

THE BROOKINGS INSTITUTION

RECOVERY ROAD? AN ASSESSMENT OF THE AUTO BAILOUT AND  
THE STATE OF U.S. MANUFACTURING

A DISCUSSION WITH CHRYSLER CHAIRMAN AND CEO  
SERGIO MARCHIONNE AND LARRY SUMMERS

Washington, D.C.

Wednesday, May 21, 2014

**Welcome:**

TED GAYER  
Vice President and Director, Economic Studies  
The Brookings Institution

**Question and Answer Session One: Inside the Decision-Making:**

LAWRENCE SUMMERS  
Former Director, National Economic Council  
The White House

ALAN MURRAY, Moderator  
President  
Pew Research Center

**Panel One: Implications of the Government Rescue on the Auto Industry:**

PHIL LeBEAU, Moderator  
Auto and Airline Industry Reporter  
CNBC

SEAN McALINDEN  
Executive Vice President of Research and Chief  
Economist  
Center for Automotive Research

HARRY WILSON  
Chairman and Chief Executive Officer  
MAEVA Group, LLC

CLIFFORD WINSTON  
Searle Freedom Trust Senior Fellow  
The Brookings Institution

**Panel Two: U.S. Manufacturing and Manufacturing Policy:**

MARTIN BAILY, Moderator  
Senior Fellow and Bernard L. Schwartz Chair in Economic Policy Development  
The Brookings Institution

JARED BERNSTEIN  
Senior Fellow  
Center on Budget and Policy Priorities

SCOTT PAUL  
President  
Alliance for American Manufacturing

STEVEN RATTNER  
Former Counselor to the Secretary  
Department of the Treasury

MATTHEW SLAUGHTER  
Associate Dean for the Faculty, Tuck School of Business  
Dartmouth

**Question and Answer Session Two: Inside the Bail-Out:**

SERGIO MARCHIONNE  
Chairman and Chief Executive Officer  
Chrysler Group

PAUL INGRASSIA, Moderator  
Managing Editor  
Reuters

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## P R O C E E D I N G S

MR. GAYER: Good morning, everybody. Welcome. My name is Ted Gayer. I am the vice-president and director of Economic Studies here at Brookings.

June 1<sup>st</sup> will mark the fifth anniversary of General Motors filing for bankruptcy. About one month after, Chrysler did the same, and this led to the federal government acquiring a significant stake in both companies.

At the end of last year, the U.S. Treasury sold off its last shares of GM with Treasurer Lew declaring, "This important chapter on our nation's history is now closed."

With all government held shares in GM and Chrysler now sold, taxpayers have booked almost a \$12 billion loss. Today Chrysler, now owned by Fiat, is profitable, GM has been doing well, at least until their recent spate of recalls including, I think, one just yesterday, and of course the controversy about their delaying the reporting of problems with a faulty ignition switch.

But now, five years later on, it's an especially good time for us to evaluate the government rescue and to examine where the companies and the broader economy stand today.

The collapse of these auto companies hit at a time when the broader economy was in the midst of the great recession. The main justification for the government intervention was that hundreds of thousands of jobs would have been lost a time when we were bleeding jobs throughout the country. The government's management of the bankruptcy process at the time was highly controversial, especially concerning the terms offered to the secured bondholders compared to the terms offered to UAW.

The question today, five years later on, is, was it worth it? Were the government bailouts necessary to avoid a disorderly liquidation of the companies? And was the prevention of job and income losses worth the cost?

Our first speaker today, Larry Summers, was at the heart of the decision making process as the head of President Obama's National Economic Council. As Larry said recently in an interview with *Harvard Business Review*, "I always ask when I am advocating a course of action or someone else is advocating a course of action to me, how will we know five, ten years from now whether we were right? What would convince us that we had screwed up?"

So, today's event is a way for him and for others to answer the question of whether the government's intervention was indeed right or whether it was, to use his technical term, screwed up. Of course, it's entirely possible for something to be both right and screwed up, which I'll allow as an option for our panelists today.

After Larry speaks, we will have a panel on the implications of the government's rescue of the companies and then another panel on the state of manufacturing and manufacturing policy in the U.S.

We'll then close with an interview of Sergio Marchionne, CEO of Fiat and Chrysler. And with that I am going to let Larry and Alan Murray, our moderator, take it away. So, please join me in welcoming our first panel. Thank you.

MR. MURRAY: Thanks, Ted, for asking the first question. But before we do that, I just want to take -- Ted took us back five years ago. I want to go back ten years before that when you were on the cover of *Time Magazine*, February 1999, as one of the three marketeers saving the global economy and part of the recipe was privatization, telling people to get out of private business. So, it was an irony ten years later to find yourself sitting in the White House talking about a massive bailout of GM.

So, give us your five years on now, your accounting of cost/benefits, how

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MR. SUMMERS: Just actually in fairness, a large part of the recipe in 1999 was the massive application of financial force to restore confidence, and that had been the centerpiece of the strategic response to the Asian financial crisis, which in time we judged to be successful and the massive application of financial force to restore confidence was central to the strategy in 2009. So, I think there actually was quite a bit of consistency around what I had called, starting in the '90s, the Powell doctrine of finance that if you were going to intervene, you need to intervene at substantial scale.

How could we have know -- what could be happening today that would lead me to think we had made a mistake? I think there are three things you could be seeing today that would lead me to think we'd made a mistake. Fortunately, none of them are things that we see. One is, you could see that either GM or Chrysler had failed and basically we propped them up for another year and a half and it hadn't really worked and a reasonable judgment was that we have thrown good money after bad and merely delayed a little bit an inevitable, painful (inaudible). That did not happen.

Second thing that could have happened would have been that a reasonable reading of developments in the credit markets and the ways in which loaning -- you know, if somebody had produced \$27 billion dip financing in August of 2009, it would have been reasonable to suppose that we had had insufficient nerve and that if we had just left this to the conventional bankruptcy mechanism that private finance would have been available on a substantial scale.

I think nothing that happened in credit markets between 2009 and 2011 would suggest that our lack of confidence in what the private market could do would have been -- was unwarranted.

And the third thing that could have happened that would have constituted a failure today is that this could have been Vietnam. The government could still be heavily involved with the companies. It could turn out that a democratic administration was incapable of keeping hands off, and the process of government involvement through bankruptcy could have led to all kinds of new government mandated labor arrangements, all kinds of new government mandated environmental arrangements, all kinds of barriers to necessary restructuring and shrinkage, and these things could be -- the automobile companies could be being operated as public utilities in some sense.

Or I suppose a fourth thing that could happen would be that there were managers of big companies in America thinking that it was okay to take risks or be incompetent because the government would bail them out and citing the example of the automobile companies as a basis for complacency.

MR. MURRAY: That could still happen.

MR. SUMMERS: Well, anything could happen in the future, but if you ask, are people looking -- are there CEOs thinking, gee, it's okay, the worst that could happen is I'll be like Rick Wagner. I just don't see that, particularly in the culture right now. There's a lot of discussion -- and if this were a different panel it would be something we could come back to -- there's a lot of discussion of the possibility that there are fixed income investors in banks who are relying on some kind of government (inaudible), implicit or explicit.

I'm not aware, and I do make efforts to inquire periodically, about government -- about fixed income investors in large private corporations and, you know, I've asked -- I've actually asked, you know, credit spreads have come way down and I've asked a variety of people in the markets, is it conceivable that that's because people think there are more bailouts than there used to be, and I have not heard that put forward

as a hypothesis by anyone, even people who oppose the bailouts.

So, I guess I think that by the test, which is what would have constituted failure, I could have given it -- I gave -- the answer I just gave is the answer that I gave myself at the time and sort of satisfied myself that the risks of each of those things were very low, and I think ex poste, those judgments appear to have been borne out.

MR. MURRAY: Let's just go back to the first one. You said GM and Chrysler are still around, they haven't gone under, but are you happy with the state of the U.S. auto industry? I mean, do you -- did the bailout -- I mean, we're dealing with these --

MR. SUMMERS: I think there are two questions about the U.S. auto industry. One question is, am I happy with total automobile sales in the United States? And I guess the answer is, not hugely, because if you had told me that the U.S. economy was only going to grow at 2 percent a year for six years, I would have thought that was disappointing and I would have hoped for better and I would attribute that failure to lack of aggressiveness in the totality of the policy response, and so that's got much more to do with errors of omission in terms of continued infrastructure spending, continued fiscal stimulus and the like than it does to errors of co-mission.

So, mezza mezza on that.

If you'd said, am I satisfied with the relative competitive position of General Motors and Chrysler, the two companies we intervened in, relative to the rest of the industry? Yes. It's better than I would have expected in the fall of 2009. Now, if you look at General Motors' stock price since 2010, adjusted for market moves, you'd have to say that it's underperformed the market and that means that in some sense relative to an expectation in 2010, you can't say that it's done that much better than expected, although some of that is because it's cyclical and the cycle has done worse than expected.

But, yeah, I think I would say that relative to a sensible expectation,

given the weakness of the U.S. economy and given that coming into this, there had been a massive legacy of mismanagement throughout the automobile industry, I would say given those things if you had told me -- if you'd told me in the May of 2009, this is how the economy is going to be, we're going to avert a depression and all that, no better, no worse, will you take it or will you take your chances with policy, I would have taken my chances with policy. So, in that sense, for the economy as a whole, I'm disappointed.

If you had told me the USGDP is going to grow at an average of 2 percent a year, the employment ratio is barely going to increase, and this is where the U.S. automobile industry is going to be after your restructuring and bankruptcy, I would have taken that in a heartbeat.

MR. MURRAY: So, you suggested there's been no moral hazard -- no discernable moral hazard costs in the industrial sector as there has been in the financial sector and you made a reference to Rick Wagner being fired. Was that a critical piece of it, pushing out Rick Wagner? Because the CEOs, for the most part, weren't pushed out by government in the financial sector.

MR. SUMMERS: I'm going to stick with discussing the automobile industry.

MR. MURRAY: Wait a minute, you made the comparison. You --

MR. SUMMERS: Okay, well, let's start with the automobile industry. We may get to the comparison.

Look, I think the question of moral hazard involves a whole variety of things. First of all, central to thinking about the thing is the fact that we had an unprecedentedly low level of automobile sales while this was happening.

So, if we assume that a precedent has been set, that the next time automobile sales or six standard deviations below anything that anybody forecasts, there



will be a bailout, that doesn't hugely worry me because nobody's going to be much focused on that. Number one. Number two, even with that, I think there was a lot of pain spread around. Anybody who's thinking about loaning money to an automobile company knows that if things go wrong, they're going to take a big haircut, maybe they're even going to take too big a haircut because, as some argue, the bankruptcy is going to be messed up to the detriment of the creditor. So, I don't think you've got any moral hazard on the lending side.

Do you have moral hazard on the management side? It certainly looks like the management teams of these companies experienced very substantial pain. Does America -- whatever problem America had through the '80s and '90s, do you look at industrial America today and say, debilitating union settlements caused by overly strong unions facing management is creating excessively high wages, and that's a large and continuing problem, though it doesn't feel like that's a large and continuing problem in industrial America today.

So, I find it very difficult to find a place where there is moral hazard or where people are thinking about that kind of precedent.

Now, what about the financial sector? There, you hyped what I said. I said, there there were arguments about moral hazard. I didn't -- and people who felt that there was a legacy of moral hazard. I think you can study credit spreads to a variety of different conclusions, but it's a legitimate argument there, I think, unlike in the case of the automobile companies.

I think there, there was a judgment -- there were a set of judgments made, the most important judgment, in my view, was the judgment made in the fall of 2008 when I was in civilian life to provide assistance to all the banks. A judgment was made to provide assistance to all nine of the largest financial institutions in the country,

and the reason that judgment was made, and it was a judgment that you had to be in the room to evaluate, but I have no reason to quarrel with it, that judgment was made because the feeling was that if you separated out only a limited number of firms and supported them, you would create stigma for those firms relative to other firms, and that stigma would be debilitating. And once you'd made the decision that you had to have all the firms accept your assistance, there was a limit to how onerous the terms could be because some of the firms didn't really need the assistance, and so to get them to accept it, you had to make the thing -- you had to make the --

MR. MURRAY: And so bad behavior didn't get punished?

MR. SUMMERS: So, the judgment was that the need -- the overarching need to maintain confidence made it necessary to punish bad behavior less than justice required, and that was the judgment that was made in 2008 and I think, in my view, the center of that judgment was the judgment that it was -- again, this was not when I was in the government -- was the necessity of avoiding partial -- avoiding distinguishing between institutions in terms of the kind of support that was required. And it would have been a very brave decision at that moment and perhaps a foolishly brave decision, to single out a small number of institutions for.

Whereas the context in automobiles was very different. Nobody argued that the government needed to design a program that Ford would accept as well as General Motors and Chrysler because otherwise you'd be stigmatizing General Motors and Chrysler, which would lead to lack of confidence in them. That was not an argument that anybody made and it would have seemed absurd, but it wasn't at all an absurd or implausible argument given the degrees of inner connection in finance.

MR. MURRAY: So, back to the auto bailout. With the benefit of hindsight, anything you would have done differently?

MR. SUMMERS: Look, battlefield medicine is never perfect. The basic balance -- basically we struck a couple of balances. We struck a balance between being too soft and setting terrible precedents, not forcing necessary restructuring, and being too hard and killing what we were trying to save. And I think we struck that balance broadly about right.

We also struck a balance in terms of the breadth of what we did. Were we going to do the automobile companies? Were we going to do suppliers? How broad a network of manufacturing were we going to do? Do what's necessary. It's necessary not to do more than what's necessary. I think we struck that balance broadly right.

Would we have been at the margin even more careful than we were about doing this as much like a private bankruptcy with as little special role for the government in terms of how corporate decisions were made? We probably could have done marginally better on that score.

There's a lot of debate about -- law reviews are filled with debate about whether we got wrong the relative degrees of pain imposed on debt holders and imposed on workers and unions, and there's a lot of argument back and forth. I guess I'd say -- I guess what I would say is the vast majority of the creditors did vote for the plan first.

Second, I think it's important, Alan, to recognize that we had set a standard that I sort of set in meetings with the team, that this was to be done in a way that was within the envelope of private sector restructurings that were broadly similar that had taken place in the steel industry, particularly was the example I used. And there's room for arguing, it depends on sort of the de jure, de facto treatment of some categories of debt. You can argue both sides of that --

MR. MURRAY: Yeah, but what's your -- what's your view --

MR. SUMMERS: But broadly I think we got --

MR. MURRAY: Did the unions get off too easy?

MR. SUMMERS: I think -- look, I think you can argue, the unions -- as part of the deal --

MR. MURRAY: No, I'm not asking for an argument, I'm asking for your considered judgment.

MR. SUMMERS: As part of the deal, Alan, the unions made a judgment that they were going to protect in full the wages of more senior workers and move to a so-called blended system where the wages of the new workers who were coming in would be much, much lower.

Would it have been more appealing to me to have had a system where there was more uniform wages? Yes, it would have been more appealing to me. Did I think it was the place of the government to decide what the negotiating position of the United Auto Workers should be? No, of course not, and so I respected their judgment representing their workers in the context of their democratic union.

So, yeah, would I titrate various things? Would every statement that every official in the Administration made at every juncture be precisely the statement that I would make with hindsight? Of course not. But broadly, this was a balance between hard and soft, between wide and narrow, between the need for the government to be involved and the need to respect private sector, were those balances broadly struck in the right way? Yes, I would argue today that they were.

MR. MURRAY: Just one other question on that balance before we leave it. I'm sure the issue of the creditors and the unions is going to be rehashed throughout the day today so that people will have plenty of chances to get on that, but the other one I want to ask you about, you talked about management pain, well, the pain was Rick Wagner. He lost his job. But some would argue that this was a company that had a

quarter century history of bad management and Fritz Henderson moves up. So, it was not the government who brought in -- really -- who brought in outside management to GM. That happened later.

Was that -- in retrospect, should you have been more aggressive on the management front at the outset given what you now know?

MR. SUMMERS: Well, yes and no.

MR. MURRAY: That's a start. We got a little bit there.

MR. SUMMERS: Here's the problem, and I guess I remember the analyses that Steve and Harry and I and others spent discussing all this around my table at the time -- here's the problem: you can make a quite reasonable and strong argument that the GM management team, as a whole, going 10 or 20 deep -- 10 or 20 people deep or maybe even deeper, had really been a failure over a long time period. There have been some who have said, no, it was really all -- they were actually doing fine and turning the company around, that it was all just that it was a nine million-car year. I don't believe that. I think you can argue that the management had been quite fundamentally flawed for a long time.

Here's the problem: okay, so they've been flawed. So, you can wake up one morning and you can cause them all to leave. And then what do you do the next morning? There's this company sitting there. Is the government supposed to decide who the new CFO should be?

MR. MURRAY: No, I don't think that's --

MR. SUMMERS: The judgment --

MR. MURRAY: It's a culture. It's a culture issue and culture happens at the top.

MR. SUMMERS: So, we were very aware that there were deep and

profound cultural problems. We also were aware that this company needed to operate and needed to function. I remember at the time I used the very unpleasant analogy -- and I don't mean that the analogy is strict in any way, but I think it does point up the problem, of what the U.S. occupation forces experienced in both Germany and Japan.

The original idea was that very large numbers of people who had been complicit in the war would no longer be able to have positions of power and influence in the society, and then they realized they sort of had to run the place. And their aspirations were very substantially scaled back.

One thing you said is actually not quite far from right. We did, because when Rick Wagner left, there had to be a new CEO and the person who was sitting there to be the new CEO was the number two at the company, he did indeed become the CEO. We did, very aggressively, move to recruit an outside chairman of the board who took responsibility for overseeing management performance and overseeing a process of precisely culture change. We drew Ed Whittaker, someone from outside the industry, who, within a relatively small number of months, had made the decision that -- with the board, that in fact the right thing was for him to become the CEO and he then brought about very substantial change in the management, but it was done in a different way.

So, you know, could we have done what would happen in government or at the Brookings Institution? We thought about it. In government or in the Brookings Institution you would say that the top person was gone, you would say that there was a new person -- that the number two person was going to be the acting person, that they were going to be acting, and that there was going to be a search for a while to find a new person and everybody would speculate about who the new person would be and we would do a search and the company would continue to try to operate.

And we made the judgment, which was certainly the judgment that I think

most experienced executives, and we consulted with a number at the time, felt was right, that to put the company in that kind of limbo and attempt to do a search at a moment when you were going through a bankruptcy would be to create so much uncertainty and so much lack of confidence that you would risk destroying the company that you were trying to save. I guess as I look back right now, I think history sort of has to kind of come down on our side of that in the sense that the company was successfully saved. I think it's very hard to argue that if more management change at GM had taken place in March or April rather than in September, somehow we'd have a healthier kind of capitalism in the United States and moral hazard would have been better contained.

So, I guess I think the judgments we made were broadly the appropriate ones.

MR. MURRAY: Let's open it up, because I am sure a lot of people here have questions about this. Start right back there. And please identify yourself before you ask your question.

MR. COLORINA: Yes, Rob Colorina. AIAC Investment. You had mentioned debtor possession financing and some of the creditor's plans. Could you speak a little bit about, Secretary, as to, in ongoing plans have you seen approaches by these institutions and bondholders to be more, either, liberal or more conservative in terms of accepting these type of packages, sort of post your package?

MR. SUMMERS: There are people who are much more ongoing trackers of the restructuring market than I who could comment more -- much more intelligently than I. My sense of this is that a combination of the uniqueness of the moment, the uniqueness of the government role, the uniqueness of it being the major automobile companies means that this is not heavily seen as a precedent for future restructurings. I mean, one of my colleagues at the Harvard Law School who knows far

more about bankruptcy than I ever will has been rather critical of the use of the 363 mechanism in this context, but even he says, if this became a substantial precedent, that would be problematic in terms of the expansion of the 363 mechanism, but it probably won't become a substantial precedent given the uniqueness of the circumstance.

MR. MURRAY: Other questions? Way in the back?

MR. GRUENBERG: Mark Gruenberg of *Press Associates*, union news. You were right about the UAW, but I want to go back to one other thing and extend Mr. Murray's question. You said, this is about GM, "We were very aware there were deep and profound cultural problems" at the company that had to be changed in terms of changing top management and changing the attitude. The same statement could be said about the banks.

Why didn't that occur with the banks?

MR. SUMMERS: Again, I think I tried to get at that question. In part, I feel I can avoid that question somewhat by saying that the most consequential decision of that kind was the decision made to universalize the support for the banks, which took place in 2008 when I wasn't in government.

But I think the rationale for that decision and the rationale at other moments was that you couldn't afford to do it given the imperative of preserving confidence and preserving the continuing functioning of the system. I mean, these things are always a balance. It's just like I explained with respect to why weren't 20 GM executives replaced. It wasn't a justice position that caused 20 GM executives not to be replaced, it was a prudence in maintaining confidence and achieving the objective. And the judgment that was made by the people who were closest to the banking system was that it was very important to preserve confidence.

And look, when I've had the experience several times of buying a house.



It usually goes the same way. We're there, my wife says, we need to get this house, it's really much better than the others, why are you screwing around? Just pay what you need to pay to get the house, and then we do and we get the house and having gotten the house -- and once we've gotten the house I say, you know, if you'd just let me do my thing, we could have gotten the house cheaper, and maybe I'm right and maybe I'm wrong, but from my wife's point of view what was really important was that we buy the house.

Well, what was really important was that the whole financial system not implode. Could you have achieved more of what you are describing without making the financial system implode? I think that's something that -- that's a counterfactual that historians will debate. Would it have been great -- would it have been better in terms of a variety of political factors, in terms of a variety of confidence in elites factors, in terms of moral hazard if more pain had been imposed while still preserving the basic confidence and functioning of the system? Yes. Was that possible? Very, very difficult to make that judgment.

Would a prudent decision maker be risk averse about destroying confidence? Yes, I think a prudent decision maker would be risk averse about destroying confidence. So, I think it's a very difficult question to judge.

MR. MURRAY: Let me -- before we let you off the stage, let me get you to widen the aperture here a little bit and talk about --

MR. SUMMERS: I think it's gotten plenty wide already, actually.

MR. MURRAY: We'll get a little wider. We're going to talk about the industrial sector of the United States that the auto industry is just a part of and what's happening. We live at this extraordinary moment where there is a boom in energy, in natural gas particularly, which is not easily tradable, it gives us a huge advantage to

manufacturers in the U.S. Obviously, there's plenty of credit available in the U.S. and the wage advantage that drove so much of the Chinese competition over the last few decades has narrowed considerably.

So, is there going to be a renaissance in American manufacturing?

MR. SUMMERS: Look --

MR. MURRAY: Yes or no?

MR. SUMMERS: There's going to be a blippy kind of renaissance.

There's going to be stronger performance than a simple extrapolation of trends would suggest for the reason you say, but there are deep realities here that are unaffected by any of what you mentioned.

Look, China has fewer people working in manufacturing today than it did in the early/mid '90s. It is hard to conceive of anybody growing in competitiveness potential better than China has over the last 20 years and they have fewer people in manufacturing than they did 20 years ago. That is a core fact.

What is happening in manufacturing is what happened in agriculture, fantastic increases in productivity coupled with relatively inelastic demand means that you need fewer people to produce all the manufactured goods that can be absorbed. That is happening globally.

We are well along in that transition. Today, in the United States, less than 5 percent of the workforce are production workers in manufacturing. The standard statistic that's quoted, which is more like 9 or 10 percent, is all workers in manufacturing, but that includes Sergio's secretary, and that includes the people who make his advertisements and the people who keep his books.

So, if you talk about what we think of as manufacturing, people in factories, that's already where agriculture was in 1940. That is already a small part of

where we are. So, yes, we should do everything we can to maximize our competitiveness in it. Yes, manufacturing is a crucial fulcrum for innovation, but the future of American employment is not in manufacturing any more than the future of American employment in 1950 was in agriculture. It gives me no pleasure to say that, but I don't see how you can look at the facts on China, look at the extent of the productivity growth in manufacturing, look at the vast capacities for capital labor substitution associated with robots, associated with 3-D printing, look at the globalization of supply chains, and not see that manufacturing goods are becoming cheaper.

Just to say it one more way, you know, it's true, when you look across all goods, and it's the most distressing fact about our economy, that real wages or median family incomes have been stagnant for more than a generation now, but if you look at how many hours of work it takes to buy a car, it's like half as many as it was a generation ago, probably half as many as it was in the 1970s.

So, real wages in terms of stuff like cars have come way down. That's productivity increase. That's the positive thing that has happened. But the other side of it is that since people don't want to buy twice as many cars because they're cheaper, that you need fewer people to be working in the production of cars.

MR. MURRAY: So, that's pessimistic about manufacturing, but not so pessimistic about the future of the middle class?

MR. SUMMERS: Pessimistic about -- you know, have the last 50 years been good or bad for American agriculture? If you define what's happened in terms of American agriculture in terms of the number of jobs in American agriculture, it hasn't been so great. If you say, we can feed the world with far less national effort than it ever has taken in the history of man, you have to say that's an enormously positive thing and something like that is, I think, the right way to think about manufacturing.

MR. MURRAY: Is there a jobs issue here?

MR. SUMMERS: Oh, yeah. Yes. There's a huge -- I mean, it's -- if and when adequate demand is generated in our economy, there is a huge structural issue around what is going to be done by people who do not have the capacity to be entrepreneurs or write software that is going to be a basis for the kind of life and better lives for their children that people legitimately want. I mean, that's the economic question for the next 25 years.

MR. MURRAY: Larry, thank you.

MR. SUMMERS: Thank you.

MR. MURRAY: Thank you very much.

(Applause.)

MR. LeBEAU: Hi, everyone. Can you hear me back there? This is the next panel that we're going to move on to as we discuss the implications of the auto bailout for the industry and I'm Phil LeBeau with CNBC. I covered the bailout and I'm fortunate to be joined up here with three gentlemen who were either in the midst of it or closely associated with it. We don't have a whole lot of time because we were listening to Larry, and I was fascinated with what he had to say, so we want to give you guys as much time to ask questions for our panelists as possible.

So, I'll dispense with an opening remark or two and I'll have each of our panelists, if you want to say something in terms of before we dive into specific questions about how the bailout worked.

Let's start first with Harry Wilson, who was on the President's Auto Taskforce and you were front and center in it. Five years later, was it successful?

MR. WILSON: It's a little self serving to say that, but I like to think so, and I think the thing that I wanted to kind of comment on quickly was the thing that's not

well understood by who the process -- and I'm going to focus on General Motors since we have the world's leading authority on Chrysler here that you'll be hearing from shortly, Mr. Marchionne, but there are really kind of three pieces to the GM rebirth, the first was work that was done by the management team prior to the 2009 restructurings.

There have been, you know, substantial improvements in product quality, in manufacturing processes, they built a successful business in China. That was not well appreciated by most of the marketplace. It was too little, too late, but it was not well appreciated and it's part of the important bones that we found at GM when we showed up.

The second part was the work that we did in 2009 and if you look at where the company was in early 2009, it basically broke even only at the peak of the cycle, and anybody who's looked at cyclical businesses knows that's not a successful recipe for business. And they also had about \$100 billion in liabilities that hampered investment and really weighed the company down.

And our mission, the taskforce, was to address both those things, the cost structure, so they could break even at the trough, and the liability, so they had cash to invest in their business and continue to grow.

And then the third and final piece, which is actually kind of front and center right now, was our hand off from the Auto Taskforce to the new board of General Motors in August of 2009. (Inaudible) a lot of good things have happened, however, the company's primary challenge remains the cultural problems that they need to address going forward, the cultural problems that got them into the mess they were in in 2009, that still persisted and needed to be fixed for the company to truly turn the corner and really be a successful long-term business.

And as you see, frankly, in some of the recall news, and particularly this

really inexcusable ignition switch failure, the company still has a long ways to go in its cultural problems. It's made some improvements, still a long ways to go. And so, I think it's a work in progress still, but I think the changes that were made in 2009 really vaulted them from failure to the brink of success.

MR. LeBEAU: A success, but some issues in there that were never completely resolved?

MR. WILSON: Exactly.

MR. LeBEAU: Cliff Winston with the Brookings Institute is a micro economist who has been very vocal about his opinion about whether or not the auto bailouts should have taken place. I won't say anymore about that then to let you kind of take the ball and run with it, Cliff.

MR. WINSTON: Okay. I will take it and run with it.

The only vocalization that I'm aware of was an op-ed that Bob Crandall and I wrote in the *Wall Street Journal* entitled "Detroit Needs a Sell Off, Not a Bailout". That's all I ever did, and then I proceeded to write a book about deregulating lawyers, which I hope you read. But back to the bailout.

I'm going to distill, in a few minutes, a paper we're writing now. Okay, three parts to it. One, let's begin -- take a longer view of this industry and begin with the '70s and trace what's happened to the market share of the Detroit Three. That's when we had the energy problems and the Chrysler bailout and at one time, the Detroit Three having a share of 85 percent of cars and why trucks plummeted down to 70. But things stabilized with government intervention, with the VERs and so forth.

In addition, in the '60s, although we didn't really know how important that would be, there was a 25 percent tariff put on trucks. That later became important.

Okay, the '90s was a good decade in terms of the economy, but the

industry actually -- again, the Detroit Three lost a good chunk of share and I wrote a paper with Kenneth Train on that and attributed all that loss simply to relative attributes, that is the attributes of the foreign cars in terms of price and quality, reliability, and so on and so forth, were sufficiently better than those of the U.S. cars that that was really denting into their share.

By the time it's 2000, you have much stronger competition from the Korean model makers, European, Japanese still strong, and another chunk of share down closer to 50 and now we're up to the time of the bailout and then in the midst of the bailout and shortly thereafter, it's down to the mid 40s.

So, I'll quickly go back to that, but that's sort of the vision that you should see, you know, since the '70s going down, intervention, a stabilization but at a lower level of output, going down, intervention, stabilization, so on and so forth. There's a long run pattern.

So, the question is, you know, should there have been another intervention and a bailout, in this case? Okay, short run and long run costs and benefits. To do this you need a counterfactual, compared with what. You can't just say, well, we're going to bail them out, but what then would be the reasonable thing to compare that to, all right, and that's obviously going to be very important in thinking about this.

Well, you know, one extreme, a lot of people say, look, they just treat this as a standard bankruptcy, but that seems to be an extreme view and extremely optimistic because of the belief that there really wasn't private sector financing that would be available to take that route.

The other extreme was if you don't do anything, you know, the industry is going to disappear. That seems a little extreme too. I don't think we're going to shut down the entire production if we didn't bail out Chrysler or GM. We still had Ford, and

obviously we had the foreign automakers. So, consider something in the middle, which is what we said a long time ago, how about a sell off? And what I had in mind there was that there would be entities that would be picking up the valuable assets of GM and Chrysler in terms of the light trucks and SUVs, but they'd say, look, I think we can make cars. We don't need those.

All right, so that's what you have in between. With that in mind, then, you think of the costs of the bailout or the money that wasn't paid back, because you're not bailing them out compared with the bailout that did engender those costs you're talking, what, \$12 to 14 billion is the latest one. On top of that then, Cash-For-Clunkers, an indirect cost, that was a complementary policy that wound up costing money. Then you can tack on two additional costs related to things that are, in principle, going to be helping GM's profits, that is the deduction in terms of the bankruptcy, being able to move forward and carry on those loses and deduct those, and possible liability settlement, so maybe around \$20 billion would be on the cost side.

What about the benefit? The benefits are you are losing cars. In (inaudible), when we had the bailout, there were people who wanted to buy GM and Chrysler cars. As I said, we're going to let those go. All right? So, that's analyses we can do using what we call discrete choice or choice models and say, look, suppose a car that you wanted to get was no longer available. You had to take your next best car. And actually removing GM and Chrysler cars from peoples' choice sets did generate a cost, that is a benefit from keeping those cars available, about \$9 billion. Then there's the big-ticket item: unemployment. Okay, again, you've got to be very careful. How are you actually going to model what's going on? You've got to look at what consumers are going to do. Their choices are not going to simply be, we're not going to buy a car. They're obviously going to go on and think about what would we do for our next best



alternative.

What are the automakers going to do? How are they going to adjust capacity? They're not going to say, well, we're not going to do anything. No, they'll take advantage of this. Ford, in particular, I would think would be excited about this, say, look, we're going to start ramping up production.

What about the supply chain? They're not going to shut down. I mean, Ford already is producing a reasonable amount of cars, right, they'll produce even more.

So, that's the kind of calculations that's going to go on in doing this, and this is not an easy problem, I assure you. I wouldn't say that we have, at this point, a definitive answer. We're still working on it. But I can say qualitatively the costs would be substantial, in the multi billions, that would exceed the benefits in the short run.

So, in terms of the savings, in terms of jobs and cars that people wanted, as a short run benefit, that exceeds the costs of the money that wasn't paid back and probably other profit things.

However, the long run, and this is what's so critical -- back to my long run analysis, this has been an industry that has just be shrinking in terms of the Detroit Three, right? It's not shrinking in the sense for bad reasons. These are consumer preferences. They have been making these choices.

Now, there's a critical thing that goes on here that is different from most goods. It's a durable good. You don't buy a car every day. You don't buy a car every year. I don't buy a car until every 13 years, but then I buy Toyotas. All right, Porches -- you know, five to seven years, okay? So, what goes on during this period?

Well, there are switching costs. People have to get some sort of learning and they develop brand loyalty. What is brand loyalty? That's an attitude toward a brand that repeat purchase and experience with the car that's reinforced by information from the

media and your friends, all right? Breaking brand loyalty takes a shock. What the bailout did is it prevented a shock that would have broken brand loyalty.

Breaking brand loyalty in this industry is a good thing because the attributes of the foreign cars are better than the U.S. cars. Now, one thing Larry didn't say in sizing up how GM and Chrysler are doing, is if you look at their attributes now and compare them with the U.S. automakers -- the foreign automakers, look at Power Report, Consumer Report, there's still that gap in quality, reliability, and this is the gap that's been driving down the shares of these cars, and that's the big problem.

You're now denying people effectively from making their long run adjustment. Some of them have been doing it. As a matter of fact, 60 percent share has been doing it. You've got 40 percent left. My argument is that in the long run, there will be more of that, much more that we'll observe. Every year that's a huge cost. People are not getting their first choice cars simply because brand loyalty has been maintained, if you will, in terms of this intervention.

You total that cost up, that's going to be big and it really questions the viability of the bailout.

Now, let me just finish, long run, who really cares? And let me tell you why. This has been part of an industrial policy where we're trading off consumer welfare and taxpayer money, VERs, tariffs, now a bailout, to keep an industry going, okay, a U.S. industry going, at an increasingly smaller scale. This doesn't seem to me to be a kind of industrial policy that we ought to be pursuing in this country. But there's an end to it, two words: driverless cars. They're going to happen. I've been in them; they work. They're just awesome and they're going to completely change this industry for two reasons, one, a lot of people aren't going to own cars anymore. Why incur the capital cost? You want to go somewhere? You'll let your driverless car supplier know, the car will be there, you'll

go, you'll come back, that's it.

The notion of brand loyalty or preference in driverless cars is going to be much less important in this kind of world. That is what's going to dramatically change it, and we're not going to be going back to this long run trade off of trying to keep the industry going and its share at lower and lower amounts and having taxpayers pay for it.

If there's one thing I would suggest policymakers ought to be doing, expedite the transition to driverless cars.

MR. LeBEAU: Wow, Cliff, yeah, you opened up a little Pandora's Box there with a few comments. We'll talk about those in a bit, but I want to give Sean a chance to talk here, and give your perspective, Sean, in terms of the impact of the auto bailout.

Sean McAlinden, for those of you who don't know, he is basically the head of economic research for the Center for Automotive Research, and you've done extensive research over the years, and you would take a different point of view than where Cliff is, correct?

MR. McALINDEN: I don't buy Porsches. You know, I buy mostly Fords and some Chryslers, I've had GM cars, and I might point out that the prices are higher than some of these superior cars lately and two of our companies in Detroit have out-earned, per unit, both Toyota and Honda consistently every quarter until the last one, maybe.

You know, yes, we have studied this bailout. We're a not-for-profit center, 36 years old, we're on the campus of the University of Michigan for 22 years and we spun off.

In December last year CAR released its fourth evaluation of the potential consequences for the U.S. economy of a GM and Chrysler failure in the first quarter of

2009. Our most recent and updated study measures the effects of the government intervention and the rescue of GM and Chrysler by estimating the likely impact on the U.S. economy in 2009 and 2010 if it had not occurred.

So, I'm looking at short-term benefits here, okay, which obviously I'm going to show you were massive.

Our analysis, of course, used accurate employment and compensation data from the companies for 2009 and 2010 and well-regarded input/output forecast models supplied by Remy, Incorporated, but more importantly, our estimation relied in three major assumptions about what would have happened without the intervention. And, you know, I hope Harry can comment on some of these assumptions. One, that GM and Chrysler would have failed early in the first quarter of 2009, that credit was unavailable to allow further production or any legal restructuring effort for these companies. Also that the company's operations could not be sold to other auto makers or other investors would allow production to continue, and perhaps Mr. Marchionne could tell us how much money he was willing to pay for Chrysler or any other auto company at that time, that even if the market recovered, other auto makers -- second assumption -- would have not replaced lost GM and Chrysler capacity for a considerable period of time with new capacity for years, in fact, because it takes years to put up a new assembly plant and train a labor force.

Lost GM and Chrysler production would have been largely replaced by imports from outside of North America.

Finally, the loss of GM and Chrysler business in 2009, at a time when the U.S. auto parts manufacturing sector, our largest industry in the United States, was running at a 45 percent utilization level, would have forced hundreds, if not thousands, of auto part suppliers into insolvency. The effect on other North American based

automakers would have been catastrophic reducing total U.S. 2009 auto output, we believe, by at least 90 percent for months, for most of the year, of what was actually produced and 50 percent the following year.

This would have occurred because of the high rate of supplier interdependence and sole sourcing amongst all automakers. For example, studies at that time show that in 2009, 58 percent of the suppliers that sold to GM and Chrysler sold parts to the Asian automakers. Seventy percent of Ford's suppliers sold to GM and Chrysler. In this assumption we are supported by Ford, Toyota, and Honda executive statements and interviews, especially Mr. Al Mallali.

Our modeling for 2009 to 2010 estimates that if there were no automotive bailout, the following impacts would have occurred in the U.S. economy: a loss of 2.6 million jobs in 2009 and a loss of 1.5 million jobs in 2010, a total loss of \$284 billion in personal income in those two years, a total loss to the federal and state budgets of \$105 billion in 2010 in the form of higher transfer payments, lower Social Security receipts, lower personal income and property tax collections.

As we all know, the full amount of federal assistance was not repaid with the sale of the new GM equity. It has also been said that in the initial grant that Chrysler was not repaid, although all of their loans were with interest. Add these two deficits together and you get a total of \$12.6 billion not paid back.

Our analysis shows that the federal and state governments saved \$105 billion in just the first two years or eight times that \$12.6 billion deficit. This is clearly a favorable cost benefit to the public in the United States.

But there were other costs avoided because of the federal intervention. In 2009, there were over 600,000 retirees at GM and Chrysler alone, the majority of whom lived in the upper Midwest. A GM and Chrysler failure would have reduced and

delayed their retirement income and benefits and swamped the PBGC, increasing the deep recession of the upper Midwest into a true recession.

Although U.S. production might have recovered by 2012, which I admit, or 2013, with the expansion of the international automakers and perhaps Ford, the same cannot be said for product development and R&D activities, GM and Chrysler produce in the U.S., which would have been replaced by imported content.

Finally, let's consider the psychological effect of not rescuing such mainstream manufacturing firms as GM and Chrysler might have produced in our economy at that time for Main Street companies elsewhere. We call this an industrial Lehman Brothers effect. Nobody guessed that Lehman Brothers would produce the impact it did. The shutdown of GM and Chrysler would have produced the same on Main Street.

And there are the benefits we can talk about today. The U.S. economy still contains a high tech domestic auto industry that produced over 21 percent of vehicles worldwide last year and one automaker that vies for global leadership every year. Many of the most important future technical innovations in manufacturing will be produced by this strategic industry. If we combine GM North America operating profit and Chrysler global profits, since 2010, it totals \$47 billion.

Chrysler and GM have announced between them, in the last four years, \$16.2 billion in new investments and U.S. operations. According to CAR's tabulation, Chrysler, in particular, has increased its U.S. employment by 22,000 since 2009 or by 64 percent. The company is hiring actively in multiple states today. This company has also increased its share of the U.S. vehicle market since 2009 by 43 percent.

As Mr. Marchionne will -- since I stole all his thunder -- will admit, they're after their 50<sup>th</sup> consecutive, I believe, month of year-over-year sales increases, hardly the

mark of an inferior product.

In conclusion, the positive benefits of a healthy, restructured domestic auto industry, CAR believes, will be produced in the United States for many years to come. CAR is confident that in the years ahead this peacetime intervention by the Automotive Taskforce and the U.S. government will be seen as one of the most successful in U.S. economic history. It was a brilliant job, especially given the time you guys had.

MR. LeBEAU: We're going to talk about the time constraints. I want to open it up to questions as well. I'm going to start the first question here, but just raise your hand if you have one and we'll have somebody coming to you with a microphone. I think there's a gentleman right back here. Did you have a question? Go ahead. I think we're a small enough room. You can go ahead and yell it out and I think we'll all hear it.

SPEAKER: My name is Dave Fee and I worked in Detroit for Detroit Renaissance in the mid '90s and I think, first of all, the general consensus about GM at the time -- about its management was pretty well known at the time, but I was there also as (inaudible) acquired Chrysler and now we've seen Fiat do the same. The Daimler didn't prove to be a success. What's different about Fiat? What do you expect to happen as a result of that? Is the future better with Fiat than, obviously, it wasn't with Daimler?

MR. LeBEAU: Loaded question with Sergio sitting in the front row. But go ahead, Harry, you take that one.

MR. WILSON: Sure, sure. And obviously Sergio will do a much better job answering this one when he's speaking, but I'll approach it from the perspective I had in 2009 where I was skeptical of the Fiat deal, as Sergio knows, and it wasn't because of Sergio's talents, which are prodigious, but because Chrysler was totally hollowed out as a business. It had almost no quality products to speak of, as you know well, and the

probability of successfully turning around that business was low, I believed, and I think actually everybody believed. The question was, can Sergio still do it, and the reality is, he has.

The product quality of Chrysler, while there's still room for improvement, is dramatically better than it was a few years ago, and I also totally agree with you that Daimler totally failed at that. They paid a much higher price and totally failed, but it comes down to management and I think Sergio's done a great job, deserves a lot of credit for it, and Daimler did not.

MR. LeBEAU: Keep raising your hands as we're going along here. Gentleman in the back there has a question.

MR. TILLIMAN: Hi, my name is Levi Tilliman. I'm with the U.S. Department of Energy, but I also have a book coming out with Simon and Schuster on the auto industry this coming February, and I'm interested in your perspective on whether car companies are actually national. You know, is there such a thing as an American car company? Are all of these just big global entities that it doesn't really matter whether we have a Toyota building cars in the United States or whether we have a GM that builds cars in the United States but also has a huge profit sector in China and Europe?

MR. LeBEAU: Cliff, do you want to handle that one?

MR. WINSTON: Well, I mean, certainly from a policy point of view they're national. From operations, it's global. I mean, GM is -- its operations in China are critical and probably will become even more critical in terms of its bottom line but, you know, you have the power of your government behind you and look what's happened to the protection of our companies.

Now, whether it should be is another matter. You know, I studied the airline industry and I've been long advocating that that should be a global industry where



we not only have open sky, but what is known as cabotage, any airline can fly in any other country, you know, routes, but there's obviously a lot of resistance to that. But I would say, they should be global and auto isn't the only one.

MR. LeBEAU: Keep raising your hands. I have a gentleman right here. We'll start with this gentleman and then we have one about halfway back.

SPEAKER: Antoine (inaudible). Sean McAlinden just mentioned that -- and of course this is true -- that the car industry is a high tech industry. My question is, could you give some specific examples of where the American car industry, no matter what the American company it is, has a true global competitive advantage, and I'm not talking about the driverless car because that's not really a car (inaudible) or not so much? But what are some specific areas?

MR. LeBEAU: Sean?

MR. McALINDEN: Well, you know, it's interesting, about \$100 billion was spent in automotive R&D last year. Our people probably did on the order of about 13, 14 percent of that. Obviously, Ford is now number two in hybrid sales in the United States and the number matches Toyota almost in the number of models in that particular vehicle. GM is pioneering the extended range vehicles and so on and so forth.

I could say they obviously make the best pickup trucks on earth but that's not a global product, you know, so on and so forth, but in terms of spending, worldwide now we're running at about \$1,200 a vehicle on product development and (inaudible) by double, okay. It truly is the largest manufacturing industry in the world and close to the largest R&D industry in the world, and the fact that we have a large footprint in that is incredibly important, okay, especially as we move on to connectivity and to so-called driverless cars, but even the intermediate stage of basically connecting up an advanced transportation system. You know, outside of medical the area that people spend their

most money on worldwide, and an industry that might double in size in terms of sales worldwide, we've got to be there.

Global leadership, our people, I think, have improved their situation in particular dramatically the last five years since this restructuring and they have the profits to have been able to do that.

MR. LeBEAU: Cliff, you had a thought?

MR. WINSTON: Yeah, I mean, the thing -- I'm not disagreeing with some of the positives that are mentioned, but obviously what's running through my mind, you know, with all these strengths, how do you go from a market share of 85 percent to the 40s with expectations it's going to continue to decline?

SPEAKER: That's over 60 years though. I mean, you've got to --

MR. WINSTON: I understand. But I'm saying -- but it continues to move.

SPEAKER: Not in the last five years it hasn't, it's actually increased.

MR. WINSTON: Absolutely, absolutely, I mean, and that is the pattern. We see it go down, we see it stable. It was stable long in the '90s, it goes down, it's stable, it goes down, it's stable. This is the pattern, you know, and we need to come up with an explanation really for why that has been going on and then try to match that up with, you know, there are all these strengths --

MR. LeBEAU: So, are you suggesting that the bailout basically was a Band-Aid that's going to help the industry here until the mid-late 2017, 2018 and then we start to see it slide again?

MR. WINSTON: I think it's part of -- not a Band-Aid, it's part of a long run package of policies that have been attempting to stabilize the industry at an increasingly lower share. There are going to be continued gaps, as we see, just as a

factual matter, in the attributes of the vehicles, I think share will continue to be lost and it's going to go.

But thankfully, I think it's going to stop at driverless cars.

MR. LeBEAU: The gentleman right here.

MR. ALBERTINE: Good morning. Jamie Albertine from Stifel Nicolaus. I'm the auto analyst there. Look, I think many would agree dip financing wasn't there, perhaps it would have been cumbersome to sell off assets. You know, the bailout made sense at the time, but is there an argument you can also make on the back end that government hanging on through the end of last year with GM did itself almost a disservice in terms of attracting management from the outside that could have somehow chipped away at this cultural sort of issue that we had, which I think Harry alluded to earlier? I understand the stock was working, but look back at what Larry just said, and as I understand very well, you know, 2010 to now, the stock hasn't really done that well.

So, you know, if we really did save \$105 billion, it wasn't about the stock and now we're behind the ball in terms of culture. What --

MR. LeBEAU: let's have Harry handle that because it brings up the question, should the government have unloaded their stake much sooner, at a much more rapid pace?

MR. WILSON: It's a great question and I think there are two or three elements to it. The first is a question of valuation, at what point should Treasury sell, because obviously every sale prints a final price, and I would argue that all the Treasury sales over the last two or three years have been at too low a price. I think the stock is woefully undervalued.

I don't know if you have a (inaudible) out at GM or not, but I certainly believe it's woefully undervalued for a variety of reasons we're happy to talk about if you

want to. That's the first thing.

The second thing is, though, the government overhang, and I think the primary problem with that was not any role the Treasury played within GM, which I think it played basically no role within GM after the restructuring, but the pay restrictions that were put in place as a result of that, which I think actually did hamper the ability to attract outside talent and that I was opposed to. You can understand politically why they were put in place. I think it's an anti-capitalist maneuver and as a capitalist I thought it was the wrong thing to do. And I think it really stifled the ability to track talent.

So, I think had you been able to kind of pull back the pay constraints or make them more market-based, then I think that could have addressed that issue.

MR. LeBEAU: WE have time for one last question. I know, Dave, you've got a question back there. Go ahead.

MR. SHEPARDSON: Dave Shepardson, Detroit News. Two questions. You spend a lot of time looking at GM's culture. What do you think went wrong in terms of the ignition switch recall, why it took so long? And were you ever aware of any hint of this at the Auto Taskforce that there was some problem like this looming?

MR. WILSON: Absolutely not. Let's be very direct and clear about that. We didn't know about anything like this. And as you know from all the press reports -- you've done a lot of reporting on this, obviously, it seems to have been basically stuck in the mid level of the engineering department and not risen above that. These are all folks we never met during our process much less had any exposure to.

And given how hard it was to get data out of the company at the time, even if we had asked the point blank question, I doubt we would have gotten the straight answer, but so that's the first part.

Going to the earlier question, it sadly is emblematic of the cultural

problems, I think, at the company and there are some old cultural problems, which were extremely cost conscious -- Mary Barra has talked about this -- where they would do anything to save a penny, including some really bad decisions, both economically and morally. And that was a part of the culture that was driven by a company that was living on the brink of disaster for many years prior to 2009 because of their cost structure and their illiquidity -- lack of liquidity.

And so, that was a negative thing that I think has gotten much better. I think the company is much more focused, even before our work, driving more consumer-focused decisions.

The second piece of it, though, are the silos that you see where you had legal not talking to engineering and vice versa, and from what I can tell, as evidenced by the fact that the recall didn't become public until very recently, that still persists and that is something that has been a problem at General Motors for decades that I think Mary really needs to attack to use this really crisis moment to go after it.

I think if she can successfully, the company can continue to improve culturally, but it's got a long ways to go.

MR. LeBEAU: Cliff, you had a thought?

MR. WINSTON: Yeah, this is an illustration of the kind of shock that can really take a dent in brand loyalty, you know, we haven't finished the full fallout from this ignition situation and the recalls and so on and so forth.

What the mechanism is, this gives people a reason to start looking around and what we've learned is when they leave GM, what have you, they don't come back and that has been the problem that the U.S. automakers are losing their share because they're losing people and they're not able to get them back. If they were able to get them back and consistently be able to do it, then I'd have more hope for them, but

that is exactly the problem and this is just another shock that I think we're going to see the implications in terms of a reduction --

SPEAKER: Let me throw a question out here, Cliff. Then how do you explain the market share gains for Chrysler?

SPEAKER: And Ford.

SPEAKER: I'm not trying to put you in too much -- but the point is, they're gaining market share consistently and their quality numbers are up, the product review numbers are up, if you talk with anybody who talks with consumers. I mean, is this a fluke, in your opinion?

MR. WINSTON: No. The variables that go into vehicle purchases are numerous, not only things that we observe, but things that we don't observe. There are shocks that have been going on to other companies and other products. Toyota, obviously, has had its problems. Japan, in general, with its tsunami, has had its problems. In terms of particular niches, on the positive side, I think Chrysler has made some steps forward.

You know, may things going on at any particular time can lead to short-term rebound, but my point is -- and what I want to just try to get across -- is take a long run view of really what's been going on with this industry. Yes, I can see some successful lines and some improvements here and there, but the big concern is just the long run trend that's been going down and not a consistent trend of "regaining" share and finally, you know, putting an end to this and getting back. I just don't see it happening.

MR. LeBEAU: We're going to wrap this up. I want each of you to quickly -- not with a long answer, but with a quick answer -- give me this prediction. The big three in the year 2020, where will they be market share-wise? Right now they're sitting at about 45 percent, I believe, in the U.S., 44, 45 percent. What will be the market share for

the big three in the U.S. in 2020? Sean, let's start with you.

MR. McALINDEN: I think it'll be 45 percent just as it has been for the last four years consecutively. You know, we've lost a little at GM, Chrysler has made it up. Ford has held out. We're going to be profitable, we're going to have those 8 percent, 10 percent margins, and the shock will be that we'll be selling twice as much overseas as we do at home, and we've got to get used to that fact just as if we didn't get used to the fact that we lost that earlier share and didn't downsize like we should have, okay, and that was the big contributor to the bankruptcy.

You know, it's a big, wide world out there. There's a billion people on the road and it's going to go to two to three billion and we want an industry that takes part of that in the right way.

MR. LeBEAU: Cliff?

MR. WINSTON: 41.3 percent, 41.2 percent if Jaguar comes through like I expect it to.

MR. LeBEAU: Okay, 41 percent. Harry, where do you see them in the year 2020?

MR. WILSON: (Inaudible) plus or minus for a couple reasons, one, market share is not the end all, be all. These companies got into trouble because they focused on market share --

MR. LeBEAU: And now they're profitable.

MR. WILSON: Right, now they make a boatload of money --

MR. LeBEAU: And with good margins.

MR. WILSON: -- market share, and so I think they'll continue to do the smart thing and invest and continue to be profitable on their core base.

Second part is, the big three are doing a great job -- so is the rest of the

world -- every other major car company is at its peak, more or less, in competitiveness globally. Hyundai was not on the radar screen ten years ago and it's doing in Korea a great job. And so, as a result, you have incredibly brutally competitive -- maybe the most competitive industry in the world right now, and yet the big three are holding their own and actually increasing share in the midst of that. So, I think it's -- I think holding share, which I think they will, and maintaining profitability is both a laudable goal and an attainable one.

MR. LeBEAU: Harry, Cliff, Sean, thank you guys very much.

(Applause.)

MR. BAILY: Okay. We --

SPEAKER: Okay.

Mr. BAILY: Good to go. Microphones are on. Thank you. So, we're going to talk about manufacturing and the state of manufacturing. There was some discussion that Larry Summers was asked about earlier this morning. He painted a view which is not dissimilar from one that my colleague -- by the way, I'm Martin Baily here at Brookings.

My colleague, Barry Bosworth, and I wrote a paper recently on the state of manufacturing, and some of the facts that he outlined are undeniable. We've seen a 50-year decline in the share of employment in manufacturing, and after 2000, when overall employment in the economy slowed down a lot, and then, of course, the recession, the big recession, this translated into a huge, absolute decline in the number of manufacturing employees.

So, this is an industry that has seen its share go down over a very long period, and seen the absolute numbers decline in the last 14 years or so with a little bit of a comeback in this recovery.



Another thing one might say about the sector -- the U.S. sector is that it's got a big trade deficit. The trade deficit was as large as 316 billion in 2000, it rose to 542 billion in 2005, and the last number I had to hand was 460 billion in 2012. So, it hasn't come down a lot even though the overall trade deficit has been coming down.

Interestingly, in 2012, that overall deficit of 460 billion was coupled with an even larger manufacturing deficit with China. So, China accounted for more than one hundred percent of our manufacturing trade deficit.

That's a bit deceptive because China is the assembly point for an Asian supply chain, so actually what we buy is not just produced in China. A lot of it's assembled in China, but a lot gets produced in Asia more generally.

I've also written some of the stuff I did with Barry and also -- elsewhere of a more optimistic view of manufacturing; the manufacturing renaissance that Larry was also asked about.

We do have a big change in energy technology which is leading to a lot of investment in the energy-intensive parts of manufacturing. So, we're seeing fertilizer plants and petrochemical plants increased. And certainly this change in the energy situation has put a big scare. People are writing in Germany. German manufacturers are saying, we can't compete anymore. Our energy costs are too high relative to those in the U.S.

I think another reason that people have been optimistic is because of changes in technology; that things like robotics enable technologies of information technology and additive manufacturing. Those new technologies may end up reshoring production to the U.S.

As Larry pointed out, there's a question about that new technology; whether we'll end up getting more jobs or whether we'll just end up getting more

production. But certainly there's a lot of optimism around technology. I don't subscribe to the secular stagnation view. I think there's a lot of optimism around what technology can do.

There are also concerns that we have about the skills of the workforce and about whether we'll get the right balance on our exchange rate and our flows of capital into and out of the United States that will allow a manufacturing renaissance to take place whether in output or I jobs. I'm happy to say we have a great panel to discuss these things. You have the bios in front of you.

We have Jared Bernstein who recently joined the Center on Budget and Policy Priorities. But from 2009-2011, Jared was the chief economist and economic advisor to Joe Biden.

We also have Scott Paul. I'm not doing these in the order of appearance but in alphabetical order. He is President of the Alliance for American Manufacturing which was a partnership established in 2007 by some of America's leading manufacturers and the United Steelworkers Union. So, it's an effort to bring the industry and the union together.

Steve Rattner, who is currently chairman of Willett Advisors, the investment arm for New York Mayor Michael Bloomberg's personal and philanthropic assets. He is a contributing editor to the *New York Times* and does economic analysis for MSNBC's *Morning Joe*. Previously, Mr. Rattner served as counselor of the secretary of the treasury, and led the Obama administration's successful efforts to restructure the automobile industry.

Matt Slaughter, who is at the Tuck School of Business in Dartmouth where he's the associate dean. He is also the Signal Company's professor of management and the founding faculty director of the Center for Global Business and

Government. He was on the Council of Economic Advisors in George Bush's administration.

So, we have a great panel, and we're going to start with you, Jared. If you'd talk for about five minutes on your view on manufacturing?

MR. BERNSTEIN: Okay. Actually my view is somewhat similar to Martin's, and closer to his than I would say Larry's. Although I do think it is a big question mark, and interestingly I thought Larry's answer about -- what did he say; bippy or something? -- sounded more like what I envisioned than his ensuing description which sounded like negative bippy.

I'm going to make, I think, four points in five minutes. So, each one will just be ticked off, and then during Q&A, if folks want, we can come back to them.

So, the sector has more potential than is currently being realized, but we need to get the policy right in order to exploit that. And while I think the emphasis has largely been on tax credits, along -- I'm talking about the administration now -- has been largely on tax credits, boosting exports, and on IMIs -- Innovation Manufacturing Institutes -- all of which I think are venerable initiatives.

The key is what Martin touched on, which is trade. And I'm also very glad Matt's here because I'm going to talk about trade, and I have a feeling my views may be different than him. And he knows a lot about that, so I want to hear him weigh in.

If you're going to deal with this issue -- I don't like to make too big a deal out of one paper because one paper -- you really need more evidence than that. I don't think you can seriously really deal with this issue without being aware of a paper by Sue Houseman -- which, by the way, also brings a touch of gender balance to the event today.

Sue Houseman has written a really important paper called "The Role of

Manufacturing in a Jobs Recovery,” which can be found on a website called pathtofullemployment.org. And what Sue Houseman has found is that manufacturing productivity is significantly overstated by dint of one sector: A sector that manufactures computers and computer-related goods.

If you take that sector out and you look at manufacturing productivity, it’s actually not particularly impressive at all. Instead of growing, I don’t know, maybe thirty percent since the latter nineties, it grows something like seven or eight percent.

Now, I’m not saying that the computer production sector isn’t highly productive; it is. But it may be less productive than we think because the price edonics that adjust it are showing very, very, very large declines. I think those declines are certainly moving in the right direction, but their magnitude is questionable.

At any rate, that’s just one of the biases she finds. There’s an offshoring bias that’s also important. Basically the way we measure manufacturing production, we’re understating the value of intermediate inputs, and that means we’re overstating value added. And according to Houseman, that may explain about a fifth of manufacturing productivity growth over, I don’t know, maybe the last 10 or 15 years, and a half of the growth if you exclude that computer sector.

So, first point, Larry and everybody else says -- and I talk to Larry all the time about this. He was, in fact, on that project, so I’m not telling tales out of school here. Larry and many others talk about the relationship to agriculture and how productivity is really limiting the employment prospects of the sector. I think that’s not consistent with Houseman’s very provocative research.

Okay, second -- I mean, third. So, good jobs, and here I have a bit of a disagreement, I think, with Steve on the extent to which manufacturing pay a wage premium. And I brought a lot of data with me, but I don’t think in the interest of time I

should go through it right now.

I would argue that -- and he's got some numbers that are completely justified; I'm not saying he's pulling this out of the air. But I think a careful look at manufacturing compensation as well as a regression-adjusted look, which I think is very important -- and I'm proud to say I did it myself just yesterday and I think I got it right. I'm a little old to be fooling around with wage regressions, but I think I did them right -- show a premium that ranges from about seven for high school graduates, about thirteen percent for college graduates, and if you include all in compensation, the manufacturing compensation premium in the private sector is nineteen percent.

So, I think these are good jobs. There's a bit of a mean developing that say, in fact, the manufacturing premium has evaporated. I don't think that's true.

My final point, the White House, as I mentioned, has, I think, undertaken useful initiatives in the area of exports and the IMIs I mentioned, the manufacturing innovations.

The problem is you can't just have an exports initiative; you have to have a net exports initiative. To simply have an exports initiative without focusing on the net is sort of like going to a basketball game and coming home and telling your friends, yeah, my team scored 90 points. It was great. Somebody's going to ask you, what did the other team score? And that's essential if we're talking about -- particularly employment.

I'm not going to say much about the manufacturing innovation institutes other than I think they're a great idea in terms of clearing the path through what's often thought of as the Death Valley between the gown and the town; between the university laboratory and the production floor.

Finally, I don't think we're going to make a dent in what's really holding back the sector. I don't think it's productivity. I don't think it's competitiveness, lack of

competitiveness with competitors. I think it's the trade deficit, and I don't think we're going to make a dent in the trade deficit until we start taking much more explicit action against those who manage their currency in order to get an advantage over ours.

There are three ideas that have been put forth to do so; I like at least two of them. There's this 11 bill, which would give the administration the ability to impose tariffs on those who manage currencies, and it's item by item. It's actually a fairly -- much more tepid bill than people think. There's taxing the foreign holdings of other countries, taxing their excess reserves. I don't think that's realistic. And finally, my favorite is reciprocity. If you can intervene in currency markets by buying our currencies, we need to be able to do the same in your case.

Mr. BAILY: Okay, let me just press you on one of those issues, namely the currency one, and I'm sure we'll come back to it. My understanding is that China's overall current account deficit is not hugely positive now. They have a huge trade surplus -- excuse me -- that China's current account surplus is not hugely large at the moment. They have a big trade surplus with us.

So, is it that their currency is off or that we're not producing -- other countries export a lot more into China, into Asia, than we do. Is the problem in China's currency or should we look more internally and say we're not producing or we're not exploiting the global economy in terms of our exports?

MR. BERNSTEIN: The second part of your question is a very big question, and I'm sure we should be doing that. I tend to think, and I think there's pretty convincing evidence of this -- Joe Gagnon's work, I think, has influenced my thinking on this -- that, in fact, currencies are very determinate of the flows you're mentioning, and it's not just China. It's not just China. That's the thing.

I mean, Gagnon identifies something like 18-20 countries that are

engaged in currency management. They're not even all Asian. Again, I want to hear Matt weigh in on this, but I do believe that the currency management is a very significant factor in our trade deficit, and I think that's what's holding back our manufacturing sector more than pretty much anything else we've discussed so far today.

Mr. BAILY: Thank you. Steve, can I turn to you?

MR. RATTNER: Sure. So, I'm not an economist. I wasn't really a manufacturing guy. I was a service guy my whole career. And then when I got involved with the Auto Task Force I was thrown into the world of manufacturing, and what I saw I found really frightening. And so, I'll give you some of my takeaways from both that experience as well as what I've seen since.

So, I think that -- just to pivot off of what Larry said, I think the agriculture analogy does bear some relevance to the discussion about manufacturing.

But I think Jared is probably right although I haven't -- again, I'm not an economist. But I don't think the increases in productivity and manufacturing are anything like what they have been in agriculture. Of course, in agriculture we're a major world exporter; in manufacturing not. So, I think the example tends to fall short, and I think it, unfortunately, falls short in a negative direction, vis-a-vis manufacturing.

There was a really interesting question in the earlier session from the back by the gentleman who's writing the book, because what people get confused about -- and I was certainly confused; maybe I still am -- is that there's a difference between -- and I think the end of the last panel also illustrated this confusion.

There's really a difference that you have to think about between American companies and American jobs. Now, we saved a bunch of American companies, but the question is how many American jobs did we save? And so, I want to talk about that.

My bottom line is the reasons for my pessimism is that I don't think we're going to be able to create a lot of manufacturing jobs in this country. I don't think that the ones that we do create are going to pay very well, and the ones we are creating are coming at a very high cost of public subsidies in many cases. So, let me go through each of those.

You heard some allusion in one of the earlier panels to the deal that we made with the UAW in which new workers were hired at a much lower wage than workers who had been traditional line workers, and that's obviously all true. What we should now talk about is what's happening to manufacturing wages at other companies that we didn't save, and what's happening with new jobs that are coming here.

Volkswagen came a few years ago to Chattanooga with 2000 jobs; it was widely sought, hailed, celebrated, announced. All of those jobs started at \$14.50 an hour of cash compensation relative to the \$28 that a traditional UAW worker was making at the time, so roughly half the pay. The total cost to VW of each of those workers was \$27 an hour. In Germany, the total cost of a worker is \$67 an hour. So in effect, Volkswagen was taking jobs from a high-wage country, Germany, and moving into a low-wage country, the United States. And so, we should just bear that in mind.

There was a piece that caught my eye a little while ago in the Atlantic about General Electric moving some jobs back to Appliance Park in Louisville, Kentucky; first time in 55 years they had set up a new assembly line. You had to read to paragraph 27 in that piece to find out that those jobs were coming back at \$13.50 an hour, also a major pay cut from where they were before.

Let's talk about how many jobs. We lost six million manufacturing jobs between 2000-2009. Since the beginning of 2010, when the job and the overall employment situation turned the other way, we've gained back fewer than 600,000. For



all of the stories that you read in the paper about this company bringing back jobs here and this company bringing back jobs there, we've actually gained back jobs in manufacturing at a slower rate than the overall gain in jobs in the economy. In other words, manufacturing jobs are still losing market share, if you will, relative to where they were.

Manufacturing employment today is twelve percent lower than where it was at the end of 2007 in December. So, why is that happened? It's happening in part because other companies are simply getting better at doing what we were once the best at doing or certainly among the best in doing.

I hope that Paul will ask Sergio in the next panel about some stuff I've seen him quoted about his productivity in his Polish plants and some of his other plants that you wouldn't necessarily think of as being high-productivity as well as being low-wage places. But this is a worldwide phenomenon. It's not just happening here.

In Mexico, they are assembling Learjet at the moment; something that we once thought could only be done in America or some other very well-developed country. In China they're starting to assemble Citation jets. Even in things like advanced manufacturing, our hold over the rest of the world is diminishing, and it will continue to diminish.

I think General Motors cut something like 30,000 workers -- I'm doing this from memory -- as part of our restructuring, and so it has many fewer workers today in the U.S. than it had five years ago. It actually has more workers in Mexico today than it did five years ago. Why? Because again, if you talk to people at the auto companies I think they will tell you that their productivity is every bit as high as it is in the U.S. and total compensation cost is something in the \$7.50 an hour range. So, this is a fight that I think is very, very hard for us to win.

In places that we are winning them, "winning", it's coming, as I said in my preamble, at a very high cost. Every one of the jobs that came to Chattanooga cost the mix of the city, the state, and the federal government \$288,000. It was \$288,000 per job to save those jobs.

And that's also happening, of course, within the U.S. because everyone prizes a manufacturing job, agrees with Jared that there's a wage premium. And I think there may well still be, but it is declining, and (inaudible) obviously that it's going to continue to decline.

So, when Boeing basically put its latest 787 plant up for bid, it ended up costing the state of Washington \$8.7 billion to keep that plant in the state of Washington. But as bad or worse that that is it cost the workers a total of four percent pay increases over eight years, so an average of a half of a percent a year plus all kinds of changes in their pension, in their benefits, and other things. So, the workers also had to give to keep those jobs, and I don't really know where that process ends.

I don't see an end to it in sight. I think these other countries are just going to continue to get better. And what drives me a little crazy is when you read these stories that say, well, it's all going to be all right here because wages are going up really fast in China. Well, that means they're not going up really fast here, and that's obviously not a good thing.

So, I think you have to get behind the headlines of a few jobs coming back, what it means for the totals, what's happening to the wages, what the cost of bringing those jobs back is. And I just am saying all this because I just want some balance, and I want us all to recognize that it's great to have manufacturing.

There are some advantages to it that I believe in in terms of R&D and other jobs. And I think it was earlier mentioned the people who worked for Chrysler but

aren't on the assembly line, those are all jobs that we get by virtue of having these companies here. But I think we also have to recognize that we need a balance. That service jobs can also be high-paying jobs.

Service jobs can also be export jobs, and we talked about the balance of trade. When somebody comes here to be treated at the Cleveland Clinic, that's an export dollar. When somebody comes here to be educated at one of our schools from overseas I'm talking about, that's an export dollar. When somebody comes as a tourist to Washington or New York, that's an export dollar.

And so, we have enormous advantages in a lot of these sectors, and as we think about what our "industrial policy should be", and I'm not in favor of a particularly adventurous one, I think we should just keep in mind a balance in terms of what is achievable in these different sectors and what is even desirable.

Mr. BAILY: Okay. Well, I've been accused of writing some somewhat pessimistic stuff about manufacturing, but I think your view is, sort of, well-beyond that. So, you basically said the jobs are disappearing one way or another. Either they're going overseas or they're being lost to some kind of productivity. And if we try to get them back it costs a fortune to a job, so it's not clear that it's really worth it, and that service jobs should take their place.

So, what do you see as the future? Do you think we just let manufacturing disappear or do you think there's anything we should be doing to help manufacturing jobs? I think it's hard to run the numbers to see the U.S. with any kind of external balance with a large enough services trade balance. We do have a services trade surplus, but it's small. It seems like manufacturing is still in the front line when it comes to international trade.

So, what do you see? What should we be doing?

MR. RATTNER: Let me say a couple things. First, I really do take an extreme position a little bit on purpose because it does bother me when people drink the Kool-Aid and you read these feel-good stories in the papers about, as I said, the 1000 jobs here, 1000 jobs there, that turns out to be at relatively low wages. That's point one.

Point two, I take your point that it's very hard for me to think of a successful, large nation. I'm not talking about Singapore that can exist without a good-sized manufacturing base, and manufacturing is down to twelve percent of our GDP. We're down there with France and Britain, well below Germany, certainly well below China, and so forth. So, I do get that. But I do think there should be a limit as to what we do.

So, there are some general policies that I think we should pursue that would benefit manufacturing, for that matter the whole rest of the country if Washington, at any point, decides it actually wants to do something. And we all know what they are: They're infrastructure, they're tax reform, they're --

SPEAKER 2: Immigration.

MR. RATTNER: Sorry?

SPEAKER 2: Immigration.

MR. RATTNER: Immigration. That was on my list. And there's probably some trade stuff. And I definitely think trade should be on the table as well. So, there's a bunch of overarching things that we should do that would be good for manufacturing, good for our whole economy. But the idea, for example special tax rates for manufacturing, we should be really, really careful about.

Mr. BAILY: Thank you. All right. Now I'm going to turn to Matt.

MR. SLAUGHTER: Thanks, Martin. So, I'm going to echo a lot of the incidents that Jared and Steven have already provided. I'm going to make two broad

points in a couple of minutes.

The first is I think the U.S. auto industry is a great example of how U.S. manufacturing more generally is globally competitive, but what that means today is really, really different from what's in the minds of a lot of people in that this historical past of things we build one hundred percent value at in America, and we put it on boats and export from Long Beach and places like that. So, what it means for companies in America, our big three automakers and the foreign ones as well, to be competitive is quite different.

So, one is -- it's important to keep in mind that foreign-affiliate sales for these firms has been rising a lot; how they service the foreign market. Sean talked about the rise in China; I'll come back to that in a minute as an example. So, if you look at the U.S. government data on the affiliates of U.S. headquarter multinationals, I can identify in the public domain transportation equipment. So, that's broader than autos and auto parts and includes planes and things like that. But that's increased by about \$115 billion over the past decade in terms of the delta for sales.

Second is there's a lot of great foreign companies that establish and expand operations here, and our next panelist, Sergio, is going to tell us about that, right? So, Chrysler, in the eyes of the U.S. government, rightly is the U.S. affiliate of a foreign headquarters multinational. And these insourcing companies, as they're sometimes called, have long provided a lot of strength for manufacturing in the U.S.

So, today if you look at the number of U.S. jobs in manufacturing, these insourcing jobs in autos and auto parts account for almost forty percent of all the jobs in the United States in autos and auto parts.

And third, and this echoes some of Steve's sobering but relevant data, is the jobs that are being created in America or sustained in American manufacturing,

they're intensely competitive and more and more they're part of these global supply networks. So, as Jared Benson, think of your iPhone as an anecdote. It says on the back of your iPhone, "Designed by Apple in California. Assembled in China."

The measurement issues surrounding what that means about productivity gains are just shockingly difficult, and Susan Houseman's done some great work on that. I've got a paper with Rob Feenstra and some others where our estimates are about twenty percent of the total U.S. acceleration and productivity growth, as it's commonly called, is actually mismeasured gains from globalization.

Now, one of the things to keep in mind: Yes, jobs are following because of productivity gains and manufacturing here in China as Larry said earlier, but some of that's international competition as well. And part of where that international competition manifests itself is in the wage pressures. That's something to just keep in mind.

So, if you look at autos and auto parts in particular from the trough in June '09 to last month, there's been an increase in autos and auto parts employment in the U.S. of over thirty-six percent, which is terrific in some ways, but it's still over eighteen percent below the peak where it was when the recession started in December of 2007. The total number of manufacturing jobs in the U.S. today is about 12.7 million; that's the same number we had 63 years ago in 1941 just before World War II started.

So, that's my first message is just manufacturing in the U.S. is extremely innovative and dynamic. Yes, there's measurement issues, but what means is a lot of jobs that are connected to global supply chains, how stuff is being produced and where it's sold in the world is changing very, very dramatically.

So, as an example, let me just one add thing to that given that we're talking about autos. Take a look at the recent annual reports of General Motors, which I did a couple of days ago, and you see some just striking statistics. But first, their

worldwide employment in '13 was 219,000 workers. That was the first year where a minority were in North America. They don't break it out by country, but now a majority of General Motors' employees are outside of North America, not inside.

Second, China is amazingly relevant, and the delta for China in terms of the unit sales and revenues is dramatic. So, last year General Motors sold about 9.7 million passenger vehicles in the world; a little over a third, about 3.24 million, was in China.

If you look at revenues, from 2011-2013, General Motors worldwide had about a \$5 billion increase in revenues. That was more than one hundred percent accounted for by China alone. They had an \$8.3 billion increase in revenues in China alone over those two years. So, take China out of the picture for General Motors and it's a much more challenging environment the past couple years.

They've got 10 joint ventures of production in China. They've realized increase in sales in a lot of their key product lines like Buick, of double digits, fifteen to twenty percent over the past year along. So, for the future for a lot of these companies that we think of as American, more and more it's where they're going to be able to sell passenger vehicles outside of the United States.

So, my second broad comment is then thinking about public policy to support jobs and wages in America, which I think a lot of people care about. What we need for policy today, I think, is quite different again from what we used to think about in the past. Trade policy and supporting manufacturing, it used to be about breaking down trade barriers. That's what a lot of the GAT and the WTO were about.

But when you look at what company executives talk about, about serving markets around the world, it's a much more subtle and complicated set of issues of market access, national treatment, and here I want to throw out intellectual property

protection. That's just a pervasive issue, especially given the headlines in the last couple of days when you think about engaging of the Chinese market.

I was there last week with some companies, and the anxiety is across the board. We cannot bring laptop computers in. We cannot bring our Blackberries in. We can go to RadioShack and buy a clean cell phone because the concern about the pervasiveness of state-sponsored (inaudible) espionage.

So, the things like the TTP and TTIP are tremendous. I think those are the kinds of policy issues we need to try to create jobs in America that are connected to the rest of the world, and it's not just going to be manufacturing. Inside Chrysler and General Motors and Ford and other great manufacturing companies it's going to be other things like design and ops and logistics and advertising. Those can be very good jobs, but the kind of policy to support that -- Jared, I put currency kind of low down on that list.

The real Yuan appreciations been pretty sizeable against the U.S. dollar for the past several years. That might help a little bit, but I think it's these other issues that are first order. So, I'll stop there, Martin.

Mr. BAILY: So, you're painting a picture, if I may read it right, of the fact that American multinational companies are very successful globally. Dealing with global competition, there are still a large number of what we think of as American companies that are doing well globally.

But they are not manufacturing here in the United States and exporting a lot. I don't know that the importing back from the foreign subsidiaries; a little bit, but not so much. So, why is that? What's the problem? They've got lots of money, and most of them setting offshore. What do you think the problem is that's discouraging them from investing back in the United States?

MR. SLAUGHTER: So, it's a couple things, one you touched on which is



international tax. I mean, which should all be clear. When the real --

Mr. BAILY: One is tax.

MR. SLAUGHTER: Yeah, one is tax. So, we see that with Pharma these days.

Second is some of these local markets have had over the years local performance requirements. So, you'd like to sell to our customers, governments say you need to do some production here. So, that's been a pull.

More and more foreign governments are realizing the problems that that creates given some of the work that you and others have done looking at whether governments are supporting their countries to be able to connect to global supply chains, and those types of performance requirements tend not to help.

But the third thing that's really important, it's just a lot of business imperatives. There's a lot of industries where you need to be close to the customer and the local production, the responsiveness of time, doing innovation, tailoring products to the local markets; a lot of that pulls these companies to have activities be done in the host markets.

Mr. BAILY: Thank you. I'm going to just put in an editorial comment because I had a strange feeling as I was listening to the earlier panel in which it seemed like one member of the panel was sort of saying we have a totally global, capitalist, free market global industry in automobiles, but the U.S. is the one that's intervening and disrupting the market equilibrium.

And I thought to myself, I can't think of a major company or global auto market that does not have some pretty heavy involvement of its government. VW is largely government-owned. The French intervene a lot. Mrs. Thatcher put (inaudible) into the automobile industry. So, I don't think we were talking about that the U.S. is the

only one.

Doesn't justify necessarily what we did or what we might do, but it just seemed a little strange to me. But let me finish my editorial comment and move on to Scott and let him speak.

MR. PAUL: I view my role -- because I've heard a lot of points made that I agree with, some that I dispute -- as just adding a little value here and there to the discussion because I don't want to expand it at all.

When Larry Summers made the point about the size of the manufacturing pie, I largely agree with that. But I think when you dig into that is how much of that pie are we going to capture? And I think that's the open question. And I think that is where there is a lot of room for growth in American manufacturing.

We are an import-penetration to our economy. Manufactured goods is somewhere from fifty-eight to sixty percent. It is very, very large, which sets us apart from some of international competitors, so there is certainly a lot of room for growth there.

When we look at the jobs numbers, I think it's important to keep in mind that basically if you look at 1979, you look at 1998, at two data points, we had essentially the same number of manufacturing jobs in this country. Granted the size of our population grew, the size of our economy grew; it's only been in the last 15 years that we have seen this dramatic decline relative to GDP and relative to employment.

And so, to me the productivity levers is also an unsatisfying answer. I think much of this is for Jared, and Steve touched on that as well. I think it's the emergency of China that we were ill-equipped to deal with, and monetary policy, which essentially cheapens imports and makes our exports much more expensive.

I think it's also important to understand that manufacturing is not a monolith. And when we delve into the details it's critically important. The auto sector

itself is responsible for about one out of every nine manufacturing jobs. Very few of those are in the assembly stage. A lot of those are in the second or third tier suppliers, and it even has an outsized impact on industries like papers. You think of those brochures you get when you go into dealerships, and it plays an incredibly outsized role in manufacturing.

Since the end of the Great Recession, the auto sector itself has gained about fifty percent of its employment back to auto and auto parts. Fabricated metal has gained about sixty percent back. Machining has gained about sixty percent back. It's actually the rest of manufacturing that is performed very, very subpar. Computers and electronics, textiles, furniture, some of the others; and that's where we've seen the real lag in the growth here.

And I also -- something that Martin said with regard to industrial policy caught my attention because I was listening to Cliff Winston. I was like, if that's industrial policy, it's weak-tea industrial policy in the United States and hardly recognizable. Mr. Marchionne and the Detroit Three not only compete not only with Kia and Toyota and Hyundai; they compete with the government of Japan, they compete with the government of Korea, and they compete with the government of China each and every day, which I do think argues for special treatment for manufacturing within our economy to the point that Steve made.

Services are largely localized. I mean, if you want to buy a piece of clothing you go to the retail store. You have a choice of where you get it from or you could get it online, but that's localized. Same with hospital services, same with education. Most people are going to stay within the United States. The one thing that is very moveable is production, is manufacturing.

And it's important to have the right levers in our economy to be able to

manage that, especially in a global environment where all of our competitors have deep and rich industrial policies, some of which are very damaging, for instance China's mercantilism and, kind of, nativist approach to how they want to develop the economy. Japan's currency interventions and they're blocking access on a large scale for our automakers.

And I think it calls out that this is a sector that deserves some special attention even if it is a small part of the American economy because it is one that is particularly vulnerable to be offshored. And if we don't get it right, that decline is inevitable.

I do think that there is some potential advantages we have moving forward. The energy is one of them. The Federal Reserve did important work in December that looked at the emerging natural gas advantage, discovered that it has not even caught hold in manufacturing yet. Only the absolute most energy-intensive manufacturers had seen the benefits of this, and when it comes online over the next two, three, four years, and as crackers build up around the Marcellus Shale and we get more of a distribution network, I think you will see that advantage rise, and that's something we want to take advantage of.

I think the skills issue is largely overplayed. When you look at the labor market today, it's hard to make an argument that there is a paucity of skilled workers available for manufacturing positions. I think there is a lack of knowhow in terms of how to get those workers into positions.

I think that's where unions working together with their companies play an especially important role because when you look at the Detroit Three and the training relationship they have with the UAW, when you look at the steel industry and the training relationship they have with the steel workers, you don't see many of the calls coming

from that sector. You see it from smaller-sized manufacturers who haven't been hiring for a very long time and may now find themselves in the marketplace for that.

And I think there's a lot of room to be harvested in terms of closing this output gap, and Steve touched on that with regard to infrastructure investment which we are way behind. With regard to immigration, forming families, getting the housing market restarted, I think there's a lot of harvesting that can still be done in our economy.

Now, I do think it's possible to grow the size and scope of manufacturing employment. I think that it's mostly policy levers that will depend on how much success we have there. And I'll just close with this, and Matthew referred to the TPP; I think this is an important test case.

We have seen terrible negotiating of agreements in the past. If you look at China and how we gave up PNTR and what we got in return for that, it's hard to call that a success using the Larry Summers test looking back five or ten years. We negotiated a terrible deal there. I think there's a lot of buyer's remorse over Korea and the lack of market access that our companies are getting to the Korean market. And I think if we make the same mistake in the TPP, particularly with regard to Japan, that we will regret it.

I think it's important to get it right, and if there is an opportunity to negotiate a 21<sup>st</sup> century agreement, it's one that has to deal with currency disciplines otherwise it's ignoring one of the most important levers of global trade and competitiveness. Thanks.

Mr. BAILY: Thank you. Well, we're running a little short of time, so rather than ask me ask you a question, I'm going to go to the audience and ask for a couple of questions.

MR. BERNSTEIN: Can we respond at all to --

Mr. BAILY: Yes, we do. There's a question here, and then we'll get the panel members to have a quick wrap up.

SPEAKER 3: Thank you. (inaudible) question will be -- the question is for Mr --

Mr. BAILY: Can you speak up a little bit?

SPEAKER 3: Yes. The question is to Mr. Bernstein. In regards to the issue of currency manipulation, I'm a bit afraid that we are not the best (inaudible) student in your class. If you were to go back into the argument made by the finance minister who works for Brazil, joining the U.S., especially taking into account the massive response in the community for (inaudible) policy of the Fed, we are doing our part.

So, to go back to the previous panel, there was a question in regarding to the attributes of foreign cars. How would you reconcile that pronouncement with a supposed -- as I understand it, the argument that perhaps the reason why some U.S. car manufacturers are not selling as much is probably due to the price as opposed to those attributes? Thank you.

MR. BERNSTEIN: I didn't understand everything you said, but I did understand, I think, the pith of your very good question. And by the way, this gives me an opportunity to respond a little to something I wanted to, so I can kill two birds here.

I have heard Ben Bernanke -- now he works here, but when he was at the Fed he talked about -- he defended monetary actions in the face of accusations. Well, you're managing currency just like folks that -- not the Fed necessarily, but that other commentators say other countries are doing. And I think at that time Chairman Bernanke's response was absolutely correct, which is we're the Fed. We do monetary policy. Sometimes that means we move interest rates around, and yes, that affects the value of the dollar. That's a side effect.

I actually think though -- and this gets to what I think was the end of your question about the impact of price, and I wanted to argue a little bit Matt here because he agreed and I think Steve may have to when you said trade should be on the list. I take that to mean -- you'll obviously correct me if I'm wrong. I take that to mean this currency issue, at least in part.

If you look at -- this gets to something Scott said. Absolutely true that the quantity of workers in manufacturing stuck at around 16-17 million for a long time. Then you get to the 2000s, falls off a cliff. Then you get to the last few years, and it reverses. Now, people who follow employment trends closely know that it's actually a big deal when a long-term trend reverses course.

I don't think it's a renaissance. I agree with Steve. I think that word is misused. But a reversal in such a long-term trend of such a key sector, even if it is less than ten percent of employment, is a very big deal. And I think it has a lot to do with price as Matt said. Now, it looks to me like China's currency appreciated. It has appreciated, and as it has appreciated our manufacturing sector has done considerably better. Our trade deficit has begun to come down.

I'm not saying it's the only factor in the game by a long shot, but I think it's a big one. And I'm glad it's on the list of the other panelists here. Even if it's low on the list, I think you'd have to admit that we're not doing nearly anything that's visible. I'm sure there's lots of behind-the-scene negotiations; I think there needs to be more.

Mr. BAILY: Okay. A lot of our decline in the trade deficit is energy. It declined.

MR. BERNSTEIN: Yeah.

Mr. BAILY: The manufacturing trade deficit is much more modest.

MR. BERNSTEIN: I actually was talking about (inaudible). I'm talking about taking that out.

Mr. BAILY: Last remarks, Steve?

MR. RATTNER: Last remarks?

Mr. BAILY: Yeah.

MR. RATTNER: I think I said what I had to say. I wasn't ready for last remarks, but I (inaudible) to say a word or two on trade and so forth. So, I'll leave the specifics of trade to others because it's not my area, but yes, Jared. I did say that I think trade should be on the table. I think trade is a factor. I think not just currency manipulation but market access is a factor.

But when you made a reference a minute ago to cutting price, I wasn't sure exactly what you referred to. But the way I would put it is we cut our prices by cutting our wages. Manufacturing wages are down 2.7 percent since the (inaudible) of the recession. Other wages are roughly flat. Wages in the auto industry, which has brought back all these people -- wages in the auto industry are down ten percent. And so, we have made ourselves more competitive.

When you talk about why has this decline suddenly stopped? We've made ourselves more competitive by cutting price. And all I'm saying is that's not a recipe for long-term success. That's something you do as a last resort to stay in the game, but it's not something that should make us all happy.

And I want to just say one thing about what Matt said. I don't know if you meant this, but I wanted to just underscore it anyway. I think you have to separate companies from jobs. Whether General Motors is hugely successful in China or not -- sure we're rooting for them. There are jobs back in Detroit that are probably going to get created if they are more successful in China. But there aren't necessarily direct jobs.



When Sergio hires more people here to make Chryslers, I'm not sure exactly what that does for the average Italian citizen trying to find a job. So, you have to separate this idea of which companies are winning from where the jobs are winning.

Mr. BAILY: Matt?

MR. SLAUGHTER: Completely agree. I think (inaudible) conversation I always put it like these -- I put it in the context of hopefully everybody in this room cares about trying to create good jobs with good wages in the U.S. and lots of other parts of the world. And the sobering data on falling real incomes for so many workers and households is the paramount policy issue.

So, historically companies, whether they're U.S.-based or foreign-based, that are somehow connected to the global economy tend to be more productivity and tend to be more innovative and they tend to pay higher wages. That doesn't always happen to be the case, and this comes back to the deepest policy issue here is things that you rightly pointed out; of tax reform, infrastructure investment, I'll put in immigration reform, biased being an educator, education policy. Those are the things that support high-productivity jobs, meaning high wage jobs, in all kinds of industries.

Mr. BAILY: Last words?

MR. PAUL: Two very quick points. There still is a premium for manufacturing. The Commerce Department data shows that new hires in manufacturing, even though it's lower as Steve said, still thirty-eight percent better than other jobs created since the end of the Great Recession in the rest of the private sector, which is an important point especially for people without a four-year college degree.

Also, I would say that one thing that gives me optimism, and it took an Italian CEO to do this, but the idea that (inaudible) America's back and you can be proud of it. The Super Bowl ad that Chrysler did two years ago really set the tone for that. You

see more companies embracing that along with the management theory that some have alluded to about innovation and trying to localize that.

And I think that's something that shouldn't be understated; there's this idea for decades which was to offshore. Now there's at least a plurality of management theory about localization as well to serve the market, and I think that will benefit American manufacturing.

Mr. BAILY: Great. Thank you. Well, thanks to our panel, and we look forward to the rest of the session. Nice seeing you.

MR. PAUL: Thank you.

MR. INGRASSIA: Well, good morning, everyone, and thank you for being so patient. My name is Paul Ingrassia. I'm the Managing Editor of Reuters. As a journalist and author, I've been really following the auto industry and writing about it for about 30 years now. And it occurred to me -- the gentleman next to me of course, Sergio Marchionne, needs no introduction.

But it occurred to me before this session that there has been several people in the history of this industry who have saved a car company. Alan Mulally at Ford, Lee Iacocca at Chrysler back in the eighties. Certainly Carlos Ghosn with Nissan. I'm not sure anybody else except for Sergio has actually saved two, and that is Fiat about a dozen years ago when it was on the brink of disaster, and then more recently Chrysler after Fiat took control of Chrysler as a result of the work of the Automobile Task Force.

So, it's pretty remarkable. And I think you also heard that Harry Wilson said that look, candidly he was against the whole Chrysler saving effort because he thought it was hopeless. Not long after you got control of Chrysler, Sergio, I was in the office of another CEO in Detroit -- another chairman in Detroit I should say. I'm not going to mention his name, but it's a four-letter word. Anyway, and he said he thought that

Chrysler would be out of business in nine months.

So, there were a lot of skeptics out there. So, let's talk about what you found -- the title of this discussion is Inside the Bail-Out. So, take us back to those days. What potential did you see that others didn't see? What were the biggest obstacles once you got in? What were the biggest surprises?

MR. MARCHIONNE: You don't have any shorter questions than that one?

MR. INGRASSIA: No, I don't do shorter questions. You can do shorter answers.

MR. MARCHIONNE: No, but what I found was what Harry described. I mean, this is a company that had been run by a foreign entity for a long period of time that had taken all its wares on the way out. In 2006-2007 it had been flipped over to financially competent, industrially incompetent private equity investors who had run it for a period of time and then run into a brick wall in the middle of a crisis.

What we ended up looking at was empty cupboards in terms of technology, a product. And so, we started from scratch with money that Steve gave us; roughly \$7 billion which I -- we'll I'll stop complaining. We did pay it all back, Steve, with interest, as was mentioned earlier.

But it was a question of really rebuilding the company culture and rebuilding our portfolio and the business from scratch. We had a lot (inaudible) poor track record of execution. We were repeat (inaudible) as we had to go in for a bail-out back when Lee Iacocca was there. I remember I went down to see him in California after I joined, and I promised him that I'd take him back to Washington when I handed him back the check because he made a big deal -- (inaudible) remember I was in school at the time.

MR. INGRASSIA: Right.

MR. MARCHIONNE: And we showed up in Washington to pay back the Feds. And then little did I realize that we were going to pay you back with a wire transfer, and there was no need for me to go back to Washington. (Laughter) Saved me.

MR. INGRASSIA: Times have changed a little bit since -- yeah.

MR. MARCHIONNE: Times have changed, and I felt a lot better about not having to go back to Washington. I mean, I thought that --

MR. INGRASSIA: But what did you see? What potential did you see that people -- you know, Harry's a smart guy. He didn't see it.

MR. MARCHIONNE: Harry's a smart guy, but he's not a car guy.

MR. INGRASSIA: Okay. Well, what potential did you see?

MR. MARCHIONNE: So, I'm not trying to be rude about this, but one of the biggest benefits of Chrysler was Jeep.

MR. INGRASSIA: Okay.

MR. MARCHIONNE: And for anybody who has been following the development of Jeep over the years and has looked at the way in which it has grown in spurts internationally, you realize -- and this is part of the strategy of Chrysler Automobiles going forward, is that it's going to globalize Jeep. It's going to go from 700,000 to a million. And this is the biggest growth opportunity that we have.

A lot of those things are going to come out of the U.S. Not all of them, but -- and it is an American brand regardless of ownership. I mean, this thing about who owns what is really the wrong way to work at this business.

Fiat, within the next six months, is going to have an Italian affiliate. Someone said that Chrysler was the affiliate of a foreign company. Well, Fiat is going to be the affiliate of a Dutch company which will be listed in New York, headquartered in

London where it has zero manufacturing facilities.

MR. INGRASSIA: Sounds like the punch line to a bad joke, by the way.

MR. MARCHIONNE: No, but it's not. But it's life, right? This is the way in which you unfortunately -- because of the way in which tax arrangers exist internationally, you provide for the flow of dividends to your shareholders. It's the easiest way for us to get it done.

And so, it's being structured that way. So, nationality doesn't matter, brands matter, and nationalities of brands matter.

MR. INGRASSIA: So, you saw a lot of --

MR. MARCHIONNE: A Ferrari made in China is not a Ferrari. With all due to respect to my Chinese colleagues, you'd sell none.

MR. INGRASSIA: So, you saw potential in Jeep.

MR. MARCHIONNE: Yeah.

MR. INGRASSIA: So, you got control of the company. Steve and his people worked with you on the deal. When you got control of the company -- again, this is about inside the bail-out, so what surprised you? What were the biggest obstacles? Was it worse than you thought? Was it better?

MR. MARCHIONNE: It was worse than I thought.

MR. INGRASSIA: It was worse than you thought. How so? Be specific.

MR. MARCHIONNE: It was a state of disrepair of the house. I mean, the manufacturing environment was incredibly -- had been neglected for years. So, a lot of the capital that we spent -- we spent about probably eight billion between 2009-2013. Of all the capital that we spent at Chrysler, we spent about eight billion just rejuvenating the infrastructure. We built more (inaudible). We had to retool all the engine lines, all the transmission lines. These are the things that we don't talk --

MR. INGRASSIA: So, this is basically just the factories? Just rebuilding the --

MR. MARCHIONNE: Just to give a proper working environment to our people.

MR. INGRASSIA: Mm-hmm.

MR. MARCHIONNE: Which is something that people forget, right? When you walk into a plant and you know that you won't use one of their bathrooms, this can't be the right plant, right?

MR. INGRASSIA: Mm.

MR. MARCHIONNE: The state of disrepair, of neglect of the work environment that these people were offered to make a high quality product that was supposed to compete internationally with the best of the best, right? You can't do that when you can't walk into the bathroom at one of the plants because they're just not presentable. We'd done that with that, with bathrooms, with lunchrooms, with parking lots, with reception areas, with everything that we had done was just unpresentable.

MR. INGRASSIA: So, it was worse than you thought. Were there points after you took control of Chrysler where you thought, "Gee, I wish I hadn't had done this"?

MR. MARCHIONNE: No.

MR. INGRASSIA: No? It wasn't that bad?

MR. MARCHIONNE: No, no. By that time I had married Steve, and so -- (Laughter) Steve and his crew used to send me these love notes as I -- I went through a period in 2009 and the beginning of '10 when I decided that I was going to clean up the distribution channels. So, I decided to stop giving away cars, which I thought was a very bad habit.

MR. INGRASSIA: It's hard to make profits with that, yeah.

MR. MARCHIONNE: It's hard to make money. We used to send out checks to customers and put big discounts on cars, and I stopped doing that, and our market share dropped to about six percent. And I used to get these notes from Treasury. It was an incredibly cryptic question: When do you think the trend will turn? (Laughter) And I kept on answering, soon. (Laughter)

It was the best (inaudible) that I had during the process, but that part of it had to be done. It had to be done in a very rigorous, very disciplined way because the brand needed to be restored. So, we stopped discounting vehicles. We took our volumes down, but we took our margins up in exchange, so it was fairly good trade.

And then we spent a lot of time rebuilding the manufacturing infrastructure of the business while we were trying to resurrect the brand. And somebody made reference to the ad which was actually not two years ago. It was three years ago. It was in 2011.

But we started rebuilding the credibility of the brands by making some pretty gutsy calls. The Eminem commercial that we showed in the Super Bowl of '11 was done while Treasury was still a creditor of Chrysler. And so, having the U.S. government as the only lender and running commercials on Eminem are not things that necessarily go hand in hand. I also had no idea whether I was going to offend the general public by using Eminem in a commercial.

MR. INGRASSIA: Right.

MR. MARCHIONNE: Pretty gutsy call. Our kids on the inside said it's going to be wonderful. And then I looked at my secretary's face, and I went (Indicating). (Laughter) And so, not everyone was necessarily in love with Eminem. I think we took some pretty -- we made some gutsy moves; Eminem was one of them.

I think for people who don't remember, but we lost the Chrysler 200,

which was built on the basis of the old Chrysler Sebring.

MR. INGRASSIA: All right.

MR. MARCHIONNE: And there was one thing that the dealers told me when I arrived in (Laughter) was that of all the cars that we make, if there was one car that I should stop immediately in production, it was the Sebring. They said, you got to stop making that car. It's got a horrible reputation, blah, blah, blah.

So, we invested about \$100 million and we fixed the car; fixed everything we could fix. We worked in tiers. We did the front end, the back end.

MR. INGRASSIA: All right.

MR. MARCHIONNE: Fixed all noise and vibration, all that stuff that had to be done -- that could be done on that architecture. And we reannounced the car with the Chrysler 200, and it sold more in a month than it sold in a year because of the launch with Eminem and the reestablishment of the brand.

So, a lot of it had to do with -- we bought time. I had to buy time. I had to work on the current portfolio while I was fixing the industrial infrastructure --

MR. INGRASSIA: Structure, right.

MR. MARCHIONNE: -- and then working on the new product portfolio. And so, we had to transition over five years. And it was a tightrope for a long period of time because we were -- I couldn't show them any really brand new car. So, we showed up at this auto show in January of '11 in Detroit, and we had 16 all new or significant -- I mean, the term was significantly-refreshed products. (Laughter)

MR. INGRASSIA: Significantly-refreshed is sort of French for old products, right?

MR. MARCHIONNE: Yeah, it's like getting a facelift a few times.

MR. INGRASSIA: All right.



MR. MARCHIONNE: But we did do it. We pulled it off. Sixteen products in less than 18 months. It gave a huge shot of adrenaline to our distribution system, and then we picked it up from there. And we spent real money. We spent nearly \$3 billion on our Ram lineup, and the trucks were completely changed, worked a lot on power frames, on engines.

Then --

MR. INGRASSIA: And one thing that hasn't quite gone as you would, perhaps, hoped, I think -- correct me if I'm wrong -- is the Fiat brand in America.

MR. MARCHIONNE: Steve and I had this discussion, but he had to nail me to a condition. And the condition was you had to bring the small car here because it's important to the recovery. So, I made a commitment to bring the Fiat 500, and we've agreed 50,000 a year. If you had asked me at the time whether I would have committed to 80,000 or 40,000, it would have made no difference. I was going to bring the car here anyway.

The Fiat 500 is an iconic, symbolic car. It's not a volume car. I drove here this morning from the airport, and I saw a couple of them on the road. They're cute cars, but they're not going to make up American mainstream automotive landscape. They just won't.

MR. INGRASSIA: So, basically you brought it here because it was a condition essentially?

MR. MARCHIONNE: It was a condition. It was one of the conditions that was assigned to the deal. (Laughter)

MR. INGRASSIA: Was that a wise condition or not?

MR. MARCHIONNE: It doesn't matter.

MR. INGRASSIA: Well --

MR. MARCHIONNE: It goes back to the question about how Summers

defines success. You look at it five years later, was it worth the trip? Yeah, it was worth the trip, so do it. It doesn't matter. I knew that I was not going to change my life. It was going to bring in a four-cylinder engine that this environment needed. That was the most important thing that came with the Fiat 500. Once we got that done, the car is almost irrelevant. Don't worry about it.

MR. INGRASSIA: I see. So --

MR. MARCHIONNE: We sold 2.4 million cars last year.

MR. INGRASSIA: Right. So, basically --

MR. MARCHIONNE: So, I missed it by 10,000. That's a rounding error.

(Laughter)

MR. INGRASSIA: So, the other aspect is --

MR. MARCHIONNE: I made \$3 billion, and I said, shit, I could have made three million and 2000. (Laughter)

MR. INGRASSIA: Okay. So, the other aspect of this deal that was interesting, and actually got a little public criticism at the time, was basically what happened with the secured shareholders, the holders of secured Chrysler debt. Do you want to address that? Was that appropriate, not appropriate?

MR. MARCHIONNE: Well, I can give you my answer. I can give you an industrialist answer to this question. I was in the meeting with Steve when the news was dispersed that the interest had crapped. So, the bankers were in the room together with Chrysler.

MR. INGRASSIA: Right.

MR. MARCHIONNE: The success of Chrysler, apart from all the proper things that we've done and the proper exercise of leadership that was displayed by the team, was due to the unwavering commitment of a group of people who make up the

blue collar force of Chrysler.

We took those people from what I consider to be a very low position in terms of manufacturing efficiency to the point where somebody's (inaudible) in the United States are comparable in terms of efficiency to some of the best plants that we have anywhere in the world. So, they're coming up quickly. And it was only due because the plant workers made the commitment; it couldn't have happened otherwise.

But from where I sit, as the guy who runs the industrial machine, I needed UAW and that workforce thoroughly committed to this project because Harry correctly described it as being an unlikely success story. The way I describe it to people is that when you look at distribution of outcomes, we are what they refer to as the tail event. We're sitting at the tail end of distribution. We've done it more than once because we approach these businesses in a completely different way.

I could never tell you a story about the old Chrysler and the new Chrysler which has been used in the past to refer to all the companies that have gone through some of these treatments. To me, it's Chrysler. I don't distinguish between the two. So, there's a continuum and cultural development.

These houses are fundamentally different than most other automotive houses. We run differently. We have an incredibly flat structure. There's over 25 people that work for me directly. Working for me directly means something that's completely different that it means in any other organization because I can't talk to you everyday.

MR. INGRASSIA: Right.

MR. MARCHIONNE: So, your leash has got to be incredibly long because you've got to be able to run the business. And so, we run the house by holding each other accountable. The place is a good place to work. The pressure is incredible. The heat in the kitchen gets up pretty high from time to time, but we do deliver. There is

food that comes out of the kitchen. We do serve a decent lunch.

So, from where I sit today, trying and putting myself in their shoes back in the spring of '09 and trying to assess the likelihood of a successful completion of Chrysler, I would have been hard-pressed to come up with the right answer.

And so, if you go back to the way in which the deal was structured, and I say this probably (inaudible) Steve because I've told him in private. I think Treasury and the U.S. government made a very clear decision back in the spring of '09 about who was going to survive as the child and who was going to put a life-support system to find out whether they could make it until Christmas of that year.

We were the children that were put in the support ward.

MR. INGRASSIA: Because you had the debt. The debt issue.

MR. MARCHIONNE: I wasn't given a dollar of equity, and everything that was given to us was given to us on a loan. It was secured. I think parts of my private parts were attached to that security. (Laughter)

MR. INGRASSIA: We're not going to get too much more specific.

MR. MARCHIONNE: No, I won't. I'll leave it at that level of generality. And no, it wasn't just my private parts; there were a bunch of other people whose private parts were attached. It was a communal --

MR. INGRASSIA: Let's move on. (Laughter)

MR. MARCHIONNE: It was a community commitment. And so, we have to prove our right to exist. The other guy who got the injection who was guaranteed survival, he couldn't fail. And so, from their standpoint, I think once you divide the world in those two camps, your downside risk of failure would -- one, I would have never been able to do anything else in my life if I failed. Forget it. Korea would have been out the door. And that's what I kept on telling him. I said, look, I'm risking the only thing that I

have which is my reputation.

But the simple fact that we finished and are still here is a recognition of the fact that the system that we put in place actually works in running companies and especially works well in running car companies.

Of the two solutions, being in the Chrysler world or being in the GM world, I prefer to be in the Chrysler world. No, I'll tell you honestly --

MR. INGRASSIA: But you don't think you got a raw deal then essentially?

MR. MARCHIONNE: Well, I get a raw deal because somebody said that the other guy was going to survive and I wasn't, and that kind of genetic selection I despise.

MR. INGRASSIA: All right.

MR. MARCHIONNE: Especially for a country of this caliber and its magnitude, to make that kind of preemptive strike against somebody is a bad choice. But ignore that issue for a moment.

MR. INGRASSIA: Okay.

MR. MARCHIONNE: If I had to come up with a system, I would have put both in the same structure. I would have forced them both to earn their right to live because the leash on the other side is incredibly long.

MR. INGRASSIA: Right.

MR. MARCHIONNE: You could do a lot of mistakes in that world. And I think the urgency to change, which came with the loans with a commitment to pay them back, that urgency did not exist on the other side.

MR. INGRASSIA: For General Motors, you mean?

MR. MARCHIONNE: Yeah. There's only one other. (Laughter) I try not

to speak of my competitors.

MR. INGRASSIA: Right, okay. So, since you raised this issue though, do you think that the process of cultural change in GM would be further along?

MR. MARCHIONNE: I know that when you're broke you change your ways a lot faster.

MR. INGRASSIA: So, the answer's yes, right?

MR. MARCHIONNE: Yeah.

MR. INGRASSIA: Okay.

MR. MARCHIONNE: Just change faster. You're broke.

MR. INGRASSIA: You have no choice. You have no room for --

MR. MARCHIONNE: You have no choice. You got to make payroll on Tuesday, man.

MR. INGRASSIA: All right. When Steve was up here, he said he hoped that I would ask a question about relative manufacturing competitiveness. If you had to build a new car factory tomorrow, where would you put it? Is it America, Poland --?

MR. MARCHIONNE: There's no standard answer.

MR. INGRASSIA: Okay.

MR. MARCHIONNE: The safest answer is that I have no objection to building one here. No, but that's an important step. Five years ago, I wouldn't have.

MR. INGRASSIA: Really? So, what's --

MR. MARCHIONNE: But today I would.

MR. INGRASSIA: And what's the difference then?

MR. MARCHIONNE: There's been a huge cultural shift in the way in which one industrial relations are run between the company and its workforce, and secondly the way in which the industrial machine runs. These are different places. The

places that Harry and Steve visited back in 2009 are not the same places they are today. You couldn't recognize them. It's night and day.

MR. INGRASSIA: In terms of culture, attitude --

MR. MARCHIONNE: The culture; the technology that's in place; the way in which the cars are manufactured; the attitude of the workforce; the efficiency; the land speeds; the output of the system has completely changed. I mean, if you took a Japanese guy into our plant today he'd be impressed.

MR. INGRASSIA: All right.

MR. MARCHIONNE: He'd take us as a serious threat, which you wouldn't have done five years ago. So, where's Cliff? Is he still here? I need to find Cliff because I think he works for the Foreign Manufacturers Association. (Laughter) I can honestly say that I don't agree with a damn thing he said. (Laughter) I sat there, and I went through a list --

MR. INGRASSIA: What's your real point?

MR. MARCHIONNE: The comments that he made about the fact that we're going to lose this competitive battle against the imports, and they were degrading in terms of quality, and they were -- this is absolute junk. It's the kind of prognostication that you should do in your office with nobody else present (Laughter) because the real issue is that when you run a company and you're running 70,000 people, that kind of numbs things. It's going to destroy you. You can't. It is unreal and it is untrue. It's fundamentally untrue.

MR. INGRASSIA: I want to open this up to questions from the audience, but one thing I want to ask you about. We talked a lot about cultural change, Sergio, with the companies. Has the UAW's culture changed?

MR. MARCHIONNE: Totally.

MR. INGRASSIA: It has?

MR. MARCHIONNE: Yeah. So, it's something I'm not to -- to go back and start drinking again. (Laughter) I've learned my ways. I got off the sauce, right. The important thing for them is not to do it again. The minute you start talking about entitlement, the moment that you start talking about things that are old to you without having a proper understanding of what is earned, and what you're entitled to in a place where you share (inaudible) which has to do with Tier 2's -- Tier 1's wages, which is my biggest problem because we're going into negotiation next year. And somehow we need to get rid of this dichotomy. It can't continue. It's the wrong answer.

MR. INGRASSIA: Two tier wages are not sustainable?

MR. MARCHIONNE: I don't have two classes of citizens inside our shops.

MR. INGRASSIA: Okay.

MR. MARCHIONNE: These are people that do the same things. One guy gets paid X, and the other guy gets paid fifty percent of X. It doesn't work.

MR. INGRASSIA: But that was the union's idea though.

MR. MARCHIONNE: Yeah, but the way you do this is you grandfather the Tier 1's. You make them a dying class, and I don't mean that literally. (Laughter) You make them a dying class, and you build a Tier 2 structure that sets the wage for the next two generations where you allow people to come in, and technically when you have a bumper here you pay them as much as a Tier 1 would make it not more.

But if I'm on the toilet because the markets are down or GM is successful or Ford -- the guy with the four-letter word says that I can't make it, and then we go down in earnings, then I think at the end of the day you share the pain with the company.

MR. INGRASSIA: So, you're going in to these negotiations seeking to



eradicate --

MR. MARCHIONNE: The last time we took this thing around, and we couldn't get it done because we ran out of runway, but now that we're going to have a change with Dennis coming on (inaudible) June, I think, we're going to start the discussions right now, a year before the contract is up.

MR. INGRASSIA: Questions from the audience please. Right here on the aisle.

MR. LOW: Hi, Alan Low, attorney in Washington. Chrysler Corporation from its origins in the 1920s had a very proud tradition of being the underdog that made its place in the market by innovation. Would you consider at this time that it's a good opportunity to put that nameplate on the new Chrysler, and do you think you're ready to launch an identity of that sort?

MR. MARCHIONNE: I think the problem with that attitude is that telling people that you are the underdog gets you nowhere. The biggest objection that I had to the Eminem commercial is that I didn't want it to look like I was looking for sympathy because that -- in the first version of it, by the way, had that tone to it, and so we killed it. We were just looking for a place on the stage. We had to be heard.

I think you prove your value -- there's a huge value in being the underdog from a leadership standpoint when you run houses. The best way to be an underdog is to live the life of the underdog and not tell anybody. Just do it. The market will know.

MR. INGRASSIA: Question back here. Again on the aisle.

MR. SULEIMAN: Hi again. I'm Levi Suleiman from DOE. So, you've done a great job --

MR. MARCHIONNE: From the government --?

MR. SULEIMAN: From the Department of Energy and I'm writing a book on the global automotive industry.

MR. MARCHIONNE: I got that the first time you told me.

MR. SULEIMAN: Yeah, great. Thanks. (Laughter)

MR. MARCHIONNE: Yeah, I'm going to wait for it. You said February, right?

MR. SULEIMAN: Yes, that's right. Thanks.

MR. MARCHIONNE: That's it. (inaudible)

MR. SULEIMAN: So, you've done a great job describing the way that Fiat came in and helped Chrysler rework their culture; their styling is better; their engines are better; their engineering is better. But now what happens going forward? The next generation of vehicles is looking towards much more intensive electrification, fuel cell vehicles, automated vehicles.

MR. MARCHIONNE: Fuel cell vehicles I'm not so sure, but certainly electrification, yes.

MR. SULEIMAN: Right. And so, can you talk a little bit about your plan for the future from a technology perspective?

MR. MARCHIONNE: Well, look, there are two issues, and this goes back to Cliff's comments about electrification stuff, guided cars, and all this nonsense.

The problem that you have that all this technology that you're putting into vehicles has got a price tag. And so, we run analysis all the time about what the -- effectively our ability to transfer the cost on to the consumer is going to be like as we roll out these technologies.

And one of the things that we've to realize is that although electrification is talked about a lot, that from an economic standpoint there's nobody out there who

makes any money electrifying vehicles; nobody with the exception of Tesla, which only makes electric cars and then sells them at rather inordinate pricing.

We are going to be forced to walk into electrification for a variety of reasons. One because of California and their mandates which are keep on moving the impositions back on car makers to produce cars that are zero emission vehicles. There are zero emission vehicles. And the other one is because of the initiative that was put in place by Obama back in 2011 with the new emission rules which effectively are binding the industry until 2025.

So, our evaluation of all this is that in order for us to maintain the same type of fleet in terms of size that you've got out there is that hybrids are going to run more than fifty percent of the fleet in the U.S., and in all likelihood close to three-quarters by the time 2025 comes around.

So, the house is ready. We're rolling. But it can't be done on pure electrification. It needs to be run in conjunction with combustion. We'll need finish all our work on combustion. Combustion still has a lot of unexplored areas while will continue to yield efficiencies; and the combination of that and electrification will give the right answer.

But it's going to take time. But we'll be there. We've been doing all the work up until now, so it's not -- by the way, showing up and say rolling out is a (inaudible) Fiat-Chrysler, and he's showing you the new 500 Electric, which I do have. I hope you don't buy it because every time I saw one it cost me \$14,000. (Laughter)

So, I'm honest enough to tell you that I will make the car. I will make it available, which is my requirement. But I will sell the limit of what I need to sell and not on more.

The boat for GM, since we're talking about competitors, I don't think that at that price level we can make money.

MR. SULEIMAN: All right.

MR. MARCHIONNE: All right. And it can't make the volumes. So, at that point in time, if we just build those vehicles, we'll be back in Steve's successor's office in Washington asking for a second bail-out because we'll be bankrupt by Christmas.

So, we got to run the business. We got to combine technology. And I've had long conversations with the secretary on this issue about deemphasizing electrification and making sure that we continue -- the best thing you can do as DOE is to set the target and let industry get there. We'll find the right mixture of technology to deliver mileage and CO<sub>2</sub> reductions. We're much better at this than you are; I hate to tell you this. (Laughter)

MR. INGRASSIA: Now, it's interesting about fuel cell. You express some skepticism, but Toyota, with Mr. Uchiyama who's the father of the Prius, is placing a big bet on fuel cells.

MR. MARCHIONNE: We all are. Somebody needs to prove to me that if you're going to use fossil fuels to produce hydrogen than you're going to end up with a carbon footprint that's more beneficial than using combustion today. Prove that to me and then I'll listen to you. If you're really interested in saving the environment tell me how you're going to do fuel cells without providing a worse answer than you've got running combustion today.

MR. INGRASSIA: This gentleman here please.

MR. PELLIGRINI: Thank you. I'm (inaudible) Pelligrini. I'm Corporate of Finance intern here at (inaudible). I have a question about Caesar in the sense of corporate stakeholder responsibility. In the establishment of the brand, did you go through a strengthening of the Caesar so investments better stick with the relationship,

and if you think that it has been perceived by your investors?

MR. MARCHIONNE: It's easier for me to answer the questions in reverse order. I can guarantee you that it's never been perceived properly by our investor base because as much as I think we emphasize it internally as a matter of corporate choice, the equity markets are absolutely insensitive to this issue. I think you're young enough to start working the street here, because you need to convince a lot of people that it's important.

MR. PELLIGRINI: (inaudible)

MR. MARCHIONNE: There you are. I'll introduce you to our investor relations people. There's a huge disconnect between all the work that we do on that issue and substantial involvement and financial resources to the achievement of those internally developed targets knowing which the market appreciates.

MR. INGRASSIA: Question over here please.

SPEAKER 4: Mr. Marchionne, in the opening remarks you referred to the structure of the arrangement Mr. Rattner provided to your institution. I suppose the question is whether you could (inaudible) some of the nonsense if you -- excuse me, or the (inaudible) that they were your private sector solutions which could be provided to Chrysler which provided a much better (inaudible) relative to the one Mr. Rattner proposed (inaudible)?

MR. MARCHIONNE: I think we can speculate two comments. All the critics that have attacked the bail-out, and I can tell you from somebody who, unfortunately at the time, was also the Vice Chairman of a relatively large bank in my spare time that the financial system was absolutely incapable of digesting anything, never mind the bankruptcy of this caliber. So, you can get it out of your head.

If you thought that I could sell Jeep (inaudible) you couldn't have sold it

for 50 cents. The value of Jeep as a brand today is a multiple of the 50 cents. Let's not debate how much multiple it is, but it's a much different number.

At that time, the digestive system of not just the U.S. system but the international financial structure could not digest a bankruptcy. Not even Chrysler; certainly not GM's. A gentleman here from Michigan made reference to the fact that the devastating impact on the supplier would have been so large that it would have actually frozen Ford in its tracks. They could have not produced a car.

The failure of GM and the failure of Chrysler would have sent the supplier base into absolute convulsions. And if that happened, they would have stopped making parts for Ford. So, you would have had a chain effect that would have just destroyed the U.S. automotive business completely. So, don't look for alternative solutions. There were none.

And I can tell you that the deal that was put together by Steve (inaudible) was an incredibly tough deal. It was a private equity deal that, as I said, had a very short leash. If we had sneezed the wrong way or would not deliver, they would have taken it back into GM because GM had all the cash, and they could have just absorbed Chrysler and done Plan B which was their Plan B at all times is to put these two companies together.

And I think the only reason -- and I don't want to get involved in the entrails of the discussions that happen inside the Treasury. I know for a fact that Harry was against it, and Steve was mildly in favor. I think Larry was supporting it at the time. But I think the UAW and the fact that they insisted on the continual existence of Chrysler as a separate entity went a long way. I think they were helpful.

And I think in hindsight, going back to Larry Summer's yardstick right -- five years later, was it the right thing to do? And the answer is yes. So, the best deal

they could have done at the time.

MR. INGRASSIA: All right. Time for just one more quick one if there's one more, and if not -- Steve Rattner, why don't you ask the last question? This is very appropriate.

MR. RATTNER: I was trying to be quiet, but I just was going to comment on two things that Sergio said. Let me say a couple things actually.

First, it was a very close decision whether to save Chrysler or not. I think Sergio's analysis that we would have been out of our minds to let it go may well be right, but it was, in fact, a close decision.

The thing that was absolutely central to our thinking was it had to have a world-class management team. And if we had not had Sergio, actually we would have let it go right there probably because we had no other world-class management team. So, having Sergio of Fiat was absolutely central to the decision.

I would just comment on two things you said, Sergio. First, I think you are right and you are fair to say that we did not send Chrysler off on the same basis that we sent General Motors off. But the reason we did that was we just -- we felt as stewards of the taxpayers' money, we could not put more money into Chrysler than the minimum that we thought was reasonable for it to have a chance to succeed. And so, yes, it was more leverage than General Motors, but that's why.

MR. MARCHIONNE: And the only comment I made, Steve, was that I think GM should have been given the same treatment. It would have made them into better people. (Laughter)

MR. RATTNER: You have to take that out of caring.

MR. MARCHIONNE: It worked for me. I went straight. (Laughter)

MR. RATTNER: Yeah, okay. And the second think I would say, just to

correct the record, is that the idea of merging GM and Chrysler, the reason that did not happen was not because of the UAW; it was because GM did not want to do it, because their position was they --

MR. MARCHIONNE: We were rejected by everybody, including GM.

(Laughter) You have broken my heart now, Steve. (Laughter)

MR. RATTNER: No, but Rick Wagner's position was -- and Fritz's too -- that they were in the process of going from eight brands to four brands, so why would they want to go back to six or seven brands?

MR. MARCHIONNE: That's a good answer.

MR. RATTNER: That's a good answer.

MR. MARCHIONNE: That's why we split up Dodge at the Ram (inaudible) another one to make it even more difficult for them to absorb us, so I like that story. (Laughter)

MR. INGRASSIA: Sergio, I want to thank you, and I want to thank this audience. It's been great.

MR. MARCHIONNE: Thank you very much. (Applause)

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