Modern Money Network, The “Money Series” 2012-2013

2. Governments are not households: Implications of Monetary Sovereignty and Stock-Flow Consistent Accounting.”

INTRO: Welcome to the second seminar of the modern monetary series. This seminar is entitled “Governments are not households: Implications of Monetary Sovereignty and Stock-Flow Consistent Accounting.” So to start off I wanted to thank everyone who was able to make it out last week, and if you have any questions from last weeks seminars please again feel free to post them on the forum website and all the questions posted on the forums will be forwarded to the speakers. You can also do that for this evening’s event as well. So to just to briefly introduce our speakers, we have Dr. Stephanie Kelton, who is an associate professor of Economics at the University of Missouri-Kansas City, research scholar at Alleviate Economics institute, and director of graduate student research at center for full employment and pricebility. We also have Mister Warren Moser, who is the president of Valance Co. inc and senior economic advisor to senator Ronald e ussel, president of the 29th legistlator of the US Virgin islands. And as our moderator this evening is Mister Thomas Edsall, who is a prize winning journalist in Joseph Paul and Edith paul professor of journalism at Columbia University. So as far as the format for this evening we are going to let both of our speakers speak and our moderator ask a few questions before you can also ask questions later on. And then after that if you’re following this online feel free to also Tweet at us any questions and put the hashtag “MMPP” and we will make sure to address them at the end of this evening. So with that I am going to pass it on to Mr. Edsall who will say some opening remarks.

Edsall: It's a pleasure to be here, I think we are in for a very interesting evening. I am not an expert by any stretch of imagination. I think we have a truly innovative approach to economics and thinking that runs counter to the way democrats and republicans are approaching basics questions of how we spend tax and use money basically. So with that let me turn it over to our two speakers, Warren Mosser goes for it.

Moser: Hi let me give you a little background. I've been in what you might call it insider monetary operations for forty years now. I started banking in 1973. I grew up on money debts and bankers trust in the 70s back when that was a big deal in operation. I've been trading money you might say for a long time. I visit the fed regularly. What I tell you is known by all the senior staff, which include the fed, treasury. It is not known by the political pointes, the headline members that you'll see at the federal mark committee and treasurer secretary, people at that level. Political pointes are ones that don't understand that the operations people understand everything here implicitly. Also, today I would say its certainly also implicitly also understood by trading debts including golden sacks, Morgan Stanley, the Morgue, JP Morgan, credit Swiss, these are all people I've grown up with over the years and they understand this and know this is how it works. The last thing I wanted to say is that difficult, that anything that appears to be difficult put your hand up and ask and we'll sort it out for you. It's a very simple operation. I will give you a simplified title to why we have deficits. I'm going to give you one thing to begin thinking about. If you got a dollar in your pocket, where did it come from? So your first hit is to decide by the treasure of secretary. Unless it's counterfeit it came from the government. And they spent it and haven't taxed it yet. So what do we call spending without taxing? Its called the deficit. Part of the government deficit winds up as cash in circulation. The government doesn't spend more than the taxes it doesn't give you more money than it takes away; you're not going to have it. So what is casually called the money supply, are the money supply comes from deficit spending. Move right along here. So what is the monetary system? The monetary system is nothing more than a score keeping system. The Federal Reserve is a score keeps for the dollar. Its spends by changing numbers up and in our bank account and taxes by changing numbers down in our bank account. Keep up with my order here. The fed doesn't have any dollars or not have any dollars. Let me give you something to think about here. Suppose you went in to pay your taxes with some old twenty dollar bill, you went the fed you gave a stack of 20 dollar bills, they would give you a receipt, "thank you very much for paying for social security and Afghanistan" then they would throw it into the shred, you can buy shredded money in Washington. There's something different going on when someone takes your money and shreds it. Clearly they don't need that money to spend. If the banks want 20 dollars bills they would give 20's off the new pile, they don't need your old 20s with germs on them and everything else, they throw those away. If you pay me 20 dollar bills, I'm not going to throw them away, the state of New york isn't going to throw them away, Columbia isn't going to throw them away, but the federal reserve is.

Something very different going on there. So let me get a little more specific about how our government actually makes a payment. Lets say it's the beginning of the month and I'm waiting for my social security check and I look up on my computer screen and I see 4000 that's the balance to my account. I wait and I wait and all of a sudden the four changes into a five. What happened? I just happened and I now have 5000 dollars in my account. What did they do at the fed? What did the person do spending the money? He credited my account. He changed the number from a four to a five. He did not take gold coin and hammer it into the computer. He did not take somebodies tax money and run over to the next room and push it into the wire. He just changed the number up in my account. All federal spending is simply changing numbers up in our bank accounts. The fed is the scorekeeper. Before I card game and the scorekeeper how many points do I have? I don't have any points. Well if you have a hand and you have a hundred points and I give you a hundred, where did they come from? They don't come from anywhere I just changed the number in your account. Now its lets get back to taxes again, we know what happens if you pay your taxes in cash they just throw them away. What happens if you pay by check they change the number down in your account. They don't get anything, there's no cold coin that drops into a bucket, and they don't take this and do something. They just changed the number down. So if I have 5000 dollars in my account and I pay a tax of 2000 they just changed the 5 into a 3. Know what happens if one person makes a payment to another person. You write a check to pay somebody else. The Federal Reserve will change down in your account and change the number up in the other persons account. Totally separate operations. There’s a scorekeeper for the dollar if they don’t have any dollars they don’t not have any dollars. As I say here, the monetary system is best thought of a simple spreadsheet. In fact it only takes a couple of thousand dollars of software to run the whole fed. All you need is to get one big giant Excel spread sheet and put everyone on there. The Fed is past to make the debits and the credits as legal as possible. We’re going to get to why we have deficits. How banks create deposits and reserves. In the banking system, loans create deposits, what does that mean? If I go to buy yourself, you’re trying to sell your house; we’re in New York right? Better raise the price. Two and a half million dollars, I usually say a half a million dollars. You guys sell your house for two and a half million dollars, and I borrowed the money from the bank to buy it. So I’m going to borrow two and a half million dollars. My credits pretty good. So what does the bank do? The bank grants me the loan; they give me the loan for 2.5 million dollars. What they do is put 2.5 million dollars into my account, which immediately go into your account. And I don’t get how this has anything to do with buying your house. That 2.5 million dollar loan is an asset for the bank. An asset is something the bank has something it owns. They make a loan and I make a promise to pay it back, they have my promise to pay money that’s worth something that’s an asset. And they put 2.5 million dollars in the account, the checking account that is a liability that the bank promises to pay that money. Notice the loan created the deposit, they did not put it in the Federal Reserve, the Federal Reserve doesn’t even know to know they did this. The 2.5 million then, you sold your house to me then goes into your account unless they all go to the same bank. So now the bank has a loan from me, I owe the bank 2.5 million dollars and there's 2.5 million dollars in your account. You just sold me your house. You got the money, I got the house, and the bank has the mortgage. No body has gotten near the Federal Reserve. That money was created, that deposit was created, as a matter of accounting on thin air, the systems in balance, you have 2.5 million in your savings, my savings is negative, I owe 2.5 million. Your savings went up, mine went down, the net is zero and that's how they save 2.5 million, 2.5 loans, 2.5 deposit. Now notice the bank created the money, the deposit but its not the banks deposit. It belongs to you, you sold the house, you get to spend, not the bank, the bank doesn't take this and spend it. One more thing happens, which is important to understand the sequence. If the Federal Reserve requires the bank to hold reserves, the reserves are just checking account at the fed. If I can call the reserves checking accounts reserves at the fed from now on for this discussion. If the fed requires that you have a checking account at the fed, your balance is a checking account for, they use 10% because the math is easy, the real number is 1%, and we'll use 10%. And I'm supposed to have 200 as a requirement, there's a requirement that I take the 2.5 million, I keep 250 thousand at the fed, as soon as I give you that deposit, my fed account is short 250 thousand, I'm supposed to have it there but I don't. What I have is the overdraft at the Fed, my account is lower than it's supposed to be. Its like if you have a minimum balance requirement at the bank and you don't have it, its below the minimum, what that is its technically called an overdraft loan from the fed. You have don't have, the bank doesn't have put that money up, the bank holds that money. It’s an automatic overdraft loan. What we have in the banks, this is how it works, loans create deposits and they also create any reserves that the fed might require and the first insist is simply an overdraft of your first account. Now the traditional textbooks say that the fed gives you money, you make money, and it gives you this multiple money multiplier. That is absolutely correct for the fixed changed system which has been gone since 1934. What we have had for our life times. A system where loans created deposits and they created reserves. The old fractional reserve banking is perfectly correct its just for a different system they still got in Hong Kong, and still has in a couple of other places. We don’t have it here; none of the other major countries have it. In all nets to zero, deposits are necessarily equal to loans. If you got 100 dollars in the deposits and somebody else borrowing the 100 dollars, you wouldn’t have. There’s nowhere else it could come from. I’m getting to why you have deficits, you need to know there’s. The reserves are overdrafts. As a matter of accounting, the way they say assets = liabilities, the loans equal deposits, they have to because they come from the same place. If they don’t somebody at the bank has to stay late and find them, and usually someone finds them, within a few dollars. The other way it said is that liabilities of the accountant record of assets. If you make a loan you record that as a deposit, it’s the accounting record, it has to add up. Notices there are no net financial assets from this happening; there are no net financial assets. You can’t have with everybody with savings, where would it come from. Savings have to come from somebody else’s loan, you owe them that money. So everybody can’t have 100 thousand dollars. Somebody has to be, plus 100 thousand and somebody has to be negative 100 thousand and monetary terms it cant coe from anywhere else, its called case of inside money. The Italians called it euros, 12 century. Debits, credits, one coast to the other, it has to net to zero. So the only way we can have any net savings, where everybody could have some savings, where the savings could be higher that the long ones, if they came from outside the economy. It has to come from the outside. We can't generate it inside. If somebody gives you money and you want to save it, you would have had to borrow it, it has to lower his savings, it has to be transferred around. Net has to come from the outside, and that is the government sector. And that happens when the government spends more than it taxes. We have the economy and we're willing to create deposits, one person savings is another persons loan, the only net savings, the only net dollars, the only financial assets, all the same thing, can come from the government sector. Now when I talk about the economy, I include the residents and non-residents you can look anywhere in the world. We can separate out where people in new york could be saving, people in Connecticut could be borrowing, people in Germany could be saving dollars, people in France could be borrowing, the economy outside of government. So, we are going to give an example of how it works. If the government were to spend a billion dollars and not tax it, it doesn't buy crediting someone's account, it changes the number up. Now the system has a billion dollars more than it had before. Its really that simple. And the way we say this total myth of financial assets, of the non-government sector, are billion dollars higher than otherwise. And there's an accounting identity for that, its called the government deficit equals the non government surplus to the pen. The government deficit equals the savings in the economy of dollars to the penny. So last year, this year, the government deficit is 1.2 trillion dollars. It spent 1.2 trillion more than it taxed, it added 1.2 trillion more to our accounts then it subtracted. When it spends it adds when it taxes it subtracts. Our savings, the whole economy world wide, global dollars, went up by exactly 1.2 trillion dollars to the penny. Or someone in the general accounting office has to say where they found his mistake. Because when they change the numbers, all the accounts in the world, they all have to add up to 1.2 trillion, to the government deficit. So why does this matter? It matters, because in general the economy has a very strong desire to net save. Why do we have this strong desire to save? Its built in the institutional structure, it's built into the legal structure. We have requires that 15% of your paycheck gets taken away, you never get to spend it, it goes into your pension fund. We save, we put in your IRA and you cannot pay taxes on it until you take it out, it's a very powerful incentive to not spend your income, to save. And it may b not be your savings that you have immediate control, but your business is doing it for you. We have very strong incentive for our corporations to keep very high cash savings. Apple has over a hundred billion dollars in their account. And I list some of them here: pension fund contributions, earnings that are pension funds earned, corporate reserves, IRAs and all the other savings vehicles, all the cash in circulation right. And farm central banks save tremendously. We have central banks, farm banks that you know, one or two trillion dollars sitting in the federal reserves. Those are called treasure secured. Treasure secures are just savings accounts with the federal reserves, nothing you need to worry about. So we've got all of this, all these reasons not to spend, all this institutionally driven desire to net save. But how can that happen? We can't possibly borrow enough bought houses, and bought cars and go into debt enough personally to fill up our pension funds. And so what I'm telling is that, its not a coincidence that the federal deficit, something like 15 trillion, and 15 trillion dollars in our pension funds. It's like where else is it going to come from? This is not from to the penny, we could borrow some and borrow, and it changes. But this huge number of 15, maybe even closer to 20 trillion with the stock market, 15 trillion plus in pension funds has to be, that's the savings, it has to represent somebody else borrowing, spending more than their income, or else it isn't going to be there. So we've created the need for the government to spend more than its income, by establishing all this institutional structure that established all these pension funds, automatic contributions, money being taken out of our income and put away. It can't come from anywhere else. Think of it as 16 trillion one-dollar bills, where would it come from? The government has to spend it and not tax it or it can't get in there. This little chart shows, and Stephanie will talk more about this, how the government deficit equals the savings. And this is just a US private sector, but the rest of the world is pretty flat, so this is a pretty good indication of how the government deficit equals our total savings. The other interesting thing is that what happens when the government deficit gets very low. We cant save we have to go into debt to fund our pension funds or else it doesn't happen. We can only go into debt so far before our credit is ruined and the whole thing collapses. And when that happens, unemployment, checks go up, tax recedes go down, deficit goes up automatically and now we can fund our pension funds again because there's a deficit. So just a little bit of history here, we've had only 7 periods of budget surpluses. Now what is a budget surplus? That is when the government taxes more than it spends. It's changing our numbers down than its changing them up, its draining our savings. The same ways as deficits adds to savings, surplus takes away our savings. That's just the language we use. We've had 7 periods of budget surpluses and everyone followed by our only seven depressions in US history. And I call this last one a depression because unemployment went up by 10%, and that's the old definition of a depression. So in what you can see in the late years of the 90s unfortunately the surplus was spun politically as the reason for the good years. It wasn't. It was the reason the good years ended. By allowing the budget to go to surplus and all our savings was drained. Based on where normal deficit would be, we lost nearly a trillion dollars worth of savings, it was all taken out. Private sector was going into debt at 7% at GDP. Completely unsustainable. And then it all crashed when the next president took over. Unfortunately the politicians spotted the surplus caused the good years. No, the good years, the expansion, because of our tax caused taxes to go up because people were making more money, gaining income, taxes did go up faster than our government could spend money. We were at a surplus, drained all our money out in the economy and collapsed. The good years caused, and the tax structure caused a surplus that ended the good years. It happened every time when the surplus ended in 2001, Bloomberg announces, was the longest surplus since 1927-1930. Those days ring a bell? Yes those were our last great depression. And we're still fighting and of course all our politicians think deficit is too large. When in fact it is too small. Where do all the dollar savings come from? Some other agents spending more than income. How do you do that that? You buy borrow to buy a house like I did, when older people sell their homes to younger people the younger people take out mortgages they borrow the money and fund all the income and savings, loans create the deposits. But we all tend to be net savers, we all want money in our pension funds. We want to save in and our ability to borrow and do that is limited by income, it impractical. The tax advantages afford savings so strong they are much stronger than our ability to borrow. The remaining sorts of this desire savings are government deficit spending. There's no other place it can come from. And there's no coincidence that the 15 trillion, the government securities are roughly 15 trillion pension. So what's the right size for the government deficit? The right size precisely accommodates the desire to save. Are we ever going to hit the right size? No. but that would be the right size if we kept it exactly right. If deficit that's too large, spend too much and spend too much and tax too little, we're trying to provide more savings in the economy, wants what happens? All the extra spending drives up prices, drives unemployment down, unemployment might go down 3 =% prices might go up 10% a month, and we call that monetary inflations. That's inflation that comes from too much spending, that's what happens when the deficits too large. Today's deficit is too small. This is evidence, I think I said it right the first time, okay by an economy not spending enough to keep everyone willing to enable to work and producing real output is a spending shortfall. This happens the deficits too small the governments, for the sized government we have, we're taxing too much, we're taking away too much money, too many dollars, and there's not enough left to keep t spending high enough to keep everybody employed. Employment is the function of sales and spending, a restaurant doesn't lay anybody off if its full or empty, and engineering firm doesn't lay anybody off if its full, capitalisms doesn't determine by its sales. So, anyways we call this the global commune of 2012. Today the deficit is far too low given global standards desire. There's absolutely no question about it,. So what's needed here, some combination of a tax cut and/or increase in government spending to bring up sales high enough work employ everyone willing and able to work. So the question is why don't we just do that? And professor Stephanie Kelton is going to answer that question.

KELTON: Thank you. Thank you so much for the invitation to be here this evening. It's a real pleasure for both of us. Thank you to the organizers as well. We know how much work went into this. So I retitled my talk "we should be doing so much better." And I hope by the end of Warrens talk and my talk that everyone in the room agrees that not only can we do better but that we should be doing so much better than we really are. I'm going to go ahead and present the conclusion first, and then I'll go through the talk. Money is no object, we have to overcome this impertinent, the belief that the reason we aren't doing more is because we cant do more and the reason we cant do more is because we cant afford to do more. We don't have the money. Money is no object. I think Warren dealt effectively with that already. The Budget deficit is not the enemy. China is not our banker, we are not like Greece, we can have full employment and low inflation. Right now today and for the last three and a half years we have been living so far below our means. That's exactly the opposite of what we hear. Over and over again, we are living beyond our means. We need to tighten our belts; we need to get our fiscal house in order. We're going to end up like Greece if we're not careful. Look at the graph, if the financial crisis in the ensuing recession hadn't happened, the path we were on is that red line. That was our real GDP, that's where we were. We got knocked off the red line onto the blue line. And that gap you see is, economist refers to it is as the GDP gaps its everything we're forgoing. Everything we're giving up, by not jumping back on the red line. It amounts to almost 10 billion dollars left on the table every single day in this country. Its waste. We face a very simple problem; the problem is there isn't enough spending in the economy to employ everyone who wants to work, simple. And there's only one way out, the only way to grow the economy is to grow to grow spending. What is the economy? Ask an economist, and she'll tell you one number, it's your GDP. What is you GDP? It's the sum total of all the spending in the economy, its how much you spend by buying the newly produced goods and services that are being made by the farms in the economy, by the producers in the economy. So where does all that spending come from? GDP. It's how much the household sector spends buying consumption goods, durable goods like refrigerators, automobiles, non durable goods, like meals and clothing, and so forth. Alright services, vacations, trips to the doctors office, and that kind of thing. Consumption spending that you and I do, we account for 70 percent of all the spending in the economy. We drive this bus. Investments pending the spending that buying large is done by the firms in the economy accounts for the depending on where you are in business cycle, 10, 12, sometimes 14 percent of total spending. That's a big component as well. And then there's government spending's, now picking up about 15,16 percent of total GPD. And then there's the spending that the rest of the world does, or what we do with balance with the rest of the world. But it's spending, that's what the economy is. It's driven by as Warren said, by sales. So what drives spending? Income. Income drives spending. And so spending creates jobs. When you go into a store and you buy something, you're spending leads to income to someone else. There's someone else on the receiving end. That becomes their incomes, they turn around and spend a portion of that. And this drives the economy, and this is where job growth comes from. Growth in the economy. The question today is who will spend? The household sector 70% of all the spending in the economy. But its not strong. It shows periodic signs of life but inevitably disappoints at some term. We're not bad in full force and we're 70% of the economy. But we're still struggling; we still have firms lying off massive numbers of workers. Some announced in the last week or so. We have housing prices that are still very depressed. Maybe bottoming out, but still very depressed. Lots of wealth was destroyed in the economic downturn, and households are trying to rebuild their wealth, they're to turn down debt, they're trying to save more and spend less. And until the household sectors finishes doing that, economist use the term "deleveraging" until they finish hat process, and they come back in full force that huge component of demand is going to turn in a weak. And if that huge component of demand remains weak, why on earth would businesses go out and hire more workers and buy more capital goods, invests, they wont. They're son the sidelines, they're hesitant about hiring, they're reluctant tot invest, they're sitting on two trillion dollars in profits. When we come back they'll come back. The foreign sector isn't going to come to our rescue. We're not going to be rescued by strong demand elsewhere in the world. We all know what's been happening in Europe. Even the Brits now starting to show signs of crumbling. Brazil, Russia, India, Russian, China, those are the places that were supposed to drive global economic growth. And you're seeing slow down in many of these places, recessions, double dip recessions, in Europe and so forth. This isn't going to pull us out. Well what is that leave? There's only one sector left, and it's the government sector. But there's are so many powerful myths associate with having the government take the wheel take the time. The private sector got drunk. We went on a borrowing binge, we spent too much and now we need to refer. We need to hand the keys to somebody else. And we've handed the keys, and somebody else needs to drive the bus for a little while. And right now it can only be the government. But we hear things like well we're out of money, or all of our money comes from china, or we've already spent too much and now if we aren't careful we are going to end up like the Greeks. Where do we hear these statements? From the very highest levels. President Obama says, it's a quote, " we're out of money." Remember him? He really gets this engrained in the American psyche, this notion that the government outta run its operations just like a household. Its just bigger but its like you and I. it should play the same rules, it should be fiscally responsible, it should not spend more than it makes,. If I ran my business the way this government runs this country, id be broke. You remember how I used to talk. So these are very very powerful myths that have to be overcome. Households are not like the government. The government not like a household. There are fundamentally different creatures. A household can only spend what it can earn than what it can borrow it might take on so much debt that it cant pay it back. Either its income doesn't rise fast enough. Maybe its job loss, incomes drops to zero, maybe interest rates begin to raise, and households are subject to market discipline. Maybe rates go up, adjustable rate mortgage. All of a sudden you can't pay. Households can't spend more than their income for very long. They can do it the private sector can spend more than its income, Warren explained that, you say they did, if they can't do it for very long. Households have to live within their means. They're users of the currency. They're users of the currency. This house is different. This house has currency issuing capacity. This house is not revenue constrained. This house always has the ability to pay. This house can afford to buy any thing that's for sale in US dollars. This picture has no economic meaning. I want to do an experiment. This is my world now, this is my country. Well have of you are going to be my country. This is the country of Keltonia. I am the government, I have the taxing authority, I also have a standing army, courts, prisons, and so forth. Half of you are my domestic private sector. You're the households and the business in the nation of Keltonia. You're all subject to a tax in this great country, and so lets say 200 Keltonis, you have to pay me 200 Keltonis this year. What does that mean? If we record this on balance sheets it means you're not in debt to me. I have an accounts receivable I have taxes due, you have a debt. And I just reduced your net worth. Now, lets settle the obligation. Go ahead and pay your taxes. You cant! What do you mean you cant because I haven't spent any Keltonis into existence yet? The money to pay taxes comes from government spending. I'll hire some of you, you'll build roadways for me and I'll pay you Keltonis. Then you can pay your taxes. I'm going to pay 500. Now you're going to pay your taxes. So I credited your account, I gave you the 500 now lets settle that. Taxes are paid. What are your net financial assets? 300 Keltonis. This is a simple fundamental accounting truth. This is not gimmickry this is not a theory, this is a matter of accounting, it is a fact. When the government spends more than it takes back in taxes, you end up with a difference. You the non-government, it went somewhere, you got it. My deficit is your surplus. Or my red ink is your black ink. What don't you buy some new ports? This is the foreign sector. You might decide to spend part of your income buying goods and services produced abroad. You can do that. You can import from them as long as they want Keltonis. Which they'll want as long as you produce something of value in your country that they'll want to exchange Keltonis for later. So lets say you spent 200 buying great things from foreign lands. Go ahead. So now where are we? Who's holding Keltonis? We have three sectors, the government sector, the domestic private sector, and the foreign sector, the rest of the world. Where are they? You've got 100, you've got 200, and I'm the source of all that. I have the money that's 300. My deficit is the non-government surplus. The world has a whole is closed system. Every financial statement comes from somewhere and it goes somewhere. There are flows there are stocks, payments accumulated, they pool up. If we stock the plot ant any point of time we can figure out where they are. Those blue lines, I don't how easy there are for you to see, they represent leakages. That is the spending of money that doesn't return to the domestic producers in the economy. They don't like that. They want the income to come to theme revenue. But when you buy from tee rest of the world it doesn't stay here, but when you pay it to me it doesn't stay here. And when it leaks out in the form of staying, it doesn't stay and circulate there. So all of those types of leakages buying imports, paying taxes, and saving have to be off said by different injections into the spending stream or you're economy will contract. If you get more injected in than is leaking out then your economy will grow. Where do those injections come from? One source comes from buying from you. Another source would be me buying from you. And another source would be you investing borrowing and investing in new plant and equipment, that's investing. So injections, leakages, you have to figure out which one in some total is bigger, and then you can figure out what the impact is going to be on the economy will be. Government plays a role in as a source of leaking and a source of injection. The US is in net importer, we buy more goods and services from the rest of the world than they buy from us. This results in a trade deficit in the US and a surplus in other countries. This can cause domestic unemployment for you folks, and it a cause the domestic private sector to lose net financial assets. You saw that some of theirs went over there. Unless the government compensates with a deficit. Unless it compensates by cutting your taxes or increasing its own spending to replenish whatever might be leaking out to the foreign sector. Then we have all these objections we have to deal with, like deficit spending is irresponsible, China wont stand for it, the Bond Vigilantes will come after us, we'll turn our selves into Weimar, Germany or Zimbabwe. Aaah run for the hills! This hysteria is astounding over the potential for inflation. So lets ask the question on fiscal responsibility. What is fiscal responsibility? There's a group of folks out there, the deficit hogs, they have their definition of what fiscal responsibility is. For these people deficits are bad in the short run, in the medium rum, in the long run, it's a sign of weakness. You're doing something wrong, you're imprudent if you run deficit. They want immediate cuts to government spending. They support things like austerity to bring budget deficits down. They'll favor things sometimes like a hundred percent reserve backing, gold standards, and so forth. They would legislate rules to mandate that the government balance its budget. These are the hawks. Then you have the kinder, gentler, fiscal bird, the doves. The doves say well its true the deficits are bad, and in the medium term we do have to work to bring them down, but right now unemployment is a bigger problem. The economy is not where we want it. So we need to run some deficits in the short run, but will make up for by being good later and will rent surplus over the course of the cycle, and it will balance out and we'll have a balanced budget. This I find to be perhaps the more frustrating of the two arguments because this is such a weak sell for me, this is the group that goes out "I know I need to go on a diet and first I'm gong to buy a bigger pair of pants." It just doesn't pass the sniff test; it doesn't designate with people this group would support things like the fiscal pact in Europe. You can have small deficits some of the time but you need to have surplus the rest of the time, you need to balance the budget over the course of the cycle, yes we need austerity, but not yet. We need austerity later. Then there's this bird that is the deific owl, who says that these guys are in the dark, owls can see in the dark. The deficit owl see's things fundamentally differently. What would the owls say? The owl would never assign an arbitrary limit to either the size or the duration of the government's deficit. They would support austerity on as an anti inflationary measure. Why would you cut government spending and increase taxes if there's no inflationary pressure and you have lots of people unemployed? That's not the time for austerity. A deficit owl would call it fiscally irresponsible to permit chronic unemployment or high inflation. If you leave here tonight and you take just one thing with you to convince your friends and neighbors, which we hope you will do, take this picture. This is really powerful. I've used this over a number of years and I cant tell you the success that I have had because seeing is believing, pictures worth a thousand words and all that. What you see in this picture is, first of all you recognize that you're looking at a mirror image. You could fold the top half down and it would exactly line up with the bottom half. The blue lines, its important that you can read every number, just understand that the blue line is the private sectors surplus. That's how much you have. When its above zero its good for you because you have the surplus, when its below zero you are in deficit. You're spending more than your income. What you see is, this goes back to 1950 or so, is that the private sector lives above the zero line. That's where we are. That's where we operate, that's where we belong. When we have ventured below the zero line, things have gone very badly. The government, the red, lives below the zero line, almost always in deficit. The green is the foreign sector and there was a time in the US when we ran small trade surpluses against the rest of the world but we haven't done that for decades, we run trade deficits now. And our deficits are their surpluses. So that green above the zero line that's theirs. That's you spending more buying things from them, than they spent buying things from you. If you want to remain in the black above zero, and you're going to have a trade deficit. The only way you stay away zero is if my deficit the government deficit is bigger than the deficit you run with the rest of the world. The only way. So as long as the US has trade deficits, we have to have government deficits or you folks are going to be in negative territory. China is not our banker; I think Warren already dealt with this really affectively. I'm going to try to move quickly through this. China ends up holding US dollars because they're net exporters to the US. We buy more from them than they buy from us; we pay them they have the dollars. Rather than holding those dollars in a checking account, the Fed, China prefers to convert lots of those dollars into Bans. That's part of what we in daily language as the national debt. China buys treasury bonds. Treasury bonds are functionally savings accounts at the Fed. I could chose to sell you some bonds as well. You can by these they pay interest. What you're holding doesn't. Would you like this? Sure. She's no dummy. This is my checking account that gives me nothing, gives me interest. There you go. Now she has the bonds. I issued some debt, but this in no way burns me and it no one burns you or your grandchildren either. Just listen to Allan Greenspan. So did you hear what he said? You could not hear. He was asked whether personal savings accounts, personal retirement accounts would make social security safer because it would improve and protect the solvency, because in Paul Ryans view, not solve. And Alan Greenspan says there's nothing to prevent the federal government from creating all the money it wants and giving and it to spending in some way. Nothing to prevent the federal government from spending all it wants. You don't need personal retirement accounts. There's nothing to prevent the government from making good on every promise its made, to future retirees, the Chinese to whomever. The question the real resources. Will they be there in the future when we get old and retire and we want to consume things? That's the question that matters. So how does a currency issuer spend? Warren went through this. By directing its bank, usually the central bank to credit someone's account. Frequently this happens without even writing a check. It's a wire transfer. In the modern era, governments spend by keystrokes. They mark up balance sheets, they use the computer, if you don't believe me ask Chairmen Bernanke. This is the quote Warren referred to. When Berbanke was asked "where did this money come from, is the taxer payer money", those are quotes by the way, Scott Paley 60 minutes, "is that taxer payer money the fed is spending?" Not that's not taxpayer money, when we make a loan when we use the computer we use it to mark up someone's account. That's the way it works. Then why cant Greece pay. Governments can always pay. What's different? The countries in Eurozone, the 17 countries, they gave up their currencies. They became users of the currency. They gave up their keyboards, they cant do what they used to be able to do. Notice that Italy debt to GPDT rate shown today isn't very different then where it was 15 years ago, there was no debt crisis. The difference was the debt was denominated in Lira and they could always pay. Today all the debt in denominated in Euros, and the Euro doesn't come from Italy. So everyone of these countries they gave up their currencies and adopted a foreign currency have turned themselves into users of the currency and they play by a different set of rules. They're like states in the US, Greece is like Georgia. Italy is like Indiana, Iowa, they are constrained by revenue, they can only spend what they can collect in taxes or what they can borrow. The difference is when they go out and borrow capital markets, bond markets know that they're lending to the user of the currency, and they want a premium to compensate for the added risk. They don't that when they lend to the US, to the UK, to Japan. Why are rates all so low, in spite of the fact they have, in the case of Japan more than two hundred in debt in GDP, because financial markets cant bully that. Because they know they can always pay, they can't extract the premium. We are not like Greece. We are not turning into Greece; we are not going to become Greece. And we don't need to beg for help. They have to go strike a deal with Draghi, the ECB president, and they have to promise to behave and make conceptions and do certain things with their budget policy in order to get the loan. We don't have to beg. The Fed works for Congress, it's a creature of congress. You heard Ben Bernanke, "we will do whatever Congress tells us to do." So much for the independent Fed. Money matters, governments should be in control of their keyboards, all those countries in Europe gave up their keyboard s and it makes a huge difference. Without the keyboard, with out the ability to issue the currency, they lack to the power to keep their domestic economies on track. This is a quote of a famous economist who is a contemporary of Cannes, his name was Albert Learner, “by virtue of its power to create or destroy money by fiat and its power to take money from people by taxation, the state is in a position to keep the rate of spending in the economy at the level required to maintain full employment.” People say, wait a minute isn’t that the Fed’s job. The Fed is supposed to achieve high growth, and high employment, and price stability, when we think of the Fed. Did the Federal Reserve chairman say that monetary policy is not the ideal improve the economy? Yes he did because he knows its true. It’s got to be fiscal policy and we need the government to do it. We need more spending. Its not going to come from households, it’s not going to come from firms, and its not going to come fro the rest of the world. So fi it comes at all, it’s going to come through a combination of tax cuts, and then we can bring some households along, or government spending. Its got to come fiscal policy. But we’re so paralyzed by fear by hyper inflating the economy that we tolerate the waste and efficiency, the loss, the 10 billion we leave on the table every single day. And owl would say you don’t need a huge government, the goal is to to have a big government, the goal is to have a full employed efficient economy. And that gap in total spending has to be filled by someone or you don’t have a fully employed economy. And we have plenty of people who want to work. There’s the official unemployment rate, the blue line, and the enhanced unemployment rate, which includes all the part timers who want the full time work, or the discouraged workers who stopped looking. And if you include those folks the picture gets a whole lot uglier. We have lots of people who want to contribute. Our infrastructure is a catastrophe. The civil

> engineers do a report card, and our score overall is a D. we need a 2.2 million dollars just to get up to snuff. We have work that needs to be done, and that's just on infrastructure. There's nearly not enough job. And its not a problem just today, it's a chronic problem in every market economy. They just don't run themselves at full employment. They can get close and for a period of time in the late 1990's, early 2000's, we got really close. But almost always the number of job seekers is substantially higher than the number of job vacancies. So we have not a temporary problem, but a persistent problem that we need to address. We have factories with all kinds of spare capacity today. This is the Capacity Utilization Rate, it goes back to 1965. You can see in the early stages we ran our factories near 90 percent capacity and today you can see we are well below 80 percent.

There is plenty of slack in the economy. There are plenty of people looking for things to do and there are plenty of things that need to be done. We can get to full employments, we've done it before. We got as close as we've gotten in decades during the so-called Clinton Boom. We had the lowest unemployment rate in 30 years. Inflation was dormant but it was all built on the backs of the private sector. The private sector drove itself into debt on an unprecedented scale. We spent more than our income. That blue line that went way down for the first dip, that was during the so-called Clinton Boom. Sometimes the economists called it the Goldilocks economy. This was the new economy. These are the good times that were going to roll on forever. Expect they couldn't because these folks couldn't spend more than their income year after year after year after year. Eventually something gives.

We need the government to take the wheel, while private sector takes a rest. We should be doing so much better. We're not broke; money is no object. We have the real resources to employ. We can achieve full employment without sparking inflation. How do we know? We did it before. There's an alternative to shared sacrifice, austerities, tagnation and so forth. The thing that's holding us back is our failure to understand how the monetary system works. Thank you.

Edsall: Thank you very much. That was very, very interesting. I have a number of question but actually one basic one, which is what do you suggest seems very attractive and very painless almost. Why doesn't the system do what we say it should do? What is the economic interest in not doing what you suggest? What is the rationale that the arguments are limited by what you see as the democratic and republican positions that are contradicting. If what you were saying is accurate, why not grab it.

Male: I think you have to press the button.

Kelton: I think there are a couple of things going on in that question. I'll answer the part about why the economists don't get behind this and leave the policy and politic. Maybe the politician here can add a [inaudible 01:01:43] it. Within economics there is this thing called the Phillips Curve and maybe I can say that in a room like this where so many law students have done economics at some point in their training. There was this idea for many, many years that there's a tradeoff between inflation and unemployment, an inverse relationship. The only way you get lower unemployment is to tolerate higher inflation and we have these things like the NAIRU, the non-accelerating inflationary unemployment rate. These are fancy things economists make up to wow and dazzle one another.

The economists used to believe that this special unemployment rate was 6%. That if you pushed the unemployment rate below 6% inflation begins to increase. If you go back and you read the transcripts from the meetings in the open market committee, the Federal Reserve group that makes the policies that sets interest rate policy. During the Clinton expansion or the expansion that took place under Clinton, if you go back and read those transcripts you'll find that that members of the open market committee were having these debates. You had these two different groups, they called themselves the wolves and the elves.

The wolves were completely convinced that inflation was right around the corner and that rates needed to go up, interest rates should rise. The elves, Alice Rivlin and some of the others – she was vice chair – they said I think it's possible and Greenspan agreed that we can push growth and allow unemployment to go down without inflation becoming a problem and he was paying attention to the fact that productivity was growing fairly rapidly during that time. They start talking about is it possible that the NAIRU has fallen? Maybe it's 5%. They didn't raise interest rates, the economy plugged along. Output can increase, unemployment fell and inflation remained nonexistent.

They all started saying, "I think the NAIRU really did fall. I think it's 5%". Then they had to meet again and decide on interest rates and the wolves said, "We got to raise rates, inflation's right around the corner". The elves said, "No I think we can go lower." They had this debate and it's fascinating and then he started saying is it possible that the NAIRU is 4% because the unemployment rate fell to 4%, inflation didn't become a problem and they thought maybe the number was moving. The idea that there is still this belief that there's this number out there somewhere and we can't get too close to that number. Now what they've been doing lately is talking that number up. Maybe the NAIRU's 8% and this is the new normal and we're just going to have to live with this because we can't really safely [inaudible 01:04:25]. You want to take the rest of it?

Edsall: Can you answer the question of why does the system not adopt what you're saying?

Warren: If you look, last year we had the debt ceiling drama. Remember that last summer? Right after the State of the Union Paul Ryan got up and said look the US could be the next Greece. We're going to be on our knees [inaudible 01:04:54]. Interest rates are going to spike. We might get downgraded, we might default. We have to take $10 trillion out of the deficit and we're not going to point to the debt ceiling increase unless we do that. Obama actually agreed. The president agreed. He had a plan to take $6 trillion out but they didn't like what he said it was doing. They got right down to the wire. They kicked the can down the road with a compromise. Interest rates had gone up in anticipation of something terrible happening. The stock market was crashing. We got downgraded by [inaudible 01:05:29].

What happened? Interest rates went down instead of up. Three month treasury bills were going though at 0%. Everybody's going like what's going on. How is this possible? No move on the deficit. We're up over $16 trillion and this was supposed to be the end of the world. Then suddenly it started coming out coming out we had Allan Greenspan come out and said well we print our own money. Warren Buffet came out and said we're four As, not three As because the Federal Reserve prints the money. I compare this to the War of 1812 and the Battle of New Orleans. The Battle of New Orleans was fought after the war was over. The winner, Andrew Jackson, become president for winning this battle after the war was over.

Anyway, what's happened is that moment when they came out and realized that we weren't going to be the next Greece, that the US was not going to be on its knees and deficits don't drive interest rates up. There's absolutely no reason to think they would when you understand loan pay operations [inaudible 01:06:32]. The war was over. We had won the war. The reason for deficit reduction was gone. It disappeared. All the reasons that Ryan and Obama, oh we've run out of money, all these things were over. They kept fighting the war anyway and it's kind of the strangest thing. They just started pushing hey it was okay, now we got to do it towards the end of the year and nobody talked about Greece for a while. Then all of a sudden in the last few months you're starting to hear Greece sneak into it again. That war is over. You're right; it should be over.

We know that deficits don't cause a default risk, they don't cause interest rates to go up. They don't cause any of that. Now they might cause inflation if we over spend but let me say two things on that. Japan's been trying to inflate as hard as it can for 20 years and it hasn't managed to get out of deflation. The Fed Reserve has been trying to inflate with everything it's got, every trick in the book, every tool it can imagine for four years and it hasn't done it. it utterly failed. It's not that easy. I've been writing for years and some people here are on my mailing list, that central banks cannot cause inflation no matter what they do. I think we've seen that proven out.

Number one, inflation's not that easy. The causes of these other things are all special circumstances with a lot of hyperinflations. I won't get into that. If there is any reason to think that we do need deficit reduction, that we should cut spending or raise taxes, it has to be inflation because none of the other things are a factor. Let's look at our inflation forecast. There isn't one analyst out there who has a reputation to defend that's forecasting any kind of inflation. The treasury index bonds 30 years are forecasting very, very low inflation. There's not a single inflation forecast out there.

I talked to Representative Hollings, he's on the deficit reduction committee from Virginia. He's a progressive democrat. The war's over, why are you pushing for cuts in Social Security, cuts in the Medicare. Isn't the burden of proof on the other side to tell you that we have to cut or else it's going to be inflation, maybe you have to do a little research and prove to you that there could be inflation and therefore we have to cut Social Security and Medicare because there's certainly no forecast out there. Why are you just voluntarily the last of the progressive democrats out there proposing these cuts? He goes well it's a pretty large number and I think we need to do something about it. It's like, what.

There's something very wrong with the political process. I think what's happened is they become victims of their own propaganda. They've gotten it so instilled in people that we have to do something about the deficit they can't even begin to talk otherwise even though they know who [inaudible 01:09:32]. Even though they know they've lost any plausible reason for it. Even though they know the burden of proof is on the other side now to show that spending needs to be cut or taxes need to be raised, whatever, for some reasoning.

The polls show that if they come out there and reaction show that if they come out and [inaudible 01:09:54] the deficit reduction they get laughed off the stage and they lose their spot. This is the Battle of New Orleans is being fought after the war is over because people don't realize the war's over in their heads. Even though the policy members might know that, they're going on dealing with a population that doesn't know it. It's just an economic disaster and a real tragedy. If I could say one more thing about taxes if I can and the size of government so I make this entirely apolitical which it should be.

The size of the government is a political question. How many teachers do we want in the classrooms? How many soldiers do we want in the army? If you take too many there'll be nobody left to grow the food and we're going to starve. If you take too few we're going to lose the war. These were all political decisions of what resources we want moved from the private sector to the public sector. You'll have differences of opinion. Some people think we need more government. Some people think we have less government. Once we've settled politically on the right size government then there is an appropriate level of taxes that allows the right size deficits so we have the right amount of savings to offset our pension needs and stay at full employment, given that the size of the government is a political decision that shouldn't be based on whether the economy's good or bad.

Then it's a legal system. How many judges and clerks do we need? If there's a 10 year wait maybe we need more. If they're calling you up asking you why don't you go out and sue somebody we have people waiting around to have trial then you've got too many in there. You've got to come up with the right size legal system and everything else. Once you've done that, taxes are the thermostat on the wall. If the economy's ice cold and unemployment's high, you're taking too much money out for the size government we have and you need lower taxes for that size government.

If on the other hand it's overheating, there's too much spending and prices are going up too fast or unemployment's too low, whatever that means, then taxes have to be raised to the size government we have our taxes aren't [inaudible 01:12:07]. We're not taking enough money out. For this right size government taxes are the thermostat on the wall. They're not there to balance the budget to bring in money, we're just changing numbers down, we're changing numbers up. The deficits are residual. You find out afterwards if it was the right size deficit my counting the bodies in the unemployment line not by worrying about paying it back [inaudible 01:12:27]. There is no such thing.

Your question now is why can't the political process get us there? Now that you know all this I'm going to ask you for the answer because it's becoming more of a mystery everyday because the more people I know who know the right answer, it's almost like the less willing they are. I talk for hours to Senator Bloomingthal. If you read my book, *Seven Deadly Innocent Fraud*, you can get it free on line. It's an easy read. He gets the whole thing and he won't do anything, he just sits there. Same with Lieberman from Connecticut, I ran for Senate in Connecticut a couple years ago. I talked to these people. I talked to Hollings. I talked to all kinds of people over the years. They're not going to be the ones, I don't think, to move us off the guidelines. We've got the academic community starting to give some of the right answers through the blogs. Stephanie's done a wonderful job in her blog if you want to promote that for a few minutes. If you want blogs to read I've got mine, moslereconomics.com I forget your – It's a new economic perspective but what's the …

Kelton: Dot com.

Warren: Dot com. It's called MMT, Modern Monetary Theory. Somebody gave it a name. We don't particularly want people to name. We chose that it's been expanding rapidly. We got very nice write up in *The Economist* early in the year and *The*

Washington Post article was just up there on the screen. It certainly mentioned and moved up in discussions but it's not there. The only thing between us and full employment and property beyond what anyone can imagine is the space between our ears. It's nothing else in the way right now. There's no food shortage, there's no shortage of housing. We have surpluses of everything.

Kelton: I won't say who it was but Warren and I met with a member of Congress. We went through all of this with this person. When we got done this person looked at us and said and I'll quote, "I can't say that." Not I don't believe that, I disagree with that, you're wrong, you're crazy, I can't say that. I can't say that. We have to make it, I think, increasingly safe for these folks to say that to take these positions. Wasn't it FDR who said I can't do things, you have to make me do things?

Warren: This is pro agenda from all of them. The republicans would love to cut taxes and not have to cut spending. Think they could agree on that they can't. They want to cut spending more because you have to balance. If they cut taxes they got to cut spending even more. They'd have to balance the budget, so they don't even do their own tax cuts. Democrats would like to increase spending. How's our time? The backing thing is another question. These people are completely backwards. Banks are public sector entities. They have federal charts. They're regulated. The regulators can come in and fire the management. Every loan they make has to fit a very narrow box determined by Congress. These banks are agents of congress just like the military is and yes they have some wiggle room to price risks just like the military has zero rules of engagement. We've got all these …

Male: I don't want to cut you off but we've got [inaudible 01:15:50] more question.

Warren: Oh, go ahead.

Edsall: Let me get some questions from the audience. Hopefully …

Female: Just very quickly. This …

Male: [Inaudible 01:16:00] please.

Edsall: Press the button.

Female: Can you hear me?

Edsall: Yes.

Female: All this talk about taxing the rich and leaving the poor with less FICA taxes is a moot point. They really have to say low taxes for everybody and that's no problem for an inflation and all that.

Warren: If you want to tax the rich for social engineering that's fine but not because you need the money to spend. These are two different items. If you want to do it on fairness and whatever that's fine but not because you need the money to balance the budget. That is not a legitimate reason to do it.

Edsall: Back there.

Male: Assuming everything you said is right, it seems to me that the only risk is inflation. Are there reliable measures to assess inflation and what would be a tolerable measure? If you can answer that in specific …

Warren: That's a political decision, right. Yes, that's a political decision what the right level is. If it’s too high you get thrown out of office, okay it was too high. There's also a lot more to that. The burden of proof should be on whether these policies will cause inflation or not. Some of us might say we have to cut social security or else there's going to be inflation. Fine. Do the numbers. Do the forecast. There’s not a single forecast out there that even looked at it. Nobody’s done any of that work. That's what I said [inaudible 01:19:36]. I said do the work. Tell the other side who wants to cut it the burden of proof is on them to prove that Medicare’s inflationary. If they do and there's a legitimate political debate that if we don’t cut Medicare inflation’s going to go from four to eight, let’s put it up for a vote, fine. They’re not doing that. There’s not even any research going into that. All that research goes into how large is the deficit going to be. Not whether or not it’s going to cause inflation. If you ask the Federal Reserve they’ll deny it even causes any inflation.

Male: Do you have a mic?

Male: To my understanding, [inaudible 01:18:14] that I believe in the [inaudible 01:18:18].

Warren: The worst case for any country would be balance trade. You can always important to the extent of your exports. What you're talking about only matters if you're trying to run a trade deficit where you like to be import or that you export. You can only do that if the rest of the world wants to net save your currency. No matter what you do, you don't even have to have a currency. You could still export revenues and then import with those revenues. Worst case is balanced trade for any country even if you don't have a monetary system. A monetary system's, of course, are never going to make it worse than it is.

Male: You mentioned that inflations were special circumstances but [inaudible 01:19:30] was a monetary sovereign. Can you comment on what happened there?.

Warren: I'll start, tell me if I miss anything. You had the Treaty of Versailles, which demanded war reparations. I believe the deficit spending was 50% of GDP annually, like 4% or 5% a month. They were spending it by selling their own currency to buy foreign exchange and gold to make payments. I will agree that if the United States – how much would that be – if we started spending a trillion dollars a month to buy gold and to buy Euro and Yen and everything else and sell dollars we would drive the dollar down and the price of gold up much like [inaudible 01:20:15] did. That was a case of a very special circumstances that was forced by the alias as war reparations. The day they stopped that policy the inflation when back to zero. That's was the reaction to a very specific policy.

Male: If I could just follow up on the previous question. The last two countries that even if they ran a balanced trade wouldn't have enough natural resources to put food on the table. Does that mean that this other currency can only really work with resources they've got in the country then you've got to go from there. How would you do it if you were saying not here but a small country next to Australia suddenly got nitrates to sell or something? Is it just that the money only gives you as much as you've got to work with, it just helps organize it better?

Warren: The real wealth of any country is everything you could make yourself domestically and full employment. Think of it as your [inaudible 01:21:18] plus everything you can import, minus everything that could export. You're always trying to optimize your real terms of trade, which means import as much as possible, export as little as possible. You want to get the most for your exports. The way I say it is exports are always real costs and imports are always real benefits. Countries with a lot of natural resources should have a natural advantage because export these things and import a lot. They're just starting ahead of the game. Most of the world now import services are being asked back to that. You have to offset communication so you can export services to pay for your imports if you need to.

It be hard-pressed to come with any country does have a problem importing. Even the worst countries in the world have a problem with the weakness. When they send the item of and the problem is imports are higher than export. They have a trade deficit. Even those countries manage doing. Why, the rest of the world wants to export, wants to sell you things, they're controlled brother export. Is not a macroeconomic interest to those countries but is in the micro entrance of their exporters. I have yet to see even the weakest countries face of the problem where there have been sufficient imports. I'm not saying it is theoretically possible. You could cross that bridge when you can't select but I've just never seen it.

Male: There seem to be the assumption that anyone who wants to work and is willing to work is a positive thing for society in terms of [inaudible 01:23:03]. I can’t see why full employment is [inaudible 01:23:07] for maximum output. There might be someone who is [inaudible 01:23:15] society. [Inaudible 01:23:15] there might be someone who’s not [inaudible 01:23:23] but not able to do anything productive.

Warren: We’re defining willing and able is what you’re doing. If you've got people who when they go to work they just like everything getting in fights throw things around, yet that's going to be an issue. We're so far from that right now we're that would be a problem. But in general, a person employed is certainly less of a negative than unemployed.

Male: Just quick from a [inaudible 01:24:00] …

Warren: It means that sales aren’t high enough. If their sales double they would hire more people.

Male: Sure but you’re making the assumption that [inaudible 01:24:17] hire more people.

Warren: Not every industry. With increasing sales if you look at any graph of sales of unemployment it's always the same one. You have productivity in there, you've got sales and employment. Capital is driven by being able to sell the output at a price.

Kelton: If you ask firms what is the biggest thing holding you back right now in terms of hiring, it's sales. It's the number one answer every single time. Regulation comes up, taxes come up but sales is number one.

Warren: We could agree that at some level of sales you're going to get some level of unemployment, maybe 3% or something, 4%. If you try and go lower than that you may wind up with some kind of a negative situation. [Inaudible 01:25:15] but I could understand the theory that there might be you start hitting the transitional unemployment levels, that type of thing can happen. If we have more time we could also go into the value. I've had three proposals and the first was to just suspend FICA taxes in this economy so that people working for a living will increase their incomes by $300 a month. They could make their mortgage payments, which fixes the bank. Sales will increase and employment will increase.

The problem is the key part to the proposal was that the US government needs to offer a job and right now I'd say at $10 an hour job to anybody willing and able to work as a transition job because the private sector doesn't like to hire people who are unemployed. It's a resistance to that. As the economy picks up, those people never come in and you wind up with label bottleneck you wouldn't otherwise have, a labor shortage that you wouldn't otherwise have. If they're in a transition jobs then they get hired.

The paper I wrote on this was called *Full Employment Price Stability* back in the 90s and Argentina actually did it. [Inaudible 01:26:23] at the label ministry and in 2001 after they went down in flames with 32 dead in the street, they reopen with this program called the FS program where they offered a very low wage job to any head of household willing to work. They got two billion people into this program. The population's only 35 million. It was this huge line and they were all people who had never held a private sector job before. Within two years a million of them had been hired into the private sector and at that time Argentina had the strongest economy in the world with a 90% growth rates.

The point being that, this transition job that the US did it for $10 an hour is not very much money, it's not a financial issue. It's an issue of being able to allow people to transition from public sector to private sector work and the unemployed are in the public sector whether you say they are not.

Male: [Inaudible 01:27:22] Chinese people do the same thing.

Warren: What's that?

Male: [Inaudible 01:27:24] Chinese people do the same thing.

Warren: Yes, I know. India has had something called the rural poor program.

Male: It's doing really badly.

Warren: Yes, that's because the corruptions [inaudible 01:27:33].

Male: No, it’s also because [inaudible 01:27:35].

Warren: Yes, that's what I said. The corruption.

Male: [Inaudible 01:27:42]

Warren: These people have to pay for the government jobs.

Male: Could you talk us through the Volcker period? If I understand you correctly, there's no reason for Volcker to do what he did.

Warren: I lived through that period, I was on the trading desk. Who's asking that question?

Male: John.

Warren: To me that was absolute disgrace. We had a Fed chair didn't understand monetary operations. He set a limit on bar reserves by 50 billion said the bank can't have any more money. Banks make loans, which create deposit and then two weeks later they settle up.. Were you there then [inaudible 01:28:25] at Blair?

Male: No.

Warren: It was terrible. What he did was he transferred interest rate control to the New York Fed from the Washington Fed. By default. The way it happened is the banks will add up their deposit and suddenly they had set up 50 billion reserves, they need 55. The New York Fed's supposed to say you can't have. As long the deposits have already been made they already have an overdraft to this feed. Overdraft already is a lone. All they could do is go out and try and borrow it from each other and drive up the interest rate. They'd come to the discount window asking for the money and the Fed would slam the window on their fingers and they'd come up with a bleeding stubs if they asked again.

What they did is they just did funds with each other up and I remember one Wednesday, funds were 28% bid no offer. The thing when they expired at the end of the day the Fed would lend the $5 billion because it can't come from anywhere else and it would be some interest rate, the discount rate plus the stigma for having your bank taking the money instead of somebody else. So, the interest rate plus getting your fingers chopped off. I think the discount rate was 14 or 16%. Rather than get your fingers chopped off at the window. They say all you need to borrow. Maybe we need to send some examiners and I'll pay outpace Citibank 25%, let them go to the window. Citibank would pay the next guy, 26 and let them go to the window and they'd bid it up so they say hey 28%, I'll go to the window and get my fingers chopped off and get the examiners in. It was a horrible thing.

You saw interest rates fluctuate 10 full percentage points on a daily and weekly basis. It'd be 60 and then it'd be 20, then it'd be 28. It was absurd. After a year on this Volcker finally realized that it made no sense and all he had done was transfer control to the New York Fed and used his stigma as a way to drive a spread between the discount rate and the actual rate. It made inflation worse. If you want to look what brought the inflation in 1980, it was not the Fed. It was deregulating natural gas in 1978 which Jimmy Carter did and he still gets no credit for having done that. He probably didn’t know what he did.

What happened is natural gas was being capped at, I think, 30% so nobody would [inaudible 01:30:41]. He deregulated it and the price went up to 260, which was a huge embarrassment. It went down a little bit but it was far cheaper than oil. All the utilities switched from burning oil to natural gas in huge amounts. Volcker cut the production to try to keep the price of coal above 30. They cut production by 15 million and barrels a day and it wasn't enough. They drowned in their own oil has everybody stopped using it. They have 15 million barrel a day plus supplies shift [inaudible 01:31:09] and price went down to 10. That should’ve brought prices way down. Today you know when oil drops we see negative CPI. Not with 20% interest rates of interest rates are getting to the cost of everything.

People with money in the bank you're compounding on are your savings so you have all this – the government is a net payer of interest. He kept demand high. He Cost high. Cost of investment with high. Prices had to be higher before you invested. You had to pay 20% for mining. The inflation lingered on because of Volcker and its high interest rate. What’s that paper you wrote about called high interest rates caused inflations, the cost to GDP ratios were higher. It’s [inaudible 01:31:53] absolutely true because governments are net payers of interest. When you raise rates are actually going more dollars economy and make it inflation worse. When you lower rates, you're actually reducing inflation.

The Fed did quantitative research. They bought all these securities. They earn the interest on the securities. If you look for the last couple years the end of the year the Fed's been turning $80 billion a year over to the treasury. Where do you think that came from. That would've been earned by the economy, the private sectors. The Fed had owned those securities. The quantitative easing has been draining $80 billion a year on the economy so it's making it worse. What did they do, they do more of it. Now they're draining $100 and $110 million a year out of the economy with a new round of quantitative easing. They think they have their foot on the gas. They've got it on the brake. What it does is make the car go faster they just push the brake harder and slow it down some more.

Kelton: I just pulled up a quote from FDR's Fed Chief, Eccles. Is that how you say his name?

Warren: Eccles, yes.

Kelton: He's saying clearly the best way to stimulate the economy is through tax cuts. The liked payroll tax cuts and the best way to fight inflation is through tax increases. Here's the Fed chairman saying you control inflationary pressure through fiscal policy, not monetary policy. The reverse effect.

Warren: He knew what was going on. We've over the years various [inaudible 01:33:21] if you go back through time but if it's quickly forgotten and it doesn't seem to be into the common knowledge.

Male: One thing I know was missing [inaudible 01:33:36] was the [inaudible 01:33:38] change. Our country's [inaudible 01:33:41] anymore [inaudible 01:33:44]. Yes, we don't live in a gold [inaudible 01:33:47] anymore, we don't [inaudible 01:33:47] rates and [inaudible 01:33:50]. We do have this [inaudible 01:33:58]. Let's say that America does implement some of these polices and does quantitative easing and spikes and more [inaudible 01:34:17] but let's say something does happen in that regard. Would there be significant [inaudible 01:34:25] a change regime to get America's leadership in that regard and with that investment goal to domestically or internationally?

Warren: We have to remember that exports are costs and imports are benefits. The rest of the world wants to export cost. Let them do it. They're just making themselves the world's slaves. They're producing and if you look at Japan, for an example. If general McCarthy had gone to Japan right after World War II and he said okay we won the war, we've got more nuclear weapons here, here's the deal. You're going to send us two million cars a year for the next 60 years. We're not going to send you anything. Everybody would've said you can't do that to those poor people. That's outrageous.

Well what's been happening for the last 60 years. Japan's been sending us two million cars a year and we've been sending them nothing. This is the biggest case of war reparation in the history of the world. They think they're winning and we think we're losing. We send trade negotiators to try and stop it. We've had three, four generations of Japanese working 12 hours a day at their machines building us cars and golf clubs and living in 600 square feet. Saving hot water when they make tea for later so that we can sit around on welfare driving the cars and playing golf and they think they're winning and we think we're losing.

The idea is you want to optimize your real terms of trade as all good Australians know. You want to be able to get the most imports for your exports. The rest of the world wants to export to us and China's been the world's latest for the last few years. It [inaudible 01:35:04] exporting large amounts. We've been giving them numbers on the scoreboard at the Federal Reserve. Our real terms of trade have been much higher than otherwise. We need to just take advantage of that. Just open it up if you want to send us things fine. What happens is …

Male: I was more [inaudible 01:36:29] to the like I said in terms of trade but [inaudible 01:36:33] if China's currency …

Warren: You're worried about the exchange rate?

Male: I'm talking about because so many countries either [inaudible 01:36:43] …

Warren: that's for the purse of exporting this.

Male: I understand but that pay may not be sustainable for long term given …

Warren: Yes, so they might not want to export to us anymore?

Male: In terms of okay well in a very practical term let's say a dollar in America will buy less [inaudible 10:37:02]. America's going to [inaudible 01:35:06] domestically but nationally things, I feel, will not be achieved anymore because in relative terms [inaudible 01:37:24] labor and maybe it’s [inaudible 01:37:27]. You know what I mean?

Warren: Yes, so we may not be able to import as much. The risk is that our ability to import goes away.

Male: More so as a person your hour labor rises less in international [inaudible 01:35:40].

Warren: Yes, that means we could import less.

Male: Yes. [Inaudible 01:37:44]

Warren: That's all it is. The risk is that imports go away. We should have trade policies and fiscal policy to maximize our real wealth. Make our pie as large as possible. Everything we can produce is full employment plus what we can get from the rest of the world, minus what we have to send them. Once you’ve optimized that, look it's not what one dollar buys it’s what all the dollar buy. Sure, one dollar buys a lot less than it did 100 years ago but all the dollars buy a lot more. That's what we all have. That's our real standard of living.

Male: We’re not [inaudible 01:38:16]. We don’t want dollars, we want the goods. We’re not [crosstalk 01:38:23] …

Warren: Exactly my point.

Male: I guess there's [inaudible 01:38:28] we should be looking at in real terms.

Warren: In real terms we want to …

Male: That [inaudible 01:38:35]

Warren: You need real output. You want to optimize the offer. How do you do that? Well you start by having everybody working.

Male: That's true.

Warren: Taking yourself down to 10% unemployment because you think you need the money in the future. It makes no sense at all. It’s not about that, it’s exactly what you said. You need to [inaudible 01:39:24].

Kelton: It doesn’t make sense to stop using unemployment to fight inflation and start using unemployment to protect the exchange rate.

Male: Can you comment on the dollars of the currency and how that …

Warren: As the reserve church?

Kelton: … as the reserve crunch and how that ties into monetary gain.

Warren: Again, it’s all about being able to optimize your real terms of trade. What does a reserve currency mean anyway. All it means is that other countries are holding it as foreign exchange reserves. Are they doing that? To be able to drive exports to the US, which is to our advantage. We can use our taxes to make sure we can have enough thinking powers here to buy everything we can buy and pull from it plus everything he rest of the world wants to sell. We did that in 1999 , but we had unemployment under 4%, and we had record influx [inaudible 01:40:22] 385 billion. Back then, back then that was a lot of money.

Male: My question is the trend towards discussion there should be a basket of reserve currency in China coming …

Warren: If they want to do that …

Male: … with [inaudible 01:40:35] currency of trade for [inaudible 01:40:37].

Warren: The only way that matters to us is if it means we no longer have the ability to import as much. Our real terms of trade deteriorate. Right now, the rest of the world is begging us to take more of this stuff not less. Trying to protest when we put up [inaudible 01:40:55] because they want us to have more [inaudible 01:40:58] not fewer tax. How many countries in the world are coming after us because our markets are opened to them, which means they to export more to us. Right now it's going the other way. They want to send [inaudible 01:41:12] we just need to get out of the way and let them do it and the currencies will figure it out. Our real property or real terms of trade if we just get out of the way of block it we'll have an era of prosperity nobody could possibly imagine. [Inaudible 01:41:27] we're open to the [inaudible 01:41:29] for the rest of the world. They'd like nothing better to do that right. Now, if I were them I would be doing that but that's what they want to do and it's to our advantage. Over here.

Male: You made a comment earlier on about Australia as well. Where I come from we've been told that wealth of our country has been built on the mining boom, we have something that the rest of the world wants. From what their saying it seem really like the wealth of the country is a combination of what you can sell to the rest of the world, the productivity of your own citizens the world can you built around all of that. What I'm wondering is take a very poor African country in the Sub Sahara Delta [inaudible 01:42:13] much but it has people who would like [inaudible 01:42:19] a government with a [inaudible 01:42:20] currency how do they use these theories to build its own wealth?

Warren: They could immediately go to full employment and have a very nice place to live. They have a resource that they have, they have a lot more than [inaudible 01:42:32]. They did all right. Built a nice place, some of his buildings are still there in Rome. It wasn't built in a day but it was [inaudible 01:42:39]. Not [inaudible 01:42:40], no World Bank, no electricity, no bulldozers. [Inaudible 01:42:45] seem to flow in even to the poorest places. [Inaudible 01:42:48] and everybody working but the difference is japan has no resources. The difference is when people up in the morning do they spend their time piling up rocks or throwing them at each other. If you can organize y our country with full employment where they're filing up the rocks instead of throwing them each other's windows they come up with one of the nicer places in the world to live. Even without all the resources someone else might have that are largely frivolous anyway.

Male: I ask this question, it’s for people online [inaudible 01:43:23]. The first one is how [inaudible 01:43:27] things like that? Do you have a solution to dealing with that so that it doesn’t get in the way of getting to full employment.

Kelton: [Inaudible 01:43:37] . It’s important.

Warren: You can always sustain full employment. Normally what we call inflation are localized problems. It might be as [inaudible 01:43:52] margin. It may be some real estate speculation or something like that. These [inaudible 01:44:03] are never a problem until they reverse. In 2008, if we had immediately had a full balance [inaudible 01:44:12] FICA suspension hallway through 2008 and unemployment never get above 5-1/2%, we wouldn’t still be talking about the financial crisis. The problem was we did not make a fiscal investment and we let the financial sector problems spill over into the real economy, which is a complete disgrace. We should never have let that happen. If you look at the crash of ‘87 when the stock market crashing unemployment did go up and that's been largely forgotten.

When we let the financial sector problems take away the aggregate demand that causes unemployment and that's when we have the memorable crisis problems.

Kelton: When we lose the alternative to make money investing in the real economy and all people are left is the financial system. I should throw out [inaudible 01:44:56] but I [inaudible 01:44:57] and I think you put it on your blog the other day.

There's a very strong correlation between inflation rates globally and commodity prices.

Warren: Yes, they mostly come through the cost of it.

Kelton: Yes, but it doesn't come from economies trying to rung their economies at full employment. It doesn't come from many kinds of things we've been talking about today getting the full employment largely on the supply side, they're on the cost side.

Male: You were talking earlier about dividing the [inaudible 01:45:23] taxation or [inaudible 01:45:25]. Is it possible that something like a financial service and tax or something would actually have a productive gain but not necessarily from the [inaudible 01:45:31] we decide just to sort of reorient investment towards sort of [inaudible 01:45:37]

Warren: You wouldn't do it to raise revenues. You would do it to slow down financial transactions because you thought they were bad.

Male: The next question is do you have sort of just some ideas on what would cause that inflation and how we can overcome those [inaudible 01:45:49] finance and other [inaudible 01:45:51]? Is there a way that [inaudible 01:45:54] address those things so that we don't hit globalize inflation problems [inaudible 01:45:57] people think are large inflation [inaudible 01:45:59]?

Warren: Most commodities globally are done with long-term contracts. If you build a power plant that runs on coal you'll talk to Montana and get it to a 30 or 50 year contract for coal for your power plant. China goes to Argentina to talk about long-term beef purchases where there are [inaudible 01:46:17] horses and look at 50 million acres of land for something to be turned into some 30 or 50 year contract for food. The one commodity we don't do that with is oil. We just spot that on the spot market every day and let it fluctuate up and down. The US entered into a long-term contract with Canada and Mexico at a fixed price with some kind of a modest adjustments for this or that.

Let's say it would be $100 a barrel or $120, a price that makes sense for Canada to do its investment and Mexico to do its investment we would then have a stable price for the next 20 or 30 years of that commodity and it would be a disruptive factor. That would be the normal type of thing you would do in the commodities market. You don't leverage the whole world if your whole economy's in the spotlight in a vital commodity like that. There is no movement in that direction and so if you're going to let all these things take place in the stock market you're going to have problems, especially with agriculture. You leave that to the stock market you're going to have problems. We see that over and over again. Historically there have been bumper stock policies for agriculture for good reason. Public purpose so [inaudible 01:47:29] by that.

Male: Another question is a lot of people who talk about [inaudible 01:47:34] idea the different types of debts they created within the private sector and you were talking about the Federal Reserve having to accommodate that. If that means the government can't necessarily control the overall supply is it more an issue of whether or not we're having private debt or as [inaudible 01:47:46] said in the first seminar, public debt as the basis for the [inaudible 01:47:50]?

Warren: If you don't know anything expect that the number of people in the unemployment line you can make your appropriate fiscal adjustment. If somebody says gee, private sector debt was higher, what's the difference. You got your [inaudible 01:48:05] unemployment's starting to [inaudible 01:48:06] you lower it. In 2008 we could see that coming. Unemployment was starting to go up. Sales had plummeted, car sales went from 72 million to nine million. Clearly the economy doesn't have enough money to spend because sales are going down for whatever reason. [Inaudible 01:48:22], it could be anything.

You stop taking FICA taxes out of the people who are working for a living, out of their pockets who've been underperforming for 40 years [inaudible 01:48:30] by the way. It's not like they're not deserving. They're actually doing the real work. It's a regressive publishing tax [inaudible 01:48:39] shouldn't be allowed to stand anyway. Anyway, you eliminate that [inaudible 01:48:42] average family's income's up by 600 something dollars a month take home and suddenly car sales get back to normal levels and home sales and people that make the mortgage payments. You don't need to know much else except what happened sales, what happened when. You can figure out the reasons later and maybe do something so you don't have that kind of humor to see happen again. It will need to let create an echo numb disaster for population.

Male: One thing I know that you guys haven't necessarily talked about enough today and we're going to talked about later in the series is more [inaudible 01:49:13] on economic rise is this idea of job guarantee, publicly [inaudible 01:49:20] in conjunction with the government sort of three nonprofits and entrepreneurs and things like that. Do you think that going towards the labor standard [inaudible 01:49:29] so the value of the dollar becomes fixed around whatever we have average labor person can work in an hour.

Warren: Every currency uses a bumper stock policy of one kind or another. The gold standard was a bumper stock policy. I'll buy or sell gold at $35 an ounce. Today, we have an unemployed buffer stock. If things get too hot we try and make policies so that unemployment goes up to cool them down. When things are too cold we try and do things that bring unemployment low. Our buffer stock are unemployed labor. The job guarantee the transaction job I was talking about is proposed on a principle that an employed buffer stock is a much more efficient buffer stock, it's a much more effective buffer stocker than unemployed buffer stock. A buffer stock has to be fluid. It has to be able to [inaudible 01:50:24].

Your labor buffer stock has to be able to be higher. It has to be deployment or it doesn't do you any good. If you have a low buffer stock like Australia used to have, if you let the wool go bad he price goes up and you can't sell [inaudible 01:50:39] you have to keep the wool good. If you have a butter like east need, you have to keep cool. You can't let it get [inaudible 01:50:46]. If you have a labor buffer stock like we do the only way it's going to be an effective price [inaudible 01:50:50] the system is if these people can be readily hired by the private sectors. By keeping the employed you're keeping the buffer stock healthy, wealthy and wise so to speak and there be an effective buffer stock and not letting it go bad.

We're using the worst possible buffer stock now, which is an unemployed buffer stock. People depreciate when they're unemployed, for lack of a better word. No public purpose is served by that. There's no cost to keep unemployed. When it's employed [inaudible 01:51:23] producing useful output. Certain it's going to be healthier, you're going to have better family situation. You're going to be more employable as Argentina showed was the case. [Inaudible 01:51:34].

Kelton: No, I think [inaudible 01:51:37]

Male: [Inaudible 01:51:39]. People often say government doesn't need to get involved in the economy it should just set the rule and step back. It seems like this idea of when you're the one setting up the money, when you're the one essentially putting the electrical power in you can't have that system. You can't just sort of set it up and step back without taking some type of role in it.

Warren: Government has to provision itself. Everybody even the libertarians will say the legal system, the military, these are basic things. How does government provision itself? Back in the old days you just conquer somebody and take slaves and then you have them do all the public work, right. Then the British are a little more sophisticated. You wake up in a British neighborhood [inaudible 01:52:18]. That's another way to provision the public sector. We pretend to be more civilized, we have the monetary system. What we did like Stephanie did was we posed a tax on everybody and something they don't have and with the penalty if you don't pay your tax. Then how do you get the money to pay the tax, well you got to cover up for the government. We use a monetary system by first imposing a tax for the purpose of moving resources into the public sector. We pose a tax and then we give people a way to earn the money to pay the tax we hire them into the public sector. The first thing that tax does is causes unemployment.

There is no unemployment in this room right now but if I take out [inaudible 01:53:09] my business cards and I say okay see this card, it's my business card. Does anybody want to buy one for $100? No. Does anybody want to stay and work in the public sector here and clean up this carpet afterwards, I'll give you one of these? No. This is just a piece of paper. Then I say oh, there's a guy at the door who works for me. He's got a 9 millimeter you cannot get out of here without one of these cards. Now you are all unemployed. You weren't unemployed before, you weren't looking for a job. Unemployment is looking for a job [inaudible 01:53:47].

You are not unemployed but now you are looking for a job to earn these cards because you need them to pay the tax to get out of the room. The first thing the tax does is create unemployment. Then the government hires everybody to do the [inaudible 01:54:00]. It hires all the unemployed they created with its tax. What sense does it make to unemployed more people than you need to hire? It doesn't, the tax should never unemploy more people than you want to hire. Here's government using the monetary system to provision itself. It's only provisioning itself to the extent that the politics want to provision this may soldiers, this many legal system, whatever, build the roads, build the schools, don't build the schools, private schools, public school.

Figure it out, figure out how the politicians want the government. The political process, what size government you want and then you impose a tax to unemployed the amount of people that you want to provision the government and no more. That'll invariably be a tax that's smaller than the spending. You're variably going to be able to tax less than you want to spend because there's a need to say it. Particularly when you legislation pension funds, tax advantages for not spending your income.

Male: Just two more. The first one is what does this have to do with [inaudible 01:55:08]? Is there [inaudible 01:55:11].

Warren: The [inaudible 01:55:11] was the one that results in full employment, it's residual.

Male: Second question is, what happens when OPEC no longer accepts [inaudible 01:55:19]? Is there any …

Warren: They're not only demanding dollars now, they'll take anything. The question is let's say they decide they would only accept paper clips for [inaudible 01:55:35] well then we'd all be running out trying to get paper clips. Now what are they going to do with the paper clips? Well if they're going to exchange them back into different currencies it's just a [inaudible 01:55:45]. I guess the answer is the currency they want is just a [inaudible 01:55:47]. What's important is the currency they save them. It's the currency they want to accumulate. Anything else, the foreign exchange markets, it doesn't matter. You'll hear that countries [inaudible 01:56:05] stock accepting dollars or something. It doesn't make any difference. China has just switched to [inaudible 01:56:10] some of the things they're doing. It doesn't make any difference. It's just a [inaudible 01:56:14]. The only thing that matters is what currency you want to accumulate. The only way you can accumulate a currency is to net export to that place. If you want to accumulate dollars you've got to [inaudible 01:56:27] to the US to get the dollars. If you want to accumulate euro you've got to sell oil to Europe to get to it.

Male: One last quick and this a bit more of a sort of an educational question. A lot of the [inaudible 01:56:38] balances looking at the government or private sector, [inaudible 01:56:41] sector [inaudible 01:56:43] currency severing. There is a distinction within that that's related to what you're saying. Is that just a …

Warren: You can start with no [inaudible 01:57:00]. You can see [inaudible 01:57:01]. You divide it into sectors for the purposes of analysis. What is the purpose of the analyst, to identify one thing or another. We know that only the federal government can act the private sector is always what's called [inaudible 01:57:15]. The things we're getting now the private sector has to cut back. When things are going good the private sector gets ahead of itself, we know that. Only the government sector can go the opposite direction because it's not constrained by revenues, it's spending just by changing numbers. It's not spending [inaudible 01:57:31].

In a downturn like we have now you can't expect the private sector credit to suddenly expand out of nowhere because income's going down, asset values are going down, credit worthiness is going down. You're not going to see credit expansion in the private sector. You're not going to see the States engaging in any kind of credit expansion. Even though they may be legally allowed to but they're still living in [inaudible 01:57:53]. We know that only the government can lower taxes to get more private sector spending or increase government [inaudible 01:58:02] or public sector spending. Again, depending on the politics. Yes, for purposes of analysis you can include the space, not include the [inaudible 01:58:10]. It all depends on what your further purpose of the analysis is.

Kelton: Taxes to reduce financial assets to domestic private sector, whether it's …

Warren: Federal taxes, yes.

Kelton: [Crosstalk 01:58:20]

Warren: [Inaudible 01:58:23]

Kelton: [inaudible 01:58:23]

Warren: If Apple raises their prices and there's more cash pileup then reducing everybody else’s financial assets also.

Male: [Inaudible 01:58:30]

Kelton: Balance budget [inaudible 01:58:32]

Warren: If the states starts running a surplus it’s reducing everyone else’s. Anybody who stars running a surplus is reducing everybody else’s, whether it’s the federal government, the states or anybody else. The difference is the federal government’s not constrained by revenues.

Male: [Inaudible 01:58:48]have a questions.

Male: Let me say I think this was very, very [inaudible 01:58:50] and I think both of you and [inaudible 01:58:55].

Male: [Inaudible 01:59:05] thank you very much [inaudible 01:59:06] and we have an online website. We’re going to have these video up there as soon as possible. We also have a forum and we’re going to make sure that all the speakers are going to be able to continue answering questions in the future. If you have any things a week from now, I’m curious about this or something please go online. Please check out the forum and please use it. It’s there to have ongoing access with these people. Thank you.