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Conference: Mexico and the United States: Building on the Benefits of NAFTA
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Panel II: American Manufacturing—The Growth since NAFTA

Presenter:
Lindsay Oldenski, PIIE and Georgetown University

Discussants:
Manuel Balmaseda, CEMEX
Christian Volpe Martincus, Inter-American Development Bank

Adam S. Posen: After our very stimulating and substantive first panel, which talks about the duality in Mexico and which features the problems of the non-traded sector, we’re now going to turn to the issues of where Mexico and the US are together. And in particular the issues of American manufacturing in Mexico, American manufacturing at home, and how investment from the US into Mexican manufacturing has affected both economies, particularly the US.

We have Jeff Schott, who’s been Senior Fellow at the Institute for quite some time and all of you know him as our guru on trade negotiations and free trade agreements. Who of course, was one of the heroes of the original NAFTA debate and currently serves on the Trade Environment Policy Advisory Committee of the US Government, growing out of some work he previously did on environment in NAFTA.

He will be chairing the next session. I will leave it to him to do the real introductions. I’ll just say I’m very pleased to have him leading off and as the basis for the next session, Professor Lindsay Oldenski, from Georgetown, who’s been with us the last few months and will be ideally forevermore as a nonresident Senior Fellow here at the Institute. So thank you very much, Jeff.

Jeffrey J. Schott: Thank you Adam. It will be hard to top the first panel, but we have a lineup for the second panel that is up to the task. And the focus of the second panel, as Adam said, will be a little more on the small part of NAFTA that accounts for 85% of the combined GDP of the North American region, the United States. But also the inter-linkages of the manufacturing sector of the United States and Mexico.
And for those of us who remember 20 years ago of the fractious debates here and the criticisms about the giant sucking sound of American workers and firms moving to Mexico and hollowing out US manufacturing, it’s worthwhile to look at the evidence. And to do that this morning, we start off with Lindsay Oldenski.

As Adam said, she is a nonresident Senior Fellow at Peterson and we’ve been very pleased to have her as a colleague for almost a year now. And she is also an Assistant Professor of International Economics at Georgetown in the School of Foreign Service. And previously she’s taught at Johns Hopkins at Sais and at California State University in San Marcos. And she’s also worked at the US Department of the Treasury, which many of us here regard as a great distinction on her resume and at the Federal Reserve Bank of Boston, where other people regard that as a great distinction on her resume and as a consultant in the Biotech industry, which I think is very useful to have a private sector perspective in doing the important academic research that she has been doing, focusing on international trade and multinational organizations.

At the Institute she has co-authored two very important studies that were published last year, *Outward Foreign Direct Investment and US Exports, Jobs, and R&D Implications for US Trade Policy and Foreign Direct Investment in the United States: Benefits, Suspicions, and Risks with Special Attention to FDI from China*.

She has a PhD in Economics from the University of California at San Diego, a master’s at the Harvard Kennedy School of Government and a BA from Guilford College. So let me start off with Lindsay and then I will introduce, after her presentation, the two discussants. Thank you.

Lindsay Oldenski: Okay, thanks Jeff. So today I’ll be talking about the US manufacturing sector since NAFTA. And more specifically, I’ll be looking at foreign direct investment by US firms in Mexico and asking whether this has mostly helped or mostly hurt US workers.

So in his welcoming remarks, Adam was talking about NAFTA being used as a dirty word in a lot of contexts. And here are just a few of examples of policymakers who have done that and who have expressed fears that US firms opening plants in other countries, in general, and Mexico in particular, that fears that that might have some negative effects on US workers.
So Ross Perot famously claimed that NAFTA was going to create this giant sucking sound as US jobs and US investment just couldn’t resist the pull of lower costs and lower wages south of the border.

Then in 2004 John Kerry, when he was running for President was speaking much more generally, but he criticized US firms that invest abroad as being Benedict Arnold CEOs. And so for those of you who are rusty on US history, Benedict Arnold was a traitor to the US government during the US Revolutionary War. So really saying, if you’re a US firm and you’re opening up operations abroad that you’re somehow a traitor to your own country.

And even today President Obama has really been emphasizing what’s known as re-shoring initiatives or he's encouraging US multinationals to either scale back or shut down international operations and to move those to US soil.

So what I’m going to look at today is what are some of the facts behind this? What has been happening in US manufacturing and how does that relate to foreign direct investment by US firms in general and foreign direction investments in Mexico in particular?

So it is true that US manufacturing employment has fallen over the past few decades and even longer than that. In the 1960’s, almost 30% of the US workforce was employed in manufacturing. Today it’s less than 10%. However, over the same time period, productivity in US manufacturing has been growing very, very rapidly. And we know these two things have been happening, but there’s any number of causes for these or any number of contributing factors, including technology growth, changes in demands, recessions, booms, globalization may have played a role as well.

And so, what I’ve done in recent work for Peterson with my co-author Ted Moran, who unfortunately couldn’t be here today, is to isolate what the impact of foreign direct investment is, aside from all of those other factors that have been going on at the same time and try to figure out what the contribution is to off-shoring in general and in particular, off-shoring to Mexico by US firms on the US manufacturing sector.

So most of what I’m going to talk about today is going to be based on a recent Peterson policy brief with Ted Moran, *The US Manufacturing Base: For Signs of Strength*.

So in that policy brief we look at trends in US manufacturing in general and then link them to total global expansion by US firms. But for today’s event we’ve done a few updates that are Mexico specific where we’re
going to be looking specifically at US firms that invest in Mexico and what that means for their domestic operations.

So one of the key questions here is whether these global operations of US firms in the US and in Mexico or other countries are primarily complimentary to each other or whether they primarily substitute for each other. So you can imagine at least three different scenarios.

So the first one is what Bro and Kerry and Obama and then a number of others have in mind when they’re fearing for US jobs. This is kind of the zero sum game mindset that US firms have some fixed number of jobs and they can fill those with workers in the US or they can fill those with workers in other countries. And in this case there’s this pure substitution and that’s where these motivations for shutting down foreign direct investment or reducing it come from.

It’s also possible that these two things don’t affect each other. That firms perfectly segment their global markets. That’s unlikely to be the case with the global economy and vertically integrated supply chains, but it’s a possibility.

And then finally case three is the case of complementarities and this is a case where firms are strategic in their global operations and that there’s reasons that they’re opening these affiliates or these plants abroad, other than just low wages or purely shifting operations from one place to another.

So in this case there’s productivity benefits, perhaps entry opportunities in new markets, new sales, a way to capture global market share and so forth. And in this case this global expansion actually helps firms to become more productive, more competitive and hire more workers, both domestically and internationally. And this example would be examples of complementarities.

So I just ruined the punch line here. What we find is that case three is what dominates. And that if you look at foreign sales, foreign employment or foreign investments by US firms, that these tend to complement the operations of these firms domestically.

So of course this doesn’t mean that there’s no churning. We know there’s a tremendous amount of churning, that some plants close, others open, some workers lose their jobs, others gain. That’s very important. That’s not the topic of this talk today. That’s something that Peterson is working on in a number of other projects, but today what I want to just focus on is the absolute result, just the net result. Which force is larger? The
productivity and efficiency gains or this substitution of facts. And what we find is that it’s the productivity gains and the complementarities that are larger.

So before I go into the details of the analysis we do, I just want to set the stage a little bit on US manufacturing and what’s been happening over the last decades.

So you can see here under the first column for employment, from 1960 to 1979 there was, on average there was annual positive productivity growth in manufacturing employment, but it was much smaller than the total for the overall US economy. But then as you moved into the 1980’s, 90’s and 2000’s the average annual growth in US manufacture employment was actually negative, particularly in the 2000 to 2010 decade there, although a lot of that was driven by, first the technology bubble bursting and then the financial crisis. But then we do see some recovery in employment in 2010-2013, but still not quite as much in manufacturing as for employment in the economy as a whole.

But then if you look at output in manufacturing the picture looks a lot better. You see generally positive, with the exception of the recession years and actually, in the past few years manufacturing output growth in the US has been faster than growth in that overall economy and if you look at output per worker the manufacturing sector is doing relatively even much better and showing much faster average annual growth compared to the economy as a whole.

Now it’s been suggested by some people that this perhaps may be the productivity growth in manufacturing isn’t as positive as you might think. That perhaps it’s just being driven by one sector in particular, which is the computer producing sector. And this happens because when we’re looking at real output, if you have tremendous falls in the cost per unit of computing power as computers become faster and faster, that this might sort of skew the entire results, just because of that one sector.

So these are the top 15 sectors in terms of productivity growth from 1988 to 2011 and then broke it down into even smaller time periods within that. And hopefully you can see this up here, but it’s the highest over the 1988 through 2011 period, that the sub-sector with the highest growth was with semiconductors and electronic components. Computers were second. But there are a number of other industries that had tremendous growth as well, including transportation equipment, medical equipment, construction machinery and so forth.
And if you look from the growth in 2010 and 2011 it was actually negative for the computing sector and it was a number of other sectors, including motor vehicles, industrial machinery, and so forth, that were really driving this growth.

So this is something that’s more widespread. It’s not just falls in computing power driving US manufacturing and productivity. There’s a lot more going on behind the story there.

And then if you compare the US relative to the rest of the world, productivity growth in the past two years, post-recession, was actually quite high. Average annual manufacturing value added growth as a share of GDP was 2.19% in the US, which was much higher than the world average, which was slightly negative. And it was pretty good compared to other countries.

You can see up there that Germany is an outlier so clearly they’re doing well at a number of things, not just football. But then you’ve got Japan and you’ve got a couple of other countries doing quite well and that’s skewing the high income OECD, European union numbers.

If you look country by country, you can see the US growth was much higher than the UK and France in the past few years. And if you notice Mexico up there actually doing well relative to some of the other emerging market countries; and you've got China and India.

So how do these things relate to each other? How does this manufacturing picture and the changes in growth and in productivity over the last years in the US relate to Mexico and specifically investments by US firms in Mexico?

Well obviously, as we all know these two countries are very closely linked in terms of foreign direct investment. In 2012 Mexico was the 23rd largest recipient in the world for foreign direct investments. There were 22 other countries receiving more FDI than Mexico. But for the US it was just barely missed making the top ten in terms of destinations for US foreign direct investment and the volumes were quite large.

So in 2011, which is the most recent year for which we have this kind of detailed data, you can see that affiliates of US firms in Mexico sold about $252 billion of goods and services. So these are sales originating in Mexico at affiliates of US owned multinational companies and those affiliates employed 1.3 million Mexican workers.
So the question that we’re going to look at and that was raised and has been raised by a number of policymakers, is whether this is good or bad for the US.

So we’ve done extensive work on this, my colleague Ted Moran and I, and we’ve started by looking at all US multinationals using very detailed data over a 20 year period, micro-level firm data, and have found that in aggregate expansion brought by US firms as associated with greater sales, greater employment, greater R&D spending by these firms. Not just worldwide, but also in the US because of the productivity gains it gives them because these efficiency of facts that allow them to become much larger, expand much more quickly, and get larger market shares.

And so now I’ll show that we’ve repeated that exercise looking just at firms that invest in Mexico to show this isn’t—these aggregate international results, they’re not being driven by Germany or Japan or anything like this. These are true also when we look specifically at foreign direct investment by US firms in Mexico.

So in other words, when you actually look at the data, we didn’t actually hear this giant sucking sound and perhaps the CEO’s of these firms are not quite Benedict Arnolds.

So when we’re looking at the methodology, it is important to just take a moment to talk about the kind of firm level analysis that we do. Because if you just look at the aggregate data and say, “Oh well US manufacturing employment has been falling. We also know that NAFTA was signed and there is a correlation between these two things.” Well you don’t know that, right. There’s so many other things that have been going on in the world at the same time, which is why it’s important to look in more detail. Especially because if you look within US manufacturing and compare the firms that are multinationals to the firms that are not, it’s the multinationals that are performing much, much better. It’s US firms that do have these operations abroad that are investing outwardly and that are going global that actually have much, much stronger employment growth than the manufacturing sector as a whole.

Which in itself would suggest is evidence, but it is not a causal substitution relationship between foreign investment and domestic investment. But again, we look in much more detail beyond just looking at this aggregate data.

And so in doing this, as I mentioned, we used this wonderful firm level data available at the US Bureau of Economic Analysis on all US multinationals since the late 1980’s. And we use a number of econometric
techniques. We control for firm level fixed to facts. We’re able to control for the fact that there's these industry patterns, there’s idiosyncratic issues going on in any one of these firms at any given time and then controlling because it’s panel daily control for these new zero facts as well and the impact of recessions and booms, which is of course, very important because we had the Mexican peso crisis right at the beginning of this time period, as well as a number of issues in the US economy.

So once you take all of that into account, you include all of those things and just isolate the relationship between the expansion abroad by the US firms and their expansion domestically, you see that the relationship is positive.

So this is just a graph showing our regression coefficients from that regression looking at—this one looks at what happens if you see a 10% increase in employment at affiliates of US firms in Mexico, what’s the equivalent change in US domestic employment, sales, R&D and so forth.

And the first thing to note is that these are all positive. And so this is not consistent with the story where firms are just picking up, closing down a plant in Detroit and just moving it to Mexico. If this were happening and you had this pure shifting, you would see a negative relationship. You would see increases in Mexico associated with losses in the US. And we do not see that at all. We see these positive relationships.

And you can see it’s the largest for US R&D spending, that moving plants to Mexico freeze up resources in the US for many, many things and one of the biggest is some of these higher skilled, higher value activities, such as research and development investment.

And then we have some results. I didn’t put them up on the slides today given the short amount of time that I have, but they’re in the policy brief. We actually break them down by manufacturing and services, parents in the US and manufacturing and services affiliates in Mexico, and see that that feedback when you’ve got the manufacturing plants in Mexico, it has the largest positive effect on the services, including research, engineering, marketing and so forth, in the US, but it’s true for the aggregate as well.

Now these are all in percentage terms, but it’s important to keep in mind that these US firms have much larger operations in the US than they do in Mexico. So if we’re talking about a few percentage points in the US, but still much greater number of sales, much larger employment and so forth, in the US relative to Mexico.
So just to translate these into some pure numbers instead of just looking at percentages, you can think about; I’ll take the employment number, right. And so those results show that the relationship is that for the average US firm, the 10% increase in their operations in the US or I’m sorry, in Mexico, leads to a 1.3 increase in their employment in the US. So you consider the average firm in this sample, these are multinationals, so these are the largest of all the manufacturing firms, employs about 25,000 workers in the US and about a 1,000 in Mexico. And so every 10% increase in employment, that just happens to be the unit that we’re using to put some context on this, every 10% increase in employment at affiliates in Mexico, that corresponds to about 131 jobs.

So scaling up by that magnitude for the average firm would correspond to an increase in 333 US jobs per firm, right. And so these are hypotheticals, this is the relationship that exists for the average firm, but you can think about we use 10% because it’s a nice round number, but in any case, that relationship is essentially one job in Mexico, 2.5 jobs in the US. That’s the ratios that we’re talking about here in terms of the magnitude of these feedback effects.

And of course, these numbers may be offset by other factors. There are plenty of industry trends. There’s technology growth that’s happening at the same time. There’s developments in production techniques. There’s changes in demand among US consumers. There’s a number of other things going on that can offset this effect of the foreign engagement by US firms.

And so this is holding everything else constant. This is isolating just the relationship between the foreign engagement and the domestic expansion. But then once you put those other things in, some of them may augment, some of them may offset this relationship between foreign investment and domestic investment, but it’s very clear that the net impact of investment in Mexico by US firms is positive and not negative.

So if you look at the overall trends, as you see the negative declines in manufacturing employment, there are many things that are contributing to that, but it cannot depend on NAFTA because the effects of NAFTA, at least the foreign direct investment by US firms in Mexico as a result of NAFTA, that has had a positive effect on US employment, US investment, US research and development, US capital, US sales, by these multinational firms.

So just to conclude, we’ve seen this trend of US manufacturing productivity going up over the last few decades, while employment is going down. And as I said, this is not due to off-shoring to Mexico
because as we can see, this type of off-shoring in Mexico has net positive impacts on the US economy.

Jeffrey J. Schott: Thank you Lindsay for a very clear and concise presentation and one that was well within your time-frame so that will leave us more time for questions after we have heard from our two very distinguished discussants.

Our first discussant is Manuel Balmaseda from CEMEX. He is the Chief Economist at CEMEX and has been that for several years. He previously served as Chief European Economist and other positions at the Banco Bilbao Vizcaya Argentaria. He has been a visiting researcher at the Federal Reserve Bank of Minneapolis and has worked as well and done collaborative work with the IMF. He has a PhD in Economics from Northwestern University and a BA in Economics from Colby College. So Manuel the floor is yours.

Manuel Balmaseda: Hello, first of all, thank you very much to the Peterson Institute for inviting me to share some thoughts on NAFTA and the importance of NAFTA. Not only for the US, I will focus also on what importance it has been for Mexico and what can we expect, right.

First of all, I was a little surprised when we started discussing in Mexico’s paper talking about the impact of NAFTA on trade and employment in the US. And I was because it was to me it was something like innovation, right. Wouldn’t we care if innovation reduced employment in the short-term? We know that that was increasing in the midterm and there would be no discussion whatsoever, right, to the fact that innovation is good. And that in the midterm to long-term it actually pays off more than the cost that you might have in the short term, right.

And NAFTA or trade, is pretty much in the same ballpark. You might have some costs, disruptive changes in the short-term, but actually once everything is clear, it has a positive back. In that context it took me a while just to get going on how to focus it on the issue employment, but there are two things that really come to mind.

And the first one is the international [inaudible 00:28:10] of companies. Actually it is not clear whether they go and actually I think it was very, very clearly before, what is the cost decision. It’s actually much more of a growth decision. And to explain that it is a growth decision, right, the fact that you can grow in all markets, your market, even increase the US market, which is the largest market in the world, it’s become small.
The fact that you can grow elsewhere actually allows you, first to diversify risks and second and most importantly, also be able to reach a much larger pool of talent. And not only that, but having a much greater scope or major greater scope for a markets for larger potential demand, actually that may have—that increases the return to things that you do at home, namely research and development, innovation, and diversification of products.

Why? Because obviously, all products now have a much larger marketing in which you can sell those products and second the products, the new products, obviously will have a much larger potential demand. So therefore, it’s not strange that companies that actually do well are those that internationalize and for that reason first, because they're doing well, they're increasing jobs at home and that’s [inaudible 00:29:27]. But not only that, the fact that they are international gives them a much greater return to the things that they keep at home.

What is obviously clear is that they are not going to be doing at home the same things that they did previously. So we’re going to have some type of [inaudible 00:29:49] change, shift. Off-shoring, you may be off-shoring manufacturing production, but on the other hand you’re in-shoring and that’s the case in the US, talent, skills, from all over the world and you have run your research and development, not only research and development, but other let’s say, corporation functions from the US.

And in that context obviously, for me it was pretty—it's nice to see because you can argue now with numbers, but previously you would say with [inaudible 00:30:27]. But it’s clear to see that actually, there’s a possible return to internationalization.

My only question is whether you have a selection bias in your sample if you want. If you’re under criticism. Why? Because obviously those companies are internationalized. Those companies that go abroad are those that are doing well at home. Therefore, over time if they were good previously, they will continue to do well and all those [inaudible 00:30:52] in the future and therefore, yeah, they will generate more jobs, but they would have anyways. We don’t have the counter factual, right?

My argument would be that no they are increasing even more jobs because now they have the potential for larger scope, larger markets and therefore larger returns. But that’s my only other question in that respect.

The only worry here is much more with us economists we have to attack, is the fact that what we have is a sectoral shift if you want. Obviously, you are going to focusing on certain activities that previously you were not.
And to that extent that’s where the “political cost” if you want comes, right. Because you are displacing workers, likely you will be displacing workers from some [inaudible 00:31:36] and other places. But that’s only, at the end of the day, is growth to that extend that, you’re increasing the skills of the population as a whole, right.

And that’s not only, nothing by this, actually it’s not growing, it’s good. My only other comment to the US in that context is that it’s becoming ever more difficult to distinguish what manufacturing jobs are and what services jobs are, right. If the R&D function is run within the company, that’s called manufacturing. If it’s not running within the company, it’s called services. It’s the same thing, right. There are both the same thing.

So what matters really whether you generate jobs in the economy as a whole, not whether you’re generating jobs, particularly the manufacturing sector or other things, right. So that would be my comments mainly for the US part.

But going a little farther, when one looks at the impact of NAFTA on trade in Mexico, my first worry—I have to worry. The first one is very hard to distinguish or differentiate because this is mentioned, there were too many things happening at the same time. We had a 50% devaluation of the peso, right. We had trade openness everywhere, right. And so saying that NAFTA did this or NAFTA did that and a little later here comes China, right. So this is our big players. Saying NAFTA did this or NAFTA did that is a little presumptuous to say the least.

But even so, yeah, I can just thank the system in Mexico for NAFTA sometimes. When you look at GDP per capital, right, it hasn’t done very well in the last, since 95. As a matter of fact, the growth of Mexico, and we talked about in the previous panel, has been relatively timid over the last three decades and it has been even slower in the last decade. So that said, it’s hard to argue that NAFTA did help.

When one looks at it and says, “Yeah, yeah, but that was Mexico, compare it to other emerging economies.” Well, when you compare it to other emerging economies, particularly Latin American economies, they actually doing any better than other Latin American economies. Or even it did worse than some of the Asian economies and some that actually did not have such a push from NAFTA.

My counter argument to that is like look at the counter factual. My argument that is the probably Mexico will being doing much worse if it hadn’t been for NAFTA and for openness.
And the second factor, which is where we are at right now, is that trade openness, NAFTA, is only one ingredient in the cocktail of things that you need for growth. It’s just a piece of the puzzle. In other words, right now Mexico, electricity costs in Mexico for companies are 40% higher than they are in the United States, right. You can have trade openness, but you have 40% higher electricity costs. That means you’re in trouble, right.

We’ve talked of the informality before, which is the most important pending reform in Mexico, is how do we make formality the norm and not the other way around? Right. But what we’re seeing in Mexico now and that’s why I’m quite optimistic for the future, is that Mexico knew what they had to do and they have put together a package of reforms, beginning with energy, labor, financial reform or whatever, that when you combine all those reforms in the future, down the line, they should add to the fact that you have a very, very open economy to produce growth.

And just let me give you a couple of numbers. Before NAFTA trade openness in Mexico was around 30%, export plus import over GDP. After NAFTA they went up to over 60% and [inaudible 00:35:32] percent, right. So it’s a much more open economy. It wasn't lucky, it opened in 95 and since then we’ve been in crisis in developed economies, so Mexico emerged right when everybody wanted to be emerging, right.

It’s tough luck. But at the end of the day Mexico has gained something, two very, very important things from NAFTA that actually are not in the numbers, or they are in the numbers but they’re not in the real numbers, let’s put it this way. It’s not in employment, which obviously is very important, right. And it’s not in growth or at least it’s not there yet, but they're very, very important.

The first one is institutional framework. The institutional framework pre-NAFTA in contemporary Mexico are two completely different things, right. NAFTA to [inaudible 00:36:27] integration, I don’t know why I keep coming back to NAFTA, it’s more than that, right. The integration with the US economy was not just integration with the US, it was really opening to a RCD way of looking at things. Which meant that policy, economic policy, has been much more sustainable and [inaudible 00:36:49] in Mexico over the last 15 years. And that is something to look forward and that is something that we’ll pay back eventually and I would argue that it’s already paying back.

The second one, I will refer to a work by Professor Hausmann at Harvard, Professor Hausmann, which is about provocative knowledge, right. And it compared a lot of countries, provocative knowledge, and the idea is that when you are integrated, particularly in manufacturing in the world and
particularly when you have so much for indirect investment, right, you are able to adopt technology much more quicker and not only that, you can spread them through the rest of your economy much faster.

And to that extent Mexico, in the case of Professor Hausmann’s provocative knowledge numbers, come out as one of the leading countries definitely by a long shot, the leading one in Latin America. But not only that, it’s one of the countries that actually because, and this is because of NAFTA, because in their part direct investment and investing of international corporations in Mexico, but they have [inaudible 00:37:57]. So in that context I think the future looks very, very bright.

And let me just say a couple more things. I wouldn’t be too critical of the last 15 years in Mexico. For one reason, the first part of NAFTA led today, not Mexico specialized maybe in less capital in the still intensive products. That was the first stage.

Over time that’s changing. And now obviously, somebody mentioned automotive, but it’s not automotives, its auto parts. It’s electronics. They’re expanding their role much farther than that and therefore, that’s where the real value added is. And that’s where the productivity will come, because the challenge that Mexico has been generating growth and generating growth has been a matter of generating productivity.

The second question is Mexico and this is the question I will try to more or less finish is, will Mexico be able to generate productivity? I said in my by all means, yes. So far in the last three decades the cheap factor of production in Mexico has been labor. It was cheaper than any other factor. Going forward, actually, there’s going to be a much more bigger need for capital intensive production, which is already have been coming from all international investments, from all FDI, right.

Another question is for Mexico is to what extent can they bring all that—I can’t remember now if it was the 1- alpha or the alpha part, back into the core, right, and make it part of the solution? That’s the challenge. But I think the pieces are there, right, and a lot of what’s happened has to do with NAFTA.

I’ll end up by saying you know I come from CEMEX. CEMEX is a Mexican multinational employer, it's not the largest one, but the largest producers in the US. That’s possible because of integration. Not only in the US, but in the world. That’s possible because of integration. But it has a great advantage of being an international and multinational, not only for American companies, but also for Mexican companies.
We were talking before that there is a small pool of talent that might be available when you are in an emerging economy. That’s not the case when you grow beyond your boarders, because you can tap the pull of talent everywhere you are and that’s what companies do, both American companies and companies like ours.

Thank you very much.

Jeffrey J. Schott: Thank you very much Manuel. Our second discussant will be Christian Volpe Martincus from the Inter-American Development Bank. Christian has worked previously at the Ministry of the Economy of the Province of Buenos Aires and has been an adviser at the MERCOSUR Commission of the National Representatives Chamber in Argentina. Previously he was also a Researcher at the Center for European Integration Studies in Bonn. He holds a PhD in Economics from the University of Bonn and a master of Economics from the National University of La Plata in Argentina. Christian.

Christian Volpe Martincus: Okay, good morning. Thank you for the invitation to the Peterson Institute and to Barbara in particular. I’m glad to be here to discuss this policy brief that were written by Lindsay and Ted. And we’ll talk about American manufacturing mostly in this discussion. And this is what we’ll talk about. I will briefly summarize what Lindsay was saying before and then we will talk about whether the US manufacturing is anomalous or not and then we will see what I mean by that. Then I have some questions, as usual. It's a discussion, you have questions.

Then we’ll talk about evidence from other countries about the relationship between off-shoring and domestic economic activities. Then more questions and finally some discussion on the policies and recommendations.

So let’s start with the summary of Lindsay’s and Ted’s work. And basically they tell a very interesting [inaudible 00:42:34] and solid policy brief where they [inaudible 00:42:39] by pointing to the strengths of the US manufacturing sector in recent years.

First is the growth and re-evaluated in manufacturing and the growth in labor productivity. They weren’t steadily growing in previous decades and recent years.

Second one is the US manufacturing seems to be growing faster than in other sectors in recent years. And US manufacturing also appears to be growing faster than counterparts in other parts of the world. So that’s the
three main [inaudible 00:43:09] fact that can correspond to what Lindsay was referring to the set in this stage.

And then the one she focused on in her presentation is the last one, which is an increase of showing in manufacturing as associated with increased domestic activity, particularly in R&D. And this course in general, regardless of where companies are outsourcing, but also in particular for the case of Mexico.

Now and therefore conclude that policies are not restricting the movement of companies or the internationalization of companies are misguided. And in contrast, those strengthen an economy fundamentals acting on a location infrastructure and so are the ones that should be pursued.

So let’s talk about what—they had a very nice discussion at the beginning about currency policies discussion about the strength or weakness of US manufacturing sector. And then that makes me remember when you go to the pediatrician, it’s like you go into a pediatrician, some of us are still going to pediatricians. Some of you probably went in the past. But one of the things that the pediatrician provided you was is a chart where this is where your kid is located in terms of the distribution height and weight, yeah.

And I said, well he or she is growing fine. It’s about the median or it’s about the median and then you are relaxed, so everything is going well. And in particular, when you talk about the weight you always have to compare with the height of the kid. I mean, the height is high, weight is high.

So that’s basically the kind of exercise we have here where we relate share of manufacturing value added in country’s GDP and the GDP per capita. So we are relating how big is the manufacturing sector in relationship to the level of development of the country.

So what do we mean by anomalous? This is the US kind of out of the line; it’s not in line with the expectations. What you see, regardless of what the year we look in 2000 or 2011, that the US is exactly on the curve. So the size of the sector is exactly what you would expect according to the level of development of the country.

So the second question would be well did it behave anomalously over recent years? The answer is again, no. Here, what you do is you relate the change in the relative size of the US manufacturing so change in the share of US manufacturing value added in GDP with the initial level of GDP per capita, so the initial level of the development of the country. And what
do you see again, the US is exactly on the curve. So there’s nothing strange on that, it is perfect according to expectations.

Now, what this boils down is to a point that US manufacturing because its size and behaves according to expectations. This is exactly what the authors were saying and therein the data they provide is quite robust.

Now I have some questions on the figures, though that makes us kind of put them into context.

The first one is when you compare periods you have decade, decade, decade and then two years or three years or whatever. The question is, well is recent performance sustainable of a longer time period, so we can expect these figures to remain until the end of the decade. And to what extent can they be considered reaction to the [inaudible 00:46:44]? And the same thing when you talk about manufacturing, it’s expanding faster than total known farm business economy.

When you look at the previous [inaudible 00:46:54], the known farm economy deal in contract, but that's happened with manufacturing. So to what extent this diversion growth rate will remain or will convert. And that’s again, a question the US discussed in our [inaudible 00:47.15], the questions that probably don’t have any answer and you can't provide me with an answer, but that’s the role of the referee. To raise that question.

And the last one is, and I will show you a graph about that. And similarly, when you compare it to other countries you’ve got to be careful to see not only what's happened after the crisis, but this is before the crisis. So in that case, you see of course, the US is one of the countries experiencing larger growth in recent years. But when you go backwards, it’s one of the countries that’s experiencing the largest construction in this share of, this is exactly what you have in your corresponding graph, is this share of manufacturing in GDP. The annual percentage changed in this share of manufacturing GDP in those few years.

Now, the good thing about the analogy is that again, the US is not alone in this positive relationship between off-shoring and domestic economy activities. There are several papers talking about other countries, looking at the experience of other countries like France, Germany, Italy and Japan, where it also clearly shows that if there is a relationship, there is a positive relationship. So you expand the rope and then there are positive effects at home.

Now, the evidence presented by the author is compelling, some issues, including those technical, and again, I do research, so I will have some
technical issues to discuss with you. I will do my best to convince you that this is important. It’s important to say they don’t need money to build the relationship. It’s not about the relation because I’m convinced by what they are doing. But the first one is can the result be mechanical [inaudible 00:48:57] to an entire economy? And probably the answer is, well it depends.

Do we have growth effects or not? So what do I mean by growth effects. So if you are a company off-shoring something, are you affecting other companies? In the relationship they are looking at the relationship. I’m a company off-shoring something, so that has a positive effect on my own activity at home. What happened with other companies? They will provide it. If you offshore will it affect your providers. So if you stop sourcing from your provider, [inaudible 00:49:32] will have less demand and could affect jobs or something like that.

We don’t know, but again, evidence in Japan suggests that this is not the case. So we should be concerned. Can we be concerned? Well we don’t know, but probably not. This shouldn’t be that kind of a second order money to affect if any.

Then the other thing is, and this is also related to the exercise they do with Mexico, and that’s very interesting, because if you compare the numbers, the message is exactly the same. Regardless if you look at all the destinations or just look at Mexico, there is a positive relationship between off-shoring and domestic economy activity.

Now, the question then, when I was looking at the destinations, one of the things that came to my mind is, well are we set conditional on this sector of activity? Because Lindsay and Ted were saying, “Well, this is overall.” So we are pulling together things operating in all kinds of sectors. But rolling one sector, the relationship will be stronger than in others, depending on the nature of the sector. Or could be the case that the effect is conditional on the destination where you are off-shoring.

Say for example, if you have a trade agreement and the trade agreement address is not only [inaudible 00:50:54] but other aspects of the bilateral relationship then there, say less barriers in Canada in general and then would you do overall will have a positive impact, a stronger positive impact in what you do at home. It could be the case, we don’t know, but probably something that is worth exploring.

And well again, there could be a difference depending on what kind of FTI you use, so if it's horizontal, it's vertical so if it's in the same sector, it's in the sector that provides the inputs.
And of course again, I was saying that I do research so I have one thing, I've got comments; it's not only some [inaudible 00:51:35] it could be endogeneity and that's very unfair from my side. It’s always a case one. When you're doing political research you always say, “Oh there isn't endogeneity. What's an endogeneity problem?” And let me tell you like that.

It's like, did you see the game last Sunday? Well I suffered the game. I’m from Argentina, so I didn’t see the game myself, I suffered the game. In the end I accept the result. But it's like that. So it was 1-0, yeah and then you can always say, well it depends. What’s the explanation? Well the Argentinean defense was very strong. Well that would be one explanation. The other one, German attack played very bad. That's one explanation. The explanation is no, no, no, no, well the German attack played well and the Argentinean played well, but they neutralized each other.

Or you can say also, on the other hand, so you don’t know what’s behind the results? Was the Argentian defense very good or the German attack very bad? So you don’t know what’s explanation.

And here it's something like that. You don't know whether this is off-shoring that leads to more domestic activities or there is some more domestic activities leading to more off-shoring or there is something else. There is something else explaining both of them, say something that we don’t observe.

For example, the other day, you can say the weather. That thing that we didn’t see was the weather. So Argentina players are more accustomed to play with hot weather and German’s not and that’s the reason of this tight game. So it could be the case. I don’t know.

And the other thing is how you continue out with the data that you have. If you are leaving a little, you say, “Well no I mean all the data we’ve have is definitely useable.” Otherwise you can say, “Well no I’m more conservative, there is not too much variation in the data,” and then could be matter of [inaudible 00:53:35].

So let me conclude by talking about the policy of accommodations. What this will rightfully conclude is that introducing restrictions to movement of companies it could be bad, it could be really not the best way to go. Capitalist [inaudible 00:53:53] and if you ask people not to move, people will not enter into business in the first time.
Improving the fundamentals on the other hand, is likely to have high pay yields. And there are examples of—even in recent US programs, even in the export nationalist for the initiative in 2011 and something more even very recent, which is the single way Indonesia did in 2014. You see their actions, so this line of reasoning towards we had to simplify the way of doing business. We have to simplify life for companies. Companies have to do business very easily. And that’s to improvement of business climate.

And just, we are currently doing that at the IDC some research on these kinds of trade facilitation initiatives, including similar windows.

And one last word about trade agreements. Of course, there are thousands of possible factors effecting trade and it could be presumptuous to say, “Well trade agreements and in particular NAFTA has a positive impact on trade. But there are some studies showing that trade agreements tend to increase trade and also we have a recent study showing that trade agreements favor off-shoring.

And you know what Lindsay just showed you. This off-shoring is positively associated with domestic economy GDP. So in the end what you have here is that these trade agreements like NAFTA are likely to play an important role in strengthening economic activities at home.

And just two last figures. This is one on total manufacturing exports for US manufacturing exports. And this is manufacturing exports to Mexico that increase a lot in recent years and become a more important trading partner. And this is about the number of subsidiaries of US companies that are in Mexico and in other countries in which the US Customs Trade Agreement, which is Brazil. What you see is, of course, there is some kind of anticipation and again, we can talk about causality because this is a bilateral comparison.

But what you see is the US has increased significantly the number of subsidiaries in Mexico and these leads to an expansion of activities there and again, by the results that Lindsay showed you, it has positive effected economic activities here in the US.

Thank you very much for your attention.

Jeffrey J. Schott: Well first, let me say thank you very much to Lindsay for providing such a substantive presentation and a source for very extensive comments from Manuel and Christian.
Let me also say my regrets to Christian that Argentina was not the only country that lost 1-0 to Germany. The United States had the bad fortune of having to lose in an earlier round. But still the same result.

I would like to start our discussion and then I will quickly turn to questions from the audience. But drawing on some of the themes from the discussion comments, the data that’s been presented shows pretty strongly that in the aggregate there is a very positive effect on the US economy and on US manufacturing.

But if you listen to the NAFTA debate in the United States for 20 years, it’s been driven quite importantly by a few sectors and if you look at our trade with Mexico it’s dominated by trade in the auto sector.

And so, I wondered Lindsay, if I could ask you to start off with a comment and is part of the concern about NAFTA and manufacturing driven by the auto sector and does the results show really that these concerns have been exaggerated and perhaps you can start from there?

Lindsay Oldenski: Certainly. Yeah, and if you look at the data on both sides of the border you could make the case in opposite direction right. So if you look at what’s the largest sector for foreign direct investment by US firms in Mexico? It’s transportation and that primarily means automobiles, automobile parts and so forth.

So I think that’s what’s fueling a lot of those fears. But at the same time if you look at US productivity growth and where that’s been concentrated within the US, the automobile sector is one of the strongest sectors in terms of productivity growth in the US as well.

And so, I think that it’s certainly a sector that gets a lot of attention because it’s so large. But I think pinning these negative concerns about US manufacturing on NAFTA is certainly misguided. And I think part of that is related to one of, I think, the really important points that Manuel made, which is when you’re thinking about what is a manufacturing job in the US. And in terms, for instance, the US automobile sector, is it necessarily assembly line work or is it designing the next generation of electric cars or something like that?

And I think there are certainly concerns there, but if you look at the big picture and you look at the broader manufacturing, not just assembly within automobiles, but look at the automobile sector and others that are becoming more intensive in R&D and creating jobs there, it's a little bit different.
Jeffrey J. Schott: Manuel or Christian do you want to add anything to that or she said it pretty well? Let me open the floor to questions from the audience so we have plenty of time. We’ll start with the gentleman in the back and then Ann. Please identify yourself and your affiliation.

Barry Solarz: Hi I’m Barry Solarz and I’m here representing Nucor, which is the largest steel producer in the United States.

Well first I’d like to compliment the Institute for this focus on, not only Mexico, but on manufacturing in particular. In that regard one data point that kind of stuck out was Germany, which was described as an outlier. Although I’ve seen some of the research on the German example, I think probably more could be done in that area. And Adam it might be something that the Institute would want to look at, how such a high wage, highly regulated economy such as Germany can be doing as well as it’s doing with manufacturing as a percent of GDP.

In terms of this off-shoring discussion, I guess I’d like to use steel as an example and then also kind of pose a question. Because the assumption that I think all of you are making and I agree with many of the points that were made, in particular, the points made by Dr. Balmaseda, about you can’t look at the words written in the agreement.

NAFTA to me is much more than the words in an agreement, it’s the concept involves the logistics of North America and the extent to which we have or have not been taking full advantage of the natural synergies that exist in North American and of course, now in particular, in the energy area.

But logistics in terms of transportation et cetera, the so called natural market what one can ship by rail, by truck, by barge, whatever, as opposed to off-shoring in a global context. If I can use steel as an example and then I’ll pose a question.

Jeffrey J. Schott: Please try to make it very concise.

Barry Solarz: The United States is currently running a significant direct steel trade surplus with Mexico and it’s running a significant indirect steel deficit with Mexico. That gets to your automotive point. But in terms of all of those imports, automotive related and appliances and other things, steel containing goods, from Mexico, there’s a lot of US steel that goes into those steel containing goods that are imported back into the United States.

That’s not necessarily the case when we import steel containing goods from say, China. So again, my question is all off-shoring equally
beneficial or is for example “off-shoring” in a region such as North America, perhaps more beneficial than the strengthening of the NAFTA supply chain than off-shoring in a more global context? And of course, that also pertains to the upcoming discussion on the TPP, where rule of origin is now going to involve a value from any one of 12 countries, not just three.

Lindsay Oldenski: Yes. Then I can say more then. Yeah, so I mean, obviously what I’ve shown is primarily aggregate results and there’s a lot of heterogeneity among sectors and among countries. But when we’ve done this exercise, not just with Mexico, but looking at China and looking at other countries, the productivity effects and the positive benefits and the complementarities are there and it might not necessarily—I’m not an expert on steel itself. But for example, you give the case of China and think about the iPhone. It’s such a small fraction of the value added and that phone comes from China and the majority of that occurs to the US.

And so, yes, there’s going to be variation within sectors across different countries, but we see these types of positive feed-backs everywhere.

Manuel Balmaseda: Very quickly. I agree completely I guess. Off-shoring is pretty much all the same. The question is you may not be exporting an intermediate good to the country to which you are importing back. You might be exporting something else. [Inaudible 01:05:21]. It’s more a question of integration and not only integration, economic integration, but also integration in the regulatory framework that makes those things much more flexible and beneficial to both sides.

Christian Volpe Martincus: Yes. I also fully agree. I mean, that’s one of the points even in the discussion, so there is maybe a lot of heterogeneity across sectors and even destinations. Now in general seems to the case that the relationship is positive and of course can vary according to, not only the integration of the regulatory frameworks, whether the trade barriers are low or tariff barriers are low, but also integration. So how well connected are the countries in terms of physical infrastructure?

Jeffrey J. Schott: Thank you and Ann?

Ann: Thank you very interesting paper, thank you very much.

At the beginning Lindsay you pointed to three routes; positive, negative, neutral. I think actually there is a fourth route that is part of what your positive would be, that you didn't highlight and I’ve never seen any work done on it, but I suspect it’s important. And that is that firms in the United
States that with value added chains, firms in the United States are competing with firms in Europe and firms in Asia and so on and so forth, which have their own value added chains, to the extent that Mexico is a value—is a source for American firms. It's closer because of transport and I’ve seen some numbers saying it is.

Then of course, you get another effect. Namely, some firms that otherwise could not expand or could not expand as much or as profitably, can do so as long as they offshore some of the items that are more expensive to produce here. And if we didn’t have off-shoring as the alternative within NAFTA that it is, it’s conceivable or likely, I don’t know which, that for example, Japanese firms that are off-shoring in Vietnam would have a greater competitive advantage or less disadvantage than they now have and yet, this seems never to be mentioned. What we don’t notice is the firms that didn’t go out of business and might have done so had they not been off-shoring.

Lindsay Oldenski: Yeah, I agree and I think that’s a great point and that’s something- Here we don’t look at market share relative to firms headquartered in other countries. But that’s actually, that's a really good point and I think that that’s something that could be looked at and should be paid more attention to in addition to the benefits just for the firms themselves.

Ann: Thank you.

Sherman Robinson: Sherman Robinson, [inaudible 01:08:07]. I’d like to follow up on Ann’s point. You see the outsourcing point, which Manuel made, is a very important part of that. And when a firm outsources its personnel office or something, it’ll show up as total factor productivity growth of the firm that’s doing the outsourcing. In the case of the US-Mexico manufacturing you’re looking at an enormous amount of the trade, which you noted, is intra-firm. But you’re seeing the outsourcing as off-shoring and you will show an opposite TFP growth.

The point to make though, is you're really focusing just on manufacturing and you’re missing that the value chains we're seeing around the world are much broader than that. They’re services, they’re agriculture, as well as manufacturing. In fact, the services part of this growth manufacturing may show, is when you outsource the services they disappear from the manufacturing and they show up as services trade and you’re not counting them that way.

The question for Mexico is, is it taking part in these international value chains other than with the US? It’s enormously important with its US trade. Is this a major source for potential growth for Mexico elsewhere?
Christian Volpe
Martincus: I’ll take the second part. Primarily, no Mexico is mainly integrated in the US manufacturing value chain. It has various important links and growing links with some parts of Europe. And as you mentioned, it is to manufacturing is with the US, but for example, in financial services, it’s actually must more linked to European banks, particularly Spanish banks than to the US banks. So at the end of the day, it's much more integration in the global economy.

Obviously manufacturing US makes sense, transport costs, its regulations. There are a lot of factors. But the fact that it’s worked for Mexico is something to be discussed later. In fact, I always say that, “The proof is in the pudding.” The fact that Mexico is one of the countries pushing forward for the Asian Pacific [inaudible 01:10:14]. Like I don't know what the name is in English.

So sorry about that. Asian Pacific treaty with Chili, Columbia, Peru and Mexico, it means that they are seeing a lot of value for them in this process. And actually it is kind of interesting. And are these countries the ones that are pushing forward with new trade openness and let’s say policies, instead of the traditional developed economies who are the ones that used to do it?

Lindsay Oldensi: Listen, I can’t speak so much to Mexico’s integration of countries, other than the US, but I can say a bit about the services piece. And I actually have done quite a bit of research on this, outside of this particular policy brief and the talk today. And you see that that’s absolutely crucial and that’s one of the big questions here, as trade and services keep increasing, where do you draw the line between services and manufacturing?

And this is something that Brad Johnson, here at the Institute has been working on and Andy Bernard at Dartmouth has been actually trying to reclassify a lot of activities that are not in the data classified as manufacturing, but saying if we look at what was actually supporting manufacturing industries you find that manufacturing, productivity growth and employment in the US is even stronger than you would think. So we certainly see evidence of that in the role of a services.

Jeffrey J. Schott: Well, Dan first.

Dan Griswold: Thank you. Dan Griswold, President of the National Association of Foreign Trade Zones.
I have a question for Dr. Oldenski. Great study by the way. I hope it gets wide circulation. But my question is to what extent can you reverse engineer your correlations. Let’s say the President through his bully pulpit and Congress threatening legislation, companies are sort of shamed into bringing jobs back to the United States and let’s just say some company X has 131 jobs in Mexico and they bring them back to the United States. To what extent is that plausibly put in jeopardy 333 jobs here in the United States?

Lindsay Oldenski: All right, so we haven’t actually done that analysis. But that is something that working on next, is this re-shoring initiative and this is something that’s so new, it’s hard to really look at what the data say. But I think that what we can confidently say, is that given that there at these positive relationships that restricting investment or something to reverse investment, will have negative effects. So again, we haven’t exactly quantified this as yet, but that would definitely have a negative effect.

Audience: Thank you. [Inaudible 01:13:25] of Mexico. But 20 years ago a part of the NAFTA was shedding team from the private sector, not the government. And back then in the private sector, we were not very happy with the idea of NAFTA because we were certain of what was going to put at risk and not very certain of the gains. But essentially, the conversation that moved forward NAFTA from the Mexican private sector perspective was two things.

First the macroeconomic institutional framework. To get rid of the nonsensical, at least some of it macroeconomic approach, which we actually did. We actually achieved macroeconomic stability and today it's considered a given, but back then some of us were discussing to adopt the dollar as the currency of the land because there was no hope.

Well, there is hope internally. If you apply sound macroeconomic monetary and fiscal policies, well aligned among them you can get some results. But the issue was really behind everything, for US firms and Mexican firms that actually drove the political basis for NAFTA to move forward, was to enhance the competitiveness of the region which was really read as to enhance the competitiveness of firms operating in the region.

And this is not 20 years after about trade, this is about shared production. This is more effectively integrated and the value added from the US into Mexican exports and the role that Mexico plays as a customer for the US in terms of US exports, is not accidental. It’s really total cost to market, which is much better for US and Mexican firms, actually getting into the market here in the US and Mexico on vis-à-vis, other countries.
At the end the challenge going backwards to the first panel, is these trades, which is very successful, is essentially carried out through 200 firms and it’s not being democratized in terms of how it unfolds down in the US and in Mexico. And this is the real challenge, how without effecting these very successful part of the Mexican economy, which is very much leaned to US, we actually bring up the other players, the small and medium sized enterprises, and to see what are the barriers there they to be moved? What are the incentives to be created? And I’m sorry this is a comment and not a question.

Jeffrey J. Schott: No but a very, very valuable contribution and summary of the themes from this morning’s discussion in both panels. We’ve reached the time before lunch that I have to call on President Posen for a final question or comment.

Adam S. Posen: We do have a couple more minutes; I was letting everyone else go first. But I think this is sensational work. But let me turn for a moment to Christian, who gave us such a good discussion bridging the academic research and the policy.

Could I ask you from your seat, both as an experienced person involved with MERCOSUR and at the IADB, to think a bit for us aloud about how different some of these other countries in Latin America have been? You started that with your picture of Mexico and Brazil. Barbara Kotschwar and others in this building have pointed out that MERCOSUR has been going in a less than salutary direction lately.

How have you seen this play out in some of the other countries that did not do this kind of deep integration or did not get the opportunity? Obviously, there were those like Peru and Columbia, which we’ll return to later, who did get the opportunity to integrate with the US. Does that reflect differences in this trade and investment patterns that matter?

Christian Volpe Martincus: Yeah, and I think you put it very clearly and there are two kind of groups of countries moving in different directions regarding integration with the world economy. So some countries are more reluctant. Some countries are more open and some of them were mentioned here, like say Chile and Mexico, that all Columbia are pushing towards integration even with Asia, with Europe, they have already agreements with the US. So some other countries don’t and we all know the positive impacts of trade trades in terms of productivity, in terms of growth for the countries and you see the numbers.
So if you are integrated then you have a lot of benefits to take advantage of, not only in terms of variety of goods you can access, but also in terms of what are the ideas that goods that [inaudible 01:18:50] can use to produce their own goods? So definitely there are different patterns.

Again, one could be very [inaudible 01:19:00] to say that it’s everything about trade. But trade definitely played a role in the difference, you see, in terms of the results, in terms of the things that lead to those results, like investment for example.

It’s completely different the kind of investments that different countries get depends on what kind of attitude the countries have in relationship to the world economy. It’s not only about tariffs. When I’m talking about integration it’s about what is currently being discussed in the Trans-Pacific Alliance. For example, or the Trans-Atlantic economic partners, they bitch about all other barriers that are key for investment for integration of global value chains, integration participation in the global value chains. [Inaudible 01:19:48] frameworks and these kinds of issues.

Jeffrey J. Schott: Thank you very much Christian and indeed, after the lunch session we’ll have a session to talk about the Trans-Pacific partnership and the Pacific Alliance and can build on the comments that you just made.

So it just remains for me to thank very much Lindsay Oldenski, for an excellent paper and presentation and Manuel and Christian for very insightful comments that have spurred our discussion. Thank you very much.