Adam Posen: Hello again from the Peterson Institute for International Economics. Thanks to all of you who joined us for lunch and those of you tuning in on our webcast live. This will also of course, will be available later, recorded on both the Peterson Institute and the McKinsey Global Institute websites.

It’s my pleasure to make the introductions and to make sure I don’t leave out anything from our distinguished guest speakers, I will have the full introductions with me.

We’re moving on to our second panel of the day, Debt and De-leveraging Around the World, which as mentioned, is really about the private sector, the household, the corporate, the non-financial corporate sector. And we’re moving from our excellent first panel on concepts of sustainability and processes for dealing with current debt issues, to an assessment and a stock kind of way of what is the debt burden around the world, where it exists, has it shrunk at all, or what?

We’re very grateful to be working with McKinsey Global Institute on this event and our lead off speaker will be Susan Lund, who is a Partner there. Susan, we’ve had her on our podium before and we’re grateful for that. Susan has been very active in development issues prior to joining McKinsey Global Institute. She is now a Partner at McKinsey and helps run the institute’s agenda. She’s been particularly great in getting out new reports on debt in the past, but also on the growth in Africa and capital needs around the world. She’ll be leading off presenting the private sector piece of her report.
We have three distinguished discussants and we’ve chosen to focus this geographically because this is empirical work. Nicholas Lardy, the Anthony Solomon Senior Fellow here at the Institute, will speak about China and China’s debt situation, a point of much concern, valid or not, around the world. Nick of course is recently the author of his umpteenth book, but I would argue one of his very best, *Markets Over Mao*, which many of you have seen reviewed and all of you should read. It’s a breathtaking reconsideration of the role of the private sector as the lead in China’s development and that leads Nick to, not just careful data analysis, but a slightly different interpretation of some of the Chinese debt than other people would make.

Second, I’m delighted to have back at the Peterson Institute, my friend and colleague the honorable Karen Dynan, who is Assistant Secretary of Economic Policy at the Treasury and therefore the Chief Economist of the US Treasury. She previously was the Vice President and Co-Head of the Economic Studies Program, across the street at Brookings. Both of those are reason enough to have her, but the real reason she is here today, I would suggest, is her 15 to 20 years of ground-breaking research while she was at the Federal Reserve on issues of saving household debt, real estate which makes her one of the great experts on this in the data world and we’re delighted to have her with us speaking about obviously, the United States situation.

And final commentary, we are privileged to have with us Michael Marrese, please forgive my pronunciation, of JP Morgan Chase. Michael is one of those economists who just like Greg Mankiw, descended from mathematics on high and through the years has gotten more and more applied, having taught at Northwestern and now has had a distinguished second or third career at JP Morgan Chase, where he runs economic analysis for Europe, Middle East and I believe Africa. He’ll be giving us a tour through the European and emerging markets based on some new work and his colleagues have done, but also will provide us with a bit of a market perspective to go with Nick’s think-tank perspective and Karen’s government perspective.

But first of all, I’d like to ask Susan Lund to come to the podium. And contrast to the previous panel because this is data, all of our speakers will be using PowerPoint and all be speaking from here and then after all their presentations we’ll come up to the podium. So thank you.

Susan Lund: Great, thank you very much, Adam, and thank you to the Peterson Institute. I’m very pleased to be here. We encourage all of you to pick up copies of the report. It looks like this. There are some on the front tables as well as out in the hall.
As Adam said, we had a great discussion this morning on government debt. I’m now going to talk about private sector debt, what’s happened since the crisis and are there any areas of concern. I’m going to give an overview of some of the findings of the report and tee up the areas that each of the following speakers will be covering.

So the headline figure that some of you may have seen is that global debt continues to grow. After the 2008 financial crisis, many of us economists expected having read Reinhart and Rogoff’s book, that the world would begin de-leveraging and paying down debt. Now some of that, as was described in the earlier panel, transitioned. Private sector debt declined, economies were thrown into a huge recession, government debt rose, but surprisingly that’s not the only story. Debt has risen, not only in the government sector but also in the household and corporate sector, which I will call the private sector, by some 25 trillion globally between the end of 2007 and the middle of last year.

Now this raises the question is this sustainable? Do we see new credit bubbles forming? Does this pose any risk, either to national financial stability or international financial stability? And in the report we look at several different areas of concern.

One is the continued growth of household debt in a range of countries that were not hit so severely by the 2008 financial crisis. Second is debt in China, which has quadrupled since 2007. And then one bit of good news, we look at the financial sector, we see significant financial sector de-leveraging and in particular some of the financial leverage associated with the so-called shadow banking system, and I’ll present those findings and then we tee up ideas for how to make debt safer and more sustainable if we appear to have economies, for one reason or another, require ever-growing amounts of debt to keep on growing.

So starting with households. This chart shows you the household debt-to-disposable income ratio and in the chart on the left, you can see that, what I would call the core crisis countries, US, UK, Ireland and Spain. You saw household debt grow rapidly, peak but has since declined quite significantly, the most in Ireland, 33 percentage points of disposable income; second the US, 26 percentage points of disposable income. And so these countries are back towards the path of sustainable household balance sheets.

Interestingly however, the countries on the right side of the chart you’ll see indeed did not pause after the global financial crisis. Households continued to borrow in excess of growth and disposable income and all of the countries at the top of the chart where the lines are dark blue now have
levels of household debt relative to income that exceed where the US was at its peak.

And so this raises an interesting question about are these crises waiting to happen, like we saw in the US, Ireland and Spain or are there other factors that make household debt in some of these countries more sustainable? Well, what drives household debt? There’s been convincing research by many economists previously showing that today in advanced economies, the majority of household debt is in fact mortgages. And in our sample of countries mortgage credit is about 74% of household debt. So when you see rising household debt, it’s not an issue of credit cards or even student loans, which have grown to be quite large in the United States in particular, but it tends to be linked to real estate.

And so not surprisingly, there’s a very strong correlation between rising real estate prices and growth in household debt and that correlation, as we see on the bottom left side of this chart, also works in reverse, so in countries like the United States where housing prices have fallen. At the same time, we’ve seen ratios of household debt-to-disposable income fall. So indeed, in many of the countries previously that we saw, Denmark, Sweden, Norway, South Korea, we see very rapidly rising household prices. This could create cause for concern.

Interestingly, we saw the same pattern across US states prior to the crisis. The left side of the chart shows you the household debt to disposable income ratio in different states in the US, which varies quite dramatically, but then you see the house price before the crisis in bubbles on the right. So California, Nevada, Arizona, Florida all saw very significant house price increases, household leverage got very high and now of course, it’s declined very significantly in the far right side of that chart.

So what really creates sustainability? The careful work that Karen Dynan has done and others point out the need that of course in aggregate household debt, it’s sort of a meaningless term. What matters is who owes the debt, what is their income and do they have assets? And unfortunately, the microeconomic data from household surveys that allow us to assess this is not available in very many countries.

This chart shows you a contrast between the buildup of debt in Denmark, which does have similar household surveys of finances in the United States. In Denmark, which today has household debt to disposable income ratio twice what was seen in the United States at the peak, you see that, in fact, it’s the wealthiest households that borrow the most--that are the most leveraged. This is somewhat counter-intuitive although when you consider the tax regime and the tax deductibility of mortgage interest that has very few limits on it, what makes sense if you live in Denmark is to mortgage
up your first home, your second home if you have one, any investment properties, take out as much debt as you can for the tax benefit.

Now for sustainability purposes however, this seems okay because these people not only have the highest income levels, they also have the highest levels of wealth; not shown on this chart. And so that’s what’s enabled a country like Denmark and there are some other countries in Northern Europe that are similar where lending standards are very strict. You need a very high credit score. There are limits on loan to value of any specific property but it enables the highest income households to borrow.

This stands in contrast to what we saw in the United States prior to the financial crisis where there, the very highest income decile, was not the most leveraged but it was the broad middle class, sort of between the 40 to 90% of the income distribution where credit increased most, their leverage rose the most, but these people by and large didn’t have financial assets or liquid financial assets readily available to them to offset this rise in leverage and of course, when the recession came, unemployment hit, people lost their jobs, suddenly debt burdens that were sustainable when everyone was employed became unsustainable. Our conclusion is you have to look very carefully at the lending standards and who’s doing the borrowing. But again, it’s very difficult to assess across countries.

So in the report, in lieu of having this granular microeconomic data, we look at a couple factors across countries and we create a heat map without saying who’s at risk and who’s not. We look first at the debt-to-income ratio, the latest; secondly the growth, so what matters is, is this stabilized or growing, we look at the debt service ratio, and then house price increases.

And you’ll see a range of countries at the top of this chart that have extremely high levels of household debt that has continued to grow. It’s been accompanied by house price increases and by and large could be at risk for some of the dynamics of de-leveraging that we saw in the US, UK, Spain and Ireland. And these are not only countries in Northern Europe, Sweden, Netherlands, but include Canada and Australia as well as some Asian countries, Thailand, Malaysia and South Korea, who now, as a percent of disposable income have very highly leveraged household sectors. So we leave it there to say certainly the issue of private sector credit growth continues to be with us despite what we’ve been through in the last seven years globally.

The second area of interest is China’s debt. It has quadrupled in absolute terms growing by our count from around $7 trillion to $28 trillion over the last seven years, an increase of $21 trillion. That’s more than the entire outstanding stock of US household debt and almost more than the stock of
US household and corporate debt that’s been added just over the last seven years. The question is, is this sustainable?

Well, this chart shows you the growth. You can see though that China came from a position where it’s grown for several decades now with double digit growth rates, without accumulating much debt. So up until 2007, China was much like other developing countries. It had much, much lower levels of overall debt relative to the size of its economy than you saw in advanced economies.

However, that’s changed radically and so they’ve almost doubled the size of their debt and today, if you—and this is including debt of all sectors including the financial sector, China’s debt at 282% of GDP puts it in the range roughly of Australia, the United States, Canada and Germany. If you exclude debt issued by the financial sector, so just the blue bits of the chart on the right, you see that it’s still basically at the level of the US higher than Germany, somewhat lower than the US almost at the same level of Australia. So in aggregate, China’s debt is not extraordinarily high today, nothing like what you see in Spain or Portugal or Ireland.

But is it sustainable? Certainly the growth rate trajectory is of concern. And in our analysis, we look at three things that worry us about the rise of China’s debt. The first is that almost half of it by our count is related in one way or another to the real estate sector. The smallest bit is actually through home mortgages, so should China have problems down the road it’s not going to be a household debt crisis like you saw in the United States.

However, you can see that the real estate sector, these are property developers, have taken on enormous amounts of debt. We identify what are called related sectors, which would be steel, cement and industries that are heavily correlated with property development. There’s also an issue of local government financing vehicles. These are off balance sheet entities created by local governments in China initially to build social housing and infrastructure, but more recently getting involved in real estate development as well and then a small bit is household mortgages.

Now, when you layer on top of this the fact that over the last seven years, real estate prices on average have risen 60% across China, in specific cities like Shenzhen and Shanghai, real estate prices have grown far higher, it calls into question whether this growth can continue and should it not continue, how much of repaying this debt will be sustainable?

The second area of risk are these local government financing vehicles. So China’s government debt is interesting. Overall, it’s at about $5.5 trillion, but more than half of it is in one way or another, related to local
governments, not the central government. Central government debt relative to GDP is only 25%, so very, very low.

Ted Truman asked, should we care about central government debt? Well, one thing that China’s government has, as I’ll explain in a few slides, is fire power to borrow more should they need to. This is a very important point.

But the blue bits of this chart show the buildup of debt and a lot of this has been after 2007, of various forms of local government borrowing and again, a lot of it is feeding into real estate directly or indirectly.

China’s government is worried about this situation as well and last year, last May, released a national audit of local government finances. And in the bubbles in the right you see they find two potentially alarming facts. One is that 40% of the loans right now are being repaid through land sales. So again, this is all contingent on a rising property market and continued real estate development. And the other fact is that already 20% of new borrowing has to repay old debt. So clearly some of these entities don’t have a sustainable revenue stream.

The third risk in our mind is the amount of new credit coming out of China’s shadow banking system. So in stock terms, about 30% of lending to households and corporates in China has come from various shadow banking entities. On a flow term it’s about half of new lending is coming from unregulated shadow banking entities.

Now, China being China, this is very unique to China. What is shadow banking in China is very different than what was in New York and London and advanced economies prior to the crisis. In particular, there are three types of vehicles that in large part are not as risky or concerning as the off balance sheet vehicles seen in the financial sector in advanced economies. We have wealth management vehicles. These are essentially retail-oriented products marketed through banks where you deploy your money. It’s sort of like a money market fund, only instead of investing in very liquid, short-term assets, these funds tend to fund real estate. So it’s long-term illiquid type loans so there’s definitely a maturity mismatch.

There’s a second category of what we call shadow banking entities, called entrusted loans. These are loans from one corporate to another, creating long chains of interrelated credit risk across the corporate sector. It’s not supply chain finance. These are often loans between unrelated companies altogether, but it’s basically arbitraging who has access to cheap credit through the banking system and who doesn’t. So it’s large state-owned enterprises borrowing and then un-lending to smaller private sector companies.
And then the third entity is called trust loans. These are products that are marketed towards high net worth individuals, who again, deploy their money which is then taken and invested in a range of assets, but again, much of it feeding the real estate sector.

So on balance these shadow banking entities are not highly leveraged but their ability to underwrite credit risk appropriately is unknown. A second potential risk is definitely the maturity transformation. A third risk that we point out is just the perception that since many of these are marketed through banks there’s a perception by investors that the principle invested is guaranteed, when in fact it’s not.

Now the good news in all of this is that China’s central government has fire power. Overall, including the local governments, government debt is 55% of GDP. We did a little modeling what if exercise, what if half of real estate loans defaulted, 40% of loans to related sector defaulted and recovery was only $0.20 on the dollar of loans? Even in that extreme crisis scenario, what you see is that China’s central government, should it choose to do so, could definitely borrow to bail out the financial sector. And in doing so, overall government debt in China would still be quite modest. There’s a big question of whether they would do that and in what circumstances and even if you can avoid a full blown financial crisis, can you do it without slowing GDP growth down further? And that seems less likely.

So the third topic, shadow banking. The good news in our report, in a report that’s not very filled with good news, is in fact that the financial sector in advanced economies has de-leveraged. This shows you debt issued by financial institutions indexed to 2000 and the rapid growth and then declined. Now, the United States is the orange line that shows the most dramatic decline and about $3 trillion of financial institution debt has been eliminated and de-leveraging of the financial system. This is partly through the banks who now hold more capital, rely more on deposits for lending, but a big part of that is the disappearance of various shadow banking, non-bank entities.

When we think about shadow banking we define a range of instruments and entities that were unregulated and connected to the banking system, but off balance sheet; so things like credit default swaps, repo markets, money market mutual funds, CDOs and CMOs that took securitized assets and re-securitized them, all of these things have shrunk pretty dramatically in scale.

And so indeed, since the financial crisis, we can say the financial system has become safer. Now, there’s a different problem though that’s talked
about is, is there enough credit to legitimate borrowers who need to borrow whether for infrastructure, for businesses to fund growth that’s so sorely needed in both United States and Europe?

So when we look at where is credit coming from, it's very interesting. This chart shows you the source of funding to households and corporates and what you see is that consistently over the last ten years only half of credit has come from banks and the other half has come through a variety of market organizations or non-bank lenders, so bond to markets, securitization, and non-bank entities.

This on a flow basis, for companies in particular, is now basically all net new credits. So looking at a sample of ten countries in US and Europe, we see that bank lending has contracted quite dramatically and now all net new credit is coming from other sources. It’s an important challenge for regulators, I think, to understand this and it raises a big question about how do we get the right mix of banking and non-banking credit to have a stable global financial system?

Ideas on what do we do if we live in a world that has high levels of debt and continued growth in debt? I mean, we point to the need basically for reforms on eight different dimensions that have to do with innovations and how we right mortgage contracts and other debt contracts, innovations in how debt is restructured, whether that’s sovereign debt or private sector debt, certainly revisiting the tax incentives to fund growth through debt rather than equity instruments.

Some of the innovations in debt contracts being talked about now is to blend an equity-like element into debt, so that repayment terms adjust when a trigger is reached automatically and thereby, having some element of risk sharing in debt contracts and this could avoid defaults and foreclosures in the mortgage market and then the associated externalities on neighboring houses and house prices. We also have recommendations around how to think about this healthy mix of bank versus non-bank activity going forward.

So with that, that will set the stage for the following panelists.

Adam Posen: You can use it up here and crane your neck and watch the screen over there.

Thank you very much, Susan. That more than sets the stage. That sets the agenda in many ways and we appreciate you sharing the report with us. I now turn to my colleague Nicholas Lardy, who given how sanguine she was maybe less sanguine, I don’t know. Let’s find out.
Nicholas Lardy: Thank you, Adam. I am going to start out showing you Susan’s first China slide, if I can get it going here, and absolute huge increase in leverage in China between 2007 and the end of the first half of last year. The study points out that fully one-third of the increase in global credit over this period came in China. We don’t need to reread the IMF article four from last year that said increases of debt on this scale are frequently followed by banking or more general financial crisis.

I’m not going to talk so much about government debt. This is the slide that shows on an IMF basis, that government debt is fairly small but if we start dis-aggregating, counting other things, you can see that on a much broader definition, the degree of central government debt is actually a little bit higher, quite a bit higher than the official number, indeed roughly twice as high. That’s putting in debt of the policy banks for example, the Ministry of Railroads and certain other elements that might be considered to be part of the public sector, even though it’s not officially central government debt.

This is credit to the non-financial corporate sector. Again, it’s gone up significantly since 2007. And this is the snapshot of household debt, which as Susan pointed out also, grew quite significantly after 2007. So this is kind of the big picture all in and then looking at the components, the government, financials, corporates, and households.

Now, so it’s a pretty scary picture, although Susan modified it in the end by saying well, even under a fairly severe kind of stress test that the government could recapitalize the banking system and take other steps to avoid a financial crisis. But I’d like to present just a few things that I think need to be taken into account when we’re looking at China’s debt situation and I want to start by this picture on leverage of industrial firms.

This is 40% of the Chinese economy and if you read a lot of the financial press, they keep saying the industrial corporates have borrowed massively and there’s huge excess capacity, prices are falling. But the reality is in the industrial sector, there’s been no increase in leverage at all and the situation looks much better today than it was in the second half of the 90s when China really did have a debt crisis and had a lot of nonperforming loans in the banking system leading to the need for massive recapitalization of the banking system.

The big decline in the second half of the 90s in leverage of course, was simply the write-off of trillions and trillions of RMB in debt, mostly to state-owned companies. It looks a little bit different if we disaggregate the industrial sector into private firms and state firms. You can see that the increase in leverage, I mean, on average, they haven’t gone up very much
since 2007, but it’s the state companies that have increased their leverage more. Private companies have come down.

Now that’s a little bit counterintuitive, because if you read the book that Adam mentioned, you will find there’s fairly convincing data that the private sector has been borrowing a lot more than state companies over this period and the explanation is very simple. Private companies have a return on assets that’s roughly three times as high as state companies, so they have a lot more retained earnings, they’re building their equity. So even though they’re borrowing more, their leverage ratio is coming down. The state companies are borrowing much less but they’re using the money so inefficiently that their leverage is going up. About half the debt in the non-financial corporate sector is now to state companies and about half to private companies.

And if you dig down a little bit more and look at other kinds of state firms that include the local government financing platforms and some of the state companies outside of the industrial sector, you can see that the leverage has gone up quite a bit, so it’s local government platform companies, a lot of borrowing to build the high speed rail system for example that is in that black line where leverage has gone up. But the general picture is if you just look at the industrial sector as a whole, there’s not much increase in leverage.

Another mitigating factor is that again, even though you read in the financial press about how margins are falling and all kinds of the firms are losing money because of excess capacity, the profit margins have actually not come down that much. They are down obviously, from the peak of 2007, but the average profit margins for industrial firms in China today are roughly where they were in the pre-crisis period 2003 through 2007, when on average China was growing at well over 10%, as compared to the slowest growth in 25 years that we had last year. So profit margins have come down but I would say they have not collapsed.

Another mitigating factor is that much of the credit is coming from the banking system. It’s not very highly leveraged. The loan-to-deposit ratio, there’s a limit of 75% and you can see it has not gone up dramatically. It went up a bit. In the 2012-2013 period it seems to be coming back down today. This system of course, is financed with deposits. The deposits are very sticky, given the capital controls. There’s not a lot of other choices that people have to put their money except real estate, which they’re giving up on these days because prices are softening. And so this is not a banking system that’s going to be subject to runs.

I guess second to the last mitigating factor I would point out is that the authorities are well aware of the risks that they have incurred by having
the big buildup of credit in response to the global financial crisis. It was a
deliberate choice to expand demand through expansionary credit policy.
They have a very weak fiscal system for responding to increased
aggregate demand so they use the banking system and they have been
working steadily in the last couple of years to bring down the growth of
credit.

So credit growth in 2014, for example, the absolute increase in the amount
of credit, was about 5% less than it was in 2013. In the first month of this
year we’re done about 2% on a year-over-year basis. So the government is
continuing to pursue what they refer to as a prudent monetary policy,
which means even though growth, as I mentioned, slowed last year to the
slowest pace in 25 years, the central bank was successful in resisting calls
for a significant loosening of monetary policy, which is what a lot of the
real, particularly the big stake companies, were calling for. So the
authorities are slowing the growth of credit and if that continues, credit-to-
GDP ratio should being to plateau out.

The other thing that reflects the government and particularly the banking
regulator and the people’s bank concerns, is that the share of lending
coming through entities other than conventional bank loans, you can call it
shadow banking, you can call it off balance sheet lending by banks, is
changing. The bank share fell precipitously, as you can see in this
diagram, in 2009 and 2010 as these new kinds of products exploded in
size relative to the overall financial system, but since the beginning really
of 2013, they have put more and more restrictions on these various
products and you can see now that the bank share of lending is trending
upwards and stands roughly at 60%. So we’re not all the way back but a
larger share of the expansion of credit is coming through the better
regulated banking system, rather than other channels.

Now, I’d just make two additional points. I don’t have slides for these and
I don’t think Susan touched on this, but I mean, when you look at this
massive amount of debt in China, 280% of GDP, foreign currency
denominated debt is only 5% of GDP versus, say 27% in Indonesia, 12%
in India, so China does not have the currency mismatch position. Of
course, its net international investment position is about 1.6 trillion or 15%
of GDP, so it’s three times the external debt.

Now, that does not mean of course, that some property developers who are
starting to borrow offshore because the banks are cutting them off. Some
property developers are borrowing offshore in foreign currency could be
in a default situation depending on what evolves in the property sector
over the next couple of years, but I don’t think we have a large scale
currency mismatch, which could be a source of systemic weakness.
The final point I’ll close on is to remind you what we all know but still find hard to remember, that China on a national basis is still saving 50% of GDP. Obviously, countries that save more are going to afford to borrow more. Households now have debt equal to 38% of GDP but their liquid assets in the banking system are 80% of GDP, in other words more than twice the debt. So in many, we start digging down in some of these sectors, of course, there is a distribution question within the household sector but given the high savings rate that exists in the government, the corporate sector, and the household sector, I think makes the 282% figure somewhat less intimidating than it might have appeared at first blush. Thank you.

Karen Dynan: I want to start by thanking Adam for inviting me to speak. This is a really interesting event.

I want to make four points related to de-leveraging in the United States economy. Three of them will be about the household sector, which of course has been front and center over the past several years in terms of de-leveraging and one point about government de-leveraging.

So, the first point is that the need for US households to de-leverage contributed maturely to the depth of the Great Recession and to the slow recovery since then. Real GDP per capita plunged 5.5% during the recession and it took almost six years for output per capita to surpass its previous peak, a mark that had been hit in less than two years on average in previous business cycles. Although our economy has fared better than many other advanced countries, in part because of better policy choices, the recovery has still been frustratingly slow.

The high level of household mortgage debt that accumulated during the housing boom and the high level of mortgage leverage that appeared in the wake of the housing bust certainly contributed to the deep recession and the slow recovery. And I want to mention here that I’m defining mortgage leverage as the ratio of mortgage debt to housing assets.

So indeed, much of the sluggishness in the economic growth has been in household spending, both on housing and on consumer goods and services. We all know the housing market has been hit hard, and that’s a point I’ll come back to in a minute, but consumer spending was also slow to get off its feet after the recession.

Three years after the business cycle trough in June 2009, real consumer spending had increased only 6%, less than half as much as the average for preceding recoveries. So that difference can be attributed to a number of factors, one of which is high household debt and leverage. The channels
through which high debt and leverage have held back consumer spending are subject to some debate, but I want to highlight a couple.

One is that high levels of debt service related to income probably crowded out household spending. As you can see in the graph behind me, the aggregate ratio of debt service to disposable personal income moved up during the housing boom, hitting a peak of 13.2% at the end of 2007. Now, I have some mixed feelings about making this point using the aggregate series. Susan set me up for this well, because one of the important lessons from the crisis is that you need to consider what’s going on in the high risk tail of the distribution and aggregate series like the one I’m showing you right now can mask these trends.

But if you were looking at what was going on among the most indebted households, you see extremely high debt service burdens. So in my own research, for example, I found that the typical highly indebted household living in a state with a big housing boom had debt service commitments that exceeded one-third of their pretax income in 2007, and that’s before incomes started to fall because of the recession.

So another way in which high debt and leverage crimped household spending was by restricting access to credit. So most notably, mortgage borrowers who were in or close to negative equity, have historically found it really difficult to refinance. This means that the large number of underwater mortgage borrowers created by the home price plunge obstructed an important way in which accommodative monetary policy traditionally has boosted household demand or aggregate demand, that is by allowing people to refinance into lower rate and mortgages and thereby increasing the amount of money that cash constrained consumers have to spend each month.

So this leverage-related obstacle to the usual monetary transmission mechanism is one reason why programs such as the administration’s Home Affordable Refinance Program, which facilitated the refinancing of underwater mortgages were so important.

An important aside here concerns one of the driving factors behind the high household leverage we saw in the United States, that is the plunge in home values. Research has documented very clearly that declines in home values cause strong negative, so-called wealth effects, which depress household spending. So the implication here is that when you hear things about how areas with big housing booms and busts were harder hit in terms of job losses and weak consumption, this is true, they were harder hit in these dimensions, you should not draw the conclusion that the debt or the leverage per se was the primary driving factor, because these areas also experienced powerful negative wealth effects.
The second point I want to make is that the significant progress that households have made in terms of de-leveraging is one of the underpinnings of the pickup in growth that the United States has seen over the past year. So after a disappointing start to 2014 the US economy rebounded strongly over the remaining three quarters of the year. The pickup has been most evident in the labor market where payrolls expanded at an average monthly pace of 336,000 over the past three months and that compares with a much lower monthly pace of around 200,000 on average in 2013.

The administration, like most private sector forecasters, expect solid economic growth going forward. Now of course most of us have been overly optimistic about the pace of the recovery in this country before so we’re not taking this recent stronger economic performance for granted and we’re mindful of the risk, especially those related to what’s going on abroad. That said, we should feel reassured by the significant improvement in domestic fundamentals relative to where we were a few years ago.

So one of these fundamentals is the liability side of the household balance sheet. The ratio of household debt to disposable income is down from a peak of 1.3 to 1.0, which is the lowest level since 2002. If you look again, at the graph behind me, you can see that this reduction in debt along with the very low interest rates of recent years have reduced the aggregate share of disposable income that’s committed to the debt service payments to its lowest level in the nearly 35-year history of the series.

We’ve also seen significant progress in the risky upper tail, the leverage distribution, reductions in mortgage debt along with the considerable rebounding home prices have produced a 60% decline in the number of underwater mortgage borrowers. So relatively de-leveraging has improved the quality of household loans and therefore strengthened the US banking and financial systems. More generally, this two represents one of the underpinnings of growth in our country that should make us more confident about prospects going forward.

My third point is that allowing for increased leverage among some households would be good, both for them and for the overall economy. As you know, housing investment is still one of the weak spots in the US recovery. Single family housing starts are creeping up very slowly and the current level is only about half as high as that seen in the early 2000s prior to the housing boom. Meanwhile, the home ownership rate is at its lowest levels since the mid-1990s.
Some of the weakness that we’ve seen is no doubt related to housing demand being held back by lingering cyclical weakness in the economy, including limited wage gains, but part of it is related to difficulties that some credit-worthy borrowers are having getting access to mortgage credit. The chart I have up shows that mortgage originations, those are the darker bars, they’re still way below their pre-crisis levels. This pattern stands in contrast to some other forms of household credit, like auto loans, which as you can see have grown briskly and are now considerably above their pre-recession levels. Those are the red lines there.

Now I’m not saying that auto loans are at the right level and regulators are indeed, keeping an eye on the growth in sub-prime auto lending, but the gap between the series that you see here is certainly supportive of the view, that weak demand is not the only culprit behind the slow housing recovery, but rather there are issues related to mortgage credit supply. So we know, for example, that the credit score, that the typical borrower needs to get an FHA- or GSC-guaranteed loan is significantly higher than in the past. Estimates for Moody’s suggest that if the acceptable credit score reverted to the more traditional and sustainable standards that existed prior to the housing bubble, then the pool of potential mortgage borrowers could increase by millions and millions of households.

The inability to get some credit-worthy borrowers to obtain mortgages has been behind steps by the administration and regulators to increase the access to credit. These steps include announcements last year by the FHA and FHFA to reduce lender uncertainty by clarifying the rules that govern when lenders have to repurchase mortgages that would otherwise be insured or guaranteed, which would leave them on the hook for losses.

The efforts also include steps by the Treasury to bring together relevant parties to identify what it would take to establish as well-functioning private label, mortgage-backed security market in order to bring more private capital back to the mortgage market.

So let me turn now to the Federal Government. My fourth point about deleveraging is that the US Federal Government debt has risen considerably, but the President’s budget puts it on a sustainable path. The top panel of the graph behind me shows that the big increase in the Federal deficit that occurred with the Great Recession, as well as the associated increase in the federal debt. These increases are largely due to counter-cyclical fiscal policy, automatic stabilizers, the roughly $800 billion American Recovery and Reinvestment Act and other fiscal support packages. This expansionary fiscal policy is widely viewed as having played a key role in cushioning the economy from what otherwise would have been a much more severe contraction.
As the private demand strengthened, the Federal Government took various steps towards fiscal consolidation and these steps along with the stronger economy have led the deficit at the top panel to drop sharply so at 2.8% of GDP for the fiscal year 2014, the deficit was less than a third the size of its peak level in the fiscal year 2009.

A major theme of the President’s budget released on February 2nd is that we need to undertake policies that promote broadly shared growth in the United States. The Great Recession exacerbated a decade’s long trend of wage stagnation that has depressed household incomes, particularly in the middle and lower parts of the income distribution. By making investments in such areas as infrastructure, research and development and education and training, the budget proposals should encourage both economic growth and economic opportunity. But importantly, the budget proposes to make these investments in what we see is a sustainable way. It contains proposals that will pay for these investments.

So as you can see in the chart, the Administration estimates that under the budget, the deficit will fall a bit further, those are the red bars in the top panel, and stabilize around 2.5% of GDP and that debt as a share of GDP will edge down a bit.

So I’m done with my four main points, but before closing, I want to commend Susan and her colleagues. I’m putting together a very interesting study of an important topic. I know from my own research that de-leveraging is not at all an easy topic to tackle, both because of data limitations and because there are so many unresolved theoretical issues. But I’m pleased to see that we’ve seen a big increase in the academic research out there in this area and also that entities, like the McKinsey Global Institute are taking it on. That’s it.

Michael Marrese: Thank you very much, Peterson Institute, Adam, for the invitation today.

So I’m going to give you potpourri of almost random ideas and I may have some different—just a second. I hope we have something up here. Not yet, okay. We will. So the first point, I’m going to go back to the United States because the US has some pretty good data and there we go, okay. Great.

So needless to say, this is pretty much the same graphs, part way that Karen just demonstrated. So what we have seen in the United States is US household wealth has risen to a level that’s very high, close to the pre-global recession level and above the dot com boom in the late 1990s; and then that’s on the upper left. In the upper right, we see US household debt has gone from about 130% down to 102.5%, so it’s come down quite a bit despite this rise in wealth and dirt-free money. Right? Money is just so cheap. And then what we see is debt services has gone from 13%, which is
well above the historic average of 11.5% down to 9.9%, so also great for households.

And then we see in the lower left, and this is what Karen had mentioned, single family homes with mortgages in negative equity has come down tremendously, from around 31.5% down to about 17%. That’s our figures. Yours may be a tiny bit different, but roughly the same. And then we have the NFIB small business optimism indicator, which has been quite robust.

So you ask yourself this question, despite rising overall wealth and very encouraging developments in the labor market, why have households de-leveraged so much? And the answer is, which all the panelists know, tremendous deterioration in income distribution in the United States, we know that many people have lower wage jobs. They’ve lost their jobs. It was traumatic for so many people to lose their homes. And then remember regulation, so the banking sector has been regulated differently. So the banking sector is much more careful about lending to homeowners, which is appropriate, right, because we got in trouble because it was unregulated. The disappointment is that over the last seven, eight years, there has been no structural reform in the shadow banking sector in the United States, which is a huge disappointment.

So now we go to a different topic. I’m going to go to Europe for a minute, and now again, so something we’ve already covered, I cover it again. Now this is something we haven’t covered. Now we’re talking about de-leveraging in terms of de-leveraging from dependence on Germany and dependence on some of the wealthier European countries.

So this is the idea that these target to balances, which are in some ways loans between one central bank and another central bank, they peaked in September 2012 at 1.1 trillion euros and now they’ve come down to 575 billion euros. So that’s an amazing adjustment. So what you want to—let me just give you an idea of the numbers. In Germany, Germany was lending money to other countries, at the end of 2008, about 180 billion euros. It went up to about 880 billion euros and now it’s down to 515 billion. So we’ve had some movement and the macroeconomic reason for that is that the peripheral European countries now have current account surpluses. So these are all interrelated ideas, but there’s been progress in that dimension; that’s very encouraging.

You could see a number of countries still are dependent on ECB because ECB is also giving out almost free money. So you can see Italy, still the latest numbers, its borrowing from the ECB 195 billion euros, so less than at the peak, which was about 280. Spain is still 144 billion, et cetera.
Okay, now we’re going to another—let’s see. Here we go. Okay, now this is a combination of some of the work that Susan has done and others and this just looks at household debt as a percentage of GDP and we did that partly because we found the definitions of disposable personal income very different across countries. That doesn’t excuse that. That doesn’t excuse at all. It’s just a decision we made, because we update this presentation every five weeks.

Now what we see in household de-leveraging is that in Asia, households didn’t de-leverage, right? So Asia continued to borrow and borrow. So when we look at China at end 2008, we had household debt as a percentage of GDP at 18.3% up to 36.5%, virtually the exact number that Nick Lardy used, so a change of 18.2%. So that helped growth. That helped growth a great deal.

And what we would expect now over time, is that in the Chinese official banking sector, actually loan rates are going to go up. So it’s not clear that household borrowing is going to go up as quickly as it has over the last six years, at least not clear to us. And then you look at Malaysia, look at that, we have a number which says it went from 60.4% at end 2008 to 80.5, so 20.1% increase. That’s hard to believe it’s going to continue again, at that rate. So from a growth dynamic point of view, a negative for Malaysia. When I talk to clients, we spend some time on that, what you want to investigate as you begin to invest in Malaysia.

Now let’s go to my region in the world, EMEA, emerging markets, and here we have some good stories. The basket case, I don’t think you remember this, in 2008 was Hungary and Hungary has gone from household debt to GDP of almost 40% down to 31% so almost 9%. So it’s de-levered a great deal. We see de-leveraging in Ukraine, but for bad reasons, right? They’ve had one crisis after another. But we’ve also seen a de-leveraging in Kazakhstan, also for bad reasons. So sometimes de-leveraging isn’t good, right? It’s not good at all, because there could be very bad reasons.

And now, let’s go to Latin America for a while and then we’d go to the US, UK, Euro area. Brazil, during a period when generally speaking it had a terms of trade shock which was negative, not the whole period, but it actually increased its debt, household debt, a fair amount to 8.3 percentage points and Brazil has the additional negative structural feature that so much of lending in the country is at deeply discounted rates.

So for a macroeconomic thinker, this is just poisonous policy-making of the grandest kind. Okay? So roughly 50% of all your lending is at very deeply discounted rates. Then you look at Russia, it’s gone up a bit but not that much. Turkey has gone up a fair amount. But let’s go again, Brazil I
talked about so that’s a bit negative but Mexico actually hasn’t moved at all. So Mexico has a lot of potential to have very good debt dynamics going forward. Structural reforms, plus a good starting point.

Now if we go to the Euro area, we see the Euro area remain almost steady and Germany, which had every right to borrow more de-levers. Right? So Germany de-levers despite of getting money almost free, rising employment, low unemployment, low everything, low youth unemployment, but they continue to de-lever because they’re Germans. And then we have the French and they continue to borrow. So France is in a more vulnerable position, and you’ll see that from some other numbers, okay.

Now this page, I’m not going to go over it, but this page talks about gross external financing needs. And I don’t have the time series here, but basically they’ve come down tremendously for these Central Eastern European countries, except for Ukraine which is a basket case, but they’ve come down tremendously.

But I want to get to here. This is the favorite graph of the entire presentation. This is the graph when I meet senior management and I show them this presentation, going to be done. Okay? The key is we want to only talk about this graph. So what do we see? We see the US at top, general government debt to GDP has peaked. It’s come down from about 107%. That’s not because of the Federal Government. It’s because the state and municipal governments have become sensible. And you look at the US, the thing that you see is general government debt, general government revenue to GDP 32%. These are IMF numbers. The US stands as one of the countries at least willing to tax.

You go down to Europe and you see that France continues to rise. Again, you can’t see this because you don’t know the history, and you see Greece is coming down a bit. Italy is staying at about 136. Portugal at about 129. So there’s a mixed picture in Europe. The challenges are not over but on the whole there has been some positive developments. Okay?

And then loan-to-deposit ratios, so on the very top of this graph and then I’m going to close, on the left hand side, what you see is de-leveraging of Western European banks from Central and Eastern Europe. So basically the parent banks in Western Europe have decreased the amount of intra-bank lending they provide for all the European countries, so that’s been persistent. Except for one country, loan-to-deposit ratios have declined, some cases dramatically. Hungary went from a loan-to-deposit ratio of 155 to 95, so very dramatically. The one country where that hasn’t occurred is Turkey, where they have almost no foreign banking.
So the message is complex. The variety of de-leveraging and the reasons for those de-leveraging are not easily generalizable. What we see are some surprises in the US and that’s because of things like deteriorating income distribution. Thank you.

Adam Posen: Thank you to the speakers for four excellent presentations, all of which and particularly Michael’s I think, but Nick’s and everyone’s, bore out the recommendations from Susan and Karen, that you have to get into the details and you can’t just say household or China and I’m very grateful to have had four people who take us on a really deep but not incomprehensible dive into these truly nuanced issues.

Susan, unless you have something in particular you want to respond to, I’m going to open it up to the floor. Again, we have a roving mic with Jessica up front, we have a standing mic in back. Please feel free to go to the mic. More than one person can go and I’ll recognize you. Please state your name and affiliation when you ask a question.

Andrew Mayeda: Hi, it’s Andrew Mayeda, with Bloomberg News. This is a question for Miss Dynan. Obviously, the world is watching what’s happening in Europe right now between Greece and its international creditors. There’s been some debate about what the potential contagion effects might be on other countries, including the US. What is your assessment of what the spillover effects might be on the US if a deal isn’t reached?

Adam Posen: Before Karen replies, as she’s a sitting senior US official, she can choose to decline to reply. It’s up to her. I would just point out to our friends in the press, it’s fine to keep asking about Greece but I think you would be well-advised to be looking at the nuggets of what’s the future things you haven’t seen, whether it’s Michael telling you Hungary is doing better and Brazil is doing worse than you think, where Nick and Susan think the vulnerabilities are in China and so on. Just a mild hint. Anyway, Karen.

Karen Dynan: Yeah, sure. Thanks for that question. As I mentioned in my remarks, our kind of baseline outlook for the United States economy continues to call for kind of solid growth along the lines of what we’ve been seeing. The administration’s forecast that was released with a budget a couple of weeks ago called for growth that was around 3% this year and next year and that’s where a lot of the private sector forecasters are as well, kind of for the baseline. But that’s not to say that there aren’t any risks out there. And I think you know from the point of view of our economy, as I was saying in my remarks, that the domestic fundamentals all look good, particularly relative to where we were several years ago. So I think the risks are concentrated on what happens abroad.
So, it’s an area that we’re watching. I think actually, I will kind of defer the kind of details around what might exactly happen to an event that Adam is having tomorrow morning at the Peterson Institute. I think I’m right about this. You have my colleague Nathan Sheets, who is Undersecretary for Domestic Finance at the Treasury Department, here to speak on this issue exactly.

Adam Posen: Thank you. That spared me the need to re-tweet that we will indeed have Undersecretary for International Finance from the Treasury, Nathan Sheets, here tomorrow at 8:30am. I’m going to come back to whether any of our other people, which the speakers wish to talk about, Greece but first I think, Monica.

Monica de Bolle: Monica de Bolle, I’m with the Brazil Institute at the Wilson Center. And I have I guess a question and a comment, a question to the panel and a comment.

The question has to do with the shadow banking system in China. And to what extent we could have seen, as we saw this bank lending trending up, to what extent is it a situation where the unofficial financial sector, if you want to call the shadow banking system in China something like that, to what extent is that unofficial financial sector becoming official, as we have seen happen in other developing economies? Brazil is the case in point. This happened in the 70s and in the 80s when the economy was undergoing many problems, including formalization of the financial sector, so this is one question I want to put.

And the comment has to do with the household to GDP or household debt to GDP, household debt to income ratios that we’ve seen and the debt service, that was so well put. It is one of the highest in the world. I believe it is the highest in the world, Brazil’s debt service ratios. But I want to make a point coming back to what was said earlier about the details and devil being in the details. In the case of Brazilian household debt specifically, the growth that we’ve seen over the last few years and the concentration of this household debt is within the 20th to the 40th percentile, so we’re talking here about the very, very vulnerable so-called middle class in Brazil.

So not only do we have a very, very high debt servicing ratio but it is these people, it is this range of the population that has become more highly indebted over the last few years. Now mind you, the debt ratios don’t seem that large. When you look at them they’re in the 40% range. If you’re talking debt-to-income ratios, we’re talking in the 20 to 30% range. If we’re looking at GDP, nevertheless it is a highly vulnerable situation, so I just wanted to put that comment out there and see if anybody has a reflection.
Adam Posen: Thank you very much. May I suggest Susan and maybe Michael respond?

Susan Lund: Sure. On China’s shadow banking, to what extent is it becoming part of the formal financial system? I think it’s definitely moving in that direction. As Nick has pointed out, the government has started to issue regulations around it and if you take a broader economic view, you can see that the emergence of these wealth management products, trust loans et cetera, emerged for a need, both from savers and investors to have more vehicles other than bank deposits to invest in and borrowers who weren’t getting access to the formal banking system.

So to that extent, it could be the beginnings of a different type of asset management industry. The question is just the speed at which that will occur and getting transparency on the sector and some kind of standards and big questions about there’s already been—some trust payments have been missed. Last year an unknown savior stepped in to bail out one of the trust accounts that was on the verge of insolvency. And so there is a big question about to what extent is this underpinned by the government versus not?

In Brazilian household debt, I think it’s fascinating that you’re pointing out that it tends to be the lower income household who have the most leverage. I would say that one important point that I don’t think any of us made is that it matters a lot on what debt is used for. The panel this morning made a very good point. Debt is not bad. Debt is used to fund economic growth, physical investments and it can be quite good.

In the US, low income borrowers who bought houses they couldn’t afford, not so good, not very sustainable. To the extent that borrowers are using this to build human capital through quality education, healthcare, that’s a good long-term investment. So I think I would look very carefully at exactly what this borrowing is being used for.

Adam Posen: Thank you. I didn’t mean to skip over Nick, if he wants to common on China’s banking system further.

Nicholas Lardy: Just briefly, I agree with Susan and I think it is becoming better regulated. I think it’s going to be better calibrated. I don’t think we’re going to go back to the 2008 and earlier situation where 100% of the credit being extended was coming through the regular banking system. We’re up to 60, but maybe the long-term equilibrium for a while is going to look like 70% of the credit coming from banks and 30% through these alternative channels. So in that sense, I agree. I think it’s moving from being unofficial and unregulated to being better regulated and more official and playing a larger role.
Adam Posen: Michael, any comments on either Brazil or China?

Michael Marrese: There you go, thanks. In September, total social debt-to-GDP was 220%, so we have a different number than is in The McKinsey Report and that’s compared to 208, so it’s growing quickly. In nine months, it grew 12% of GDP, so the idea that it is "out of control" is not absurd. I’m not saying it’s out of control, but it’s not an absurd idea.

Secondly, if you look at general government debt to GDP, these are IMF figures, you’re at a bit over 60% of GDP, general government debt to GDP because of the municipal borrowing. And then if you think about something that Nick mentioned, the recapitalization of state banks, which I thought was around 30% of GDP when it happened and I like that number 30%. So intuitively, I add 30% to general government debt. So I’m already at 90% and the point I’d make there is if you’re already at 90%, you don’t have that much leeway to bail out the shadow banking sector because 30% goes to the official banking sector, so you still have this unknown, the shadow banking sector. So you should be seeing more defaults, partial payments. And that’s the way I think if you read the website, People’s Bank of China, that’s what they’re talking about.

Now for Brazil, now I want to connect it to Brazil, but that’s so problematic in China because generally the wealthy are connected to that shadow banking sector. So the wealthy are less wealthy, tough. But in Brazil, it’s more problematic because it’s really the poor that are stuck in this storm. So we have the number that debt service to disposable personal income in Brazil, our number is 40, just a second, let me get it, 46.7%. No, debt to disposable income stood at 45.7, 45 and that debt service is above 20% of disposable income. It’s very high, more than double the US; so Brazil has a real challenge here.

Adam Posen: Jacob.

Jacob Kirkegaard: Yeah, Jacob Kirkegaard here with the Peterson Institute.

I think a question probably mostly for Michael. It’s about the so-called good news from Hungary. I’m just wondering what the effect in Hungary has been, if any, of some of the, I guess you can call them shenanigans, that the government has done with forceful conversion of Swiss franc denominated mortgages, forced nationalization of parts of the private financial system, pension funds, et cetera, or does that have any effect on the data or is it just other "good news"? Thank you.

Adam Posen: I’ll just say that we at the Peterson Institute generally take a very dim view of shenanigans. But I think it is indeed, a very fair question for Jacob to
raise, but I also would use that as a bridge that if Susan wanted to come back in on her views on the European situation, which she didn’t choose to emphasize in her presentation if she wants to get that out there as well, but Michael.

Michael Marrese: So this is not an advertisement for the prime minister. Okay? This is not an advertisement at all. This has nothing to do with the prime minister. But if you look at some of the unconventional policies that Hungarians adopted, many of which I thought were nutso at the time, they became the policies of a number of Western European countries. Now they successfully took a situation where the household sector had this huge amount of FX debt and they’ve turned that around through a lot of pain. And their general strategy was we’re going to tax, and I’m from the banking sector, banks to death until the end of 2015 and then we’re going to cut that back and they’re delivering on that. They taxed energy companies through forced price cuts, big retailers, et cetera.

Now it’s true they got rid of the second pillar of the pension program but that gave them some space to control their general government debt to GDP. So these wouldn’t have been the policies I advocated, but I have to say they’ve worked well.

Susan Lund: All right, I won’t comment on Hungary, but I think that it is worth thinking precisely about where does de-leveraging come from, where is it good? And I want to bring up the case of Ireland, which I would give a plug for good de-leveraging in the household sector. Debt to income declined by 33 percentage points, more than the US. In the US, a large part of household de-leveraging came from mortgage defaults and then the complete stopping of net new mortgage lending.

In Ireland, de-leveraging did not come through defaults and foreclosures but through very widespread loan restructuring, household case-by-case basis, sometimes temporary, sometimes permanent. But at this point, something like 14% of Irish mortgages have been restructured and another nine or ten percentage points of mortgages are now in the process. And so it has been a successful way to avoid foreclosures and defaults but enable borrowers to continue to repay.

José De Gregorio: José De Gregorio with Peterson. I have a concern. I haven’t been able to concentrate because I have a big problem with the aggregate. Our view, general view, of the global economy is that savings have increased and investment has collapsed. So then I tried to do the accounting and I cannot get that all the world has more debt, so it’s kind of very complicated for me.
And I understood at the beginning there has been a lot of change from private to the public sector. That’s fine. But then why all the world has more debt, if there’s no more investment, there is just more savings in the world. So one thing that I, just one idea is that, many of the, for example, in Latin America and especially in Asia, increased in debt of corporations is a double counting if we’re looking at gross debt because corporations are borrowing the market which is very cheap, sees there are some capital controls, I think, for foreigners to get into the country. They take the money. They deposit in domestic banks and then the government borrows, so we are counting debt twice. So I’m still have a lot of problem to understand exactly how this match would [inaudible 01:16:34].

And one small comment regarding Brazil. That’s a very good point. Brazil, poor people, middle class increasing, a consumer debt and that is the vulnerable people in an economy that won’t be growing for the next couple years. It’s quite a problem. It’s quite a problem for that people but this is, I think, the positive side that a central bank would tell you, is that there are very few examples, I do know of one, in which consumer credit causes a financial crisis because they tend to be small so it can be handled. It’s a problem but …

Adam Posen: Thank you, José. I think that’s a really important macro perspective and if I can piggyback on that to ask the whole panel a question, which I had had, which I think relates to what José is saying. We used to talk about the savings glut and the problem, and it’s in our version of Ángel’s, why are interest rates so low. We had a problem we believe that we had too low interest rates and bad lending because we had too much savings sloshing around.

Now we have no lending, low interest rates, but as José indicates, we’re supposedly at least having an increase in saving or a decrease in risk because the debt is being transferred from private to public sector. So I mean really, how should we think about this? Are we worried? Is there this overwhelming amount of liquidity in savings and we’ve got to worry about the next boom or is there just a completely different dynamic now? Anyway, we’ll just go down the line.

Susan Lund: Okay. I can answer it numerically. We have more debt, when you think about the aggregate growth and global debt, about a third of it is in China and there it’s very easy to see what it’s being used for. They’re building stuff like crazy, whether it’s infrastructure, office space, residential space. So that’s a third of it. Roughly another 30% is advanced country government debt, so it’s Europe and the US and Japan’s government.

And then you’ve got a smattering of emerging market debt where they’re still like China building stuff, physical capital and then you have these anomalous countries where the household sector is taking on debt and
that, for instance, so Sweden, Netherlands, Denmark, Canada, Australia, Malaysia was brought up a couple times, Thailand, where it’s not so much new construction there. The question is, is there an asset price bubble? So house prices are rising and so you need to borrow more to buy a house and then supposedly the collateral that you’re borrowing with is worth more and so on and that leads to more debt and higher house prices until you hope the whole thing doesn’t go into reverse, as we saw in the US.

So that’s where it’s going. I think that certainly, working with companies, I think there is this question about where are the productive long-term investment opportunities? And you do see record share buybacks and sometimes companies are issuing debt to do share repurchases. So from a corporate perspective there really is a search for where there are good investment opportunities.

Adam Posen: Thank you. Nick.

Nicholas Lardy: Well, I’ll just reiterate what I said about the non-financial corporate sector in China. They’ve certainly invested a great deal but they have high retained earnings. They’ve build equity so there’s a big increase in debt but there’s no increase in leverage. So I think the increase in debt has been matched roughly by the increase in investment and it’s been turned in many cases, used quite productively.

Karen Dynan: Yeah, I think this discussion highlights why some of these broad sweeping statements about the global economy are not always kind of that useful way to think about things. Susan gave a nice pursing of kind of all the different things that were going on in different areas. I can just say, and this comes back to a point that Susan made and Veronica made, that you know even within like the household sector in the United States, you can just—it’s not inconsistent to have a lot of saving and a lot of debt depending on what’s going on with the distribution. So in fact, as Susan was saying, a lot of debt that was taken on the United States in the lead up to the crisis was debt that was taken on by what we would call middle class households.

And I think it’s very, very important to dig in and kind of understand kind of the nuances of what’s going on. I think the household discussion is all very much related to some of these interesting findings that we’ve seen out of kind of the IMF and the OECD, on how a strong middle class and kind of more equal levels of income are kind of better for economic growth, both that kind of level of growth and the sustainability of growth and I think that’s very much related to this question of who is it that’s taking on debt.
Michael Marrese: So I’d like to emphasize the fact that your average marginal return on investment, especially infrastructure investment, has collapsed in China, in Russia, in Brazil. So you can save all you want but if you don’t invest it well you get a bad result.

Adam Posen: Or not so bad. Let me collect just the last three questions and then we’ll do it. So Ian, Ted, and then the gentleman over here.

Ian: Just to followup on Michael’s point and to go back to the point Susan was making about growth concerns in China. Doesn’t this also link to Nick’s point about the leverage ratio in China? If the growth rate is not 7% or 6.8%, but rather 4%, then doesn’t that leverage ratio—isn’t that leverage ratio much higher and the productivity actually much lower, especially if much of the infrastructure in the housing is empty or going nowhere? And another issue that hasn’t been addressed is the dollar appreciation and the amount of debt that’s held in dollars.

And finally the question that I never heard answered is what is the consequence of China actually bailing out using its forex reserves to bail out any market instabilities? What’s the fallout from that?

Adam Posen: You are demanding. On that last point, before the experts speak, I’ll just say, that would be a hell of a lot higher return than they’re currently getting on their forex reserves. Ted.

Ted: Well, I was going to ask a technical question, so you can ignore it. So to what extent, Susan and Karen in particular, but others, Michael, you have measures, you told us about the data and how bad it is, so forth and so on, but when you use GDP, especially for these in these cyclical circumstances, there’s a lot of things going on in the denominator as well as in the numerator. Right? So if you believed in a potential GDP measure things would look quite a lot different in a cyclical situation such as what we’ve gone through, obviously. I’m not sure how much difference it makes and it’s a technical question, so maybe you can ignore it if we run out of time.

Adam Posen: Or we can post to the website after that. Yes, thank you. This gentleman.

William Marsteller: I’m Bill Marsteller from the Export-Import Bank.

I have a question about foreign currency lending. I wonder if perhaps Susan and Michael could talk about countries whose debt ratios, at least at first blush don’t appear to be that bad, but they’re more vulnerable than might appear because of a significant amount of foreign borrowing?

Adam Posen: Why don’t we go in reverse order this time and my colleagues can answer whatever subset of those questions they find of interest and amenable and
I assume that by the end of the four we will more than satisfy even Ian. Michael.

Michael Marrese: Thank you. I’ll just answer Bill’s question. So Turkey has a very low debt leverage ratio. If you look at total debt to GDP, it’s below 130%. If you look at the total general government debt to GDP, it’s 36%. But the vulnerability is that Turkey’s corporate FX debt and the IMF has mentioned this, BIS, maybe the Peterson Institute also, maybe others, and I’m not going to go through the complicated story, but that’s an example of a situation where the debt metrics look great but if you look at the exposure in FX there’s a great imbalance.

Adam Posen: Very good, Karen.

Karen Dynan: I’ll pick up on Ted’s point. But yeah, a lot of unanswered issues as to how you want to look at these things. That’s why I said I’m glad that Susan is digging into it. I’m glad a lot of academics are digging into it. But I think between the lack of data and then as I alluded to, a lack of kind of theory around it, we don’t actually know, we don’t even know through all we’ve been through, we don’t know how to tell how much debt is too much debt. More work needs to be done in that area.

These questions about potential GDP are important but down at the household level, it’s like is it debt, is it debt service, is it relative to what, is it your current income? Probably not. It’s probably your expected income. So anyway, I agree.

Nicholas Lardy: On China, obviously it’s hard to forecast what will happen to debt to GDP if growth slows down. Obviously, a lot depends on how much borrowing. If we continue borrowing at a fairly high pace then obviously, leverage is going to go up. But borrowing is already tapering off and if growth slows down more, it’ll taper off further and maybe the leverage ratio will not go up so much but of course the ability to service the debt will be a much greater challenge because earnings will be substantially lower if we go to 4%. Remember I pointed out profit margins have come down a bit but they’re nowhere near a collapse that you sometimes get the impression when you read the financial press.

On the second question, China is not going to be able to use its foreign exchange reserves for a domestic bailout for the simple reason they would have to convert into RMB and would cause a very substantial appreciation of the currency in a short period of time, which would not be good for a number of reasons. So I think they’ll just do what they did back when they recapitalized the banking system the last time around, they will issue more domestic debt.
Susan Lund: Okay. Thank you. Nick just gave the answer I was going to give. It’s wrong to think that China can use its massive amount of foreign exchange reserves to bail out the domestic economy for precisely this reason. The reserves were accumulated to prevent the appreciation of the RMB and reconverting back into RMB then would undo that.

The second point on emerging market foreign currency, in particular dollar debt. Certainly emerging market corporates around the world have had unprecedentedly low credit spreads and have been able to issue a great deal of dollar-denominated debt. Is this going to be vulnerable? Well certainly the dollar is strong, but what really matters is on a company-by-company basis as to whether their revenue stream is in dollars.

So for some, for instance, large Indian corporates, who have large scale operations in Europe and the US, it’s fine to have foreign currency denominated debt. I have no idea what the case is for Turkish companies. But I would look very critically when assessing the sustainability of particular emerging markets to look at what their revenue stream is.

And then finally the issue of should we look at potential GDP and the denominator of debt, what’s the right metric? I think it’s a very interesting question and I think that if we had more flexible debt contracts then you would look at future expected income, lifetime income, potential GDP. The problem when you have inflexible contracts, as Ángel points out, investors like because they know what they’re going to get repaid, if that’s the case then potential GDP and expected lifetime earning don’t help you out if you lose your job and suddenly can’t service your debt.

And I would bring the discussion full circle around to the need for more flexible debt contracts, which investors may not like as much, may require higher rates, but would build in some automatic flexibility so that variations in current income don’t mean that you have to default on the entire contract.

Adam Posen: Thank you, Susan, for bringing us back to that. If I can be allowed to make two observations on our remaining minute before thanking everyone.

First is one of the great patterns that we didn’t really talk about but which was implicit and now comes out in Susan’s comment, is that we’ve lived through a period in which debt looks more and more like equity and equity looks more and more like scary stuff. And I think what Susan is talking about in her last comments suggests that that trend, at least on the debt side, may have a ways to go yet. And this goes to some work that I know Adair and Susan have begun on shadow banking or more accurately non-bank intermediated finance, some part of which is shadow banking. And the more we go down that route, the more debt instruments become
flexible and therefore riskier and therefore something not like traditional debt and I think that that is sort of a good cosmic concept to end on.

The second observation I would just make is that this is sort of again, picking up on something José said. And although I think Karen and others responded very well to our questions on that, I think there is always a tension in the work the Peterson Institute does and then the kind of analysis that any of us do between focusing on the domestic determinants and the global determinants and there has been a tendency in a lot of the policy discussion about debt over the last ten years, including from the BIS, the Hobby Horse Workshop, that these are global things fueled by irresponsible Fed or ECB policies or the global changes in savings.

But what I think emerges very strongly from this panel is that at least some caution that these developments have very different nature country-by-country, economy-by-economy and that even if there may have been a common element back in the early mid-2000s, in a world where, as Susan and Michael pointed out, Malaysia is doing one thing and Turkey is doing something else and the US and Europe are diverging quite a bit, those kinds of global explanations may hold less power than even if they did in the first place. That’s a little less international minded than sometimes the Peterson Institute likes to be, but in terms of the analysis I think that’s worth at least thinking about.

Again, this has been a terrific pair of sessions. I’m very grateful to all of you who came to join us for this discussion. I’m particularly grateful to Susan Lund, Adair Turner, and their colleagues from McKinsey Global Institute. Their report debt and not much de-leveraging will be available on our website to go with various institute publications and the presentations of our presenters. Thanks to Karen Dynan for joining us and Michael Marrese for joining us today, Anna Gelpern, Ángel Ubide, Sean Hagan and of course, Adair Turner on the first panel. This meeting is adjourned.