

Unedited Event Transcript

Conference: Border Tax Adjustment and Corporate Tax Reforms

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Transcript includes:

Panel 1: Douglas Holtz-Eakin, Gary Clyde Hufbauer, and Adam S. Posen

Panel 2: Caroline Freund, Joseph E. Gagnon, Sherman Robinson, and Chad P. Bown

Keynote: Jason Furman

Panel 1: Douglas Holtz-Eakin, Gary Clyde Hufbauer, and Adam S. Posen

Adam Posen: Good morning, everyone. It's my privilege to welcome you back to the Peterson Institute for International Economics. I'm Adam Posen, the Institute's President. And we thank all of you who are joining us in person for this capacity crowd and we hope online around the world and throughout the US and particularly on Capitol Hill on web stream and on the videos and transcripts that will follow.

The Peterson Institute is, of course, a non-partisan institute. We're called a free trade institute sometimes. But what we really are is an economic analysis institute. And just as economic analysis tends to lead you in most cases to argue for free trade; economic analysis forces you to think hard about major tax reform.

I'm delighted to see so many people and such interest in this topic. Several weeks ago, I called on my colleagues many of whom are on the program today, but others of whom contributed behind the scenes to address the idea of major corporate tax reform in the US and, in particular, the border tax adjustment or what now is being called the destination-based cash flow tax (DBCFT).

I asked my colleagues to do this because, number one, it's important. I asked my colleagues to do this, number 2, because it's something I think the Peterson Institute team was uniquely prepared to do, having the combination of macroeconomics, international trade, tax, this nexus that's so important for understanding this issue.

But the third reason I asked is because facts and analysis matter. And I view the number of people here today from all areas from business from

government from academia from labor from around the world from the US as representing the fact that facts matter that analysis, which at least tries to be objective and certainly as rigorous and transparent matters. And then when we're making big choices for the future of the American economy, we should do the analysis. And that's what we've tried to do today.

I'm very grateful, in particular, to my colleague, Chad Bown, who coordinated our efforts on this. Many of you have seen the publications, short publications, by Chad, by Caroline Freund, by, of course, Gary Hufbauer, many others. We don't have as we ever do, one unified position. We have a unified approach and unified commitment to intellectual honesty.

But I think, there do emerge key themes that are going to become apparent over the course of today. They have to do with thinking through what it means to change corporate taxes in a global economy even for the United States.

And the starting point has to be that emphasis on the global economy because one cannot wish away the existence of competitors around the world. One cannot wish away the legitimate aspirations of people in poor and rich countries alike to make a living themselves. And one cannot wish away the important benefits the US has nor should one wish away the important benefits US has including the US corporate sector from its integration with the world economy.

And so we can talk about scaling it back in a variety of ways. And no doubt the Peterson Institute and all of you will be grappling with these efforts through the years to come. But starting with domestic taxes as the DBCFT proposal shows, you cannot ignore the world except at the American people's peril. And so we're going to try to bring that together today.

The program is great. We have two panels, first on the global thinking big picture about corporate tax reform. They'll get a proper introduction. But I want to particularly thank two participants there; Douglas Holtz-Eakin, former Director of the CBO, now at American Action Forum.

Doug as many of you know is not only a distinguished public finance economist, but has been at the center of the public discussions of this very issue including with his co-authored papers with Alan Auerbach. And we're delighted he's joined us today.

Also our estimable colleague, Gary Hufbauer. Now, again, you all have heard me praise all my colleagues, but particularly Gary many times. But on this issue, Gary deserves some parental rights over the push for a

destination-based tax system in this country. And so when Gary when takes an assessment of this version, I urge you all to listen carefully.

I also want to thank and I will make a bigger deal about this in short order that the Honorable Jason Furman, our newest senior fellow, will be giving the keynote at lunch today, again, linking this to the bigger picture of tax reform in the United States.

We are honored, pleased, and very happy to have Jason now as a senior fellow at the Peterson Institute. And we're delighted he's making his debut on our stage as a fellow on this most important issue.

Thank you again for your attention. Thank you for paying attention to the analysis. Please tell the people in Congress, the staff, the leadership, the members. It matters what you do. It's not enough to just say I want tax reform. I have to believe that the people in Congress care about that. And we're going to try to make it clear to them what's involved. Thank you.

Chad Bown:

Thank you, Adam. What I'm going to do is moderate the first panel this morning. So let me just take a moment to introduce, again, our first three speakers.

And so, first, I also would like to thank Douglas Holtz-Eakin for coming today and kicking us off. As everybody knows, Doug is now the President of the American Action Forum and a world-renowned expert on tax policy. He has served in a number of important and very influential positions in the US government including as the chief economist of the Council of Economic Advisers, as a Director of the non-partisan Congressional Budget Office, the CBO. Prior to his work in public service and at the American Action Forum, he had a very distinguished academic career at Columbia University and Syracuse University. So he'll be kicking us off today.

Following Doug will be my colleague, Gary Hufbauer, who's the Reginald Jones Senior Fellow here at the Peterson Institute where he has had a long career researching and writing about almost every salient aspect of international trade, investment, and tax policy. This is important to note.

Not only is Dr. Hufbauer a PhD economist, but he is also a legal scholar. And that's going to be important later on. I'm going to be talking a little bit about in a later session some WTO consistency aspects of this. And any hard questions that I get, I'm going to pawn off on Gary.

But also as Adam mentioned, he is not only one of the sort of the intellectual founders of this. But he also has important public service having served at the Treasury as deputy assistant secretary for

international trade and investment policy and as director of the international tax staff.

He played important roles for the United States in drafting the Tokyo Round codes on subsidies and having worked through some of the initial tensions on tax issues between the United States and the European community at the time over things like DISC, FSC, et cetera. So Gary has multiple perspectives to bring to the debate that he'll hopefully share with us today.

And then finally, Adam also needs no introduction. But let me provide a quick one, anyway. Adam is the President of the Peterson Institute having taken on that role in 2013. He's been affiliated with the Institute since 1997. His most recent public service is obviously beginning in September of 2009 where he served a three-year term as an external voting member of the Bank of England's rate-setting monetary policy committee. He's written extensively about almost all areas of macroeconomic policy that one could imagine across a range of different economies. And also in addition to his leadership at the Institute, Adam currently advises the Congressional Budget Offices.

So I'm going to turn it over to Doug next. But before I do, I thought I would lead off with a joke, which will probably be repeated many, many times today, which is of all of the things that President Trump has said over the last couple of weeks. Probably the most spot on was when he said in his interview with the Wall Street Journal that border tax adjustment is complicated.

We're going to walk through a number of aspects of that today to try to cut through some of these complications. But I think he has it right. It is hard. It's going to deserve an honest and amiable public debate and discussion and, Adam pointed, analysis. And with that, we're happy to get started so Doug.

Douglas Holtz-Eakin: Thank you, Chad. Thank you, Adam. Thank you for the chance to be here today. Let me amend the introduction and remind folks here. They might not even know. I was briefly actually a Peterson Institute fellow. I've lost most of the good jobs in DC and that includes this place. So it's nice to be back in this hall.

We're going to have a long and detailed discussion about the exact value of the nominal exchange rate for a couple hours now. Before we do that, why don't I step back and just remind everyone why it is we're having this discussion at all. And I think the starting point is the projected growth path of the US economy.

And for real people out there between the end of World of War II and 2007, the US economy grew rapidly enough that even with the baby boom and the expanding population the GDP per capita crude index of the standard of living doubled roughly every 35 years. And that meant that the average American during one working career could pursue their version of the American Dream. And they could buy a house or a boat or whatever it was that they long to do that their predecessors hadn't been able to do.

Given the projected rates of GDP growth basically in the range of 2 percent and population growth, GDP per capita is going to double roughly every 70 years. And so there's a growing awareness that what used to be possible for a person who worked hard their entire life will no longer be possible. And the need to engender better economic growth is at the core, I think, of most of the major policy issues facing the United States right now. And certainly, it's at the core of the debate over tax reform corporate and more broadly.

And in that context, it's important to remember that the US corporation income tax is desperately in need of reform. And I would encourage no one to defend the status quo. The US corporation income tax has all sorts of flaws. It is, number one, the most anti-growth tax that you can document in the research literature. I'm widely recognized as a crazy right-winger, but the OECD is not. And it has identified the corporation income taxes as the single most anti-growth tax. And the US corporation income tax has the unique combination of the highest statutory rate among our developed competitors. And it has the unique feature of clinging to a worldwide system of taxation when virtually everyone else has moved to more territorial-like systems.

That's a very bad combination. It hurts our capacity to grow. It hurts our ability to compete internationally. And the fact that we have a worldwide system in this when a US firm is competing in Brazil with a German firm, the German firm is paying a Brazilian tax and is done. The US firm is paying a Brazilian tax and then faces a second layer of tax up to the 35 percent rate when it brings the earnings back.

And the result of that is either (a) an immediate competitive disadvantage or (b) a corporation desperately trying to alleviate that disadvantage by not bringing the money back. And we have now an enormous amount of foreign earnings of US-headquartered firms that are not being brought back to the US economy. And that combination of anti-growth and anti-competitiveness, I think, is at the core of the desire to have a radical reform of the US corporation income tax.

Underneath that, the system is incredibly complicated to comply with. It is incredibly complicated to administer. It's a very difficult system. And so

we have something that's anti-growth. It's anti-competitive. It's very difficult to comply and administer. And it raises almost no revenue about \$300 billion a year in a budget that's going to be about \$4 trillion very soon.

So it flunks almost any test of what would be a sensible way to fund the US government. And that I think is the starting point for the discussion, which is how can we do something to improve the taxation of businesses in the United States and allow for better economic performance?

Into that setting comes two things. First, Dave Camp as Chairman of the Ways and Means Committee making what I thought was a fantastic effort to put forth a comprehensive reform of the US income tax system, individual plus corporate, tried very hard to make that reform revenue neutral, distributionally neutral, and did not in fact get that reform out of it even in his own committee.

And I think the lesson learned from that from the folks looking at the tax reform in the United States is that doing something within the constraints of the current income tax system was simply not going to get over the finish line. And that a new approach would be necessary. And something which was dramatically different than revisiting things like lowering the rate and broadening the base within the context of the current US income tax system was probably not going to be successful.

And I think that's the right way to think about what we're seeing in the House blueprint for tax reform that was released last summer and has been at the center of all the discussion so far. And I think that is an important step in tax reform in the United States. It moves us to something which is very close to a consumed income tax system. If you look at it, it is essentially a business tax that exempts from tax the normal rate of return on capital and taxes only economic profits.

In the individual side, it has a 50 percent exemption of the return to capital. If it was 100 percent, you'd have essentially a consumed income tax, something which has been identified in the research literature as the single most pro-growth tax reform that one could get. There's some downsides on the transitions. You'd have to look at that as the benchmark of where you'd want to go. So it's a very, very bold proposal.

Not discussed very much so far has been the fact that on the individual side, the decision was made to, yes, lower marginal rates on the individual side but to decouple the tax rate on business income from the individual marginal rates. So for pass-through entities, the tax rates can be 25 percent in this proposal. That's something that's not been done before. I think it's a very important part of the plan and something that has been little

discussed. There's an increasing fraction of business income in the United States that is taxed as pass-through income. That pass-through income is now going to face a lower rate. It will have the same basis as the corporate side.

On the corporate side, everyone in this room is probably now well aware. This is a cash flow tax. It is revenues in, expenses out, tax on the difference. It means that all tangible and intangible capital will be taxed. It will be expensed in the first year of acquisition. It means that net interest cost will not be deductible. And from an economic perspective that equalizes the treatment of debt and equity-financed capital investment. You'll get more efficient allocation of capital.

It is as pro-growth tax reform as one could imagine. It will have provisions for research and development expenditures and thus augmenting the return to investing in innovation. And I think regardless of the specifics, that's the kind of tax reform that's going to be necessary for the US to support the desire to have better rates of economic growth.

Now, let me take some time to talk a little bit about the border adjustment, which has been at the center of such discussion and I think has been, in many cases, poorly understood by a lot of the folks discussing what's going on.

The idea is to take this cash flow tax. This is a territorial tax system. It moves away from worldwide system to tax-only—the tax base in the United States. And it will be adjusted at the border. Border adjustment is a piece of tax policy. It is not trade policy. Am I allowed to say that at the Peterson Institute? Or is everything a trade policy here?

Adam Posen: You can say whatever you want.

Douglas Holtz-Eakin: You're my man, Adam. And I say that deliberately and I want to say this as forcefully as possible because that discussion has been conflated by some people deliberately by some people out of ignorance. But border adjustment is not a trade policy. It is a tax policy.

The goal as is most with the tax policy is to achieve a neutrality result. Competition in the United States will be neutral between the imported goods and domestic goods. Both will be subject to the same tax, the 20 percent corporation tax in the US. By exempting the tax on exports, competition in foreign countries will be determined by the taxes in those countries. It will be a level playing field between US exports and the goods produced in Germany, Brazil, wherever. That kind of neutrality is the kind of thing a tax policy expert would aim for. And that's the goal of this.

Despite its name, it will not be implemented at the border. It raises this sort of image of people standing at the border providing an ATM for the exporters and a collection belt for the importers. That's not the way it works. It will be implemented once a year when firms file their taxes. And calculating their tax base, they will take any cross-border transaction and simply discard it.

So if you have revenue from exporting into Germany, you'll discard that revenue from calculating your tax base and thus exempt the exports from tax. If you have costs from importing from Korea, you will discard that transaction and thus not deduct it and impose the tax on imports. And so it will occur once a year at the end of the year.

Its main virtue in the context of the House blueprint is to protect the integrity of the US tax base. Because you are discarding all cross-border transactions and calculating your tax base, the valuation of those transactions does not matter for your tax liability. So your choice of transfer prices does not matter for your tax liability. And it removes all the incentives in a territorial system to transfer price your profits to a low tax jurisdiction and return them to the US tax-free.

That goes away in the system. And that is a key part of what should be the discussion about border adjustment because the choice is not between the House blueprint or the House blueprint without border adjustment. The choice is between House blueprint, which has border adjustment or the House blueprint without border adjustment and some other means of preventing base erosion. Whether it's Dave Camp's option C or some other set of rules which go transaction by transaction and identify those which are genuine business transactions and those of which are abusive avoidance of tax liability in the United States.

The border adjustment has divided the business community. But the choice is not between the border adjustment that divides the business community. It's between border adjustment that divides it and base erosion which will also divide it. And that's the real choice that is being faced in the US right now.

Past that, it's not trade policy because in the simplest framework it's trade neutral. We're going to have a long discussion about this. But I'll make the case that there is every reason to expect that by exempting the exports, imposing on the imports, the nominal exchange rate should adjust to offset the tax advantage of exporters and tax disadvantage of importers and lead the cost basis of importers essentially unchanged. Leave that profit margins essentially unchanged. And leave their need to change the retail

prices essentially zero. And that is a neutrality result. We'll have the same net trade that we had prior to the imposition of the border adjustment.

We'll never see that. And the evidence that has been brought to bear on this question thus far is not actually about border adjustment. The reform as a whole will have hopefully big impacts on the US economy. This is the most dramatic proposal to change business taxation ever in the United States. It is intended to dramatically change the growth trajectory of the economy as much as the designers could make it.

In doing so, it will affect the fundamentals like the real exchange rate and the current account. And one should expect that. All of the things that the House does will have that impact. Those will take time. Those real changes will occur slowly and can be phased in. The border adjustment per se, however, is a one-time, other things equal, nominal adjustment that's easy to price by markets, and will happen fast.

And so, unfortunately in sort of fighting about the sort of facts on this case, no country has ever done us the favor of, for example, imposing a VAT and then waiting a year and border adjustment. So you can see the border adjustment in isolation. And we're not going to see it if we do this in the United States either.

So it's going to be very difficult to sort of tease out the evidence on this. But I think it actually is very important to recognize that there are two kinds of impacts, the basic reform and then the border adjustment per se. And that's what's going on out there.

Let me close by saying sort of how this fits in the whole idea of tax from the United States. This has clearly gotten a lot of people's attention. It's had a life that I certainly never anticipated and a debate that is far fiercer than I had thought it would be. But tax reform is a process. And even those who don't like the particulars of border adjustments or non-deductible interest or separating the pass-through rate from the top marginal rate. There are a lot of things in this that are controversial.

If it is the case that this proposal is stopped right now, tax reform in the United States is not going to happen for years. And so from the point of view of getting to a better tax code, having something that supports better economic growth, having something supports the international competitiveness of our firms, and thus the workers in those firms that typically will have higher wages and better benefits than other jobs in the US economy.

I think it's important as a process matter to understand this and fix it, but to not stop it. Because if we stop now, there will not be tax reform. And

we'll be saddled with, again, a corporation income tax that doesn't help growth, hurts competitiveness, is incredibly complex, and raises almost no revenue. And that, I think, is a status quo that we simply should not continue to support. Thank you.

Gary Hufbauer:

Thanks very much. I want to start by especially thanking my colleague, Zhiyao Lu who worked with me on this, both on the PowerPoint and the policy brief which is outside and on many other projects. She's done tremendous work. And I also want to thank Adam for being very tolerant of different views on this contentious issue. So there are a lot of pros and cons as had been said. And I'm closer to the Holtz-Eakin camp on this than some of the others, but not quite on board.

Here's a very quick snapshot of the blueprint. And it's essentially the cash flow tax is essentially a capital income tax with no deduction for a net interest but 100 percent deduction for capital outlays and then a range of rates on payments from corporations to households, a cap on the pass-through entities, tax at 25 percent.

I want to pause for a moment on this. Doug mentioned it, but it's really important. The US tax system differs from—the business tax system differs from that of other countries in that a pass-through component of business activity is more than half of business activity in this country now. Pass-throughs are not tax at the business level. They are tax at the household level.

And for that reason, when you do statistics on revenue from corporations as a percent of GDP, you get a low percentage for the US because half of business activity is not taxed. In the Subchapter C Corporate form, those are misleading statistics. Pass-throughs are politically very important because of their great numbers and have a big influence and Senator Hatch particularly protective of them.

It adopts the territorial system. As Doug said, there are a lot of flavors of territoriality. But the basic idea is to have the active income of subsidiaries of multinational corporations not taxed in the home country. And that is now the worldwide standard. I've actually been advocating that for 25 years. I'm quite happy that it's come across most of the world. It's now perhaps coming to the United States.

And for the reason that Doug said, taxes subsidiaries wherever they operate the same no matter where the headquarters are, Toronto or London or New York. And that has a lot of favorable benefits in terms of transfer pricing, and competitiveness. And it repeals the alternative minimum tax.

Well, most controversial, of course, is the adjustment of the border, which is the focus of today's conversation. But international tax rates matter a lot and—I should have added a second bullet—territoriality matters a lot. And I'm going to focus on those two.

So coming to the corporate tax rates, there are a lot of data on this. And you'll see other charts during the course of the day. But that's the statutory range for major countries. It doesn't have China. It probably should have China in there.

The US statutory rate is now the highest for corporations since Japan has come down a bit. The marginal effective corporate tax rate, this is calculated by Jack Mintz and his colleagues at the University of Calgary. They've been doing it for a number of years. I think they've got the methodology down. The US is not the highest, but it's high.

(Lucy) Zhiyao Lu and I—and she did the heavy lifting on this—have calculated the average actual corporate tax rate paid by large firms. That's what counts in the international economy. Large firms as Caroline Freund's work has shown and others that really it's large firms which account for nearly all direct investment, a very large proportion of trade both imports and exports and so forth. They're the ones that compete. And we took an average over a long period of time, 15 years. There's a tremendous variation year to year and tremendous variation between countries. As you can see, the US is relatively high. It's not out of line on these numbers. But the reason to be concerned about this comparison is that that's a long period of time. It's about 16 or 17 years.

What has happened during this period is that other countries have come down on their statutory and marginal effective rates as you would see in our policy brief where US is stuck at these very high levels. So if we did the same analysis five years from now just looking at period between, let's say, 2016 and 2020, I think the US would be the high rate country in this period. And I was quite impressed by Prime Minister May's promise to reduce the British rate to 17 percent.

So to me, the most important reform is to get the rate down. And the second most important is to get territoriality into the system. In the large system, everybody else has it.

So now the case for border tax adjustment as Doug voiced it is it's the linchpin for the first major business tax reforms since 1986. These major reforms don't happen often, maybe once in a generation. We had a 1954 Act, a big reform of the internal revenue code. We had the 1986 Act. And now 30 years later, we're talking about this.

And the reason it's a linchpin is there are three reasons. One, it provides a lot of revenue so long as the US has a trade deficit, very important qualification, a little over \$1 trillion over 10 years according to the scoring.

Second reason, it reduces the incentives especially for transfer pricing abuse and outsourcing which is tax motivated that is producing abroad because tax is lower there and then shipping back to the US. I think that's a very, very small portion of actual foreign direct investment abroad. Politically, it seems to dominate the conversation at least of the current administration.

And the transfer pricing because once you have a border tax, you don't have the incentives, same incentives, for transfer pricing. And you don't have the same extent of incentives for inversions if you get the rate down and you have the border adjustment. You don't eliminate the incentive for inversion, but you reduce it very considerably.

And then without border tax adjustments again as a political matter, it would be very hard to introduce territoriality because the argument would be, okay. You've got this very low cash flow tax. But it's not zero, which corporate taxes are zero in some places, very small countries. And they're much lower in other countries such as Ireland at 12.5 percent.

So, if you don't have the border tax adjustment, companies will just locate in these very low tax countries and you have territoriality. So the combination of no border tax adjustment and territoriality, companies will just build all their plants overseas and ship the goods back to the United States.

I think that's a complete myth economically. But it's very, very powerful politically. And this is clearly a political debate. Many countries have introduced territorial systems and they don't have this imagined problem that all countries have introduced. It's starting right at the north with Canada and Britain and France and on and on. But it's a very big political concern in the United States. But as everyone here knows, the opposition is quite strong in certain industries which have a very high ratio of imports to exports, and I've named some of those.

Now for my taste, if we could get territoriality and lower rates without border tax adjustments, I'd be just delighted. So I see the border tax adjustments as the price of getting these other virtues of a dramatically reformed corporate tax system and maybe somebody will come up with an alternative. As Doug said, Camp wrestled with this and didn't have too much success a couple of years ago.

So the White House thrives in chaos. And I will walk through these statements because I think everybody probably remembers them. But the confusion on the White House approach to border tax adjustments is quite severe. But it seems to be shifting from being against to possibly being for. And how the White House comes out, I think, will be decisive. If the White House comes out against border tax adjustments, I think the chances are very, very low. If it comes out for them, it improves the chances very considerably.

So the big issues are compatibility with WTO rules, the extent of the exchange rate offset, and the tax incidence. So those are the three big, and I'm not going to provide definitive answers to any of the three. But I will just survey the terrain.

So on a WTO perspective as was said, it's complicated. That isn't what Trump was referring to, but it is. It is truly complicated. The first point I would make and others in the program today will disagree is that many countries might be persuaded not to bring a case. And there is precedent for this.

The Helms-Burton Law was about to be challenged by the European Union. It was not challenged for the reason that at the time the administration, the Clinton administration, basically told the Europeans. If you challenge this and you prevail, that will blow up the WTO.

There are many cases that are not brought in the WTO which could arguably be brought because they're kind of too big for the system. Another one which both the George W. Bush and the Obama administration did not bring was on currency. There's the whole big graph that was written arguing that the currency undervaluation or manipulation is inconsistent with Article 15 of the GATT.

But for various reasons, it was not brought. And one reason was that if it was brought and if the argument prevailed that currency undervaluation or manipulation somehow defined was a breach of the WTO, would the system endure? And now, it will be a big transfer of power from monetary folk and the senate and the IMF and finance ministries to the trade folk, the senate, and the WTO. So the case wasn't brought. I think this is a comparably big case. So I think many countries will not bring it. I think some would bring it.

The second point on procedure is that cases take a long time. For cases which resulted in counter-measures, they average according to what Zhiyao calculated as seven years. But at least it would be four years for a panel. Let's say the WTO dispute settlement mechanism is completely overloaded. It can't even take new cases now for quite a period of time.

But then you have to get a panel and you have to get agreement on that, very tedious, and you get [inaudible 0:39:41]. And you have arbitration panel afterwards which is usually the original panelists. And that's a very long process. So a case might not be determined while the Trump administration is in office. And then an adverse decision, if it came, might well be followed by renegotiation of the rules rather than the kind of massive retaliation which there'll be some illustration of that later in the program today.

But, of course, countries might not wait for the WTO to adjudicate the border tax issue. They might instead apply countervailing duties against US exports or their imports. There is the matter of the specificity test if one actually reads the agreement on subsidies and countervailing measures. It's not at all clear that this kind of border adjustment on the export side is specific. But there could be cases in any event. And then if a case was brought against the US, the US would be in the position of going to the WTO. And again, there'd be a very long period of time before any decision was issued by the WTO against or for the countervailing duty.

Now in the WTO to be a little more into the weeds on this, there are quite distinct rules depending on whether you're talking about imports of goods or exports of goods, imports of services or exports of services. This is a very brief summary and there's more detail in our policy brief.

On the imported goods, the national treatment requirement speaks to products. And this word is kind of a magnet for a lot of lawyers like Joel Trachtman, a very distinguished lawyer. He doesn't see a product taxed unless there's a piece of paper that identifies the tax on—this microphone or that table or whatever—I don't think most economists would take that view and some colleagues of Jason Furman. A colleague of Jason Furman would write through this and analyze it as a product tax.

I think the core essence of a product tax is whether it's reasonably uniform within the country. And so therefore, you can assume that firms will all have their supply curves lifted up and the price will be passed onto purchasers of the good and very importantly whether it's adjusted at the border. If it's not adjusted at the border, for example, value added taxes were not adjusted at the border, it would be hard to envisage it as a product tax because competitors from outside would have lower prices in a world of fixed exchange rates as it exists within the European Union, which all countries have value added taxes but very different rates.

So it's the adjustment at the border whether it exists or not and the uniformity of the tax, which I think determines largely whether it's a product tax or not. But that will be a big dispute or would be a big dispute.

Secondly on exported goods, it's not the same tax. It's whether it's a direct or an indirect tax. Now, this tax I think it has a long ancestry. I think it's totally inappropriate today. The reason we have this distinction between direct taxes and indirect taxes is that when the distinction was formulated in people's minds, the direct taxes were on whiskey and tobacco. Sorry. The indirect taxes were on whiskey and tobacco, and the direct taxes were on property. That very simple world of two types of taxes.

Well, we've got a lot of different taxes introduced, different types, over the last 100 years. But they've been shoehorned into this one type direct and another type indirect in terms of the way the GATT has been written. So there's the very big question whether this cash flow tax is a direct or an indirect tax.

And if one delves down into the footnotes of the agreement on subsidies and countervailing measures, under the indirect tax category there's a catchall phrase which I think would probably pick up the cash flow tax kind of any other tax not named. The cash flow tax has not existed previously but another big debate.

Now in imported services there's a requirement of national treatment. But very, very importantly, the language of the GATT on goods is not transcribed into the GATT on services. It does not talk about products. So can you make the assumption that, well, they just were lazy. They didn't write the language. Or they didn't mean it.

And so on imports of services, it could certainly be argued by the United States that imports of services should be taxed the same as domestic production and domestic production has all these taxes on wages; social security and Medicare taxes. And they should be counted as part of the national treatment equation, another big debate.

Finally, on export of services, there are no rules. There are no rules. If US wants to subsidize the export of services, it wants to give \$10 billion to my friend, Ralph Carter, over here to export FedEx services. There is no rule against that. It's an unclear area.

So, if we take existing systems, the cash flow is most similar to the subtraction method VAT, which is used by the Japanese, but they don't call it a VAT. They call it a consumption tax. And the word VAT is probably known as not a popular word in many countries. And Canadians chose goods and services tax as did the Australians.

So the big vulnerability which we'll be talked about in other sessions is the disparate treatment of wages in the cash flow tax and the border

adjustment. So very quickly mapping up on exchange rates and prices, the range of estimates because my time has run out I won't go into them in any detail. But I would point out that the range is extreme.

Doug and his colleague, Auerbach, and Feldstein have claimed that there'll be an almost complete offset by exchange rates from many border tax adjustments. And corporations and Wall Street completely disagree, completely disagree. So you have this very large range. And any reduction in the trade deficit depends in part on some spare capacity in the US and that's another debate.

On the tax incidence, the very brief remark I would make is that if the exchange rate offset is complete, basically foreigners pay the tax and that's a very attractive feature for Congress. And if the tax has no impact on the value of the dollar, in other words the exchange rate, there is no exchange rate adjustment. Then ultimate US consumers bear the tax. So that's quite a big range in terms of incidence. So thank you very much.

Adam Posen:

Thank you. So, I'm coming at this as not a tax person. I'm a macro policy person. I do fiscal policy but not tax code or putting it in economic terms, I dropped out of public finance second year in grad school and took monetary economics instead.

But I think sometimes it's good to have a different perspective. So, in my tribe of monetary economists, there was a great mistake made by a few central bankers that, oh well there would be no problem with securitization on the effect on loan quality. It must be efficiently gaining when there were of course people from a more microfinance perspective who were warning central bankers this might not work the way you thought it would and of course it did not.

I think there's a similar issue here. Public finance people, distinguished finance people like Doug and Gary but many others who have been cited in this debate understandably like central bankers with inflation consider tax efficiency really important, that's what they study. And they consider that the effects of tax code on macro outcomes must be important, that's what they care about.

And Congress people love talking about tax because it's the one thing they really control. They can't pass laws and bills most of the time, but they can sure as hell get tax expenditures and special tax goodies, and go to their constituents and say, "I did this."

And of course, there is a huge political aspect in a good sense of outrage over these images of American R&D being booked abroad of other countries, in Ireland; others going out and grabbing headquarters. It is

unjust on the face of it. The whole thing is aesthetically very displeasing whether you're a Congress person, a voter or especially an academic who sees this very inefficient single tax system.

But sometimes ugliness is only skin deep. And as a macro person, I care about things like growth rates, starting at the same place as Doug; productivity growth, the exchange rate over the long term, employment. Tax reform would help with these things, but not that much.

Once you've realized that it's a finite thing, it's not the be all and end all despite the amount of excitement about it because it happens to be the one thing Congress can get done.

Then, you start saying the gains are finite, what are the costs? And there like Gary, Gary says, "Well, the border tax adjustment or the [inaudible 0:51:03] is a cost worth paying." I take the opposite view. From a macro perspective, from a broad tax perspective, the amount of revenue you're going to get is very low, the amount of distortions you're going to create is very high, the amount of trouble you're going to create for the US and the world economy is very large, and the distributional effects are not trivial. They're actually very harmful.

So, if you want to have your huge corporate tax cut, I don't particularly view that as a huge priority, but I accept that that's what the majority in Congress is going to pass. You should pay for them a different way and you should not be using the destination based cash flow tax or the border adjustment tax or anything like that to pay for it.

Let me go through this. I'm very grateful to [inaudible 0:51:54] who did a lot of work to help me get the Garrison charts on short notice. I'm very grateful to my colleague Bill Cline who couldn't be with us today. He's off in New Zealand visiting family. But, we published his new policy brief like Gary's, different views and I basically, 95% agree with Bill's. So, I encourage you to read that policy brief.

Let me get started. This is the average effect of tax rate as estimated by Pricewaterhouse Coopers or PwC across countries. Japan, which has huge trade surpluses has a much higher tax rate. Switzerland which has huge trade surpluses has a much lower tax rate. Germany which has a huge trade surpluses has basically the same effective tax rate. It's fascinating in macro we have this thing called the Lucas Critique that you don't assume a policy has its affects just because it's stated to have its effects.

The question is, what on net happens when corporations react? So, I'm not going to get into all the niceties or non-niceties of transfer pricing of booking things in different countries and all. The net tax rate is what we

care about. And there are subtleties and Gary mentioned the issue pass through, but the bottom line the US effective corporate tax rate in corporations is not that out of whack.

So what about the impact on things we actually care about because the tax rate is just a means to an end? So, what we've done here is take in four groups of countries. The blue left most column is the US, the red is the average of a group of the other advanced economies essentially the OECD minus Turkey, Mexico, Israel and Chile. Sorry, Jose. The green is the average of the three countries that have the lowest statutory tax rate. And the purple is a different set of three.

But anyways, it's two different ways of the lowest tax rate countries. It makes almost no difference to capital share and GDP. It seems to make a difference to TFP growth, but that's actually because we're using pre-crisis data.

If you start looking at tax rates during the crisis, of course, there are all these losses that were incurred during the crisis that were incurred during the crisis that reduced the effect of tax rates. So, that's not fair.

R&D expenditures as a [inaudible 0:54:17] GDP despite the supposedly horrible effects of this on R&D and investment are still much higher in the US than anybody else and that's private R&D not military.

And then, of course, the US is the only one that has a huge current account deficit on average. It's not just because of the tax code. If you step back a minute, no matter how many natural experiments public finance economists run, it's very hard to see that the US corporate sector is somehow holding back the US economy or the US economy is desperately in need of change.

So, we actually do collect a relatively low share, but who cares? The interesting question also though is efficiency of tax collection. So, let's go back to this idea of if we change tax code to repatriate everything.

We now have an estimate that \$2.6 trillion of US multinational company profits are held overseas. The last time we did a tax holiday repatriation was 2004. There were estimated to be \$804 billion profits then and about \$362 billion were repatriated.

So, if we net this out, the total accumulation of profits abroad by our friends in the multinational sector over the last 12 years is a flow of 1.4 trillion, which is real money. Some of that actually is from a legitimate reason but let's go to the extreme and assume that it's all just profit

shifting. That's about \$40 billion a year of lost tax revenue which again is real money but let's get serious.

The total tax revenue of the US Government averages \$2.6 trillion a year. So, we're talking about 1/65 of the US tax revenue is potentially at stake if you max out what you get from getting these profits to be booked at home. Worth doing? Yes. Worth sacrificing huge cost for? No.

So, let's start talking about the cost. So, in theory we just do this nice thing. We say US has a big trade deficit. We have a 20% tax on the border and at imports, 100 billion in revenue. But that's wrong.

The first thing is, it's very uneven in what gets covered. There's huge things like tourism, like education, like hospital services, like internet services that would not be covered under this. So, it's a huge share of revenue foregone.

It's also very distortionary of course because what you're doing therefore is taxing only certain sectors and not others, which again, every tax does that to some degree, but biasing it very concentratedly on particular sectors is not good tax reform even for public finance economists, let alone for macro people.

Moreover, if we're going to premise this whole thing as Doug and Gary and many others essentially have on cynicism about Congress that there's only so much they could do and we need to what's politically feasible, let's be realistic. Are they really going to have no exemptions to this tax in order to get it through or are they going to pick a certain couple of industries like say oil refining -- I have nothing against oil refining. I have good friends who are oil refiners. My father grew up working for Shell. But, just as an example right?

Oil refining is massively hit by this tax and they have Congress people and Senators who represent those districts and imagine they go to Ryan and Brady and say, "I want a carve out or else I'm not going to support this." And Ryan and Brady say, "Oh God! All right." Then, the amount of revenue you're getting goes down and then the amount of distortion you're getting goes up because the burden goes more on the remaining import affected sectors. So, let's not fantasize about this being neutral; let's not fantasize about this being a money machine. It is neither.

I asserted the other day, oh good, [inaudible 0:58:08] range. In my printed version, this is a set of basically, 18 US economy based into 18 industries. The three red circles, what it does is it plots. The Y axis is the amount of imported value added in the final demand. These are industrial sectors. The X axis is the average value added.

Essentially, it's a plot of how much high-end manufacturing versus low-end manufacturing. The further you go to the right, the higher-end value added manufacturing. The further you go up, the more imports essentially supply chain complexity affects them.

The three circles going clockwise are motor vehicles, computers and electronics, chemicals. Those are three of the most advanced, R&D intensive, highest paying, highest value added industries in the US, in the world, and they have three of the most, in fact the most, import content in what they do. You go to the lower left corner, you get things like wood products and metal extraction.

So in other words, if you do a tax that's fundamentally biased against import content, you are taxing the most advanced highest value added sectors in the US manufacturing sphere. And even if these individual companies because of the political lay of the land or because they perceive things as some do that this on balance is worth it to them to get the profit taxed down. As a policy, this is wrong. This is taxing our most competitive highest value added sectors at the expense of our most backward sectors.

The blue rectangle, sell range is textiles and apparel. And I blew that out because as we all know textiles and apparel are at best of a vestigial organ and at worse a parasite on the American body economic. It is the lowest value added of any industry except for wood products. It has huge import content. It's not relevant.

Everybody else, the more value added you have, the more import content you have, the more complex supply chain you have, the more you draw talent and technology from around the world. And therefore, again, this tax would punish the most advanced sectors.

Now, this is actually a preview of Chad Bown's presentation coming up. I'm going to skip the slide because I don't want to scoop him. What I really want to do is just talk about retaliation.

Gary, of course, has forgotten more than I will ever know about the WTO. But again, having run the Peterson Institute for a few years, I do know a little bit about how this works.

So, let me tell you some sort of reality check. The point is, as in Bill Cline's co-quote on the front page of Bill's policy brief, "The Ryan-Brady cash flow tax is a protectionist because it imposes the tax on the entirety of import value, but only on the corporate profit component of domestic production."

I'm not disagreeing with Doug or others about the intent to be neutral, but the fact is the proposal that is on the table is not neutral. As Caroline Freund will discuss after the panel, as Sherman Robinson will discuss in the second panel as well. This is not a VAT. This is different.

And so, when we talk about WTO, it may be as Gary says, this is too big. It's not going to go to the WTO. And when we talked about WTO consistency, everybody can hire a lawyer who says it is or it isn't consistent.

The key point going back to where I started this conference, not this talk, is the rest of the world exists. They are not going to roll over just because the US says, "We're doing this and we think we have a case." There will be retaliation. And as the precedent shows, the retaliation doesn't have to be in the form of a 3-year long WTO case and it doesn't have to be in exactly the same field, but it is likely to be close to one to one.

It is also ridiculous not to pretend there's no context to this. Even free traders like Congressman Brady who we've had speak here in the Institute, God bless him, are going at this in a context where the Trump administration is actively threatening its trading partners.

And so, the idea that in the abstract well maybe this isn't such a big aggression has to be seen in the context of what the reality is. Whatever the noble intent of the congressional people, the idea that this will not be escalating retaliation with large harms to the US is incorrect.

Rolling with Americans, Gary points out quite rightly a key aspect of this is the exchange rate, but that's not only the aspect. Jason Furman and along with Catherin Russ and Jay Shambaugh published a recent piece one of the last things they did at CEA looking at the impact of tax on some low-income Americans versus high-income Americans.

And as Bill Cline and many in this building have argued through the years because low-income Americans consume such a large part of their income and they buy the products that are at the low-end things like clothes and cheap electronics, but also cars, they suffer the most from tax.

And Catherine Russ just recently posted online a summary of using that data to look at the impact of a border adjustment tax on income groups. There are various assumptions. You can go online and look at it, but essentially this pattern is real. If you do a border adjustment tax, it is going to hit the weakest, poorest Americans very hard.

This is drawing on my colleague Jacob Kirkegaard's work. Obviously, a VAT is adopted in many other countries and is regressive in every country its adopted. In every other advanced economy, the amount of redistribution and the amount of protection for workers is far higher.

So, there's the United States. The bottom axis has left to right. How much of your VAT goes to general government revenues, the GDP? The up to down, the vertical axis is how much you're changing the GINI coefficient. In other words, how much you're redistributing after tax.

The point is, the US is lower VAT and very low on redistribution. Canada and Switzerland were not quite Brazil, good for us. But as you see, if you leave the US out of it, essentially, as you move up the VAT ranks, you have more redistribution because, of course, if you put a VAT on with no redistribution, no free health care, no free education, people suffer.

Again, you can't divorce this from the context. You can't do an abstract. Well, other countries have a VAT so it must be okay. It's not okay. Other countries it's okay because they protect their people.

Finally, let's talk about the dollar. So as many of you who are aficionados of this know, the whole idea is that because this is neutral, the dollar then appreciates enough to offset all this, and that has all kinds of wonderful effects.

Companies that are heavy on imports gets to still buy the imports, households don't suffer as much, retaliation even is less from abroad because other countries say, "Well, what I lost on that hassle, I gained on the exchange rate."

The problem is and I've read this multiple times and we discussed it a lot internally, this is a classic example of economists assuming the result. This is the assume-a-can-opener story in live action.

Very distinguished economists got there and say, "We know that the casual tax is neutral." If the casual tax is neutral, the savings minus investment balance must not change. The savings minus investment balance must not change and exports become more competitive, something must offset it. Ipso facto, the exchange rate must compensate. The problem is this is completely unrealistic. This assumes the result.

Of course, savings are going to change because the whole bloody point of this thing is to raise revenues to account for the ability to pass the rest of the tax package. And even if I say the revenues aren't large, I still say there's revenues, so savings goes up.

If Doug and many other people are right, and the point of this is to improve corporate profitability, corporate allocation, corporate investment, investment must go out. I'm not talking about the direction of S minus I , I'm just telling you it sure as hell ain't fixed. Moreover as we've mentioned, there's a huge disparity across sectors and a huge disparity across income classes. There is no way in the real world that this is neutral and has no effects on savings or investment behavior.

More often, no household is going to see this. And by the way, there's not a single retailer at the moment that supports the Institute. This isn't paid for. It's not a lie that retailers are going to be able to go out there and say to their constituents, their customers, "Sorry, I'm putting up prices because of those guys who put up those taxes." That's not going to be a false perception.

So, the idea that savings minus investment will remain neutral is patently absurd and therefore the effect on the exchange rate is completely indeterminate. And it is likely, Joe Gagnon will do his assessment later today. In my view, it is likely it appreciates a small amount and this is completely swamped by other factors.

Why is it swamped by other factors? The dollar exchange rate is not determined by trade balances. It's the global reserve currency. There's huge flows involved. People invest in the US. People invest in treasuries. People invest in intervening the currency. People are invoicing this currency.

Just a reminder of the scale. The daily turnover in foreign exchange markets is \$4.4 trillion a day in dollar trades. The amount of imports and exports in the US in dollar terms is \$408 billion per month. In other words, the currency flows driven by non-trade, non-tax factors are 300 times those driven by those factors. You really think this is going to have a predictable large sustained effect on the value of the dollar in such an environment? It's also kind of strange to me to think that this is essentially an argument that the dollar has been undervalued for decades because we don't have a VAT.

Even though Fred Bergsten isn't with us today, I don't think many of us will stand up and say the dollar has, on average, been undervalued for years. It doesn't seem to me that the VAT is determining terribly much of what's going on here.

Most importantly, if the dollar doesn't move then all other costs grow. The income loss is bigger, the distortion across sectors is bigger, the likelihood of retaliation is bigger.

There's a number of other ways, better ways you can raise revenue. In my seventh term as an adviser to the CBO, they put out a great publication Doug used to oversee annually offsets reducing the deficit. There are many things that would be much more efficient, much more constructive, and in a world where we're talking crazy politics, I'm not sure the people of the Congress should be thinking in terms of responding to white rural middle class anger by doing a corporate tax cut to raise consumer prices.

What is politically feasible may actually be taxing high end health insurance like mine. Increasing the excised taxes on fuel, especially taxing carried interest on ordinary income. And since we're only talking about raising 50 billion to 100 billion here, we can get there through those means instead.

So, with all due respect to my friends in the public finance profession, the impact of tax efficiency in US public macro outcomes is only of secondary importance. The actual revenues you're going to get by doing this DBCFT are very limited. They're real, but they're limited.

The cost getting revenues through these means are manifold. Congress has better alternatives to raise revenues to offset this. Please use those instead. Thank you.

Chad Bown:

Okay. So hopefully, it was made clear just now by Adam. You can see one of the tremendous benefits of working at this institution is no necessarily alignment of ideas and open opportunities for vigorous analytically based intellectual debate.

So it's my job here now to moderate the panel and referee essentially a steel cage match between my boss and one of my intellectual heroes on trade and somebody else who's obviously incredibly articulate about these issues. So we look forward to this and I look forward to the challenge.

Now, I wanted to pose one question before I open it up to the audience for audience questions and also give Doug and Gary and Adam maybe a chance to say anything else before we open it up. But the question I have and maybe I'll ask this to Doug and Gary could chime in as well.

So it seems like border adjustment as Gary put it might be the price to pay or the price he's willing to pay for territoriality and for lowering the rates. Doug, you mentioned alternatives and we won't be talking a lot about those alternatives later today. So I wondered if you might just say a little bit more detail right now about what some of the alternatives practically might look like to deal with the base erosion issue that you identified. And you had mentioned out there -- Chairman Camp earlier proposed option C.

For those of us that aren't familiar with that, could you just kind of walk us through what an alternative like that would be and what the cost of benefits of that kind of proposal?

Douglas Holtz-Eakin: So the alternative that's been most prominent has a set of options that Chairman Camp put out to accompany his move to a territorial system. Rather than impose this one through the adjustment at the border, it basically puts you in the position of going transaction by transaction and identifying those that are genuinely business transactions between, say, a parent and its foreign subsidiary and those which look like avoidance such as transfer price; a round trip, send it out there and bring it back.

The reality is that everyone in this room is welcome to go online and read them. You'll hate me forever if you do. They're complicated. They're long. They're inevitably going to be constantly being amended as the world changes. And importantly in this debate, I think, there are big disagreements among the same kinds of sectoral alliances as there will be for adjusting a cash flow tax at the border. And so there's no panacea here.

The reality is that tax reform is hard for a reason. It is intended to have a dramatic impact on the way the economy operates. And to my amusement, many corporations look at me and say, "We're all for tax reform. We got to have a better economy. We got to change the way things are going. I just don't want to do anything to my business." And that's just not possible. And so either through the base erosion rules or through the adjustment at the border, business models will have to adjust. And that's a reality of tax reform.

I do want to address one thing Adam said about non-neutrality. This is not a neutral reform. It is taking in the whole. It is taking the US from a tax system that favors foreign production over domestic production to a tax that is neutral with respect to location. That's not a neutral change. That's a change in favor of domestic production.

And one of the things you see quite clearly is that those with heavy investments in foreign production for US sale are the ones who are most concerned about this reform. And that's part and parcel of doing big tax reforms. It's why they're hard to get done.

And last thing I'll just say and this is just editorial. What Adam said about the saving investment balance is illustrative of the muddled argument that's going on out there. That's not about adjusting the tax at the border. That's about the whole reform. And yeah, it better affects saving. It better affects investment. That's the point.

Our claims, Alan Auerbach and I, are simply about a conceptual experiment where you do all the moves to the cash flow tax except adjust the tax at the border. See what happens. Lots of things will happen. Then do the border adjustment in isolation and watch the currency offset that. It's a one-time. Other things equal appreciation. And there is no claim about the ultimate value of the dollar or how sustained any rise or fall will be. That's a very different argument.

Gary Hufbauer: It's hard to find alternatives as Doug has said. One would be that is alternatives which are politically possible. So I don't think the gas tax, for example, is politically possible at this juncture or denying mortgage interest.

But possibly denying a net interest deduction just by itself within the current corporate tax frame because interest income which is very low nowadays. Interest income is actually taxed very, very little by the United States and by most countries.

And the second big alternative would be simply to impose a minimum tax on all foreign-earned income by corporate subsidiaries and get rid of the foreign tax credit. So a tax like 5 percent regardless of whether you're operating in Germany or Ireland or wherever, that would have the beauty of seeming to tax somebody outside the United States. It would, of course, divide the corporate community.

Adam Posen: Just like three very brief comments. First on Doug and the muddying. The argument I set up was not a straw man. The argument was the one published by Martin Feldstein who's the dean of American Public Finance economist in the Wall Street Journal a few weeks ago. It has been made by others.

So Doug can say quite rightly. He agrees. We agree. That's not what's going on here. But that is the argument being made. And the muddying to me comes when people say, "We're just doing this tax experiment. If we look at it in the abstract, yeah, that it's neutral." That's the muddying because it's not in the abstract.

Second thing is about alternatives and I very much appreciate both Doug and Gary for their offering their views of alternatives. And that's essentially my point that we have to think about what there are costs. There are changes. We have to think about what is the best way to raise revenue if we take it's given that you're going to have this huge budget-busting corporate tax cuts. And Gary may be right. Some of the things I listed are not so good.

But, again, I would urge us to hold account when there's accountable. We've had massive political change and economic change in this country. As Doug rightly points out, this is something that no matter what form tax reform takes. It's going to affect a lot of businesses and a lot of people. Congress should not get away with just saying, "We don't like that. We don't think it's feasible." I really believe that increasing certain taxes on high earners as well as Gary's point about minimum tax on foreign income could have political leg while we look. Finally, let me just stop there. Thank you.

Chad Bown: Okay. So we're going to open up for questions. The rules are find a microphone, state your name and affiliation, and then ask a question with as minimal statement making as possible so we have time to get through them all.

Adam Posen: One operational thing Chad forgot. If you're sitting in the titanic lower bunk seats, there is a standing microphone there. Please, just come up and stand at the microphone. You will be recognized. If you're one of the [inaudible 1:20:05] types at the front tables, Jessica will bring you a microphone. Thank you.

Grant Aldonas: Grant Aldonas, Split Rock International, former Undersecretary of Commerce for International Trade, former chief trade counsel on the Finance Committee. A couple of thoughts but really questions.

I'm struck every time I hear you guys. And Adam, you made the point that the public finance guys might benefit from some other perspectives economically. And I'm struck in this conversation that we have not explored things that are more common for us people who work on the trade area like what's the impact on the transaction cost. There's a great deal of simplification that is built into this proposal. I haven't seen any deeper analysis of what that implies about time and distance to market. It would be really helpful, I think. I don't know if you guys have thoughts about that. If you do, I'd like to hear them.

I'd also like to know a little bit about what you think about it from an institutional economics perspective because part of what we have is a deep trust in public institutions. And something that is very transparent and something that operates in a way that people see the mechanics of it and the way they don't with the corporate tax begins to make you think about ways of rebuilding public institutions.

And so I'd like to hear some comments about what you think about these various alternatives from an institutional perspective. And the reason I say that is I think we're missing some of the value and some of the thoughts that should be brought to the debate regardless of this trust. And Adam I

just say a couple of things about your analysis because I'm worried that you might be assuming some of your own conclusions as well like on the—

Adam Posen: I'm not.

Grant Aldonas: Yeah [inaudible 1:22:00]. But the point being is that if you look at the Gini coefficients and if you look at the distribution effects, you may not know that there's a difference between these, which David Bradford was trying to achieve with his X tax relative to a credit-and-invoice tax method. And what people don't usually realize is that the combination of high income taxes on wages in Europe and a credit-and-invoice method of taxation imply a double taxation on wages. And if you translate that into unemployment, you're saying I'm going to give benefits to people with jobs. But the price is I'm going to have lower employment under that methodology. And to the extent that this method is moving in a different direction that actually is powerfully helpful in terms of progressivity.

And then, of course, on the raw politics of it, Adam, to be bluntly, I think this boils down to lots of times is the debate [inaudible 1:22:52] is do you want a job or do you want cheap underwear? And I think that's the political moment I don't want anyone to miss about what is driving this. So you think there's all these other options. And you think there may be people on the Hill who [inaudible 1:23:09] operating this market more than we do are missing a point. But I think that's the question that we have to answer with the sorts of things you were lining up. So I'd love to hear more thoughts about that about how you approach people with the ultimate question. Do you want a job or do you want cheap underwear? Thanks.

Adam Posen: I'll let Gary and Doug respond on the simplification and transparency. Let me respond in Grant's last two points. On the high income taxation double taxation of wages, the term double taxation is one that gets thrown around a lot. What matters is the rate, the total rate and the outcome, not whether it's double tax.

So if you look actually at labor force participation in Europe, it's been going up for the last 15 years. My colleague, Jacob Kirkegaard, has done a lot of work on this. And in some countries, it's much higher now than in the US. And it's obviously in part because they reform their tax code and got the total rate on labor down. And they change some of the incentives.

But the idea that somehow the US is doing so wonderfully on income taxation and that that's the main source of inequality. Also, Grant, check your definitions. What you're talking about as an offset, the Gini is net of all that. And it doesn't have to be the Gini. You can look at any income

distribution you want. The US has one of the most unequal income distributions in the world. So there are a lot of things that go into that. It's not just the tax code. But don't opt for [inaudible 1:24:41] with these claims because this fundamentally misses the point.

In terms of jobs versus cheap underwear, it's a question of whose jobs and whose underwear. If you end up deciding that you're going to make sure that the P voters in Kentucky and Ohio who in backwards low-scaled industries want lots of protection because they are the people who are your constituents and you want to get them jobs. You can do that. And you will effectively be taxing every American consumer including every low-income American consumer. And you will be biasing the economy to go backwards. And you have uncompetitive industries like we had in the 1970s auto industry, where we were so busy protecting them that very American who had a car had a lousy car because there were no options.

So, yeah, you can be all cynical and say, "Oh this is the real world." But at some point, Congress is supposed to be called to account for what it does to the American people. And those are very—as Gary Hufbauer pointed out with the steel tariffs and many others have worked on it including our friends at CATO—those are very, very, very expensive jobs. And so I don't think we should be allowing people to throw a tantrum and say, "I want this job in this exact place. And the rest of you have to pay for it." That's not right.

Douglas Holtz-Eakin: In terms of the simplicity and transparency, I think that's among the virtues of this kind of a proposal. If you think about the three transactions that a large global company does, one is between foreign subsidiaries. The other is between the parent and foreign subsidiaries. And then there are domestic transactions between the parent and firms and households and nonprofits.

In this system, two of those go entirely. The only ones that are left are the domestic transactions. They're the most easy for the IRS to check on their authenticity. The cash flow basis makes it a very transparent system, very hard to disguise what your liability should be to either the taxing authority or to the general public. And so, I think, in terms of its institution-building capacity, it's actually a step in the right direction.

Gary Hufbauer: Very briefly I would say the cost of complying with the tax code for multinational corporations does not bother me. It's very complicated. It employs a good number of people. But it's an extremely, extremely fraction of the cost for multinational corporations. So that's not a transaction that bothers me. When we talk about transaction cost, the ones that bother me are for households. Thanks.

Krishna Guha: Krishna Guha with Evercore ISI. Two very different questions if I may quickly.

The first is a lot of the destination-based cash flow corporate tax proposal seems to be seeking to replicate features of a VAT. Would everyone on the panel agree that a first best approach might simply be to introduce a VAT and perhaps use some of the revenues from this to reduce to corporate income taxes, therefore, reduce the incentive for transfer pricing abuses and so forth? And if that's right, is this completely politically impossible? Or could we ultimately end up there through trial and error having screwed up on some things along the way?

The second question has to do with the international adjustments. And obviously, FX adjustment is a big piece of how this may play out. And there has been discussion about how much uncertainty there is about that. But we live in a world where there are a large number of FX pegs. Could the panel comment a little bit as to whether they would expect to see disruptive dislocations of some of those FX pegs whether that's a Hong Kong peg whether that's Middle East and petrodollar pegs, et cetera?

Gary Hufbauer: Let me quickly comment on the VAT question. If I understood the drift of it, I think you're right. I mean this is a step towards the VAT. I happen to like the VAT which is not a popular tax in the United States, which I quite recognize. I think that if we need more revenue for doing the kinds of things that Adam talked about, the VAT is the way to go. And so that's an aspect that I like. However, I realized that that's sort of a poisonous chalice as far as Congress is concerned today.

Douglas Holtz-Eakin: I think that's right about the VAT. We've not seen one introduced. We've never taken a vote on one. I think the political empirical evidence is pretty compelling. This is a step toward what David Bradford labeled the X tax. And the X tax is simply a progressive VAT in disguise. And so it carries more progressivity. I think it's valuable. It's politically feasible. Those are its virtues.

In terms of currency pegs, as I said, the reform taken as a whole has an ambiguous impact on exchange rate. I don't know what will happen. The topic du jour of the border adjustment feature unambiguously causes the dollar to appreciate. Most of the sort of pegs are typically asserted to undervalue currencies. So China is cheating by undervaluing historically, Vietnam, whatever it might be. It's hard to imagine they wouldn't repeg quickly. Why would they let their goods become less competitive in the US? US goods more competitive in their countries. I don't think the management is going to interfere with the overall adjustment.

Then there is the question of the speed and magnitude. And those are real issues. There's no doubt about it. My expectation is if something like this passes the Senate and heads toward the White House for signature and everyone sees that the dollar will perhaps be higher, they will want to be in dollars. There are clear revaluations that are going to go on. So the speed at which this will happen is going to be very fast upon [inaudible 1:30:37].

And the magnitude is obviously the debate. I expect a substantial magnitude. And one wouldn't think that those holding dollar-denominated liabilities and things like that ought to be worrying about that, wondering this and hedging. But the dollar is 20 percent higher now than it was a little under two years ago. These are swings that are not outside of historical norms. These are currency fluctuations that large multinationals handle now and the world economy handles now. It has not melted down, and it won't melt down if we do a tax reform.

Adam Posen:

On the VAT, let me go two-thirds in agreement with my colleagues, one-third not. I completely agree that moving to a VAT would be a much better system. It's for a lot of reasons they've articulated. And I would like to see a conditional on having some redistribution to compensate for that. But in any event, I'm perfectly comfortable [inaudible 1:31:31].

I do not believe this is a halfway house, and I believe there are a lot of costs to this specifically halfway house. And so I'm not comfortable. I don't view it as, oh, partial is better than none. Partial in this case may be worse. That's my view. They have a different view.

On the exchange rate, I'm not going to flip-flop. I mean I said it's indeterminate and the effect of the tax is likely to be very small in the exchange rate. And I will continue to stand by that. However, Doug put it in a broader context and said, "Well, maybe we'll see all else equally rise there."

So let's again as you well know, Krishna, exchange rates markets are always a muddle. So I don't want to see and I'm not saying Doug would do this. But I don't want to see somebody seeing the exchange rate going up in coming months when this entire congressional tax package goes through and says, "Oh well, therefore, clearly the bad argument is right."

No, the exchange rate is almost certainly going to go up. The dollar will almost certainly appreciate if we have a large fiscal blowout and increase in fed interest rates. And if we have a shift towards capital and if we have a political context that is enforcing trying to bring headquarters home to the US, all of those things will put very large upward pressure on the dollar.

Now what Doug says about people cope with it, I'm not going to get into that. That may be true but let's not. There could be a whole bunch of things that are going to be moving up the dollar in the next months. There may well be a big appreciation, but let's not backwards induce that if that happens it's because that particular argument about the border adjustment was correct. It's not going to be because of that.

Douglas Holtz-Eakin: Just for the record, the stated position about Chairman Brady and Speaker Ryan just in the past week is to achieve a revenue neutral reform, not a fiscal blowout. And so until we actually see that, I think it's incorrect to assume that's what the proposal is.

Chad Bown: Just for advertising purposes, the question on the VAT and the exchange rate in our next session we're going to have some empirical work being presented that's going to look at historical experiences to see what the exchange rate impact has been. So for the audience for those watching at home, stick around after the coffee break.

Okay. Then we're going to have our last question. And then we would go to break. And so, I'm going to turn to Bill Gale from Brookings.

Bill Gale: Thank you. This is a great conference, the right conference at the right time, so congratulations to Peterson. I want to ask about the exchange rate. I want to ask specifically about the border adjustment aspect. Doug, I understand the supply of currency for trade purposes and the demand for currency for trade purposes will adjust so that the price of currency—the value of dollar for trade purposes would fully adjust. I get that part.

Then I hear Adam saying, well, that's only 1/300 of the entire market for foreign exchange. So let me apologize in advance if I'm thinking confusedly about this. But I'm trying to figure out how an adjustment in 1-300 of the market plays out across the whole market. And if that's not the right way to think about it, let me know. But it seems like the demand and supply of currency for trading purposes as tiny relative to the overall demand of supply of currency. And I can't get how a tax and a subsidy in that tiny part of the market translates into the whole exchange rate market.

Douglas Holtz-Eakin: So the definition of a fool is someone who doesn't know much about international economics and comes to the Peterson Institute and opines on this. So here I go. Number one, I think, this could be the classic case of thinking about margins instead of averages. What the statement is this is the average piece of the foreign exchange market devoted to trade transaction is small. But this is about change at the margin and an important change.

The second thing I'd say is I don't actually understand how you can separate those. If you just go to the basic identity of saving investment balance here, current account over here, this is a trade. This is all financial flow. They're linked. They have to be tied together. And so what I fully would expect to happen if this were done in the textbook fashion. We do a tax reform. We wait a year. Do a border adjustment.

The financial flows would appear to be driving the rate up because it would mean the anticipation of a higher dollar that will cause capital to flow into the US to be in the dollar when it appreciated. And it wouldn't look like trade did it all. And I think that's probably what you'd see in the data.

Chad Bown:

Okay. Anything else from the panelists before we—? Okay. So we will take a 15-minute break and we will reconvene—we're running a little bit behind schedule, but that's okay—at 10:40. Thank you.

Panel 2: Caroline Freund, Joseph E. Gagnon, Sherman Robinson, and Chad P. Bown

Adam Posen: I'm Adam Posen, President of Peterson Institute, for those of you who just tuning in. And we are the midpoint or the start of the second third of our conference on the border tax and corporate tax reforms. We've just finished discussion of different views on the overview of the impact and what is worth paying for in the border tax adjustment. And the three speakers, myself included, shared that framework. The question, what is the right way? What is the assessment of cost and benefits?

What we're going to turn to now is another panel fully staffed as it turns out by Peterson Institute fellows talking about various specific aspects of how to think about the border adjustment tax or the DBCFT itself. And again as we've said throughout the morning, it's not details matter in some way to just say, "All these are trivial things," and we can confuse matters. Details matter because it matters to the economic incentives to the transparency as someone mentioned to the effectiveness to the efficiency. It's complicated. And we're here to try to make sense of it.

Our panel is going to have four speakers, all distinguished colleagues of mine. We'll begin with Caroline Freund who's been a senior fellow here, my first hire as a senior fellow here since May 2013. She previously was chief economist for the Middle East and North Africa at the World Bank and also in the research department there and prior to that as a senior economist at the IMF and economist at the Federal Reserve Board.

Most of you know Caroline as well from her fabulous book about emerging market millionaires in global competition. And we're going to be featuring some new work she's done on global competition in a week's time at a conference on China and state-owned enterprises. But Caroline also, of course, has been a very active voice in all the public trade debates of the last year. And so, you may have seen her holding a football explaining what a value-added tax means in one of our Peterson Institute videos. She's going to take us through how this proposal is or is not a VAT.

My colleague, Joseph Gagnon, will be the second speaker. As many of you know, Joe is along with Fred Bergsten one of our leading advocates for standing up to currency manipulation and has done yeoman academic empirical work both on his own and with colleagues at the IMF on the impact of currency interventions. He has also written on academic topics and exchange rates for many years.

Previously was an associate director at the Federal Reserve Board. I want to make sure I get the title right. I know his reality was he helped design the first round of QE advising the FOMC. He's been a good friend and

colleague for a very long time. And he as was previewed by Chad has done some efforts to try to put empirical background on previous instances of VAT increases and how that affects exchange rates. And he'll take us through his work on that.

Our third speaker is another new hire, although a long-time friend and collaborator, Sherman Robinson. Sherman, of course, is a noted practitioner and developer of computable general equilibrium models, which means he's the trade guy who rigorously tries to figure out what really happens when you change trade policy.

He's had a distinguished academic career including teaching at Sussex in the UK and a long distinguished affiliation with IFPRI, the International Food Policy Research Institute. He'd previously taught at Berkeley. He'd been in the research department of the World Bank and at LSE and Princeton. And he has now joined us a non-resident senior fellow.

He played a key role with Gary Hufbauer and Marcus Noland on our studies released in September looking at the impact of the presidential candidates' proposed trade policies. And we're very fortunate to have Sherman now more closely affiliated with the Institute and contributing his expertise. He will take a different tack than Caroline on looking at how this compares to a VAT, his proposal, and the impact on the economy.

And then finally, Chad Bown, who as I mentioned I'm grateful to is a lead coordinator for this conference. Chad has been a star of stage and screens since arriving at the Peterson Institute a little less than a year ago. I think many of you have heard.

And if you haven't, I would encourage you to read his very pithy summary of what trade agreements are for. But he's also like Gary Hufbauer someone who straddles intricacies of international trade law and actual empirical trade economics. And so, he's a huge addition to our team. He has previously served as the chairman as a senior staff economist of the Council of the Economic Advisers.

So let me now turn over to Caroline. Thank you very much all of you for your contribution to this discussion.

Caroline Freund:

So I think one thing we can all agree on is that we want tax system that promotes growth that doesn't discourage saving and investment. We also want a tax system that's equitable. And other countries have done this with VAT and a low corporate tax rate. I think that's something that most economists would agree as a good way to go. Instead what we have is something that kind of combines these low corporate tax rate and VAT all into one thing and calls it a cash flow tax and then adjust it at the border.

What I'm going to focus on today is just the border adjustment part. So the reason to do this, of course, is if it flows our destination-based or if the tax-based is destination-based it can't move. So you want to tax something can't move because that's going to be a more effective way of raising revenues.

But somehow tax system has all gotten confused with trade policy. And in part, this started or it's gone on for many years this view. And it's certainly prevalent among people in the Trump administration that VAT rates are actually a tariff. So just looking at this comment during the September debate, "When we sell to Mexico, there is a tariff. When they sell into us, there isn't one." That's not fair. And he's talking actually about a VAT and calling that a tariff.

So what I want to do in my presentation is convince you of four things. First that the VAT offset at the border is actually not a tariff and it doesn't look anything like a tariff. That the border adjustment in the cash flow tax is not a VAT, and there are some important differences that we have to think about. I do believe the real exchange rate is going to adjust. And Joe and I have done extensive work on this, which he's going to present looking at individual cases of implementing a VAT, changes in VAT revenues over time, and how that affects things. And what we find is that the real exchange rate does adjust.

I think there's one confusion in this whole debate, which is there are two ways of adjusting a real exchange rate. You can do it with a nominal exchange rate or you can do it with prices or prices and wages. And what we actually find is a lot of it comes through prices and wages. And I think that's what's going to make this version of a VAT, which I'm just going to call for short a BAT, but I mean the border adjusted cash flow tax. What's going to make this thing look really messy is if the adjustment is going to come through prices, how long it's going to take and such is going to lead to some discrimination.

Now, it's not necessarily a bad thing because you're subsidizing wages and maybe we like that. It's a fiscal devaluation effectively. So you're actually encouraging exports and subsidizing domestic labor. Maybe there's something to like in that. But there's also a big disruption. And there are going to be some sectors negatively affected.

So since I seem to really be stuck on the Super Bowl even though I'm not a football fan, I did decide to use a football for this presentation as well because it is a product that some companies, Wilson in particular, produces in this country. Some are imported from abroad and some are probably produced with imported materials. So we can think about this as

how is this product going to be affected under a VAT, under a BAT, and how are producers going to be affected differently.

So let's just remember for a minute what a VAT is. A VAT turns the producer into the tax collector. So when the producer of the pigskin here sells it to the football producer and maybe sells it for \$5, if the VAT rate is 20 percent, he collects \$1, gives it to the tax office. When the football seller sells the football, he collects the \$2 in VAT passes that but also gets a refund for the VAT that was paid when he purchased the material. So we end up with the total VAT being raised that way through the production site. And the BAT is going to work similarly.

So the VAT ends up being just a tax on final consumption. And the reason for all this complication is you don't want taxes to cascade. So you wouldn't want the pigskin to be taxed once when it was sold to the football and then taxed again when the football was sold. So the whole reason to do something like VAT or just the final good sales tax is to avoid cascading.

But it's not discriminatory. So in the case of Mexico, everything in Mexico gets taxed at 16 percent, the other sectors that are left out and that creates some complications. But the way an idealized VAT works is everything gets taxed at that rate. So imports get taxed at that rate as well. Exports go somewhere else and get taxed in the location where they are consumed. Very straightforward. It's not a tariff.

There's no evidence whatsoever that VAT rates—this is just VAT rates from the OECD on the horizontal axis and the trade balance as a share of GDP on the vertical axis. There is no evidence that VAT rates are correlated with the trade balance. And this is just a simple cross-section taking all the data available over the last 20 years. And you can see that even within countries at one VAT rate their trade balance is moved around and such. And again, the work with Joe is going to really convince this even looking within countries over time in any direction. The correlation is pretty much centered around zero.

So now let's go back to the football and think about what the BAT is going to do. So if the producer is domestic, the pig skin seller is going to sell the leather, take out the labor cost, pay the BAT only on the remaining cash flow. Then the football sellers are going to sell it, take the leather cost, but the tax has already been paid on the profit part of that. So it's still getting paid. Take out its labor cost. Tax base is now \$3. Pay its tax. So we're going to end up with a total tax of \$1, again collected not at the border but like the corporate income tax.

But what happens if the intermediates are imported? Now this is where this thing gets really different. If the intermediates are imported, it can't be deducted. So the \$5 in leather is going to pay the tax on that full \$5. So this is why companies that use a lot of imported inputs are concerned because now this football producer who looked very similar to the other one is going to face a higher tax rate because his tax base is everything except labor. So the tax is going to be \$1.60 in this simple case.

So this leads me to sort of a table of how the tax rates are going to vary across firms and across industries but even across—as I said across firms even within industries because it's going to depend on how you produce. So in this example I gave where the labor share overall of the football was half it was pretty high, the domestic producer is going to pay the lowest tax rate. A producer that is in a global supply chain importing the pigskin is going to pay an intermediate rate. And the fully imported football is going to pay a higher rate.

So it's going to vary both by how international you are, but also by your labor share. If I brought that labor share down to zero since that's what's excluded, the tax rate would actually be uniform across. So it's going to vary on two levels. One, how much of the product is imported? What percent? And the other what the labor share is.

So if we look at those two elements and where the industries are on them, so on this scatter plot and the size of the bubbles is the size of overall trade, exports plus imports in this sector. And up and down is the net trade balance relative to total trade in the sector. So basically, the up guys there's more exports than imports. Remember, exports are tax-free. So these guys are facing a lower tax rate, going down, facing a higher tax rate.

Also, labor share is deducted. So going out where labor share gets higher, you're facing a lower tax rate, going in, you're facing a higher tax rate because you don't have a lot of direct labor costs. And these are direct labor costs. It's not the labor embodied in your intermediates.

So you can kind of see why motor vehicle is upset about this tax. They're being hit on both. It's a relatively low labor cost sector and it's also a net-importing sector. Aerospace on the other hand that is lined up behind this reform is doing pretty well on both accounts. But the industries actually in this portion are going to be the industries where actually that discriminatory effect is the strongest because the labor share is high and it's excluded from domestic production but it's not excluded from the imports. And they have more imports than exports.

So these are kind of the industries where the discrimination between foreign and domestic is going to be strongest. And it's interesting because there's some of the typical labor-intensive stuff obviously. We import a lot of that like apparel, metals, and furniture. But it also turns out to be some of the high-value stuff where we have a reasonable labor share in part because the workers are expensive in those sectors.

But, of course, it all boils down to again the real exchange rate. If the real exchange rate adjusts, we actually don't have to worry about that. And that's the next thing I'm going to convince you of because nothing real will be affected. And we expect the real exchange rate to adjust because right now from a firm's perspective, exports aren't taxed. So the firms want to send more products abroad. So that's going to push up supply abroad. Increase demand for dollars to buy those goods.

Imports are taxed. Decrease demand for imports. Decrease demand for dollars. In addition, both of these are going to be push on prices, domestic prices, because more goods are going out and less imports are coming in, so prices are going to be up. So these forces are going to appreciate the real exchange rate, which is actually going to offset.

And you can go through the savings and investment argument. And I would tend to take Doug's view if you're just looking at the border adjustment that argument works. If you're also looking at the fuller tax reform, then of course it doesn't. But for all these reasons, we believe it's going to happen.

But where I really disagree with Doug is that it's going to happen fast. We absolutely do not know that. The work Joe and I have done looking at how much time it takes doesn't suggest that it's just an immediate thing. It also suggests that a big share of it is going to come via prices, something we haven't talked about.

So just to convince you though that if the exchange rate adjustment does happen, our football guy is okay. If we look at the domestic producer and go down and just figure out that producer's profit and we do the same for the integrated producer. If we have an appreciation of 25 percent or depreciation of the other currency by 20 percent, then the offset that I have to pay 20 percent more on taxes is exactly met by the fact that my import got 20 percent cheaper. So my total after-tax profit ends up the same.

So the exchange rate adjustment if it happens works, there's no reason we have to believe that it has to happen through the nominal exchange rate. I could raise prices and wages on the left-hand side and get the exact same outcome. And in fact that's often what we see happening.

So when we compare a VAT to a BAT, I think the real difference and I think Gary brought it up in his presentation is the fact that there's this wage deduction. But it makes for a more complicated exchange rate adjustment in my mind because what we see in some of these VAT episodes is you do the VAT or you raise the VAT. And prices go up by the exact amount. And boom, you're done.

But that can't happen here because there are so many different prices across different industries. There's even a name for this price going up. And there's a huge literature on it that does seem to show it's a one-for-one thing. It's called full forward shifting. So I think the BAT is uncharted territory, and there's a lot of reason to expect that it's not going to come through the nominal exchange rate that we've already discussed. I think Adam made this point that trader flows are 300 times trade flows and not even comparing at the same time consistent one day to one month.

You also have some fixed exchange rates out there. A lot of commodities and such are priced in dollars et cetera. So you end up with a situation where I think it's more likely to actually come through prices. That's going to have all sorts of other kinds of effects. We don't even know if the Fed is going to accommodate this thing. So how long is it going to take? I don't know. So I think there's lots of complications about the exchange rate adjustment that will happen with BAT that aren't necessarily there with the VAT.

And this is a perfect time to turn to Joe who's going to talk about what we actually found in the case studies. Thank you.

Joe Gagnon:

Okay. Thank you. Well as Adam said and Caroline said and others said, the full tax plan that's being considered for the United States is really unprecedented. And we can't actually look around the world to find an exact example to tell us what will happen.

But it can be split up into pieces. And effectively, you can talk about one of the pieces as being a consumption tax that's adjusted at the border. And we do see these around the world. In fact, the US is almost unique among advanced economies in doing very little of this. And so, we have a lot of evidence of what that does. But I want to stress again for one last time before I launch into my results with Caroline that we are looking at one piece of the whole picture, but an important piece.

So this is a work I'm doing with Caroline. And we hope to wrap up final revisions later this week based on what we hear from you all and look for it on our websites hopefully soon. Don't know exactly when, but probably later this month you'll see more details. So let's see.

So just to quickly hit the bottom line here, what we find when we look at border adjusted consumption taxes around the world is that the data do broadly support the view that these consumption taxes are fully reflected into real exchange rates. And what do I mean by the real exchange rate? What I mean the ratio of overall consumer prices in one country relative to other countries. Correcting by the exchange rate that, of course, that can then make comparable in a common currency. So that's what the economists call a real exchange rate.

And the adjustment can come through consumer prices overall or it can come from the nominal exchange rate or some both. And I think as Caroline said, there's sort of evidence that seems like more of it is coming through prices in our data. But actually I wouldn't say it's entirely that.

What we find is that the estimates are not precise. There's a range. And real exchange rates are very noisy variables. They are very volatile, much more volatile. They swing by large amounts much more than tax rates do. And I think this reflects the point that Adam made, which is that there are a lot of other trades going on and transactions going on that move exchange rates besides these pure trade transactions. And that causes exchange rates to just be much more volatile. So it's hard to get precise estimates.

Also, CPIs themselves have some measurement issues. There are differences on how they measure it across country and whether they actually are measured the way you'd want them. And finally, we have annual data and sort of tax changes happen in different times in the year. It's kind of hard to precisely get the timing of these effects.

But I would say so basically we find effectively full effects of border adjustment consumption taxes on the real exchange rate and effectively zero on trade balances. And these two conclusions actually go together. It's not always true when you look at the data that they'd make a consistent outcome. But in this case, these two are consistent.

If you get a full offset in price from this tax, you would expect no trade effect and that's what we see. If you didn't get a full offset in price, you would expect some trade effect. So the fact that these two results separately hold is a nice feature of the data if we didn't have that we'd say something funny is going on because it wouldn't be consistent.

So, taxes on consumer goods and services are common around the world, much more common than in the US. The Germany is pretty much a typical country. Germany in 2014 had total revenues of just over 1 trillion euros. About a third of that was income taxes. A little more than a third of that is payroll social security tax. A little less than a third of that is goods and

services taxes. It's about 296 billion euros of which about two-thirds is value added tax that you've heard a lot about.

But another chunk of it is other taxes on consumer goods and services such as gasoline tax and alcohol and tobacco taxes that are important. And theoretically, you would want to include all of these consumption taxes. They're all border adjusted in the sense that consumers in Germany pay these taxes whether or not the good is imported. But when Germany exports these goods and services, those taxes are not paid because consumers in other countries are meant to pay them.

So we focus on the red line which is one level up from the VAT, which is all consumption border-adjusted consumption taxes in Germany. And then we calculate the effective rate of consumption tax by dividing those taxes by total consumption in Germany, which is about 1.5 trillion euros so that the effective consumption tax rate in Germany is 20 percent. And that's when I refer to the consumption tax rate that is what I'll be referring to.

So we have a three-pronged approach to seeing what these things do. And the first part of our analysis is to look at event studies. We could 10 cases of countries that introduce a value added tax at some point in time when we had lots of data about before and after that we could look at what happen. And so we're going to sort of average those 10 episodes that happen at different times at different countries but average them and see what happen around the time that country imposed that VAT.

Now what happens? It could be that the VAT is offsetting other consumption taxes, and there's certainly an element of that. Sometimes excise taxes are reduced or they're replaced by the VAT or a sales tax is replaced by VAT. In that case, you would not expect much to happen because they're both border-adjusted consumption taxes. But to some extent, we're replacing other taxes or maybe we're increasing total taxes. And in that case, maybe you would see something.

Now, often these are part of other reforms which have other effects. And so, the drawback of the event studying method is that this could be part of a fiscal consolidation which for other reason should have effects on exchange rate and a trade balance. And so that's what makes this problematic, but it's worth taking a look.

So here's what we have for the 10 introductions of value added tax. So the first panel shows the actual tax rate. And as you can see, the red vertical line at zero is the year in which the VAT is introduced. And as you can see, generally speaking, this did lead to an increase in consumption taxation in these countries about a percent and a half, not a huge change but notable nevertheless at that point.

And so what happened to inflation? Well, the middle panel shows that inflation often was high in some of these cases. And if anything, it was falling so not clear what's going on. But it turned out that there were three cases that had very high inflation. And part of a VAT was actually part of a broad stabilization program.

If you exclude those three countries, then you get the panel on the right. And then what you see is there is some upward effect on inflation when the VAT is raised. But again even in these countries that quickly fall because it's often part of a stabilization. So that's sort of a messy experiment and slight evidence of higher prices.

So what about the real exchange rate itself which includes both inflation and exchange rates? And that's sort of the more real relevant thing that matters. Well, the first panel shows that the bilateral real exchange rate against the US does rise at that time quite strongly. The right panel shows that the real effective exchange rate that's weighted by trade partner also goes up, although there's a bit of a lag of a couple of years which it's a little bit of a puzzle. But definitely there seems to be a strong effect later on.

If anything, these effects are almost a little too big. And again, oftentimes these were part of reforms that the market liked. And to some extent, the exchange rate may have too much. And we'll see later on some evidence for that. But, yeah, certainly the evidence suggests that the real exchange rate does rise, if anything, surprisingly more than you'd think.

Finally, on the trade balance, the trade balances were rising going into these VATs. We're not quite sure why. They could be that this is part of a fiscal consolidation, fiscal tightening going on in these countries, which would be expected on its own to raise the trade balance. So, after the VAT is introduced, you don't see much strong evidence of further increases but it's a little unclear. It depends on how far you want to go. I guess I'd call this somewhat inconclusive especially when you think about the other things going on.

So some regression analysis I'm not going to walk you through these equations. But we look at the long-run effects. So basically the variable of interest I don't know if this is going to work is that you if you could see it. It's goods and services tax revenue. It's a share of consumption. So that's our tax rate. And we're trying to relate the real exchange rate to that. So this coefficient α , is it 1. Theory says it should be 1. And then the trade balance as a share of GDP, relate that to the tax rate, is at 0. And that's what we basically find. We focus on the long run.

So we have 16 regressions focusing on long-run effect of the consumption tax rate on the real exchange rate; 8 OECD data, 8 World Bank data, 8 have the bilateral rate with a dollar, 8 have a multilateral rate, 8 have a whole bunch of macroeconomic control variables such as fiscal balance and government revenue et cetera, 8 don't, 8 have effects that allow for things going on each year, 8 don't. There's 35 advanced economies in about 35 years of data. But not every country has the full set of data. What do we find?

Well for the consumption tax rate effect on the real exchange rate, these are the 16 coefficient estimates we get. They cluster around 1. The average value is 0.9. 9 of the 16 coefficients are significantly greater than 0. They're in red. One of the coefficients is in blue, and it's significantly less than 1. And the other 7 are gray and they're not significantly different from either 0 or 1. But the average value is 0.9.

And if you look at the further details of the results, half of that comes through immediately. And we think that's probably a price effect that happens immediately. And then the other half comes over in the next two to three years. So that's the real exchange rate result.

And then we do the same thing on the trade balance, the same 16 regressions. Basically, everything is the same except 8 now are on the current account balance which is the broadest measure of trade. And then 8 are on the goods and services trade balance which is a slightly narrower measure of trade. But otherwise, we have the same split of controls, no controls, et cetera. What do we get?

Well, we get 16 coefficients clustered around 0. 2 of them are significantly greater than 0. They're red. 2 are significantly less than 0. They're in blue. The average value is 0. And again, I will remind you that this result is consistent with the previous results in exchange rate. Now, the two go together in theory and it's nice that in the data. Although they didn't need to, it happened this way. The data seemed to say they do go together. So there is adjustment of prices such that exports and imports should not be disadvantaged or changed. It's kind of unusual on economics when the data actually support what the theory says. So I think we're a little surprised, frankly are surprised at how it popped out. I actually wasn't sure what to expect but it was nearer than I thought.

Finally, there's really only one case that really looks like what you'd want to look at, which is New Zealand in 1986 which switched from had a major set of reforms. But the biggest single piece of it was to move from income taxation towards consumption taxation in a VAT that was border adjustable. And they had a very clean VAT in this reform as implemented in October of 1986. And so the red vertical line at 0 was 1986.

But because actually the reform was done very late that year, most of the action was in 1987. And that's why you see the green line is the real effective exchange rate jumps up strongly when the tax really hit 1987. And it continues up a bit before tailing off. If anything, it appreciated a bit too much. The VAT was 10 percent, but it did replace some other taxes. So the net change in the consumption tax rate wasn't the full 10 percent. But the exchange rate went up more than 10 percent.

Basically, the markets loved the New Zealand package of reforms. And they pushed the New Zealand dollar way up. And then they sort of overdid it and it gave back some of those gains later. But basically, this gives you a sense of what's going on. The effect on inflation is the red line. Inflation was high but it was starting to come down, but it bopped up a little bit in that year before falling. So a lot of these probably did come through prices, we think.

As far as the current account balance, it was negative. It was slowly rising, continued to rise. This is part of a big reform. And a big part of this reform was fiscal consolidation. So you would expect some increase in the current account, but not a huge amount. And like I said that's all we have to say. Basically, although we can't be as precise as we might like if this particular consumption, border-adjusted consumption taxes around the world, seems to support the theory.

Sherman Robinson: Okay. Well, we've now had a lot of detail on the VAT. See if I can get this. And clear statement of this, they're different, the VAT and the wonderful acronym that Adam seems to have trouble pronouncing. They are similar. They do. They both affect prices of domestically produced goods in the domestic market what we in our modeling world called PD. They both require a border adjustment tax to be trade neutral. That's absolutely similar across the both of them.

The VAT is very well understood. We've been studying it for a long time. We have no examples of the destination-based cash flow tax. So we really can't rely on any historical experience. And I guess like any good engineer type which I described myself as, if I can't study it empirically, I simulate it. And that's, in fact, what we have done here. There is a long history of economic simulation models in the class I'm associated with, computable general equilibrium models looking at tax systems including VATs and various corporate income taxes. And we have been working on one for the US, which are at very early stages of implementing that captures this tax system.

So a couple of important points about that, first, I'm going to focus today on just the previous question. What happens? We understand that the VAT

works perfectly. It's wonderful. We've heard that in some detail. What happens if it doesn't work perfectly? Where it does crash around in the system? That's what I'm going to look at, at the simulation. And the exchange rate is clearly one area where that's important. We heard about the exchange rates. I'm actually quite sympathetic that the exchange rates does—I mean in the VAT systems it works just fine unless convinced in the BAT systems for reasons that we've also been hearing today.

The problem here is as Adam made very clear, the exchange rate is a signal on global asset markets and gets driven by that. But we're interested in it because it affects relative prices in the domestic economy. That's where this if it's going to work to achieve trade neutrality that's where it's going to work. And I'm also very sympathetic to Douglas' argument. It's a one-time adjustment we're talking about. So we aren't really talking about kind of destabilizing things. It is kind of one-time adjustment.

So the other big issue floating around here is what happens if the exchange rate mechanism doesn't work. I mean if something goes wrong which we have colleagues here at PIIE fervently believe that. But you have a couple of options. One is as Caroline stated and I'll show you in simulation in a minute the domestic price system adjusts around it. And you get back to neutrality.

The other option is, well, no. The trade balance actually gets kicked because the fixed exchange rate may potentially affect the trade balance. And that has a whole bunch of effects in its own right. And it really messes up the entire equilibrating notion of the VAT. You will not get the kind of neutrality that we're looking for.

So we simulate both of those options and ask "what if" scenarios. These are not forecasts. These are projections under very stylized shocks to try to understand what will happen if the system doesn't adjust properly as it moves along. So what if it's only partially implemented? What does that do?

It's an integrated system so you can't actually step in and say, "Well, actually, I'm going to do this, but I won't do a BAT." That's not an option. As it's been explained to you, it's kind of implicit in the signaling that comes about through it. But it still may not work in the link to the actual exchange rate that we look. So what happens if that happens?

Second, what if the tariff implications, the tax adjustment that's implicit in the BAT doesn't work that the people don't view it that way? In the case of the VAT, it's very clear. Every time you buy something in Europe, you get a little slip of paper. It tells you what it cost and how much the VAT was. We are faced with the BAT and implicit tax of that sort that's

supposed to fall both on imports and domestic goods, but it is implicit kind of believe these actually have real effects, but when you actually get out there in the real world that may not happen.

So we did basically a set of simulations where we looked at that. And in the first case, 20 percent domestic sales tax in BAT. In the first phase, we are looking for the real exchange rate effects deflating by the consumer price index, one of the standard ways of doing it. We get the exchange rate adjusts. The consumer price index is locked. Everything is relative to that. The wage doesn't change, real exports and imports. These are percent deviation. So nothing is happening in exports and imports.

These are the data for US and we did this in 2011 data. Nothing happens. It works. BAT is exactly what it's supposed to. It's neutral. And we can go on and look at what it does to the corporate income tax and that sort of thing separately.

Now, let's assume though that the exchange rate is fixed. It doesn't adjust for whatever, but it needs to adjust. Well then in that case you get real problems. You have real exports go up because this is in fact an export subsidy. And that's the way it will actually work. In the end, real imports in this case actually go down. Real consumption falls because the trade balance vastly improves as a share of GDP. So you basically get a mercantilist solution. If you happen to believe that exports are good and imports are bad, you might like this solution. We've known for a hundreds of years that's not really a good idea.

And then the last one is, well, okay. The exchange rate can't adjust. Both Caroline and the proponents of BAT say, "Well, all right, the domestic price system will adjust around it." In that case, it has to be that the domestic prices of goods sold on the produced and sold on the domestic market. That's the price you have to know because that's the relative price you have to hit.

We'd simulate that. In that case, the consumer price index goes up 20 percent. The average wage goes up just about 20 percent. Real wages don't change. But I think you would notice that if we actually observe that kind of adjustment that would be pretty serious. It does have the advantage though that you don't bang the nominal exchange rate around the world financial markets. So you have captured that.

Then the next step is if what if we assume that the tariff doesn't work. I don't actually see this in tariff. It doesn't get communicated down in the product market for whatever reason. If you have that, then you end up with an equilibrium. Consumer pricing index locked. Exchange rate devalues about half of what you're looking for. And in this case, real

exports go up. Real imports go up. It is a classic protectionist move. But no change in total trade balance. But it is definitely, believe me, the WTO would notice this. This is a really serious one.

Assume that the—but this is not allowing anything to do on a trade balance. Now, let's assume that in fact we lock the exchange rate in this version. So basically we're saying that price adjustments don't work and we'll also fix the exchange rate. In this case, it just completely falls on exports. Exports go up 17 percent. The trade balance falls even more. Trade balance is what matters in this model. It's trade [inaudible 0:47:00] trading goods and non-factor services. It's not the current account balance which is why the numbers are a little bit different. But it is the number that's relevant if you're looking at commodity markets.

So as you can see from these kinds of scenarios, you can get all kinds of really unpleasant banging around in the system if it doesn't work. Where do I come out of this? Well, these are important. These are actually big numbers. So you really do have to worry about them. We're talking about not little margin changes in this.

If you don't have a trade balance, you get it to work properly. But you get no change in the exchange rate because you wanted to operate around it. Auerbach actually talks about what if you introduce it and you joined in the Euro countries. You really hit your domestic price system. You're going to see major adjustments in wages that it's just not going to work, right?

If you do it with the exchange rate changing, you are going to hit close to 20 percent. We get a little bit less because there are existing taxes in the model, sales taxes, tariffs, and trade margins that change the base on which it is applied. This is not an ideal system in that way. I'm sympathetic to actually the view that Doug gave that says if you see that coming. I have TIAA-CREF and I've got foreign stock funds. I'm going to shift them instantly on announcement into the US. That we will notice. Furthermore, I think you'll overshoot because I think everybody wants to get through the door first. So I would actually worry about instability of introducing something like that.

The incomplete scenarios, all of them, mess up the trade system. All of them are violations of WTO rules. And if they notice that, which they should, you're going to get into all kinds of trouble with the trade agreements. If all of them with the fixed exchange rate and mercantilist and if you believe exports are good and imports are bad, you'll like them. They are a very bad idea from our perspective. They all result in lower aggregate consumption in the US because of the change in the trade balance towards surplus. They are all violations of trade agreements.

The final one that worries me and hearing the discussion today and it got me more and more concerned as I considered it. Doug Holtz-Eakin said very clearly we don't actually put a border tax—we don't actually put the customs people at the border and actually charge an explicit tariff. It is an implicit tariff.

That means that basically we have to associate some part of this tax to being acting like a tariff. And this is a tax computed by the CFO of companies once at the end of the year. And we have to believe that is a single down into market for imports. It would also, by the way, completely not show up in any government statistics. If you were trying to ask the question, did this work? And I want to look at tariff. I can't. It's all implicit when you do it that way.

It makes me come out in this continuum of opinions at PIIIE. I don't like the VAT. You can do this in a VAT mode. We know that. And that means so all the signals are explicit. They are in the price system. When you get the little sheet of paper you will see. When you buy a cup of coffee, you'll see exactly what this tax is. I think that's a major advantage.

But on the other hand, I like the principle. And there's no reason you can't mix a VAT implementation with the kinds of things that Doug wants to do at the corporate tax level. They will not give the same answer. They are somewhat differently distorting. But I'm frankly agreeing with Gary on this. I'm willing to live with that in order to get such a system in place.

Chad Bown:

Okay. I'm going to wrap up the session by going into some additional detail as to what I think the potential WTO longer-run implications of this are building a bit and complementing some of the points that Gary already made in his presentation this morning.

So broadly put, there are three main points that I'm going to try to get across or examine or throw out there as being important. The first is on what legal grounds might the Ryan-Brady border tax adjustment be challenged at the WTO? And I think Gary has already talked a lot about that. I will say there's additional uncertainty there.

Second if the border tax adjustment is challenged and found to be WTO-illegal, what are the implications of that? So I want to kind of walk us through what that would mean in the WTO dispute settlement system based on how we've observed the WTO system to work thus over its first 20 years, what could we expect to have happened there.

And then given those two things, what are the implications? So how should we allow that potentially informed to kind of get back to Adam's

bigger question that we live in this interrelated world? How should we allow that to inform the US tax reform process right now?

So let me just on the legal grounds I'll make three points and they're very quick because this is obviously not my comparative advantage necessarily. First is to just reiterate the point that Gary made, which is the existing WTO rules and jurisprudence aren't 100 percent clear on this. There's a distinction between the way products are treated under VAT and sort of consumption base system versus how income is treated. That economist would say don't necessarily make much sense, right? And so I think there is potentially a big battle there and scope for potentially WTO disputes.

The second, I think, even if there were really clear language and guidance from the law and the jurisprudence on this. There is this underappreciated aspect of the WTO where countries can file these things called non-violation, nullification, and impairment complaints. Meaning even if there's no explicit GATT WTO provisions that say you can't do that, you're allowed to bring disputes and potentially win them if you can show that, no, I've been discriminated against because they were created. They came up with some way of implementing a policy that discriminated against me, violated national treatment, treated my goods differently from domestically produced goods that the framers of these institutions couldn't have anticipated and written down ahead of time. So there's always that possibility there.

And then third as we've seen over the last week, there's also the political arguments that some of the politicians may be giving the evidence to trading partners for them by saying that this tax reform is designed to target and punish trade surplus countries to fund border infrastructure projects et cetera that really are only going to serve to muddy the potential WTO implications of this. So I'm much more sanguine about the possibility of a WTO dispute arising from this if we don't pay attention to what the international aspects of this are and thus that we should think through of them.

Okay. I had a little bit of background for folks that don't spend all their time thinking about WTO and dispute settlement. I don't know why you wouldn't, but it's true.

Adam Posen: We have you, Chad.

Chad Bown: You have me. There have been 500 of these types of cases that had been brought to the WTO thus far. Now, not all of them work all the way through—certainly not all the way through the legal process, but there's been 500 of these. And for the United States, it's been really one of the biggest if not the biggest actor in the system. Over 100 cases, it's brought

against trading partners. And it's had over 100 cases brought against it. So the US is both the architect of the system, but its most active engager in the system.

There's been a couple hundred of these disputes that have reached the stage of having important legal decisions, panel reports, appeals, all that stuff made. So there's a lot of jurisprudence out there. But all that being said, there's really only been 13 that have gone all the way through the process to reach the stage where it's up to the WTO to determine the retaliatory compensation that's going to be there if we can't come up to a negotiated settlement. Only 13 real examples that we can look at to help inform us is figuring by how much trading partners would potentially be allowed to retaliate against us if this policy, this tax reform policy, were to be ruled WTO-illegal. So we've only got 13 of those.

Now, of those 13, the US has been heavily involved. It's been involved in 2 on the outbound side against the Europeans. These are the famous, the banana regime case in the Latin America countries where the US was exporting banana services to [inaudible 0:56:33] and beef hormones obviously where we retaliated against the Europeans. The WTO set the limit and what that retaliation would be.

And we've also been involved in the other side. We've had cases brought against us where countries have been authorized to retaliate. Examples are the Byrd Amendment case, for example, or the FSC case, the foreign sales corporation tax case as well.

The sizes of these awards and I just want to flag these for you just as a marker. The biggest one of these retaliation cases ever is \$4 billion. The Europeans were authorized to retaliate against the United States in the foreign sales corporation tax dispute of the early 2000s of \$4 billion. That's the max. Smallest Canadian version of the beef hormones dispute with the Europeans 11 million Canadian dollars. The most recent one is the recent Canada-Mexico case against the United States in country of origin labeling ruling for meat products. That was about \$1 billion. But usually these things are a couple of hundred million dollars, not big potatoes by what it is that we're talking about here.

So what I want you to do is to imagine a scenario now where we implement this tax, the border adjustment piece. Trading partners filed a WTO dispute against us. It's rules yeah. So let me step back here for a second and say, first of all, I agree completely with the analysis that Caroline point out there. This is not an import tariff and it's not an export subsidy. That's not what these policies are.

That being said, they can have discriminatory effects especially we think based on some of the evidence that may manifest themselves in the short run before all prices in the economy are able to adjust, which is enough period of time for trading partners to observe this to feel discriminated against and to actively initiate disputes against us. So that's a scenario I want us to think about first is let's suppose we implement the policy. Trading partners see what happens. They decide to file a WTO dispute against us. They win the legal arguments. Essentially that's I'll walk through a different case if it's an import restriction like a tariff or a quota or if it's an export subsidy. Those are the two basic distinctions under WTO practice for these retaliation cases, anyway. What then happens next? Once trading partners are authorized to retaliate, how does that work?

So what the WTO does is they use on the import restriction types of disputes what's called the trade effects formula to figure out the upper limit, the maximum amount that a trading partner is going to be permitted to retaliate against the United States. And what they do is the trade effects are essentially their lost export revenue associated with this policy associated with the import restriction. So let's walk through what that might mean in this case.

So the data 2016 or so US imports globally are about \$2.2 trillion. If we take the Ryan-Brady border adjustment tax as 20 percent and we say, well not all of that is trade restricting, but there is this discrimination that might be enhanced especially with the differentiation that Caroline pointed out that arises across because of labor share, the wage deduction essentially. So let's suppose the labor share across the US economy averages out to about 15 percent. I'm just using rough numbers here so we can see magnitudes.

So basically means this thing is equivalent to like a 10 percent tariff. 10 percent tariff, you need to think about, well, what's the trade elasticity of a tariff? Suppose it's 1. So a 1 percent tariff leads to a 1 percent reduction in trade. Well, starting from \$2.2 trillion then, a 10 percent equivalent import tax or trade restriction is going to eliminate essentially \$220 billion worth of trading partners' exports in the United States, \$220 billion.

That's the amount by which if the WTO just dust it off the shelf its formula for how it's done retaliation in all these earlier disputes, the country of origin labeling dispute, beef hormones, bananas, they dust of that formula with a 10 percent discriminatory aspect of this tax \$220 billion. Now, obviously, that is just orders of magnitude above anything that WTO has ever dealt with. The biggest retaliation ever authorized to date was \$4 in FSC case. This is \$220 billion.

So US exports at the moment are about 1.5 trillion. So these are numbers that are just used. Okay. But that's only half of it. Now, they might also say it's not only an import restrictor. It's also working as an export subsidy. So what happens there? Well, let's just apply the same logic on the other side.

An export subsidy of 20 percent but it's only for the 50 percent labor share that's getting the subsidy. Fine. So it's not a full 20 percent. It's only a 10 percent. Now in these export subsidy disputes, they don't look at trade effects. They actually look at a bigger calculation which is to say we're going to actually allow trading partners to restrict trade equal to the size of the given subsidy payment that you're making here.

So just working through the math again assuming one trade elasticity you come up with a number that's about \$150 billion for retaliation on the export side. So you can imagine that, okay, well let's put the two of those things together. Trading partners are authorized, now retaliate \$220 billion—I just can't do the math. It's so big. It's essentially what the numbers are. Okay.

So you see where we're going with this. This would be completely out of hand and unprecedented for the WTO to have to handle. Now, you might say, "Chad, your numbers are too big." So, okay, the labor share is smaller. The elasticity is smaller. Fine. So cut them in half. You're still talking about levels of retaliation that are unbelievably large relative to what the WTO has handled to date.

Well then you might say, "But no country is going to bring a case like this against the United States." We're big. We're tough. Nobody would do this to us. Maybe. But there are a lot of examples out there of disputes where countries have formed coalitions and brought singular cases against one trading partner. We've done this with other countries on the export side. So in the bananas case that we brought, it was with a bunch of Latin American countries against the Europeans. We've had it happened to us on the import side. The Bush steel safeguard is a big example. Nine other countries brought the case along with the Europeans, the Byrd Amendment case. The recent cases we've had against China had been brought alongside Japan, Europe, Mexico, et cetera. So this is not unheard of that a group of countries wouldn't get together.

But even if you didn't believe that and you just say, "Well, would it be worthwhile for any one country to do this?" So let me break it out by country. And again, this is just on the import side taking these large numbers 220 billion. If you follow the logic of this math, a country like China could be authorized to retaliate by \$46 billion. This isn't even including the export subsidy component. This is just treating the trade

effects as the formula. Mexico could be authorized to retaliate by 30 billion, Europeans by 40.

So the point of this is these numbers are extraordinarily large. And I'm obviously very concerned if we think we can go down a path that's not worried about the international implications of this and the potential discriminatory implications of this. Okay. So I want to wrap up with one last statement here.

Countries would never bring a dispute because they're afraid President Trump would pull the US out of the WTO. So let me talk about why I think this statement is wrong. And there's a couple of different reasons. I think the first and I'm not disagreeing with Gary that these disputes do take a lot of time to work their way through the process. But that's a reason alone why trading partners might actually bring a dispute because they might recognize that it's possible and we have elections every four years in the United States that in 2021 there's a different president there that is not necessarily going to blow up the system and pull the United States out in the event of a negative WTO ruling. So that's one.

On the other hand, though, the big concern is that if you are part of the group right now that is writing this legislation and designing this legislation and thinking about it, politics change. If you're trying to get the tax reform right now and under this type of new system, this is what you want. There could be also a completely different Congress in place four years from now. That should be reflected as well.

The last important point I want to make is sometimes you hear these arguments. Well, we can try it. We're worried about the WTO consistency. It takes two or three years at least for these legal decisions to play themselves out. If that's the case, then we've gotten away with this for two or three years for free. And that was sort of the argument that you hear now in retrospect about the Bush steel safeguard in 2002. Other types of import-restricting measures you get away with a protection for free and it costs jobs but politically no.

And so the main distinction I think here is you're going to have to then reopen up this once in a generation tax reform that we take. Two or three years from now, you don't want to have to do that. There's going to be no way to pay off a single country that might file a trade dispute against you. You're going to have to end up reforming the whole thing. And some of these other types of cases you can recalibrate the exercise to be able to compensate and affect the trading partner.

Here, you can't do that. You can't say, "Well, China if you bring a dispute against us, we'll compensate you by not having the border adjustment

apply to you." Why? Because every other country would then say, "Well that's an MFN violation." Now, you're giving preference and you're discriminating across countries. The only fix will be to reopen the whole package and have to do it over again from scratch.

So my concluding remark is if you're going to do this kind of tax reform, you want to make sure that it's durable. You want to think about the international implications of this. You want to think about the discriminatory implications of this. And try to think through what the WTO implications are. And then be ready as I think Gary has suggested also to maybe open this up for the possibility of having to deal with and address new rules within the system. But that's the kind of cooperation and approach to international engagement that we haven't observed recently and that I think we need to be heading toward, I think, as a more fruitful process. Thank you.

Adam Posen:

Thank you, Chad. Thank you, Sherman. Thank you, Joe. Thank you, Caroline. If you can please come up on stage. I will start taking questions as soon as they're seated. I'm not going to try to shepherd this. I just want to say how proud I am of my colleagues. This has been an incredibly rich discussion. It shows the depth of expertise and commitment of these people and our colleagues earlier that they got to this so quickly over the last few weeks. And to each of them, they talked through technical things I think very comprehensively and clearly. And I'm grateful for that.

So let's start right there with our visiting friend, then the next gentleman at the back mic and then Mark if you can go. This is José De Gregorio who's a non-resident fellow here at the Institute.

José De Gregorio:

I would assume that the proposal of the cash flow with the adjustment for wages and with the border adjustment is equivalent to BAT. And this is I think that what Joe did trying to look at the effect on the exchange rate.

I think that before going to regressions, we'll have some case studies and we can look what's happening in Japan just in 2014. There were some strong effects on activity, but this was because there was a fiscal tightening. But there was also an increasing inflation to above 3 percent. So I imagine and this was sort of a 3 percentage point increase in the BAT.

So I imagine that if the change is to an equivalent of a 20 percent BAT tax, a 10 percent increase in the price level in the US is not a minor number I would say. It's quite huge. And this also I think that is related to the figures of New Zealand because New Zealand as I saw the slides. New Zealand had an inflation rate exceptionally high about 10 percent during the BAT increase. And this may be you have high inflation to introduce BAT. It's not very complicated in terms of price level. But for a country

that has a 2 percent inflation target having a 10 percent increase in the price level, a 10 percent decline, which is quite high.

And this leads me to my second point which is related to regressions. What's happened in these cases, in the case of Japan, in the case of New Zealand, is that the domestic price level went up. It's that the domestic price level went up. You will have a real appreciation. But this real appreciation does not mean that this is completely neutral because it's not the same as an increasing nominal real exchange rate. There's change in the price level. Because, in this case, you are making all imported goods and also the locally produced imported goods go up at the same rate. This is not making less competitive our economy that would be a real appreciation.

Adam Posen: Thank you, José. I'll ask Joe and Caroline who worked on this as well if they want to comment.

Joe Gagnon: No, I think I agree with what you're saying, José. I think Japan is probably the clearest case because they raise the consumption tax 3 percentage points three years ago. And the consumer price index rose about 2 percentage points right away. And the difference between the 2 and the 3 mostly probably reflects that the consumption tax doesn't hit everything. So there are some things that don't get hit. And so it's the clearest case.

And I think for small changes in value-added taxes, our sense from the data is that that's the typical thing as it probably is just going through the price system. And that's why the real exchange rate moves. But for bigger changes and more generally, there is some evidence that it does affect the exchange rate. And at a minimum, our regressions support the idea that the real exchange rates are stationary in the long run, which means that they don't drift. Any shocks to them tend to come back except these shocks. So in other words, these are the shocks to the real exchange rate that do not mean [inaudible 1:12:35] over time.

Caroline Freund: Yeah. I would just say that I went through a lot of the case studies and that's very much what the evidence suggests that the prices adjust. So even in the case of New Zealand exactly as you said if you look at the quarterly inflation rates, it was a huge jump from 11 percent to 19 percent in exactly near the increase in goods and services taxes to consumption. And this was the case in several other countries where VAT rates increased.

So I do think we expect to see it come through the price. It's a one-time effect. It can be simulative if you don't have the wages go up immediately. But is the Fed going to do it? I don't know. And so I think, again, this just point to the reason why we expect that the adjustment period would be messy with this kind of a policy.

Adam Posen: Maybe something we should look at as well in the future, I mean, you guys are continuing to develop this research as Joe pointed out and we will be publishing it is maybe not in the same thing, but look at the other examples of very large price shocks, one-time price shocks, and see what the effects been. Obviously, this is only a subcategory. Anyway, you guys are doing great stuff. Next at the microphone.

Male Speaker: [Inaudible 1:13:59] from IFRI. Sherman mentioned there's no historical experience. But in Europe, there's a lot of discussion of the social VAT where you raise the VAT rate and lower the social security contributions with is a bit like what's being proposed here rise in consumption prices and a reduction in labor costs except this is a much bigger shock, bigger change rather. But I just wondered whether you could learn something from that. And it seems the analysis there is that this leads to an internal devaluation which is the sort of results that Sherman was getting.

But in the longer term, Caroline, you're lowering wage cost that simulates output in the short term. But when you're near full employment, it's more likely to push—it seems more likely to push out wages and to wash out. And it has an impact on the cost to employers of labor. That's a question.

Adam Posen: Okay. So there was a question mark there.

Caroline Freund: Well, I guess there's this question of how close we are to full employment given the labor force participation. So we'll see. But that's ultimately shouldn't be the purpose of this policy. So I'm not sure that's the debate we should be having.

Sherman Robinson: I was about to make exactly the same point. In the simulation I described, we kept employment fixed. There is an argument for stimulating effective export it's a different story.

Adam Posen: Marcus Noland, Director of Studies at the Peterson Institute.

Marcus Noland: Thank you. I would like to second Adam's plug for my colleagues. I think it's been a very interesting program, and I look forward to the rest of it. But right now, I'm Coach Bill Belichick of the New England Patriots. And I'm preparing to—I knew Adam would like that.

I am preparing to play the Atlanta Falcons in the Super Bowl on Sunday. And I know that Atlanta has a high-powered offense. We may be having to play from behind. So I go to my coaching staff and I ask them. What's the likelihood of a successful onside kick in the last two minutes of the game? Coaching staff comes back to me and they say, "We've collected all the data for the last 15 years of high school football games in the

Boston area. And we can tell you that the likelihood of an onside kick in the last two minutes of the game is 12 percent." And I think to myself that's an interesting result. I'm not sure how much that helps me prepare for Atlanta.

In the last session, Doug Holtz-Eakin said something in passing that I don't think should be lost because it goes through a theme that Adam emphasized in his remarks about the Lucas critique and the fact that there are two teams on the field. When someone asked Doug about managed exchange rates in pegs, he said, "Of course, they would immediately adjust."

So my question to Joe and Caroline is this. You've collected this historical data on a lot of not to be pejorative, but little countries like New Zealand. We're contemplating a big change in the central country in the system. Presumably, the other guys are going to adjust to this perspective change in a way they didn't adjust to the changes in New Zealand.

So my first question is, do you think that that kind of Lucas critique argument affects how you think about the applicability or relevance of the evidence that you've presented to the case that we're considering?

Secondly, if the answer is yes and you think that the behavior of the other team is going to affect exchange rate adjustment, do you think that increases the likelihood of us landing in one of this kind of partial offset adjustment scenarios that Sherman modeled which have really big effects that get very messy in Sherman's words? Or do you think that in the end you're going to get full real exchange rate appreciation no matter what and that the fact that the other guys are gumming up the nominal exchange rate channel means that more of that appreciation will come through the domestic price level? That is to say we'll feel it in inflation.

Adam Posen: Thank you very much especially for the Patriots reference, Mark.

Joe Gagnon: Well, one thing that I didn't say and I've been thinking about a lot is that it clearly matters what the Federal Reserve is told to do. That is hugely important. We haven't discussed that.

Adam Posen: I don't want you to be misinterpreted. Did you say what the Federal Reserve is told to do? As I recall, you work for an independent Fed. I just wanted to double check this.

Joe Gagnon: Well, okay. So assuming that this would have to be passed by Congress and since Congress sets the Federal Reserve's objectives, Congress might as part of this law explain to the Federal Reserve how it should interpret its objective in the light of this law. In other words, should you let prices

rise just this one time because of this one change or not? And I think the Federal Reserve would have to listen to what Congress would say on that. That doesn't mean that's not independent. It just means that the Congress has the right to tell the Federal Reserve what its objective is. And I think that's critically important and we haven't talked about that.

But Mark for your broader question, I think the bigger things really are there are so many moving pieces. And we're only looking at one of many big moving pieces that would have big effects and that we haven't analyzed. You raised the point. Suppose this was just a plain vanilla VAT that everyone else has done but the US is big in that world, which is not what we're talking about. But in that world, how different would the results be? And that's a very good question.

I tend to think we would see similar outcomes because we're moving towards what other countries are doing. And I would have no reason to object. I mean Germany has a 20 percent average consumption tax rate. We have a 3 percent average consumption tax. If we raise our average consumption tax at 20 percent, how could Germany possibly complain? As long as we did it the same way they did it. So I tend to think it wouldn't be that big of an issue. But I think the real issue is this is much more than that. This is far more complicated than that. And we don't know what the Federal Reserve would do.

Caroline Freund: I just want to add that it's not—we have a few case studies and data over this period. So it's some evidence. So evidence-based I think is better than no evidence. So that's one thing. But it's not just having the evidence from these cases. It's also theory.

In this particular case, theory actually was borne out by the data. And so I do believe that's going to adjust. My question is does it take six months? Does it take one year? Does it take two years? Does it take three years? Not whether it happens. I think the forces are there. Theory suggests it's there. The evidence supports it. The real question is what can we do about that transition period and is it worth going through that?

Adam Posen: I'm sorry. This is not me advocating my point of view. I want to draw you both out on this a bit further.

If what you're saying is broadly correct, then it would seem that many of the things that the Trump administration has said for on trade are profoundly wrong because exchange rate manipulation by the Chinese or what Peter Navarro has claimed as exchange rate manipulation of Germany by virtue of being in the euro area ultimately must be neutral. All these other things wash out.

But if that's not what you're saying, then why did you both duck Mark's question about the possible exchange rate responses of other countries and assume that it must wash out? One or the other has got to be true. You either think that no matter what these exchange rate things don't matter, the exchange rate manipulations don't matter which I know Joe doesn't believe. Or if you do, then why can't other countries pursue that as a form of adjustment or retaliation? It may not be nice. We may not like it. So I just want you to explain a bit more.

Joe Gagnon: Sure. No, I think that's a fair question. I think it ultimately comes down to what is the purpose when countries manipulate their currencies or they do policies that affect their trade balance? Are they focused on the exchange rate and that's what they care about or are they focused on the trade balance? Is that what they cared about? And it turns out that that matters because—

Well which it is. In other words, is it the exchange rate they care about or is it their trade balance they care about? Because the answer to that question determines I think the answer to your question. I think you implicitly are having a view that, well, they're not going to like the exchange rate effects of this and they're going to try to resist them. And I think if they care about the exchange rate per se that's right.

But if what they care about is their trade balance and this is just a move that neutralizes the trade balance effect, then they shouldn't resist. And I think that's the key. What do they care about, their trade balances or their exchange rates? I was explicitly assuming they didn't care about their trade balances and would allow an offsetting effect but you may be right.

Caroline Freund: Well, I just want to add to that that I think the Chinese case is different because it's not and hasn't been a freely floating exchange rate. And they have capital controls in place. So it's not the same as the type of adjustment you'd have in the US. Besides the fact that if there are these temporary effects and you control all these variables, you can keep it in place. So we would have a short-run period of a fiscal devaluation which eventually would adjust because we're not going to keep intervening whereas in their case, one could argue as Reserve's rise that there's a continued policy. So if we were to do this and then have a continued policy to somehow keep it and control capital it would be a bit different.

Adam Posen: Thank you very much. We have time for one more question and if you could move to the thing being the microphone. Thank you for understanding that.

Anne Krueger: Thank you.

Adam Posen: Anne Krueger, legend in the profession.

Anne Krueger: Anyway, thank you. First off, I think it has been an excellent session. Let me just join those and it's obviously an important question. In this whole discussion in which I don't have any great core one way or the other, but what Doug said was we want to reform corporate taxes. We want to reform corporate taxes because we have problems with inversion. We have problems with people keeping money overseas and maybe even investing overseas when they wouldn't otherwise do so because they've got that money there. And so in that sense, it's cheaper cost to capital to them than bringing it back and giving the tax.

Now if in fact that's true and I suspect it's certainly partly true, then there's an effect that we're ignoring in on this which is that presumably other capital reflows at least to some extent to the US or more investment in the US or at least a shifting of some things that might have gone overseas that wouldn't. And that has to be it seems to me and this is a question really. Isn't that an effect that should be taken into account? Because it would be one thing to be shifting to the border tax adjustment, however, or value added tax in the absence of any motivation of removing a distortion.

But in this case, I thought the motivation was quite clearly moving in distortion in which case to try and analyze it is if that wasn't the case. It bothers me to some extent. And I should just add that New Zealand was very different because New Zealand was coming off a time when their exports to UK, in particular, had been shut down because of UK joining the Commonwealth. And it was part of a major reform that took into account many other parts of the economy.

And therefore, in that sense, there was so much other going on that in one sense it's a better case. But in another case if our other adjustments namely the allocation of the capital between here and abroad both financial and real is different, then it's a different case. So I just would like a little bit of comment on why are we ignoring what might happen on capital account which would surely affect capital flows and therefore the exchange rate and maybe everything else.

Adam Posen: Thank you very much, Anne. Let me go down the line and ask Chad and Sherman first and then if Joe and Caroline want to add anything. But have you been ignoring? Have we been ignoring this aspect? How big of an effect is it? How should we take that into account?

Chad Bown: I think it's a great question and I think we'll have to think about it a little bit as to how it would fit into these models and how we would think, therefore, that it would change the conclusions at which we are arriving. And I take your point. I think it's important. But I guess we need to more

precisely model and put numbers on the size of the distortions that we're trying to correct in the first place to be able to put those in context.

Sherman Robinson: Amen to that. And the tax has been proposed as basically sales tax based, I mean revenue tax rather than a tax on capital income. But in the end, it's got to come out of capital income. And that's you've already paid out all the value added and intermediate inputs.

So the question you need to ask then is okay. When all is said and done, what does it do to relative profit rates of firms contemplating investment in various—either this country or other countries or whether they should close down or expand. And I haven't seen a lot of analysis of that. But the appropriate indicator and this is on a capital income-based not sales-based for that calculation.

Joe Gagnon: I hate to admit that there are so many pieces that we haven't had analyzed. But one more is the one that Anne raised which is that if exchange rates move as part of this given the massive increase in gross cross-border positions we now have in the world that wasn't even true so much 20 years ago. It would have enormous wealth effects. US holdings and foreign assets would fall and value of foreign holdings of the US would rise in value in a way that would be much more meaningful than it would have been 20 or 30 years ago. And I don't know anyone who's really looking at that yet. And I have to admit I haven't.

Caroline Freund: I guess our role has really been to look at whether the border adjustment is about competitiveness or not. So we're kind of stuck in this really narrow lane that maybe is a bit too narrow. I would say that I think that falls on people like Doug Holtz-Eakin or maybe Gary who really believe in destination-based taxes as being super important for real activity. I think they need to show how important it is because ultimately and it gets back to exactly what Adam was pointing out how important this is for real activity. That was one of the first questions Adam asked when he heard about this. And I think it's the right question. How much are we losing from all these guys that are keeping their profits broad in real activity? That's ultimately what we care about.

And I think to the people who want to do this, they need to show that it's really substantial then it merits going through this messy adjustment. But unfortunately, I don't think we've seen numbers that support how much real activity is actually lost.

Adam Posen: Thank you very much, Caroline. Thank you all of you. It's wonderful to see this crowd continuing to consume facts, analysis, honest dispute and discussion, all the things that we hope will continue in Washington. And

we know the Peterson Institute will continue to try to do. Please join me in thanking my colleagues for their super work.

Keynote Address: Jason Furman

Adam Posen: Ladies and gentleman, if I can ask you to grab your desserts and your coffees. Grab your hats. Don't forget your coat. And come on over to the sunny side of the street.

To all our friends out there on the web, this is the final session of our Peterson Institute for International Economics Conference on Border Tax and Corporate Tax Reform in the US. And it's my deep pleasure to introduce a friend, a long-time colleague, and now and official in-house colleague, the Honorable Jason Furman.

There's a press release out there today because we are very proudly touting the fact that Jason has joined us. I said some nice things about him in the press release, but I'll go one step further. I generally believe Jason was the highest impact, highest quality CEA Chair we've had in a long time. Let's put it that way.

Jason did the combination of him and his team, many of whom we know and work with, doing absolutely first quality research that was absolutely relevant to the issues of the day. That was absolutely honorable and yet still was effective in promoting the president's agenda and yet is of all economic cabinet officials and the Obama administration, I think, has widely respected on both sides of the aisle as anybody could be.

Jason, of course, has a PhD from Harvard and LSE, has taught in the past. Prior to becoming the Chairman of the Council of Economic Advisors was one of the key deputies at the National Economic Council in Obama's first term. If I'm doing things wrong because I left the paper behind, Jason can correct me. Served in a number of senior roles in the White House during the Clinton administration at a ridiculously young age, and therefore, was so trusted when the Obama administration came along.

We are looking forward to having Jason as a colleague and, in particular, his contributions on so many different things. He's doing a book as he was just telling us at lunch on male labor force participation, which also affects female labor force participation and affects wages. He's going to be working with Jeromin Zettelmeyer, one of our other distinguished recent hires, Jason's counterpart from Germany as an economic advisor, and Jérémie Cohen-Setton on our multi-author projects on productivity. And, of course, he will be helping us improve our internal quality, which has been so reflected in today's events.

I've asked Jason to give us some remarks going sort of back to the big picture of corporate tax reform, but border tax adjustment within that and corporate tax reform in a global economy for the US. I know Jason will

take us through his personal [inaudible 0:03:10] concept of how it all fits together. Then he and I will have a bit of discussion and open it up to the floor for more questions and answers on the record. Jason, welcome home.

Jason Furman:

Thanks Adam for that really kind introduction, and thank you, especially, for bringing me here to Peterson. I really relied on, not just your work, but the whole Institute's work when I was in the White House. I would never leave the country without checking with Adam, and Adam would never fail to assemble a phone call or a meeting in the White House with several of his colleagues. And they would never fail to have different views on whatever question it was that I was putting to them.

Seeing no exception to that today with the really healthy range of views that you've seen represented at Peterson, and I'm not going to be an exception to that myself because I myself embody a whole range of views on this topic just in one person.

I should say I've been here for about eight-and-a-half days. I worked for President Obama for about eight-and-a-half years. So, some old habits die hard. So, if for example you hear me say something like the President after thoughtful and judicious reflection decided that he's going to prioritize TPP and when that's done do business tax reform, I hope you make the appropriate mental adjustments for what I actually meant.

So, with all of that, part of why I think I embody a multiplicity of views on this topic and I'm slightly pained by it is that same problem that a child has when mommy and daddy are fighting. And for me, mommy is public finance and daddy is macro, and they seem, to some degree, be fighting over this question.

I want to take you through what I think was the really important point that Doug [inaudible 0:05:14] began us with which is that our corporate tax system is badly broken that that really is a consequential problem and an unforced error. And if we could solve that problem without making any other problems worse, we should absolutely seize the opportunity to do it.

But then, I want to place some emphasis on that really important caveat which I saw as the thrust of the remarks that Adam made which is without making anything else worse. And I think business tax reform could play a useful helpful role in the economy, but it's not so exciting that I would sacrifice a lot else to get it done.

So, we need to understand both how important it is, how much we would be sacrificing and what the risks are. I think my bottom line assessment to begin in the outset is the really courageous statement that it depends. It depends on how the overall tax plan comes together. It's hard to evaluate

some of the most important issues like distribution and revenue looking at only one component of a plan. You need to look at the whole plan.

And then, my second conclusion is that I have a deep seated fear that, however, elegant this idea is, I'm not confident that it's been put through the paces and the tires kicked and is ready for primetime, but that could be something that certainly today we've been doing some kicking and will continue to do so.

So, that's a broad overview of what I'm going to say. And I'll start by providing some context and most every one of these slides you've seen the same point made a different way so I'll go relatively quickly.

One indicator of the brokenness of our tax system is having the highest corporate tax rate of any advanced economy. I think it's possibly of any economy except like the UAE or something complicated like that.

There's a lot of different ways to look at effective tax rates. There's a particular one which is the one that Treasury featured in its most recent report is average effective tax rates across the G7. And what you see here is that the United States is roughly in line with other countries.

This shouldn't lead us to think the tax system is just fine but it should lead us to think that diagnosis of the problem probably isn't that corporations are massively overtaxed in the United States just that they're badly taxed with some of them paying rates that are too high, some that are too low, or in some circumstances, too high and too low. In other words, you need to reform the system as opposed to reduce the rates.

There's another aspect of the US tax system that is exceptionally broken and that's our international tax system. Some people call our international tax system worldwide and that's because we tax you on your income anywhere in the world as long as you're headquartered in the United States.

There's a minor caveat to that which is that we pretend to tax you on your income anywhere in the world, but we give you a lot of flexibility in deciding where you made that income and whether you ever want to pay the taxes here. And when you give people flexibility they tend to exercise it in their own interest, and this leads to what I call a stupid territorial system that in effect we're not taxing you on your overseas income. So, we're not actually collecting taxes from the international system, but we are creating distortions at the same time.

And in public finance, there's always a tradeoff between raising revenue and creating distortions. Here is an example of where we've gotten a

tradeoff badly wrong. One manifestation of that is if you just look at the profits that American subsidiaries report in Bermuda, it's 1500% of Bermuda's GDP. The Cayman Islands, I'm sure they'd love to be first, but their falling a little bit behind at a mere 1400% of their GDP.

It distracts you from countries like the Netherlands that Michael and I once tangled with back in May of 2009, at 15% of GDP that itself is just an extraordinary share of their GDP that's the profits of US foreign subsidiaries. That international system that's broken.

You ask about the consequence of all of this. The one vision of business tax reform is that it's about we're not investing enough in this country and we need to invest more. I think we're not investing enough in this country right now. I think we need to invest more. I don't think business tax reform is going to be the best way to get there.

You saw some of the broad outlines of what Adam presented. I think if you drill down you'll find that's largely correct. And I think it's very hard to lower the cost of investing without lowering corporate taxes, and if you do a tax reform that's paid for, that's a hard thing to do.

What, I think, tax reform can accomplish is helping not with the quantity of investment so much as the quality of investment. And that manifests itself in a number of ways.

So right now, we tax investment in different types of activities at enormously different rates ranging from a 10% tax rate for utilities to a 27% tax rate for wholesale and retail trade. And that means that decisions are being made for tax reasons not for business reasons. As an aside by the way I've had a large number of meetings with CEOs and CFOs over the years, all of whom, very strongly believe two propositions about the world one would never ever admit making any decision for tax reasons because that's terrible. They only do things for business reasons. And two, how could we design the tax code this way because it's leading to all sorts of horrible things on their part. And often it's in the same paragraph anyway.

But it's not just tax rates on different forms of investment. The tax rate on equity finance investment in the United States is the highest of any of the advanced economies and the tax rate on debt finance investment is the lowest of any advanced economies. This leads to over-indebtedness and financial fragility.

The tax rate on corporates is higher than the tax rate on pass-throughs and another indication of the brokenness of our international system, this is in a stylized sense taken from a paper from [inaudible 0:12:19] and Groubert,

but they give examples where you had a 30% tax rate for an American company invested in the United States.

If you invest it in a low tax country, you actually had a negative tax rate because you could take advantage of immediately deducting your expenses associated with that investment and never paying taxes on the income, and in a high tax rate country 13% and that distorts the allocation of capital.

The question is, how much does this all add up to and how important is it which we need to answer to set it against any cost or risks associated with changing it?

I had one more. I'm so used to talking about this issue from the government but I forgot I'm now completely liberated and can say the most politically incorrect things and I'm representing the Peterson Institute, which is not only free trade, but it's also very against the mortgage interest deduction as I learned this morning.

And one of the biggest distortions we actually have if you look at investment is business investment tax at 27% rate and investment on owned or occupied housing taxed at a negative rate. That rate differential, my guess is, leads to a more consequential distortion in terms of economic growth of capital accumulation than anything else we're talking about in the top panel here. And I neglected mentioning that as much in the last eight years, and I'd hadn't even seen that on these comments when I decided to do that -- suck up to him.

So, your question then is, how much does all of this add up to? The first set of estimates here are from two tax reforms that are commissioned that President Bush formed. It came out with two very thoughtful proposals and these were estimates by the Treasury Department.

The first was a simplified income tax. Think of it as 1986. You're sort of classic broaden the base, lower the rates. And the answer there was the long run which is like 150 years from now. You wouldn't get quite 1% of GDP. And just to be clear, like, I think a lot of economic policy is about tenths. I think anywhere we can get a tenth, we should take that tenth. We just need to understand, value that against the tradeoffs.

They also found something that a growth in investment tax which it was a cash flow tax with destination basis and border adjustment. It looks a decent amount like the Ryan-Brady blueprint that we're discussing today would have larger effects on growth and that's because it was estimated to lead to additional savings, additional investment.

It's still not earth-shattering. It's not the difference between GDP doubling every 30 years or 60 years or whatever it is. Sort of reminds me of Herstein's old quip that there's nothing wrong with supply side economics that can't be solved by dividing by 10. With my friend Doug [inaudible 0:15:28] I think you don't need to divide by a number quite as large as 10 but you probably still need to divide.

The second estimates are from a more stylized model done by Altig, Auerbach, Smetters and others. And you see there that if you go to a proportional consumption tax, you get potentially very large effects, but that's completely proportional. No exemption. No anything. The same rate for everyone which not even a flat tax would do.

And most importantly, most of those gains are being generated by the assumption that that consumption tax is confiscating all of the old capital in the country, that you're losing switching from depreciation to expensing. And if you've made an investment yesterday, those depreciation allowances you're expecting to get you no longer get and you take all that money and plow it back into the tax system.

Once you switch to something like a flat tax and you provide that type of transition relief and it's absolutely inconceivable that Congress would ever do anything that didn't have some type of transition relief and it didn't have some type of graduated rates built into it, you get effects of it more like half a point after a decade, 1.9 after an infinite horizon. And even that is a stylized version of a best case version of reform before you've exempted the oil refineries and whatever else you've done.

So, to me that all is meaningful, worth trying to pursue, but the question is what the other costs are.

So we put two other concerns down on the table. One concern is the medium and long run deficit. Our deficit as a share of GDP is about 3% right now that's roughly consistent with debt being stable as a share of GDP. I'm broadly speaking, I'm comfortable with that. I'm much less comfortable that a decade from now it's projected to rise to 5% of GDP.

From my own perspective, I wouldn't drop everything to do something about this problem. There's a lot of different problems we face, but I certainly wouldn't do anything that would make this problem worse especially on that medium and long run time scale.

And then the third issue is we just have a very high level of inequality in the United States and this is illustrated by the top 1% income, but we can look at GINI's or whatever other data you want.

So, the question then is you have these gains that we estimate, what are the costs for these? And with that, I'm going to dive a little bit more deeply into border adjustment and then go back, zoom back out.

There's a number of arguments people make for border adjustment that are either fallacious or weak. The first is that everyone else is doing it so we should too. I don't think we need to spend a lot of time on that. The second is that it improves US competitiveness. This is an argument that the authors and proponents of it have deliberately assured.

The third is worth spending another second on which is the claim that it's a necessary part of a cash flow and consumption tax. There's a lot of economists who are convinced that a consumption tax is the right base or a cash flow tax is one way to implement it. It's not a universal view, but it's a semi-common view.

Sometimes you hear a set of arguments made for consumption tax and say that's we should have destination basis border adjustment. Most of the leading consumption tax proposals to date though have not had this feature. Hall and Rabushka's flat tax didn't have this feature; David Bradford who was the most thoughtful developer of ideas in this area didn't have it. And Carroll and Alan Viard came out with a proposal a few years ago where they went very carefully through this question and they had a pure consumption tax and did it on an origin basis not a destination basis.

So, these are two logically separable questions and you could come to different views on either one of them. And then, the last which I'm going to come back to and spend time on is that it raises a lot of money in the budget. I think that is potentially an important rationale for it in Congress as I'm going to argue not only is that a fallacious argument for it, but I actually think that's one of the most important, to me, arguments against adopting destination basis border adjustment. And one of the things that worries me the most about it. So, I'll come back to them.

So, what I'm going to do next is something I've only done once in the last eight years which was to use clipart to illustrate this set of points. The last time I did this was in the Roosevelt Room for President Obama and he made fun of me. So, you should be nice.

I should say this comes out of -- we spent a lot of time struggling with these issues which is run the international taxation in the Obama administration and, in particular, I want to single out Michael Mundaca who was the Assistant Secretary of the Treasury for the President's first term. And we used to spend huge amounts of time with him sort of

patiently like trying to explain these things to me hoping that like at least a bit of it would sink it.

There's no question that the current system was problematic for the reasons that I said before. The question was what would a better system look like? And the problem is you're trying to do a lot of different things at once.

As I said before, you want, in sense, a neutral tax system. You want to tax investment and utilities at the same rate that you tax investment and retail trade; or you want to tax debt finance investment at the same rate as equity finance investment.

It turns out on the international side, you want to do a couple of different things and it's hard to do them and be neutral on all of them at once. So, the first of these, roll the clipart, is what's called capital export neutrality. And this goes back, way back right on to the 60s or maybe earlier. The idea is that you have a factory, you're deciding whether you're going to set that factory up in the United States or China, and you want that decision made for an economic reason. Locating that factory where it makes the most economic sense, not a tax reason.

And if you face a different tax rate in the United States than you face in China, you might end up making that decision for tax reasons and in particular if you face lower taxes in China that could be an additional motivation for locating there.

Of course, there's a ton of reasons to locate to China whether it's cheap labor because you economically need to access the local market or because they've made you, in order to access the local market, but you wouldn't want taxes being on the scale.

This says you want a worldwide tax system. You want to tax multinationals at the same rate whether they produce in the United States or produced abroad, give them a credit against the tax they paid abroad. So you're not taxing them extra and then they'll make things for economic reasons.

There's another thing that we care about though and that's something that Jim Hines and Mihir Desai called capital ownership neutrality. And here think there's a factory that's going to be in China, nothing is going to change that. It's going to be there because it's serving the local market or because that's the right place in terms of wages. And the question is, is that company going to be a subsidiary of a US company or of a British company?

Here, what you'd like is a territorial system where either flag, they're going to pay the Chinese tax rate, but they're not going to pay anything extra. And if you're paying anything extra to the United States than you would to the UK that gives the UK company a competitive advantage, allows them to have more efficient global supply chains that are undistorted by taxation. So, this gives you exactly the opposite answer.

A third thing we care about is where your profits are located and in particular, are they coming from like some tropical island or are they coming from the United States. I mean, in here neither system is perfect.

If you have worldwide taxation, it gets rid all of the incentives around transfer pricing, debt stripping, location of intangibles, et cetera. Because no matter where you make your profits in the world, you're paying your taxes here. Except to this one problem, you'd love to move your headquarters out of the United States to get out of that system.

Territorial is the opposite. You don't mind where your headquarters is. There's no reason not to leave them in the United States especially when we're so generous and lenient in our enforcement of interest stripping, location of intangibles, and to some degree transfer pricing.

This all gives us the argument for using destination rather than origin for international tax. We sat there staring at this, thought there was no perfect answer and our answer was to use a minimum tax which sort of that had all these problems, but didn't have any of them quite as big.

The argument for destination basis is that rather than tax things that are responsive to taxation like the location of production, the location of ownership, and where you report your profits, you should instead follow just the traditional Ramsey rule and tax things that aren't going to be responsive to taxes that are more and elastic. And in particular, if you're taxing sales, it's not like you're all of a sudden you're going to sell your car in China instead of in the United States, you can continue selling your car in both places.

So, just to summarize what I said because I think it is important to start with this appreciation of the elegance of it, there's all these different things you care about where to located production, where your subs are, profits, et cetera, the current system gets all of them wrong.

The worldwide system gets two of them right and gets two of them badly wrong. A territorial system gets a different two of them right and gets another two badly wrong. A minimum tax, which is what we developed in the Obama administration, again, with Michael, says we're not going to get anything exactly right, but we're not going to get anything really badly

wrong either. And under a sort of some notion of convexity, it's a little bit better to get a bunch of things a little wrong and some things badly wrong. And the destination basis gets all four of those right. This relates to the aesthetic of the tax system that Adam referred to possibly with less a fuse of respect than I'm doing now.

Destination basis raises a whole bunch of tax policy issues that I'm not really planning to discuss today. This is an incomplete list as the idea gets vetted and discussed. There'll be more. Some of this we've heard about earlier, the direct sales to consumers, tourists, retirees, internet, education, hospitals, et cetera. More firms that have unrecoverable losses. If you export a lot, you are excluding your export revenue. You might have what appears to be losses in the system. You need to get money back from the government.

Impact on the global tax system because there'd be a big incentive to shift income to the United States. A really thorny issue and this comes more from the cash flow side than destination side. This treatment of financial transactions, and my guess is Bill Gale and some of the other people in this room could add a whole bunch of other issues as well.

I don't think any of these is fatal because any tax system has a set of problems like this. Certainly, our current one does; certainly, a minimum tax does, but I think you want to work through these and evaluate them, but ultimately we are choosing between imperfect options.

The questions that worry me more are some of the bigger macro ones that we've been discussing. We've had a big discussion about whether the exchange rate would adjust and it's worth just putting a picture to look at what that adjustment would look like.

I'm assuming this is all done with a 25% tax rate. If you had a 25% tax rate, the currency would actually need to move by 33% in order to keep the price of imports and exports unchanged because your tax will take you down to 75. You need to get back from 75 to 100. That would mean jumping from that blue line to the red dot, the likes of which if it happened overnight, we've certainly never seen before.

I don't think New Zealand has seen it before, not that I've gone through New Zealand in any degree of detail, but even if they did, if you saw this happen to United States, the ramifications would be enormous.

I think Adam spent a lot of time talking about the ramifications if you didn't adjust. It's important that even if you did fully adjust, there's a whole set of ramifications for people that borrowed in dollars from foreign countries; the effect on the assets that foreigners have denominated in US

dollars and conversely, the effect on the asset values of Americans who have foreign earnings.

So, jumping to that red dot, I think it would be comforting in one respect that you'd lose some of these inter-industry differences that we've talked about, but raise a big set of issues. And then, there's that yellow-orange, whatever it is dot, a partial adjustment. And there you get somewhat less of all that international disruption associated with exchange rate, but you get all the types of industry effects that we've been talking around so much this morning.

I have to say if you ask me do I think there'll be something like complete adjustment in something like an orderly fashion in something like a short period of time, I think I might put like a 75% chance on that. If I were in the retail industry and I thought there was a 25% chance that that wasn't going to happen, I would be rather agitated about this proposed shift in the tax system.

So, in some sense, everyone can be right here and that probably you will adjust. And oh by the way, probably still leaves a large consequence multiplied by a large probability for a large fraction of the economy.

So, that's the first set of issues. The second, I won't reprise, which Chad talked about, but again I don't know if this is 220 billion. I think there's some version where this was more when you added up the import and export. If it's less that happens right away if it happens later.

But, the intent can't be unrelated to the way in which other countries respond and the way in which possibly even the WTO rules. And you saw this a little bit with the immigration order this past week where there was a stated intent for a year straight and then just like they coincidentally happened to have chosen these seven countries based on an objective reading of where recent terrorist attacks have emanated from in the United States.

You can't separate that order from what was obviously the intent and here if you had Alan Auerbach as president and he was out there giving speeches about how this is basically a VAT with a wage credit. It's possible that the way other countries would react would be rather different than the way it's being described right now or it is being described as a penalty on imports and as a subsidy for exports. And so this strikes me as quite large.

The next issue I want to get down to is one that we didn't actually discuss this morning and I think it's quite important and it's one that I think a lot of these issues on destination basis, there's a lot of debate over and all sorts

of people disagree. This is one where I think everyone actually agrees. If you read Alan Viard at AEI had a nice piece last week where he said, "How much money do you raise from border adjustment? Nothing." Alan Auerbach says the same thing.

If you look at a 10-year revenue score, border adjustment raises NTPC \$1.2 trillion over 10 years. That's 0.4% of GDP. If you are constructing a revenue neutral plan, that particular component of the plan could pay for, by definition, 0.4 percentage points of GDP, which I think is about 10 percentage points of corporate rate reduction.

Here is the problem and Morry should get up and correct when I get this badly wrong, we're going to have a really hard time running a trade deficit indefinitely unless we have increasingly high returns on our foreign assets relative to what foreigners are getting here, and the associated capital gains on those assets.

To our first approximation, I think it probably make sense to think of, in present value, the trade balance as roughly zero. So, we gain that 0.4% of GDP in the first decade because we're running a trade deficit. Eventually, that's going to reverse so we can repay it. We don't know when that's going to happen, but in present value, it gets you to about zero.

To a second approximation, I would think that with \$8 trillion of net external liabilities in the United States right now though we might even eventually have to repay those or repay at least the interest on those, that's more than 40% of our GDP right now which is we're an unusual country so we can do unusual things. But it happens to be an unusually large one that we should be a little bit worried about if that reversed itself over an infinite amount of time that means we'd have to pay an extra 0.3% of GDP back in terms of a trade surplus to pay this money back. So, border adjustment over that horizon would lose money.

What that says is while it's balanced in a 10-year window on an infinite horizon basis, it's lowering revenues by about half a percent of GDP. I want to put that in context for you. There's been an awful lot of ink spilled on social security and its long run imbalances. Those are a little bit more than a percentage point of GDP. So, if you're worried about social security's long running balance, you should be sort of half as worried about the impact this would have on our long run fiscal future. This is the Peterson part of my talk.

Another way is that the CBO estimates the fiscal gap at about 2% of GDP so this would make our long run fiscal problem about 25% worse than it is today.

This scares me a decent amount because it's sort of less obvious what's going to correct this. A lot of the impact on this industry and that industry and another things. There's a set of voices for them. The set of voices looking at the effects outside the budget window aren't always quite as strong as say the oil refiners.

The last thing is at the end of the day, this really all comes down to what the impact is on households. I wish I could present you with a confident answer to that, but I think it's really complicated and you want to know a few different things. You want to know the direct incidence of the taxes. You want to know how it's going to affect the economy and affect before tax incomes. You want to know how it's going to affect labor lease or other things, savings. I should've put it on this list which has an impact on welfare.

And then if the tax cut isn't paid for when it's first passed, it doesn't mean it's never going to be paid for, it just means we don't know how it's eventually going to be paid for and a lot of the impacts on households are going to depend not on what Congress passes this year, but what happens later. Do social security get cut more to make up for it or do taxes on high income households go up more to make up for it? And the incidence depends very much on that.

All of these are very difficult and depend on the plan as a whole. You never want to take a big complicated tax change and look at the distributional impact of one piece of it. You'd want to look at the plan as a whole.

There's the set of problems associated with this, which you have in the issue brief today and have been talked about. There's another set of tax policy perspectives that what you see here is basically a shift of taxation away from the normal return of capital and towards a super normal return, rents and all of that that are captured by this. That's actually in some ways more progressive than the current corporate tax system and I'm happy to talk much more about all of these if there's any interest, but it's complicated is certainly fair for this.

If the proposal was a net present value tax reduction, my own personal feeling is that the incidence of how that deficit increase was eventually financed and repaid would swamp any of the distributional tables that we'd look at the day the tax plan is passed and that they would largely be adverse.

And then the final thing I'd say is that the entire theory behind a cash flow destination based tax system is that you don't want to tax the normal

return to capital because that distorts people's intertemporal consumption choices, reduces savings, and hurts the economy.

But, you do want to continue to tax the supernormal returns. The returns you get from for example your monopoly power that you could get through things like rents on your brands or oligopoly or whatever else.

So, I can't for the life of me, understand why you would be combining this type of change with the dramatic reduction in the tax rate at the same time because that dramatic reduction in the tax rate itself would be more regressive than reducing the corporate tax rate in the normal setting where it applies to a blend of normal and supernormal returns.

Here, it would only be giving a windfall for investment that was made in the past for monopoly power and for luck, three things that don't need larger subsidies than they already get today.

I'll conclude with an agreement with where Doug [inaudible 0:40:05] started us out. I think the business tax system is really in need of reform. I think it's really possible to do it in a way that is genuinely revenue neutral over the short run and the long run. It gets possible to have an international system that either raises more revenue than the current system with the same distortions or raises the same revenue with fewer distortions or some combination of the both.

But I don't think you can even start to have that conversation unless you have as its premise that you're not going to make our corporate tax problem better by making our deficit problem or our distributional problem worse.

If you're willing to start from the premise that you're not going to make those two worse, then I think there's all sorts of really important and timely conversations to be had.

If you're not willing to stipulate those two then I don't see any hope to come up with something that at least I would think was a good economic policy. Thank you.

Adam Posen: Thank you, Jason. That was terrific. Obviously, a lot of overlap with things, a lot of unique perspectives. How does it feel to be a free man?

Jason Furman: It's good. I mean I figured out a way to say almost everything I wanted to say over the last eight years. And maybe that was by conforming my thoughts to whatever it is we had just proposed but hopefully not all that.

Adam Posen: Now, you can use clipart and all that good stuff. Let me pick up on where you ended, which I thought was a very powerful statement. You've done a lot of work, your colleagues at CEA, our mutual friend and board member, Peter Orszag. Together, have done a lot of work talking about increase in oligopoly and monopoly rents, lack of competition in the US. You made reference to that at the end.

If that's a big concern, how should that inform? Going beyond what you said, how should that inform the tax discussions going forward? Including on the international side, there is as you've indicated many things. On the international side, there are pluses and minuses, right? So like with the example of pharma, we want to have enough pharmaceutical patent protection to increase innovation and justify it. We also want to have enough diffusion of technology and enough competition from around the world to keep the world growing. So how should practical policymakers take that concern that you have about oligopoly rents and lack of innovation forward?

Jason Furman: I'd say two things. One is the nature of a rent is it just sort of comes down and you get it. And so like I tell my children, you'll get what you get. You don't get upset.

That's not true of work. When you work for something and you tax it, you're going to end up working less. When it's a rent and you tax it, you're like a little bit sad that you didn't get quite as much of it as you used to get. But you get what you get and you don't get upset. So, one thing that that says is you think that monopoly rents are quite prevalent and quite important in the economy. You want to make sure that you're getting at them through the tax system.

Shifting to a cash flow tax and lowering the rate, as I said, is one way to do the opposite of that to go away from them. To some degree, you can do this through the corporate system. To some degree, you may just do this through the individual system, which is to give up. We can't do anything about these rents. But because they exist, we'll tax people to a higher rate. And people aren't going to be doing any less luck because they're taxed more, which is another place that you get these things from.

I think it also opens up another thing though, which is that there is a place in our economy where we choose to give you monopoly power or we have an intellectual property system. We give you patents. That monopoly power gives you a rent. But we expect to be getting more innovation in exchange for that.

But that's a little bit like the tax system which doesn't happen through internal revenue code and that we all pay a little bit more for our drugs.

Drug companies have a bit more of an incentive to innovate and see how you have this tax on people, the subsidy for innovation, and you get more of it.

The problem is that that's completely not transparent. And I think there's a benefit to doing more on the transparent side and a topic I didn't get to is the R&D credit, which United States was the first to establish, which is a transparent way of doing this. It gives you a credit for research. But we pay a check from the federal government. We account for where that revenue goes, where it comes from. And so it's a transparent financing mechanism.

I think that could potentially be more important for innovation and for growth than a lot of the issues that we talked about with a whole different rates being a little different from each other.

Adam Posen: Thank you very much. You kind of covered this. But I think you were also trying to be very hard to recognize the international side. So can I ask you to go a little bit further? Sort of amidst all the agreement and disagreement as you said at the start, there are a number of people who say if we could get to a VAT that would actually be a good outcome. How on the domestic sort of household consumption side? How do you think about that? Is that in a sense the ideal outcome and maybe not ideal, but a good outcome?

Jason Furman: I assume for the few of you that don't know the old Larry Summers' statement on this, which I would very much associate myself with, is that right now Progressives think of VAT is going to be regressive. So they're against it. And Republicans think of VAT would be a money machine where you just keep raising the rate and getting more revenue and they're against it. And one day, Progressives will figure out it's a money machine. Conservatives will figure out it's regressive. And we'll go ahead and have one. I don't know when he first said that. I'm not sure we're much closer to one now. But that was a political comment.

I think, again, the answer is it depends. And it depends on what other changes we're making with the tax system at the same time. VAT was a way to get an extra 2 percent of GDP of revenue because we're at a very low revenue base in our country compared to other countries. And we use that revenue wisely. I think that would swamp any distributional aspect it would have if we back-doored our way to a VAT through destination basis et cetera thing and use that to lower revenue in that present value and move the other direction.

So the first thing I'd look at is what it does to the revenue level and then separate from that is what taxes it is replacing. If it's replacing your

payroll taxes, it's one thing. If it's replacing your corporate income tax, it's a completely different thing.

Adam Posen:

You'd sort of touched on the political and this would be my last question before I open it up to the floor. You sort of touched on political. I want to take you sort of through the political in the sense of philosophical, which is as an NEC staff leader and as CEA Chair, you were constantly having to think about what's politically feasible. And one thing which we heard recurrently throughout the discussion today and, of course, outside this hall is the idea that, well, there's only certain things we can do to raise revenue because that's the only thing that's politically feasible.

How close is that said? How much is possible? And what should we be thinking about?

Jason Furman:

I mean we used to—in 2009, we are in a situation where for a while we had 60 Democratic senators and we had a filibuster in place. And so if we lost a single one of them, something couldn't pass. And it turns out like a lot of senators in the United States have their own opinions on all sorts of issues. And that's a good thing for our democracy, but a hard thing if you're trying to maintain unanimity to get things done.

For legislation in this area, it only takes 50 votes. They have 52 senators. So that gives them a tiny bit more margin for error for fiscal legislation than we had. But it's only a tiny bit of margin for error. And in my experience if you do something that hurts one particular industry that's big in the state or you hurt the long-run deficits. It's not like everyone is going to stand up, but someone is. Or do you something really regressive or you do something else. Each one of those could lose you a vote. I just named four examples of things that could take you from 52 down to 48. So I do not think there is a feasible way to pass this on a party line basis for that reason.

I also think people don't want to vote for things that have winners and losers on a party line basis because they have no cover whatsoever in defending themselves against the losers. In some sense, that's what the Affordable Care Act was. I think the winners vastly outnumbered the losers and the Affordable Care Act staying on message.

But it's not like there weren't any pros and cons of it. It's really hard dealing with the downside of something when you didn't have anyone else from the other party with you. So I think the only way to do this is on a bipartisan basis.

I think on a bipartisan basis, a necessary but not sufficient condition would be the ones that I outlined that it be revenue neutral in a meaningful sense

over the long run. And by the way, the Affordable Care Act, we killed ourselves. CBO came back and they're like four decades from now it's going to have a deficit more like oops like we'll go back and fix that.

And too there would be at a minimum distribution issue. I don't even know if that's sufficient because there will be all these winners and losers. Certainly, the president really caring about something, TPA has a certain set of controversies around it. But the president worked incredibly hard to get that done. And I think it never would have happened without that prioritization and focus. This president has a lot of different things to choose about what he's going to prioritize and whether he's going to prioritize tax reform overall or this piece of it. I think that's the second condition.

So I think you need it to be bipartisan, which I think at a minimum needs the revenue distribution. And I think you need the president to care and prioritize it. I don't know what would cause that.

If this path falls apart, I think what we get is tax cuts. I think tax cuts are a lot easier because they don't have—they have losers. It just has the misfortune that there's no lobbyists who work for any of the losers because you don't know who they are because they're whoever is going to pay the tab in the future.

And so I think we'll end up getting tax cuts. They'll have no reform to them. And they'll be as large as they can possibly be such that you still have 50 Republican senators. And I'm not sure what that magnitude is. But I think there's a bunch of budget gimmicks that are available for people to use to allow them to be larger while looking smaller and thus hoping to achieve that goal.

Adam Posen: I regret to say that my macro forecast assumes that outcome. I hope I'm wrong. But thank you so much for taking us through that. Let me now open it up to the floor. Again, Jessica is in front with the roving mic. There's a standing mic. When I recognize you, please identify yourself and pretend you're asking a question. Who would like to go first? Okay. I guess Christian.

Krishna Guha: So I'm Krishna Guha, Evercore. Actually, Jason, I just wanted to invite you to just elaborate on the very last point you made, which is with your knowledge of how one can play around with budget gimmicks, aggressive dynamic scoring, and other things. Can you walk us through the outer limit of what you think could be at least presented as being revenue neutral and what kind of an increase in this structural deficit you could actually get through these gimmicks?

Jason Furman:

Yeah. So just to give you a story first in the negotiations over the fiscal cliff in 2012, the last open issue was how to pay for some of the sequester relief we were trying to get for some additional discretionary spending.

The Republicans wanted to pay for it with all spending cuts. We said let's pay for it half tax increases and half spending cuts. There's a really tough negotiation. And much to my shame, what we agreed on was we would pay for it half with spending cuts and half with tax cuts.

And in particular what we did what was legislated there and it was against our objections—it was a compromise and nothing's perfect—was let people under certain circumstances convert their deductible IRAs into Roth IRAs. That means they would immediately pay tax today on the conversion. And then you would lose all the revenue you would have gotten at the other end.

It was an election for people. And if you give people a choice, they tend to make choices adverse to the fisc. But it raised money within the 10-year window. And that's how our demand for a tax increase got satisfied with a tax cut.

Those types of—there's a decent amount of those types of timing gimmicks. Certainly one-time repatriation can have that feature of taxes you are going to collect in the future. You collect less of them today. When that's voluntary, that's certainly the case. I mean people have a hard time wrapping their heads around why a repatriation holiday would lose money.

Here's why it would lose money. These companies have a choice. They can either repatriate or not repatriate when they make that choice. They're going to do it based on minimizing their taxes, not helping us raise revenue to pay for infrastructure or whatever it is that we want them to.

So I think there's a set of timing shifts around international income. There's a set of timing shifts around retirement accounts. There's a set of changes that can be made to the baseline. At the end of 2015, we made the major expiring tax expenditures permanent like the R&D credit. The ones that were what Tim Geithner used to less than affectionately refer to as barnacles that had accumulated on the tax code; we had all of those slated for expiration. If they're out of the baseline, you could put them back into the baseline. And that gives you another 300 billion.

To add all these up, I would say 750 billion over 10 years sort of half of percent of GDP. Well, I guess that's more like a trillion, yeah, about half of percent of GDP virtually over 10 years that sort of with the—well, I

couldn't do it with a straight face. But there would be someone capable with a straight face of calling that revenue.

Adam Posen: And that's before we give this a dynamic scoring.

Jason Furman: Yeah. Yeah. I'm not sure how much you're going to get out of dynamic scoring because I think JCT and CBO have done that with complete integrity.

Adam Posen: Oh just so I'll be clear for the record. I agree with that. It's whether Congress will accept the dynamic scoring from those agencies. I think CBO has been totally transparent and honorable on how they've dealt this, also JCT, absolutely. Please. Could you identify yourself, please?

Sam: Sam [inaudible 0:56:30] from Graticule Asset Management.

Adam Posen: Thank you. I just didn't hear you. It's fine.

Sam: I'm glad to see you put up the slide about the necessity of us running a budget deficit or a trade deficit, sorry, in order for this to be revenue positive. And in theory, we're supposed to run a trade surplus at some point in the future. We've been waiting on that obviously.

But wouldn't that require the end of the current Bernanke global savings glut paradigm in a very ideal way of global rebalancing where countries whether it's Germany or Japan are looking to run trade deficits against us? And there doesn't seem to be any prospect of that. I'm just curious about your thoughts about that.

But I think it's actually an interesting segue between the important issue of the global balancing and rebalancing of the Peterson Institute and the budget numbers which you point out. In the long run, shouldn't that be a zero or maybe a loss?

Adam Posen: Thank you. Again, we just didn't hear you.

Jason Furman: I was going out and making a prediction of what's going to happen between now and infinity. So like on my deathbed if this still hasn't happened you can't come back and say you're wrong. I suspect like Bernanke global savings glut and things like that we'll probably like not going to be taking about them a lot 100 years from now or 200 years from now.

So I don't know how this will happen. It's just that we are not going to be running a 3 percent of GDP trade deficit for the rest of time. I'm quite confident of that because other countries stop lending to us or because we

start saving more or we start investing less or such and such happens. There's a lot of different ways to get to that. But there are a set of—at the end of the day—accounting identities that have to eventually get us there barring escalating returns to our assets relative to the assets and the rest of the world. So it's an identity.

Adam Posen: Just to say, one of the many reasons I dropped out of public finances is because I can't handle infinite horizon modeling.

Jason Furman: Because in macro, there's none of that.

Adam Posen: Well, no, in the macro I ignore it. There's none of that. But, anyway, enough about me just on the point just to say as we've seen with Japanese government debt; it can take you very long time. Even if smart money and smart people all think it shouldn't take a very long time, it takes a very long time.

And so I think your question and Jason's comment are both very important. I would just add again coming off of Krishna's comment which obviously like you say it's a segue. If we're expecting a large unfunded expansion in the underlying budget gap of the US, and we were saying from what Jason said, you could say a minimum of half of percent of GDP. I would tend to think it could be a percent or more given—make your guess. The Tax Foundation is one number. Brookings Urban Tax Center is another number. They bracket up a number that's somewhere between 0.75 of percent of GDP and 2 percent of GDP, anyway, anything with that magnitude.

Then we start looking at potentially a rerun of '80s dual deficits—twin deficits. Sorry. That was the expression they used. And then all these things that you're talking about kick in actually more, right? Then you get more overvaluation of the dollar, more current account imbalances, and so on. And then you start worrying about the retribution, retaliation. Again as Chad and Gary and others have gone through, it doesn't have to be what takes place at the WTO. There are other forms.

So in addition to the long-term concerns you and Jason are rightly saying, you have to worry about essentially an unsustainable boom in the next few years. Now, maybe other things happen and consistent with the things we're talking about to keep the dollar down. Open-street protests may have something to do with the value of the dollars. Other things may do this.

But if we just follow up the macro even if I agree that maybe despite Joe Gagnon's role in it, we're not all going to be talking about the savings glut in 50 years. I think we will be continuing to talk about the savings glut for the next 5 years.

Sorry. Is there one more question? Anybody who would like—? I promise I'll shut up and let Jason do all the talking. No.

Jason Furman: Let me briefly, by the way, amend my answer to Krishna which is the other thing you have is back-loading as the other trick you have at your availability. So you may have average half of a percent of GDP over the decade but have it start smaller and end up at a percent of GDP.

Adam Posen: All right. Well, thank you all very much for bearing with us. Thank you to Jason for such a wonderful debut performance here at the Peterson. I mean he's been here before but as one of us. Thank you to all my colleagues especially Chad Bown and to our great meeting staff. This meeting is adjourned. Take facts and analysis out there. Do your job.

