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Robert Kaplan
President and Chief Executive Officer
Federal Reserve Bank of Dallas

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Interviewer: Peter Henry
Vice Chair of the Economic Club of New York
Former Dean of the NYU Stern School of Business

Introduction

President Barbara Van Allen

Good morning everyone and welcome. We're going to go ahead and jump right into the program for today. And I'd like to introduce first, Peter Henry, Vice Chair of the Economic Club of New York and former Dean of the NYU Stern School of Business. Peter...

Peter Henry: Thank you Barbara. Good morning everybody and welcome. We've got a terrific conversation planned for you this morning. And I want to just briefly introduce our distinguished guest. Robert Kaplan has served as the 13th President and CEO of the Federal Reserve Bank of Dallas since September 8, 2015. He represents the 11th Federal Reserve District on the Federal Open Market Committee in the formulation of US monetary policy and oversees the 1,200 employees of the Dallas Fed. President Kaplan was previously the Martin Marshall Professor of Management Practice at Harvard Business School and is the author of several books, including *What You Really Need to Lead: The Power of Thinking and Acting Like an Owner, What You're Really Meant To Do: A Road Map for Reaching Your Unique Potential,* and *What to Ask the Person in the Mirror: Critical Questions for Becoming a More Effective Leader and Reaching Your Potential.*

Robert Kaplan: The "What" books.

Peter Henry: (Laughter) And I look forward to talking about leadership in the context of your current role as well. Prior to joining Harvard in 2006, President Kaplan was Vice Chairman of Goldman Sachs with responsibility for investment banking and investment management, and a member of the firm's Management Committee. President Kaplan serves as Chairman of Project A.L.S. and co-Chairman of the Draper Richards Kaplan Foundation, a global venture philanthropy firm that invests in developing nonprofit enterprises dedicated to addressing social issues. He's also a board member of Harvard Medical School.

And prior to his role at the Dallas Fed, President Kaplan served on a number of corporate boards including among others State Street Corporation, Harvard Management Company, Bed, Bath & Beyond, and Heidrick & Struggles. President Kaplan was born and raised in Prairie Village, Kansas, received a BS from the University of Kansas, an MBA from Harvard Business School. Please join me in giving President Kaplan a warm ECNY welcome.

A Conversation with Robert Kaplan
President and Chief Executive Officer,
Federal Reserve Bank of Dallas

ROBERT KAPLAN: Thank you. Thanks for having me, Peter. (Applause) Great to see you.

PETER HENRY: Great to have you here. So let's jump right in. There's a lot to talk about. So, let's start with Texas. The US has a $19 trillion economy. Texas is about 10% of that. There's a small renegotiation of some sort of a trade deal that happened recently, something called NAFTA. Any implications for Texas? How do you see things?

ROBERT KAPLAN: Sure. Texas is the largest exporting state in the United States so trade is a very important part of that Texas GDP. We are glad, and I am glad for the United States as much as for Texas that we have renegotiated the agreements with Mexico and Canada. And the reason why, we've been saying, we do a lot of work at the Dallas Fed on trade and we've been saying for quite some time to elected officials, appointed officials, both sides of the aisle, that we ought to be segmenting our trade relationships in the United States. And, in particular, what I'm saying is the trade relationship, for example, with Mexico is an intermediate goods relationship. Seventy percent of the imports from Mexico are intermediate goods – logistic supply chain arrangements that our research shows make the US more competitive, add jobs to the United States. And so, Canada, to a lesser extent, about 50% intermediate goods. The trade relationship with China, for example, is almost an entirely final goods trade relationship. So we felt very strongly we ought to be shoring up North America and thinking of North America as a competitive hemisphere. And we believe, because of these intermediate goods relationships in this hemisphere, we have been gaining share that we would otherwise lose mostly likely to China. So, yes, we're glad about that. It removes an uncertainly. By and large, though, talking about Texas, generally the story of Texas over the last 20 years is a story of migration, of people and firms to the state. And I say migration from within the United States. Yes, globally, but heavily from within the United

States. Texas population has gone from 22.5 million ten years ago, on its way to 29, and our own research in conjunction with McKinsey and others is in the next 20 years, Texas may well get to, in the neighborhood of 40 million people. Now, yes, and to put this in context, our big concern about many states and the United States generally is aging population and slowing population growth. The most valuable thing I've learned a city or a state or a country can have is population and growing population, which translates into a growing workforce. Texas has that. Not as much because of organic growth, but a lot of it is migration and that migration continues. There are many states in this country that I think population over the next ten years is going to be flat to down. Germany is likely to shrink. Japan population, likely to shrink. We'll talk about it in a moment when we get to the country, has big implications. So the story of Texas is migration and diversification. People think of Texas, they think of energy. And the truth is energy is now a little less than 9% of the state's GDP. And obviously energy has gone from being a headwind in 2014, '15, and '16 to being a tailwind right now and we can talk more about why that is. But we've got a vibrant tech segment, we've got lots of industries being developed, and four of the big cities in the state are four of the biggest cities and fastest growing cities in the United States – Dallas, Houston, San Antonio, and Austin. And while Hurricane Harvey put a little bit of a dent in Houston, as we predicted, we bounced back. So job growth in the state of Texas year to date, annualized, is about 3.6%, job growth. That means GDP growth is well in excess of 4%. Okay, that's real. Add 2% for inflation and so we're growing at a faster pace than the rest of the country. And because of this migration and growing workforce, we actually expect these trends will continue. So if you had to play a hand in the United States among states, Texas is a pretty good hand to play, but again a lot of it is, what's going right for Texas is a little bit some of the concerns about the US – growing population, growing workforce versus many other states in the country where that is slowing. That's the big story of Texas though.

PETER HENRY: Let's build on that a little, because it's really interesting to think about migration, diversification as drivers of the economy. And particularly in the migration that's happening to Texas from other parts of the country, and I assume less from the region, what can we learn from Texas to generalize to the country more broadly as to sort of how to be a vibrant business environment?

ROBERT KAPLAN: So, the things that are part of the reason for the magnet and, you know, there's limits to this, it's a relatively-speaking low regulation state. If you want to start a business, you want to get fees, licenses, it's faster by and large from our work in Texas than many other states. Obviously there's no state income tax. But the reason the state is able to manage that is we have a higher sales tax than other states and we've got the energy industry. So you get the royalty tax from energy. So we, about 70% of the energy growth in the United States comes from Texas. So we have something that many other states don't and it allows the state to keep income taxes very low. The other thing I would say, central location, which matters for a business from a logistics point of view. And lastly, I would say the culture, having lived there now, it is – I've lived in a number of places – it's welcoming, pro-business, a can-do attitude, the Chambers of Commerce and others are very strong in making you feel welcome. A lot of the

CEOs that I know in the state did not come from Texas. And then the last thing I'd say that the state has done a good job of – it's got some things it doesn't do well – is skills training. I'm going to talk, as we get along, skills training is critical. And we're not perfect in Texas, but Dallas Community College, El Paso Community College, Greater Houston Partnership are doing a lot to train automotive technicians, IT specialists, pipe fitters, oil field service workers, you name it. And part of a vibrant state, I think if you want to have a vibrant city or state in the years to come, your junior colleges and, to some extent, high schools have got to do a much better job in closing the skills gap and training skilled workers. On the flip side, the state does not, it's still got a challenge. Our education, math, science, and reading lag the rest of the country. This country lags the world, we lag the country. If we don't address this, it will hurt the future growth. There's environmental issues. There's infrastructure issues when you're growing this fast. And so we've got a number of challenges, but the nice thing, the culture of the place – and we're part of this discussion at the Fed – is, I think, leaders, including the governor, we actively and pretty bluntly, business leaders, mayors, the governor, the Fed's involved in this, confront these issues and talk about them, which makes me more hopeful that we'll actually do some things to solve them. But I'd say for the state, education is the one right now that worries me the most.

PETER HENRY: Well, that's a good segue into broader issues you want to talk about with respect to monetary policy. And one of the key issues in thinking about monetary policy obviously is the labor force and thinking about potential output. You talked about education in Texas, but help us think a little bit more broadly about the broad labor market. So unemployment is at almost record lows, below 4% and you sort of touched on this issue of, you know, how much more can employment grow without the labor market tightening up and education, in and of itself, is a big part of that.

ROBERT KAPLAN: So let me put this in context. So GDP growth in the United States, every Federal Reserve Bank does its own forecast, so our forecast for GDP growth for this year, 2018, is about 3%. And we have felt all through the year that we're going to have a strong year for GDP growth in the US. And, as you mentioned, unemployment is now 3.7%, inflation rate is a little above 2, and so we believe the Fed is reaching its dual mandate objectives. Now, if you analyze this GDP growth this year, where is it coming from? On the demand side, more government spending. There's no question, net change in government spending is adding some fraction to GDP. Business investment is higher, although a healthy chunk of that is energy. Not all of it, but a chunk of it is energy. Consumer is solid, and we believe the consumer in the United States is in good shape, been spending the last eight- or nine-years de-leveraging. But, to your point, the other thing that's been going on, on the supply side is the population is still growing, 16-year olds and above by our estimate, about 8/10ths of a percent. So we get about 8/10ths percent growth from population. Hours worked have been going up in '17 and '18. For those who watch the job growth numbers, it's not that the job growth has been that much higher, hours worked have been climbing. And as the unemployment rate goes down, it means a higher percentage of the workforce is employed. Participation rate hasn't gone up. So we're getting, let's say, 1.5% this year, 1.6% from growth in the workforce and hours and participation, people working. And then the rest of it has to come from productivity. We were talking before this. Roll forward now to '19 and '20, we think this fiscal stimulus, at least the part that was a spending increase or a tax cut funded by the deficit, we expected it would give us a short-term bump. We're at the height of that right now. We'll get some positive effect, we think, in '19, but will begin to fade. It will fade further in '20. And going back to, again, GDP, by the way in the United States is made up of growth in the workforce and growth in productivity. You need one or both. Those two add up. And let's go through the workforce estimate for next year. We still think population is going to grow, 16-year olds and above, about .85%, so we'll get that. We think we're at about the end of the road on hours worked. We're not sure there's enough capacity for people to work more hours. The unemployment rate has been going down and will still go down, but not as fast. We won't get the big jumps down we've gotten. So we'll get a little less growth from the workforce. And, by the way, because the population is aging, participation rate, we believe over the next few years could actually start to decline. That would actually be a drag on GDP growth. So then the question is, can you make up for that in higher productivity than what we've had? We've had higher productivity this year than we've had over the last ten years on average. And we're hopeful, and the Fed economists, I think, would say we're not great, maybe we're not great at forecasting a lot of it, but we're not great at forecasting productivity.

PETER HENRY: Having said that, what's your rough estimate?

ROBERT KAPLAN: Well, here's, it's been running about on average, I think about 1% growth over the last ten years. I think this year is closer to 1.5%. The only concern we have, we're hopeful it can grow. The reasons it might not go back to, and that gets to your question – long-winded answer to your question – education. We are 25th out of 35 industrialized nations in math, science, and reading. And a lot of us sit there and go when did that happen? I thought we were better than that. Well, we've been eroding. And we've got a very large skills gap in the United States, which means more than half of all small businesses, they can't find skilled workers. Every one of those jobs that goes unfilled is lower productivity. You go from, it's not that, it doesn't grow the workforce, but if you go from this job to a skilled job, you're going to be more productive. And we have not grown our skills training in this country fast enough to keep up with this trend. So the skills gap, we think is growing, and with technology, the skills training for most middle-skills job have gone up a lot. So, what we've been saying is, we've got to do more to improve math, science, and reading. It's not going to be an overnight fix. It's going to take years. It starts with 0 to 5, pre-K. Too many kids in this country – including in Dallas – our estimate is in the city of Dallas, 1 in 3 kids is growing up in poverty. We're pretty confident if you grow up in poverty, you'll start first grade behind grade level. And if you start behind grade level, you never catch up, and GDP for a generation is lower. And so we think we've got to beef up pre-K in the United States, particularly for at-risk kids. This is a structural change. The Fed doesn't get involved in it, but we've got to call it out. And then skills training is more of a quicker fix. Every high school and junior college in this country, we think best practice today is go out and interview businesses in your community and backward-integrate into your curriculum. And not enough – I would argue – not enough education leaders are doing that, but we've got to move faster if we're going to grow productivity. Otherwise, GDP growth is going to, in our base case it's going to be a little bit lower next year than this year and trail back down to 2%, which we think is potential. If we improve math, science, and reading, if we improve skills training, maybe we can get more productivity growth. And maybe there's a catch-up. We'll have to see. And then the other thing we've said, and while it goes without saying, a controversial subject, we do a lot of work on immigration research at the Dallas Fed and we've said it would help if we can find ways to growth the workforce. Now that be getting people off disability, back into the workforce, lots of other things...

PETER HENRY: To get that .85 number up.

ROBERT KAPLAN: You got it. But we think immigration – we just want to call it out – half of the workforce growth in the United States over the last 20 years have been immigrants and their children. We think it will be higher in the next 20 years. That surprises people, but immigration is critical to GDP growth because we need workforce growth. And we've been saying at the Dallas Fed, we've done a lot of work that has suggested and indicated – Piraneous(?), who does this for us – that we would be well-served to adopt a system more like Canada's where we have more skills-based and employer-based immigration. We go out and interview employers around the country and backward-integrate into our criteria. But if we think, we've also said to officials, if you think you're going to cut immigration and grow GDP, as I've just explained, those two things don't go together. If you're doing that, you'd better hope that productivity is going to jump. And we've got to improve education and skills training to help make that more likely. Infrastructure spending would also be helpful. By the way, we think we're about three trillion under-invested. But that's the kind of dilemma, at least as we sit at the Dallas Fed, we're watching and trying to understand. We don't have the all the answers but these are some of the questions and issues we're wrestling with.

PETER HENRY: I want to come back to some of the structural issues in a bit, but you've really, I think, framed the landscape for us very well in terms of helping us understand what are the factors that the Fed has given even as you're out using your bully pulpit to try to educate the public – officials in particular – about the need to pull some of these longer run structural levers. But as we come to the, kind of where we are right now, and you look at the landscape, you look at the inflation numbers. We're getting pretty close to the high end of the target, 2%. Amazon just raised its minimum wage to $15 an hour. You talked about tightening labor markets. August, the inflation numbers were at an all-time high. They came down in September. So we have kind of a mixed picture. How do you see where we are in terms of the inflation?

ROBERT KAPLAN: So here's how we see inflation, and I would say, I would describe it a tale of two conflicting, colliding forces. On the one hand, there's no question, cyclical pressures, inflationary pressures, we believe, are building, the cyclical pressures. What I mean by cyclical, tight labor market, the tariffs, steel, aluminum, input costs, oil prices being higher. There's no question. Every business I talk to, and I talk to about 30 CEOs a month and we do broad surveys input costs are going up. And companies for the first time since I've been in this job are saying I'm going to try to raise prices. Certain industries are confident that they'll stick. Other industries, particularly consumer-facing companies, are saying we may try, but I don't know if we can, we may just have margin erosion. This is why you're seeing so much merger activity, by the way is that people don't know they have pricing power. So the cyclical forces suggest to me, particularly, including the tariffs, suggest that cyclical forces are building. On the wage side, by the way, I'd say most pronounced, this is in our state, no question, $10 to $15 an hour, there's wage pressure. If you're a skilled worker, people are paying up, bonuses, you name it, to get skilled workers. In the middle is a little more ambiguous from what I'm seeing. If you make $20 to $25 an hour, with benefits, at a good company, what I'm hearing across the board is people are much more taking into account what's going to happen to this company in the next downturn? Paid leave, other benefits, promotion opportunities, and also there's the threat, of technology-enabled disruption. So that gets me, those are the cyclical forces which I'll get to. The structural pressures, I think, are more deflationary and those are, in particular, automation. In other words, I refer to it as technology-enabled disruption, automation, and to some extent globalization. Those forces are limiting the pricing power of businesses, are causing businesses to replace people with technology, are a counter-force to the negotiating leverage. If you work in a call center in this country and make $55,000 a year, there's a good chance based on my conversation your job ain't going to exist five to seven years from now. Technology will replace you. You may well find another job, but unless you get retrained, you know, you may make less money. So, those forces of technology-enabled disruption and globalization, I think, are putting, are limiting, muting these inflationary forces. And the last comment, if you've got a college education in this country or better, everything I see suggests, this may be stressful for you – technology – but you'll adapt. If you've got a high school education or less, though, which is 46 million workers in this country, you are likely finding your job either being restructured or eliminated. And you'll find another job in this labor market, but unless you get retrained, which is a lot easier to say than to do, psychologically and everything else, you're likely to see your productivity and your income go from here to here. You may wind up in a service sector job. And I think that's part of why you're seeing some of the experiences out in the country with income inequality, wealth inequality, and the economy working differently for different people. I think it cuts very significantly by education levels. But I think that force, and so the punch line, I think inflation, I don't believe inflation is going to run away from us. I think you're going to see, particularly with the tariffs and input costs, you're going to see it building. But I personally think that these more structural forces are not going away. If anything, they're intensifying and I think they're going to have some muting effect on inflation. So I think we'll reach, we are reaching our 2% target. I am not sure, and I think it gives the Fed some latitude in terms of how quickly we raise rates. I think where it's going to get tricky for the Fed is if you see, in the short run, inflation continue to pick up, how much of that is sustainable? How much of it is transitory? And can we tell which is which? And I think that will be a challenge for us.

PETER HENRY: That's exactly what everyone is thinking about and that's why you're in the role you are, because of the insight you have into these various countervailing factors. But let's go from the labor markets now to financial markets. So, earlier in the year, and again 2.25% federal funds rate, the conversation is about where is our star, where is the natural rate, where is the neutral rate? Earlier in the year, people were lamenting the fact that the yield curve was flattening out and recession was imminent, right?

ROBERT KAPLAN: Now they're lamenting that it's not.

PETER HENRY: How do you think about the yield curve as you think about...

ROBERT KAPLAN: So let me talk about our star, and I'll take the easier one first. I'll talk about the yield curve. So what does the yield curve say to me? And we've got a number of financial people in this room. It say to me the one and the two-year, I think, are responding very heavily to what the Fed is saying. And I think a lot of our forward outlook in the dot plot, you know, our summary of economic projections, I believe that is heavily reflected in the one to two-year. And if you want proof of that, we raised rates two weeks ago. One and two-year didn't move very much. It tells me a lot of what we're talking about is priced in. Okay, so in the 280, 290s already on the one and the two-year. The longer end of the curve, the 10-year and the 30-year are telling me, one, there's a lot of global liquidity, and we know that. Central bank balance sheet, pension fund assets have grown dramatically over the last ten years. So there is some effect on the curve, which we have to take into account. But the other thing, I think, the long end of the curve is telling me is back to where we started. Prospects for future growth are somewhat sluggish or uncertain, and obviously there's a dynamic process. But I think this flattening is a result of, and this is the challenge for the Fed, I believe we're reaching our dual mandate, we should be raising the Fed funds rate. It's reflected in the short end. The longer end is saying, boy, (a) there's a lot of money looking for safe assets, but also its saying your growth is a little more uncertain. So that's what I think the curve is saying. So what's, so then they get to the neutral rate. So the reason we talk about this term, the neutral rate, which you won't find on your screen, is it is so-called an inferred rate. It's the federal funds rate at which theoretically we're neither restrictive nor accommodative at the Fed. And the thing about the Fed funds rate, or the neutral rate, is it's theoretical and it is highly – talk about productivity being uncertain – it is highly imprecise and uncertain. And I think the smartest thing I can do in this seat is to acknowledge that. But despite the fact that it's imprecise and uncertain, you still have to try to think about the concept and where it might be. And so my own public comments have been that the neutral rate revolves around a band. And I said earlier this year, just to throw out a number, 2 ½ to 2 3/4, it could be a little less. It could well be more than 2 3/4. And the smartest thing I could say about that is I reserve the right to keep changing my view. We do lots of models. And I think the yield curve is a bit of a reality check for me also. And what our outlook is for the economy is a reality check. And there are lots of reasons that the neutral rate is uncertain. The biggest one, I mentioned the structural drivers – aging demographics, sluggish productivity, globalization, and I'd add a fourth, the government debt to GDP, the growth in it is a tailwind for us right now. That tailwind could well turn into a headwind in the out years if we conclude in the years ahead we have to moderate our debt growth. But the big, I'd say the biggest wild card that could make our star, the neutral rate, a little higher than it is now, is if productivity again improves more than we think, and we'll have to see. But what I've been saying, understand it's uncertain, if you're meeting your dual mandate, my own view is – there's things I don't know, there's things I do have conviction about – I don't think the Fed needs to be accommodative if we are meeting our dual mandate. So I've been saying we should be gradually and patiently removing accommodation or raising the fed funds rate until we get in the range of neutral, understanding that we're going to have to feel our way a bit to where neutral is. And so we're at 2 to 2 1/4. I've been saying, I'll say what I've said publicly, I'm comfortable over the next year at least, through June, if we raise the fed funds rate another three times. That would get us to 2 3/4 to 3%. That doesn't seem unreasonable to me assuming that our outlook stays the same. What we do beyond that, I've also been very candid in saying I don't know. And I think we'd be well-served, and I don't need to make that judgment yet, and so I think we'd be well-served to keep revising our outlook. And the reason I'm cautious is I'm mindful of the fact, I want to be careful about making judgments in the height of the period where fiscal stimulus is having its greatest impact, and I'm conscious of the fact if we go out a year from now, the outlook may look very different than it does now. I don't know if it will, but I'm reserving the right to say maybe it will. And once we get to neutral, we'll have to assess, do we go further or have we, in fact, should we sit tight for a while. And I don't know the answer yet and so we'll have to see spring, summer of next year. But this is the questions that we're sort of debating and trying to figure out.

PETER HENRY: So you mentioned fiscal policy and you've highlighted a theme of thinking about cyclical versus structural factors, and you've talked about the cyclical effect, the short-term effect, the fiscal stimulus. CBO tells us that next year we're looking at roughly a trillion of debt, a little more than 5% GDP. That's a pretty big number for the US economy in a non-recessionary period.

ROBERT KAPLAN: And it's going to get bigger. So the first thing I did when I got into this job, I've got on my desk the CBO Report and we update it. And right now, debt held by the public, the US government, is 76% of GDP and the present value of unfunded entitlements is $54 trillion. So, the good news since the Great Recession is the household sector, it hasn't reduced debt so much, but it's sort of grown income to where we've spent eight or nine painful years de-leveraging and the household sector is in pretty good shape. The corporate sector is more leveraged, but the financial sector is de-leveraged. So, yes, there will be more defaults in the next downturn. I don't know if it creates a systemic risk at this point. But the one sector that's dramatically more leveraged than it was is the government sector. So, as a whole, we're a lot more leveraged in this country, which means we're a lot more interest-rate sensitive – 100 basis points higher rates has an effect because we are a lot more leveraged as a country. And so the question, and so normally when you're late, I think we have room to run in this economic cycle, but I'd say it's also fair to conclude we're late. I don't know what ante(?) we're in, but we're later in this economic cycle. Normally when you're later in the economic cycle, you're finding ways to de-leverage because you know in a recession, tax revenues will go down and deficits will go up. We've actually increased our leverage going into this, which is unusual historically.

And so the concern is we could see deficits well in excess of a trillion. And as we sit here this morning, every day that goes by, debt is growing faster than the economy. We're getting more leveraged every hour we sit here. We have been fortunate that the US is, you know, the dollar is the world reserve currency. When there's a risk, you know, a flight to quality, people come to the Treasury and so we've been able to finance these large deficits and debt at relatively low rates, but I think we'd be wise not to assume that that could go on forever. I think it'll go on for a while, but I think this is a concern.

PETER HENRY: And you mentioned deficits. The other side of the fiscal deficit is the trade deficit, which is sort of a natural outcome of the fact that we're spending more than we're producing.

ROBERT KAPLAN: Right.

PETER HENRY: And you've talked a lot, you've alluded to globalization a few times. So, just give us a sense, to what extent in your view should and does the Fed take into account external factors in thinking about this "March to our Star", so to speak?

ROBERT KAPLAN: So, we've spent a lot of time at the Dallas Fed trying to think about and understand, and at the Fed generally, trying to understand the global economy. Why? Because while we're a central bank to the United States, the world economies are so interconnected today and financial markets are certainly interconnected, that we know that fragility and turmoil in financial markets and economies around the world can easily spill over into the US. And a good example would be the first quarter of 2016, where you remember China had substantial turmoil, substantial stock market instability, capital outflows, and it caused very quickly a tightening of global financial conditions, which if it had continued probably would have had an effect of slowing economic growth. And you may note, remember that year the Fed stepped back from, we stepped back from our estimates of what we were going to do with the fed funds rate and eased back, and I think that was the right thing to do. So we've got to watch that very, very carefully. And it's something, we've got to be aware of financial instability around the world, and economic instability. If it gets severe enough, it can transmit back here. So, obviously, I'm watching Argentina, Turkey, but I'm also aware that their exposure to dollar-denominated debt is unusual. A lot of countries learn their lesson from the 90s painfully. You know, early 90s, I remember it painfully myself, where people have learned you've got to be careful about dollar-denominated debt. China has a very high savings rate, and with all their issues and their leverage increasing, you know that helps be a shock absorber for them. So we're watching it carefully. In terms of, the last comment I'd make on globalization, though, 15 years ago if your job got disrupted in this country, it was well, may well have been due to globalization. You know, outsourcing, the shoe industry, we could go industry by industry. Roll forward to today. Today, with the integrated supply chain, the logistical arrangements, sophistication, and the way companies have adapted, if your job is being disrupted today in the United States, it may be attributed to globalization, but all our work at the Dallas Fed suggests it's far more likely due to technology probably happening within the United States. And the fact of the matter is if we get that diagnosis wrong, we're going to make the wrong policy prescriptions. We view today, at the Dallas Fed our view is globalization is an opportunity. Okay, we're less than 5% of the world's population. We need to grow because we've got so much debt. Globalization is an opportunity and so we're hopeful that we will have, despite what's going on, you know, the short-term fights, skirmishes, whatever adjective you want to use, global trade is very critical to the future of the United States, we believe, because it's one of the ways we can grow faster.

PETER HENRY: Before I open it to the audience, I want to ask you one last question. I can't resist. Yesterday the Nobel Prize in Economics was announced, you're wearing NYU Stern purple, one of the faculty members won the prize along with William Nordhaus. And interestingly, the thing about the prize was one of the faculty members who won, Paul Romer, won for his work on innovation and growth, which basically says the government needs to do more to encourage the development of new ideas because there's a positive externality that's generated. William Nordhaus won because his work is basically suggesting that the government needs to do more to get people internalized and negative externalities of the growth that they produce to the new ideas on the environment. You've thought a lot about, I know the later issue, the climate change issue. You've also thought about innovation. Any thoughts you have for us on the interaction of these two things?

ROBERT KAPLAN: So, full disclosure, and it's something you may know. When I was at

Harvard, I was co-chair of the Sustainability Effort for the university. They paired me with a physics professor. And Harvard had a greenhouse gas emissions target of 30% reduction from 2006 to 2016, and I co-chaired that effort, university-wide effort. I was supposed to be a leadership professor and so they paired me with a physics professor, and so I learned a lot about this subject. And we talk a lot about this at the Fed, and this is a classic, this is another structural change, which I actually think could be an opportunity economically for the United States. We are a leader in the world in sustainability, sustainability technology. It is going to be, I believe, a dramatic growth industry in the world. Any of you who have traveled, which many of you have, to Shanghai and Beijing, you don't need to be there very long to know they have a substantial – and they think, the government – they have a substantial need to clean up and improve the air quality and the environment. And so this is a good example of investments now can not only help GDP growth, they can help reduce the probability of severe tail risk. And we were talking at breakfast, some of those tail risks don't look so tail-oriented anymore. You know we're having more frequency of higher climate for the last 18 years, hurricanes affecting us substantially along the Gulf, it's affecting energy prices. We're paying an economic cost. And so I think this is one of the other structural drivers that – in the short run – you may be able to neglect it, but in the longer run I think it's not only something that could reduce tail risk, I think it's an economic opportunity where we could grow faster, particularly in the United States because we have the global competitive advantage in this area. So I think it's an opportunity actually depending on how we pursue it.

PETER HENRY: I think it's a great point to open it up for questions from the floor.

BARBARA VAN ALLEN: Starting with the Fellows.

PETER HENRY: Start with the fellows, our ECNY Fellows. Any ECNY Fellows with questions? The lady in the gray dress right here.

ROBERT KAPLAN: Fire away.

QUESTION: I was wondering what you saw, as kind of…you mentioned this in your Texas comment, about what you saw, kind of compared to your (INAUDIBLE)

ROBERT KAPLAN: Okay, so on energy, the long and short of it, we were in a global oversupply situation for '15, 2016, maybe a little bit of '17. The US went through painful cuts and the shale industry probably cut, net, a million barrels a day of production, very painful. While that was going on, Russia and other countries outside the US were actually increasing production. So what happened is global demand kept growing. So the long and short of it, we now think we're in a fragile equilibrium where supply and demand is relatively balanced, and I'll go through some exceptions to that. But we're at the point that shale is now the, the growth in the world demand, which we think is about a million and a half barrels a day is the number we're using, even with growth in alternatives, the world is getting more and more reliant on shale for the incremental, to supply this incremental growth. Shale is now, we've had about a million barrels a day net increase in US production. Seventy percent of that growth is coming from the Permian Basin. There are people shortages, infrastructure shortages, pipeline shortages. Tariffs may have even slowed, according to people in the industry. And you've got a very rapid decline curve in the shale. You know the first one or two years you have a substantial decline, which means if you want to keep net increasing production of a million barrels a year, you've got to grow a lot more in new drilling than a million barrels. And so people who are in the shale business tell me they're skeptical how fast shale can grow. The Permian Basin is going to grow dramatically. Will it grow fast enough to keep up with global demand? We're not sure. And then you overlay geopolitical issues – Venezuela, the Iranian sanctions, and Iranian barrels – whether you think it's 500,000 or a million barrels coming off market, that's a lot for us to replace. So our own judgment at the Dallas Fed, and we've been warning this now for a couple of years, and Bill Dudley has heard me say this, we think the price risk is more to the upside and we may well be in a global under-supply situation within the next three to five years. And so we just need to be braced for that. Now, the fact that we're producing more of it here will help mitigate that. But consumers, close to 70% of the US economy and higher energy prices obviously affects the consumer. But we're watching this situation very carefully. We may get through this equilibrium period without a spike, but if you had a geopolitical event or you had more barrels come off the market than are expected, there's not much spare capacity in the world based on our analysis and so we're watching it carefully.

PETER HENRY: Next question. The gentleman over by the window, to the right here.

Good morning. Good to see you. Could you give us a sense of NAFTA, for those of us that haven't read it? Assuming that it actually gets ratified, what do you like about it? What don't you like about it? How good is it for Texas and how good is it for the country? Or is it just cosmetic?

ROBERT KAPLAN: Okay, so we do a lot of work, and I will start by saying I've been through both the Canada agreement and the Mexico agreement in great detail, and my team has. I think it's probably more productive for me publicly, though, in the job I'm in – a central banker – not to critique pros and cons, other than to say we're glad it got done. Is it a dramatic change from the provisions of the Trans-Pacific Pipeline? Not that we can see, and I'll leave it at that. What we're focused on, as central bankers, is US global competitiveness. It's not enough to add a job in a city or a state or in this country if it's not globally competitive because it won't exist five years from now. It's just a matter of time. We believe this agreement still is sufficient to allow us to keep building global competitiveness. There will be some challenges to it in terms of local content – the minimum wage, the $16 an hour. Canada being part of the agreement is essential on some of these mathematical formularies. Having Canada in the agreement, I think, it makes a dramatically – we weren't sure how it would be managed without Canada in the agreement. So we're glad in the place we're in, and I want to be constructive and say we're just glad it's getting done. Is it a dramatic game-changing agreement from where we were? I'll leave that to others. But we're glad it's gotten done because we think it's essential to US competitiveness.

PETER HENRY: The lady at the table here.

QUESTION: So you mentioned that there was a $3 trillion funding gap for infrastructure. What do you think is the most effective way to address that gap? And how much of a priority should it be with regard to the other priorities that are on the table right now?

ROBERT KAPLAN: So, interestingly, it may not be that there's a funding gap, it just may be, we just haven't spent. We need, you know, roads, bridges, wi-fi is part of that. Our own analysis has been for certain types of projects, those that generate revenue, and even we were actually involved in some wi-fi projects along the border, a lot of it could be done with private money. It doesn't necessarily take government money. But I think it's very, it's turned out to be trickier. So the money is not the problem, let me just start there. There's plenty of money. We talked about global liquidity, desire for safe assets. Infrastructure in the United States, I think, there's plenty of money globally that would fund it and earn, accept good returns. I think the issue, I've learned, is a lot more local fees, local easements, other issues that are not necessarily economic to get these done. Some of it will take government money. Some may, actually with a little bit of government money, you could do most of it with private sector money. My guess is you just need to make it a priority number one. You know, I'm learning, this is true at the Fed, if you want to get something done at the Federal Reserve, it better be one of your top one or two priorities. In the business, you'd say it better be one of your top three or four priorities. I've learned in the government it better be your number one or number two. I mean maybe just number one. It's harder to get things done, and I think, I talked about skills training, I talked about pre-K and infrastructure. Those would probably be three of the things that are essential, but it'll take, it is not easy – I've learned – to get some of these projects done. We've got one in Texas, we were talking about at breakfast this morning, which is compelling, which is a train from Dallas to Houston. And the team on that has been working on for years just to get it to the point where it actually can get launched. These things are very complicated locally to get done. Any time you need coordination between city, state, federal, you know it's going to be difficult, but I think that's why, if it's a top priority for the country, you can overcome that. But it probably needs to be right at the top of the list to make progress and we just haven't seemed to do that yet.

PETER HENRY: We have time for one more question for President Kaplan. The gentlemen with the gray suit back here.

QUESTION: Hi, Bob. Daniel Moss from Bloomberg. Good to see you again. Just a two-part question related to your remarks on China. They appeared to begin the year still emphasizing de-leveraging, but to what extent has that tilted really now toward more of an easing bias? And having said that, why is there a reluctance to let the currency depreciate further to reflect slower growth?

ROBERT KAPLAN: So let's take these things in pieces. So, the punch line, while trade is very important in the United States, it's important to Texas and the US., it is a much smaller percentage of GDP than it is for China. Trade is much more important to them than it is to us. They're trying to build domestic consumption, but this is years, this restructuring of their economy is years in the making. I think the estimate is they want to move something like 300 million from rural areas to cities or turn the rural areas into cities, and so they're on this long path. And they have been trying to meet a GDP target every year of roughly 6 ½% by increasing debt to GDP. So their leverage sector, across all sectors, has been going up. And, to your point, in terms of doing reforms, they were hoping to begin de-leveraging, maybe moving more toward letting GDP float somewhat. And I think this trade, these issues going on right now have sort of put that into question where I think they feel, while we're in the middle of this, whatever it is we're in the middle of, they need to stimulate more. So this talk about de-leveraging, they're probably increasing their debt to GDP in order to, and they're more, they maybe want even more strongly politically now than before to meet that 6 ½% target. And so this is probably, this will delay some of the progress. We have been saying, and I have been saying publicly, I don't think increasing debt to GDP, as a way to grow GDP in China, is sustainable indefinitely. The world is going to have to get used to lower growth from China. But politically it's a very hard thing to manage. On the currency, last point, their currency has depreciated, down about 10% since this started. But, as I think you alluded to, their great fear is capital outflows. They have very tight capital controls, which they beefed up in early 2016. And so they actually have been trying to support their currency because they're worried about the capital outflows and instability from that. So this is a very tricky, challenging situation. The issue for the United States is while we're fighting this, and it's not so much, for me it's not so much the trade deficit, but intellectual property rights, technology transfer, other issues, does some of this turn into instability, which circles back and spills over into the United States. It has not yet, and we're hopeful it won't, but we're watching it very, very carefully.

PETER HENRY: Rob, I want to thank you for a really insightful conversation. (Applause)

ROBERT KAPLAN: Thank you Peter. Thanks everybody. (Applause)

PETER HENRY: And just, before you leave, I want to just give you a few announcements about upcoming events. Tomorrow, ECNY will be hosting Ian Read, CEO and Chairman of the Board of Pfizer with Glenn Hutchins, co-founder of North Island. Followed on October 11 by a conversation with Reed Hoffman, co-founder of LinkedIn and partner at Greylock. On October 16, we'll have Barry Diller, Chairman and Senior Executive, IAC and Expedia. On October 18, we'll have Randy Quarles, Vice Chairman for Supervision at the Federal Reserve. And on October 19, we'll have Mark Carney, Governor of the Bank of England. Again, thank you. Enjoy your day.

ROBERT KAPLAN: Thank you very much. Thanks Peter.