Event Transcript

Rising Tide: Is Growth in Emerging Economies Good for the United States?

Speakers:
Robert Z. Lawrence, Peterson Institute for International Economics
Lawrence Edwards, Cape Town University

Peterson Institute for International Economics, Washington, DC
March 19, 2013

Unedited rush transcript

Adam S. Posen: Good afternoon everyone. Welcome back to the Peterson Institute for International Economics. It's a great pleasure to see everyone here for a discussion of some of our core issues. As many of you know—in fact all of you must know since you signed up, today is the release meeting for *Rising Tide*, the fantastic new book by Lawrence Edwards and Robert Lawrence—not to be confused with each other. It really is a study that goes to some of the biggest questions and biggest approaches that this institute has grappled with through the years which is, "Can you have a globalization that's positive sum?" Well we all know in theory, yes. How empirically does that work out? What are the real benefits? What's the real distribution? How do you think that through? What's a fair way to assess it?

Since we here at the Institute like to think of ourselves—and I certainly promote us as—the intellectually honest pro-globalization people, the fact that Robert and Lawrence really wanted to do this study and take on the very difficult task of trying to pull together so many disparate empirical threads, and to step into a place where people make all kinds of broad assertions without doing the homework, and thereby ending up having to be the voice of sort of calm middle ground is a big deal. And it's the kind of contribution I'm very proud to have the institute making. Obviously, Fred Bergsten and our colleagues initiated this study with Robert and Lawrence. But I'm very proud to be bringing it out right now.

I'm also, at this moment—you know it's obligatory to miss a "thank you," but I think in this case, I want to definitely say thank you to two very important institutions to the Institute. The Sloan Foundation, which has, repeatedly through the years, on a "we have to win it project-by-project," but thankfully, they have project-by-project supported very fundamental empirical research about practical economics in business, and they've done that here at the Institute repeatedly, and we're grateful to them for their support of this study. We're also grateful to Toyota Motor Corporation—both in Japan and Toyota North America, who have been a bedrock of corporate support—unrestricted support for the Institute. Their overhead and general support for the Institute helps us keep this kind of project going. I know they have a particular interest in these issues as well. So thank you to both of them.

We'll get, just in one minute, to the substance. It is the big question. It luckily became the secondary question in the election campaign last fall, but, is the growth of the emerging markets good for the United States? Is it good for the rich world? I think most of us would agree bringing hundreds of millions of people out of poverty in a peaceful manner without expropriation is good full stop. But I think, also, most of us would agree, the performance of median incomes of the working class in the United States has not been what we would like. And there has been, therefore, this real question. What role does globalization play? So, *Rising Tide* is an attempt both to look critically at the literature, but much more importantly to go beyond that, and in clever ways look at real data—what's been going on.

I won't further try to summarize the results. I'll leave that to Robert. But I think it brings us to a very sound, perhaps less than sexy, but I think very important conclusion, which is that on net, as economics would tell you, and more than on net, for the vast majority of people, the rise of living standards and income in the emerging world is also a win for the people

of the rich world. There are ways in which that doesn't work, and there are instances where it doesn't go. But if you look beneath the surface, it's still true. To be able to say that with conviction is of course something we'd like to be able to do. I believe this book, and the studies behind it, gives us the reason to say that with conviction.

Just a moment of introduction, Lawrence Edwards is a professor at the University of Cape Town and has a distinguished career working in development economics and has also written for the Harvard Business Review. He's done a lot of consulting for some of the major institutions in the world, including the OECD and the World Bank. This is, I think, his first time here in person at the Institute at least for a while. We're very glad he was willing to make the trip to be with us today. His insights will become evident as the discussion goes forward. But I'm afraid I have a personal as well as institutional reason to feature the other author, Robert Lawrence.

As most of you know, Robert has been a senior fellow at the Peterson Institute since he left the Council of Economic Advisers in 2001. He, of course, does have another job—the Albert L. Williams Professor of Trade and Investment at the Kennedy School. It was in that job actually, I got to meet him. He served as a member of my dissertation committee. And not only did he do that [inaudible 0:05:10.0] service, he was the person who got me an interview with Fred Bergsten in the Peterson Institute, although that was many years ago.

Even if the book was no good, I would be here selling, selling, selling—buy *Rising Tide*. But obviously, the reason that I am grateful for Robert as a mentor and as role model is because it is that good. He is that good. He is scrupulously intellectually honest. He is scrupulously a gentleman, and he scrupulously cares about these issues and he's been thinking about the interaction between trade and income in the United States and around the world for the length of my entire career. And we're very fortunate to have him affiliated with the Institute and presented today. So Robert, if you could join us, please?

Robert Lawrence: Well, thank you very much, Ed, and that was a wonderful introduction. It's really a pleasure for me to be here today. It's also a relief having spent the amount of time that we have on the book. Lawrence has been a terrific coauthor, and so I really want to thank him. And I also want to thank Fred for his—not only his guidance, but his patience. This, as I'd say, was a book that has taken a long time to come to fruition, but I hope that you will find it worthwhile.

Basically, this book takes on a variety of concerns which people have about the growth with emerging economies. As I show you here, the United States has experienced a tremendous increase in imports from emerging economies. Particularly starting in around the mid-1990s, what we see is an acceleration in our imports—first from Mexico, and later from China, to the point where they've basically today exceed the imports from advanced economies once you take out oil. It turns out at the same time manufacturing employment in the United States has fallen precipitously—particularly over the last decade—down by about 6 million jobs.

It's no wonder then, that if you speak to the public and you ask what's on their mind about this kind of trade, mainly what the public is worried about is jobs. What you see here is, when asked which view of trade comes closest to their opinions, 63 percent of Americans answer that international trade is bad for the United States because it results in the loss of jobs and lower wages. That's the preponderant view. And then some of—30 percent would acknowledge that it's good for the United States because it leads to lower prices for consumers.

So clearly, the public's concern is about employment. But it turns out—and actually what motivated us to get started on this study—is it wasn't just the public who've been voicing concerns about American trade with emerging economies. Some years ago, Paul Samuelson, Nobel laureate, published a paper in which he argued that in fact, economic theory suggests

that if your trading partners grow, it could either be good for you or bad for you. And he showed in a very simple model, the ways in which this could occur. The driving force, if foreign growth is going to be bad for you, is when the nature of that growth is that the foreigners get good at the products you export. And so they stop selling you cheaper inputs—imports and start competing with you in export markets. And so in theory, it could go either way.

Added to that, was a comment in an article, in an op-ed piece that Larry Summers wrote in 2008, in which he emphasized that whatever Samuelson had argued with, when it comes to competition in manufactured goods, faster growth in emerging economies could lead to an increase in the demand for oil, raise oil prices, and therefore hurt the United States through that channel. And so this set of concerns relates to total welfare of Americans. In addition, Paul Samuels—Paul Krugman—who ironically, I'd written a paper with in the 90's, arguing that wage inequality wasn't—shouldn't be a large concern because the volumes weren't large enough at that time—revised his view and in 2008 argued that in fact, wage inequality of significant proportions was now likely to result as a consequence of our increased trade with emerging economies.

So these then are the three big questions that our study looks at and that I'm going to be talking about: the first, the public's concerns about jobs and wages; the second, the economists' concerns about welfare; and the third, the question of wage inequality. Now, it's one thing to say that the public is concerned about jobs, but in fact, the more I thought about it and talked about it with Lawrence, the more we realized that the public has a number of concerns that are all merged together. They're related, but they are conceptually distinct. One is about what we call total jobs. When the president comes and talks about how many jobs he's created, actually what he's talking about is positions. And that's the total employment question. And there's a concern that import competition has prevented the United States economy from reaching full employment in numerous occasions.

In 2004 for instance, we heard about jobs going to India. And today, there are concerns about the employment consequences of import growth especially with China. Then there's a second concern distinguishable, which relates to people losing their jobs—dislocation and displacement. And that is conceptually different. A third is what you can think of as good jobs, which is what's been happening to manufacturing. And so these three concerns are interrelated, and you can think of this like a game of musical chairs. When it comes to the question of how many chairs are there, that's about total jobs. How many positions are there in the economy? But different people are actually filling these positions. In fact, while the music's playing, they keep switching from one chair to another. That's lost jobs. The third concern is, are the chairs comfortable? In a sense that's the manufacturing jobs. I'm going to touch on each of these three.

Let's start by thinking about this question of total jobs—total employment. Most people, and in fact, very common to see people looking at the trade deficit and say, "Oh, it's detracting from employment in the United States." Or looking at the import data and automatically assuming that means a negative impact on employment. Well, what I show you here is the rate of change of imports of goods and services in the United States. Now, I'm going to show you something else. And that is job growth in the United States. And what you will see is the most remarkably positive correlation. Import growth is a sign of a healthy American economy. Sixty-four percent of all of our merchandise imports are capital goods and intermediate products. So what happens is, when the US economy is growing robustly, our imports grow actually disproportionately rapidly. There is, after the fact, a positive association between import growth and job growth.

My own view is that the healthiest thing for the United States, if we looked out over the next two years, would be a rapid increase in our import growth. There are two kinds of

import growth. As economists, we always talk about supply and demand. It's certainly true, that if offshoring occurs, or if the Chinese get more skilled at making certain products, that could lead to displacement in the United States. No question about it. But another kind of import growth will be generated by an increase in American spending and American production. This outcome shows you that the dominant reason for changes in US employment is US spending and production. That's why after the fact, it's the big story about the links between jobs and import growth.

What about those lost jobs—dislocation and displacement? Well, between 2002 and 2011, the increase in the volume of imports into the United States of goods and services, measured in real terms, was $538 billion. So let's assume that every one of those imports—contrary to the picture I just showed you—that every one of those resulted in an American losing their jobs. How many episodes of job loss would that have occasioned over this period? Well, a reasonable number is 10 workers per million, and you'll get 5.38 maximum as a displacement. That would be an upper bound, back-of-the-envelope estimate. How much dislocation of Americans was there over this period of time? Well, it turns out, every year, something like 22 million American workers are involuntarily displaced—actually, something like 60 million episodes of voluntary and involuntary departures from work. Is this number reasonable?

Well, look at the weekly unemployment—additions to the unemployment payrolls—to the unemployment rolls, and what you'll see is there are typically 350,000, 400,000 a week. Multiply that by 50, you get 20 million. So what you would conclude from this calculation is that something like 2.5 percent of job loss, in this sense, would be due to imports as an upper bound estimate. Now this is quite a shocking number. It was for me. And so, we also started to look at survey data, when there are episodes of plant closings, and the employers asked, "Why did you close the plant?" And it turns out, if you look at those survey data, you get a very similar order of magnitude. Now this is not to say that the experience of job loss for these people is not severe, really costly, and should not be taken seriously. I believe that what this kind of data points to is the need for programs that help all dislocated worker, regardless of the reason for their dislocation because that's the big story in the US labor market, as opposed to the dislocation from trade.

Let me turn to the third question, which relates to the issue of good jobs. This relates to what's been happening to manufacturing employment in the United States. What I show you here is the share of employment in US manufacturing. And you can see what a strong downward trend there has been. So let's go back to the period from 1960 to 1980, and assume that I told you in 1980, to come up with a forecast of what employment in US manufacturing would be in 2010. Go out of sample 30 years. I'll tell you the total employment. You tell me what share will be in US manufacturing. So you would have fitted this trend line, and then you would have gone out of sample, and you would have been 25,000 jobs off. So this shows you that there is something deep and fundamental taking place with respect to manufacturing employment, and while in recent—and by the way, this was before China had started to liberalize—so this was before our trade with emerging economies. There has been a long-lived trend for declining manufacturing employment. And it's not just the United States.

What I show you here are the changes in the shares from 1973 to 2010 in a variety of industrial countries. And if you look at the last column, you'll see how remarkably close they come to about a 14 percent decline in the share of manufacturing employment—the United States, Canada, Australia, Japan. And by the way, Germany has a large trade surplus. Sweden, the Netherlands is another one. The Netherlands series and the American series are virtually the same. So this is telling you, it didn't matter whether you had a surplus or a deficit. Industrial countries have been experiencing this massive decline in the share of manufacturing employment. What is it?

Well, the traditional stories involve a debate between productivity growth on the one side, and trade on the other side. And in a sense, the story of technological change automation is very clear. I show you here total factor productivity growth in manufacturing, compared to the rest of the economy. And you can see how rapidly productivity has been improving in manufacturing, as compared to GDP. Well, what would we expect would happen if you had rapid productivity growth? Will it result in more employment, or less employment? Economic theory, as with most cases, says it depends—in a sense—it depends. The first thing that's going to happen, if you get rapid productivity growth, is that the prices of the goods in which you have rapid productivity, are going to fall. So I show you here the inverse of prices of goods, relative to GDP. And so, the way you could read this is manufactured goods' prices have been falling, reflecting the faster productivity growth, and it's a remarkably close relationship.

So then the question is, given that the prices have fallen, how have people responded? Technically, is the demand elastic or inelastic? If people are very responsive to the declining fallen prices of the products, you get an increase in employment. But if they're not, you'll see employment falling. And if there is a contribution of our analysis, it's to highlight the role of the demand side. Because we then go and ask, "How have Americans been spending their money?" Are they buying more goods, or are they buying more services? And so we go to the expenditure side.

Now what we're looking at is the demand for goods, including both the manufactured component, and the distribution component. This is what's been happening to the prices of goods compared to the prices of services. Basically, they've declined by a hundred log points over 50 years, which is a decline of 2 percent a year. The goods are becoming cheaper. How have the Americans responded in their allocation of their money? Well, this is what's been happening to the relative quantity of goods, relative to services.

Basically, we see our computers have gotten cheaper, and we say it's terrific. Let's go and buy something else with the money we're saving. By the way, would you rather have the income that you'd get from selling your computer, or from the cable company, or the internet company that you pay afterwards? So even—whether you have innovative products, it generates a massive demand for services like entertainment, like cable, as opposed to the money outlaid on the goods. What we see is that the share of spending is declining.

If you go back to 1970, half of all American consumer spending went on goods. By 2010, it's down to a third. This is a pervasive part of the story. It's the combination of rapid technological change on the one side, and inelastic demand. It's in fact—it's the same story that's happened with food. The United States has seen the share of agricultural employment in the economy plummet. That's the blue line here, just at the bottom. Now, is it because we're starving ourselves? Absolutely not. Rapid productivity on the farms has meant we could meet our food needs with fewer workers. That is precisely the same dynamic.

In fact, what is interesting is that this is a hugely powerful trend, which is reducing the share of Americans in producing goods, and therefore, the share of Americans who compete in international trade. The US labor market is actually closing. For the workers who remain in goods, international competition is increasing. Those remaining workers have a lot of pressures. But as a share of the US labor force, that number is declining. It's because of the powerful force in the goods sector.

Now, at the same time, services have become more tradable. So what we did was we took Alan Blinder's estimates and Brad Jensen's estimates of the increasing tradability of potentially tradable services, which is a positive trend, and we took the negative trends coming in the goods area, and what we found is on balance there is still a declining share of Americans who are in tradable goods employment.

Then there comes the trade deficit, or the imbalance. We did an exercise in which we simply calculated the employment content of the US trade deficit. So we used an input-output matrix, and we said, "Well, suppose, instead of importing those goods, in cases where we had a deficit, we produced the goods at home." How many jobs? Instead of exporting goods where we had a surplus, we actually had balance in each industry.

So we computed what the job equivalence of the trade balance was. This is what we found. We found basically, that if you go back to 2000, so the blue line is actual employment and the red line is employment plus the job content of the trade deficit. What you'll see is, if you go back to 2000, the job equivalent is about 2.5 million. If you do the calculation in 2010, the job equivalent is about 2.5 million. In fact, even without the trade deficit, while the level would have been higher, the decline is about the same—on the order of 6 million decline in employment.

So it's not to say that there isn't a story in the trade balance. It's not to deny that if we could close the trade balance, we wouldn't create more jobs in manufacturing. But the order of magnitude, if we were to close that deficit and keep the rest of the production constant, would be on the order of 2.5 million.

To summarize the conclusions on the question of jobs, it's—and we do have a lot in the book about this—for the people who lose their jobs, it's a very costly and painful experience. But our view is that import growth is a sign of recovery, that trade is a small share of overall displacement, and most of the de-industrialization is this combination of technology and demand. I'll leave you with one picture for this part of the analysis, and that's an escalator. So we've got this trend that is causing a reduction in the share of employment in manufacturing. Were we to close the deficit, it's like walking up the escalator. We could get a little higher for some period of time, but afterwards, the trends will take over. That's what we've seen in Germany and other European economies. And that's what we would like to see—likely to see looking out into the future. Let me turn then to the second topic, which relates to the question of welfare.

Now, in principle, as I already mentioned, the key question here is: "What is the nature of the growth?" Are the foreigners biased towards competing with our exports and moving out of giving us cheaper imports, or the opposite? In a sense, the key parameter is what's been happening to our terms of trade? Well, what should we expect would happen when it comes to emerging economies, or to poor economies?

In 1953, John Hicks actually, another Nobel laureate, when he was being inaugurated as a professor at Oxford, he actually laid out a model which was just the same as Samuelson's model, in the paper that he had written. And Hicks' concern was, was growth in the United States good for the United Kingdom? And what Hicks posited was the following. He said, "Well, we'd normally expect that as a country starts to develop, it would tend to grow in a way that is export biased." So when the United States started growing, we sold a lot of agricultural products to the United Kingdom. But later, as the country gets more developed, that's when we'd expect it to take on the foreigners in their more manufactured goods.

You would normally expect that a country like the United States, with its high per capita incomes, would benefit from growth in poor economies because that kind of growth would be complementary. But as the countries got richer, they would start to become more serious competitors. We gathered the data on the United States. You see, this is a second big experience for us. If we go back to 1950, of course, who were the emerging economies? Japan and Europe. And what do you see happened to America's terms of trade in the period from 1950 until 1970? You see a gradual improvement. Once, however, the Japanese and the Europeans get to the levels where they start to take on the United States as a serious

competitor in export markets, that's when we saw the real issues that were associated with the two big declines in the value of the dollar, and so on.

So, Hicks' hypotheses certainly worked for the early period. More recently, we don't see very big terms of trade going either way. Actually, part of this is because oil and manufactured goods are moving in opposite directions, and I'll get behind that in a moment. The key thing though, is that if you go back to 1950, what you'll see is that Japan was at about 24 percent of American per capita incomes, and Italy, 41; France, 54; United Kingdom, 76. Now, if you go to 2009, what you'll see is that China, in 2009, sort of roughly where Japan was in 1950. If the past is prologued, Brazil's at 23, India's at 8, Mexico's at 28, Thailand at 19. There are some developing countries like—well, Singapore's no longer a developing country—Taiwan, in a sense, much closer to the US levels. So if the past is prologued, what this suggests is yes, eventually those emerging economies will start to compete head to head with the United States. But given their current per capita incomes, it's more likely their growth is complementary.

So, let's see firstly what happened to America's non-oil terms of trade when we got that acceleration in imports from China and Mexico, and that's the line at the bottom here. What you see is a very strong trend towards improving terms of trade. Our total terms of trade have declined in this period, but it's mainly oil. So, the Summers concern about oil prices is evident in this data. The Samuelson concern about terms of trade is not. In fact, it's the opposite story.

This is what happened to the manufactured terms of trade of Germany, Japan, and the United States. And what you see, particularly for Germany and for the United States—the Japanese have had their ups and downs, but still an upward trend—is the very strong upward movement in the manufacturing terms of trade of both Germany and the United States. If you go and look at the terms of trade for the United States and divide them up, in terms of our trade with developed and developing countries, which is what I show you here, you can see very little change in our terms of trade with developed countries—the blue line, but our terms of trade with developing countries has had a major improvement. So the total improvement is due to our trade with these emerging economies.

Now, we spent a lot of time in the book trying to answer the following question. It's actually not good enough for me just to show you the terms of trade. Because Samuelson built a model in which he had trade being balanced, both before and after the growth had occurred. What has happened to the United States is that what we've seen is an acceleration in our trade deficit. So what we try to do is to correct for the trade deficit, and what we find is that the improvement in the trade balance would still remain, even given that correction.

We also have some detailed examination of our competition with China and other emerging economies and export markets, and what we find is that our product are very dissimilar to those of the Chinese. We also look in great detail at the prices of the Chinese products, and indeed, the prices of products from different developing countries, as opposed to different developed countries. So, just look at this here, for 2006, Singapore's goods—exports, have much higher prices, or unit values than American. French, we all know, they sell us expensive clothing and other products. United Kingdom, Japan, Germany—developed countries as a whole, all in the range of the United States.

Emerging economies products—much, much lower prices, and in fact, very, very different prices. Now, that's what you get if you look at the aggregates. But if you get below that—here I show you comparisons of prices of Chinese exports to the United States—you'll again see something quite interesting and actually common sense. These purple lines are around one. Those are resource-based products, so think copper and steel. Chinese steel, American steel sells for similar prices, around one. Dotted line—low technology products,

so think clothing. So the Chinese clothing is cheaper than the American—60, 70 percent of the price. But the lower two are high and medium technology prices, and what you will see there is the Chinese prices are one fifth of the matching American products. Fundamentally, they are different products.

The microscope that the Chinese sell for $50 and the microscope that the Americans are selling for $5000 will both be classified as microscopes. But when you get below them, they're not making the same kinds of products. So, this is evidence that shows you, so far, when it comes to exports, not only is there very little overlap, but even when there is overlap, these are fundamentally different products. We do a lot of work in the paper, in the book, making sure that it isn't just the fact that these are cheap—that these are cheaper products, but actually the same kind of product, but we also find that they're lower quality products. So that's the terms of trade story when it comes to our head to head competition with the emerging economies.

There remains the story of oil. The oil story is rather interesting because if you open your newspaper and you asked, "Why were oil prices so high?" Invariable, the story would tell you about the growing demand for oil coming from China and India. In a sense, the emerging economies get a big role in that story. So what we did was to calculate an estimate of what you might have expected demand to be in the world if oil prices hadn't changed between 2000 and 2008. So we go back and we get an income elasticity of demand for oil, and we see that the world demand for oil would have grown by about 14 million barrels a day. Of that, three would have been coming from the advanced economies, and 11 from emerging market economies.

We then look at production, and what we see is that the advanced economies in this period actually reduced their production by 2.32 million barrels a day. This is the decline in North Sea oil, and the decline in production in the United States. And so the shortfall that you can attribute to the advanced economies is actually 81 percent of the total global shortfall, whereas the emerging economies contribute 19 percent. So it is certainly true that higher oil prices have, in part, been due to what's happened in emerging economies, but a far more significant factor was the decline in the supplies of oil in the advanced economies.

The contributions of the United States and China, actually in this calculation, are quite similar. More recently, the United States has increased its oil supplies, which actually means this concern is diminishing importance, in terms of its impact on our overall living standards. If we became self-sufficient, we wouldn't have those negative effects. But nonetheless, even if you stand back and get the big picture over the decade, you will still see that a big part of it had to do with what has happened in the advanced economies, two-thirds of it. So I won't go through because that would repeat what I have said, but this summarizes the major conclusions of this section—basically, no support for the argument on the welfare side. We also used—just one point here—a methodology has been developed by some economists that takes account both of lower prices, improved quality variety, and impacts on productivity growth. And so they allow us to come up with an aggregate number for welfare. Using that method, we estimate that average per capita incomes in the United States are raised $500 per person as a result of our trade with emerging economies. And about half of that, 250, are attributable to our growth with China.

The third issue is wage inequality, and I'll do that more briefly. The first point that I would emphasize is that while inequality has worsened tremendously in the United States since 2000, it's not a big story about wages. Indeed, that's perhaps a mystery. Here I show you what's happened to the ratio of college to high school graduate wages. And you can see that from 1975 to 1999, there was a very strong upward trend. But in the last decade, actually it's all American wage growth that has been slow. It's not a story—except for the

top ends, like the 90th percentile and above—about wage inequality. It's much more about profits and wages on the one side, and the increases in the incomes of the super rich. So it's a different kind of inequality. Well, we have these declining prices of our imports from manufactured goods—of manufactured goods from developing countries. And that may be good news if you're worried about total welfare, but it seems to lend support to Krugman's argument, which is that he would—or we would expect that this would put downward pressure on the wages of unskilled workers in the United States, assuming that these imports are coming in industries that are particularly unskilled intensive.

Well in fact, what we find is firstly, that you have to take productivity growth, again, into account. If you're going to squeeze workers' wages, it isn't just the prices of the products that you have to think about, but also what's been happening to productivity. And when you look at the effect of prices, taking account of productivity, and you go and look at what the prices are within the United States, you don't see anywhere near effects that size, and then a surprise. If you actually look at what's been happening within the United States—because at the end of the day, wages in America reflect the prices of the products that American workers produce—what you actually find is that the relative price of goods that are unskill-intensive have been rising, taking account of productivity growth. So in fact, in the US labor market, there's been a moderate trend which would cause greater wage equality.

The great puzzle and what I show you here, is the share of skilled workers by industry in the United States. So we've got 450 industries, and we've ranked them according to how skilled the workers are in each industry. And what you will see is that a lot of our imports of manufactured goods from emerging economies, high shares are coming in US industries that are very skilled. Of course, they were not the same products. And we're also seeing the effect of vertical integration. But all of these have impacts that are going to mean you get less trade inequality. So let me just briefly make three points, and then I'll be concluding.

Number one, if you try to ask, how much inequality would our trade have caused in wages? One approach is to try to look at the skill content of the trade. Think about an import coming in. If it's got a lot of unskilled workers embodied in it, it should put downward pressure on the wages of unskilled workers in the United States. That methodology actually shows almost no increase in wage inequality over this period. Secondly—and in fact, when Paul Krugman set out to prove his points about his concerns about wages, he wrote a paper at Brookings and basically threw up his hands. He couldn't find any evidence. He said, "That's because this is all happening below the surface of the industry. It's happening in niches throughout industries, and so you can't detect it in the data."

Well it turns out, both Paul and then Bill Cline, had actually come up with a second way to do this exercise. You don't have to go and look in the niches. Just make up the data. Just assume that you've got very unskill-intensive products coming in from the developing countries. Get a reasonable parameter for that, get the scale, and you can see how much inequality it's going to cause. Well, when you do that, you get a difference of around 2 percent—very small. That's an upper bound because it assumes all of the products coming into the United States are still being made in the United States.

So these are our conclusions, basically. Our biggest takeaway is that foreign economic growth today is part of the solution to America's economic problems, rather than their source. Indeed, faster productivity, faster growth in emerging economies would help us balance our trade more easily with a smaller devaluation of our currency. Trade accounts for a relatively small part of worker displacement. And I would say, that while there is evidence that trade has caused a dislocation of particular workers and occupations, and wage loss, the aggregate effect on things like the return to skill, are likely to have been small. So thanks for your patience, and I'll end there. Thank you.