellers ever recoup their losses if they truly are selling below their cost, or how this harms consumers. And, one should recognize that opponents of trade have little choice but to claim that something unfair is going on as long as consumers are buying imports voluntarily.

Poisonous pet food from China some years ago was a widely publicized case of consumer harm from imports, but domestic goods at times also are tainted. That is a problem for safety regulation to address and that the market will discipline as brands and reputations are tarnished.