Introduction:

The Yale Program on Financial Stability (YPFS) contacted Phillip Swagel by email to request an interview regarding Swagel’s time as Assistant Secretary for Economic Policy at the U.S. Treasury during the Global Financial Crisis, between 2006 and 2009.\(^2\)

At the Treasury Department, Mr. Swagel advised Secretary Paulson on all aspects of economic policy, the government’s response to the financial crisis, and served as a member of the TARP Investment Committee. He was also responsible for analysis on issues including housing, financial markets, healthcare, pensions and macroeconomic forecasts. He played an important role also in the conservatorship of Fannie Mae and Freddie Mac.

Prior to his role at the Treasury, Mr. Swagel was previously chief of staff and a senior economist at the White House Council of Economic Advisers and an economist at the International Monetary Fund (IMF) and the Federal Reserve Board.

Mr. Swagel is currently the director of the Congressional Budget Office. He is at CBO while on leave from his position as a professor of public policy in University of Maryland.

[This transcript of a phone interview has been edited for accuracy and clarity.]

Transcript

YPFS: For the record, could you please elaborate on your role at the Treasury [Department] during the financial crisis?

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1 The opinions expressed during this interview are those of Mr. Swagel, and not those any of the institutions for which the interview subject is affiliated.

2 A stylized summary of the key observations and insights gleamed from this interview with Mr. Swagel is available [here](https://www.yale.edu/ypfs) in the Yale Program on Financial Stability's *Journal of Financial Crises*. 
Swagel: I was assistant secretary for economic policy at the Treasury from December 2006 until January 20th of 2009, for a little bit more than the last two years of the Bush administration. Effectively, I was chief economist for Secretary Paulson. I worked on both micro and macroeconomic policy. We tracked economic data, we tracked housing markets, and my office put forward policies on housing, energy, pensions, social security, health care, and climate policy... Any economic issue would come under the purview of my office.

So, I worked a little bit on everything. Of course, during the run up to the crisis and the crisis itself, I worked a lot on housing, especially foreclosure policy. Then also on financial markets and tracking what was happening in financial markets with the special focus on what was the implication for the broader economy. We also worked on tax policy and other things, of course, working together with my colleagues throughout the Department of the Treasury.

YPFS: When we talk about the housing aspect of the crisis, I think about Freddie and Fannie.

Swagel: Yes, that was part of it. Thinking about the financial situation of these two firms, policy options to deal with them... I was not involved so much in the financial engineering and the work that went into those two funds [being] put into conservatorship. That was more my colleagues in the office of domestic finance... However, in economic policy, we supported, broadly, the offices in the rest of the Treasury.

YPFS: How did the idea for the TARP come around? It was very instrumental in the crisis [combat.] What were the challenges in its implementation and are you happy with its results or looking back at it now, would you do anything differently?

Swagel: I am just thinking about the end... What would you do differently? Well, there is this old Matthew Broderick-Ally Sheedy movie called War Games, from the 1980s when I was in high school. The line of the film was that the only way to win the game was not to play at all. So, there is a sense in which, and in particular to the movie, the best thing would be not to have a crisis in the first place. That has to be said, of course.

How did the idea come around? I think many of us in the Treasury were aware, certainly in early 2008, of the challenges facing the U.S. financial system and the economy, and housing in particular. I think we did not realize how bad it would get. Obviously, we are not the only ones who did not foresee all the events from September 2008 on.

However, some of us were considering what would the options be if things did get really bad. So, in early 2008, in February, March and April, a couple of us within economic policy, including some of my colleagues and our colleague Neel Kashkari and myself, thought about what the options would be in that
case if things got really bad. We put down on paper some of those options [such as] buy the bad assets, inject capital, refinance mortgages... Ways for the government to intervene, knowing that these steps would not be taken unless there was a real emergency.

However, early in 2008, we only thought about it and sometimes put down the ideas on paper. Then, of course, later in the year as the situation with financial markets worsened, it was natural to come back to some of these ideas and [look at] what kinds of interventions would be necessary to stabilize the economy.

It was not as if there was a single moment when people said, "Oh, the government has to intervene," but rather a gradual realization that the problems in the financial sector could get so bad that a government intervention would be needed. Unfortunately, that was the case. Even as late as the very beginning of September 2008, I think there were many people who thought that the rest of 2008 would be a difficult time for the economy and financial markets –that there were headwinds from the housing adjustment, energy prices were quite high and the broader financial market difficulties were present. All three of those things were holding down the economy and leading to slow growth and maybe even zero growth in the second half of 2008, but that then over 2009 and beyond those headwinds would dissipate and the economy would recover.

Even weeks before the failure of Lehman and the failure of AIG, I think there was still a respectable view that there would be difficult times but not a crisis. In March or in April of 2008, no one I knew of said there will be this gigantic intervention. So, that is the sort of how the idea came around.

What were the challenges in its implementation? There were lots of them. Many of my colleagues from other parts of the Treasury can talk about many of those details. Maybe I can talk about a couple... One was the initial focus of the TARP in the use of a reverse auction mechanism to buy liquid assets. The idea was that the government would use the TARP monies to buy the “bad” mortgage back securities. We tried to develop an auction mechanism against the reverse auction to buy these assets. That just had lots of implementation issues, from getting the information on which securities were out there and were bad, to the mechanics of the auction, to the administrative details of the auctions. Finding the quote, the right prices...

The functions were meant to, in some ways, establish price setting again in markets that were relatively illiquid, but if the initial prices were set too low, then that could have negative effects on markets. Or if it is too high, the Treasury would overpay. So, just the whole idea of the TARP, at the beginning with the reverse auctions, had many challenges in its implementation. Maybe I will just say a few more words: even in the legislation itself, the EESA, the
Emergency Economic Stabilization Act of 2008 had provisions such as, I think it was called the "No Unjust Enrichment Provision," which said that if I, personalizing it, was a firm and I bought the bad [mortgage backed securities] MBS from someone else, I could not then sell them to the government at a higher price than I paid. Only the original purchaser could sell to the government in effect, unless they took a loss.

That just reduced market liquidity. It meant the government could not buy some of the assets, in a sense penalized the people who were involved in providing liquidity to the market. We wanted to get these transactions going and the provision in the legislation said that some transactions were not allowed to take place. So, this is just an example of one difficulty.

There are others that the form of the warrants within the EESA was the right form for the eventual capital injections but was in a form that posed challenges for the reverse auctions. It is not worth getting into the details, but that is another implementation issue. Again, in the end, the capital injections were done quickly, and I think very well including the warrants, and the warrants made sense there. So, in the end it was a challenge for the original conception of the TARP that was not a challenge for the eventual program...

I can just say a few more words on the implementation about the TARP as it was eventually implemented, with the capital injections, especially, where I was involved with. It was just difficult to figure out which banks to inject money into. Especially the banks that were at the "border," the banks that had some problems but were not failing. What is the role of the TARP? Should the taxpayer money be put into only the safest banks? Probably not, that would have defeated the purpose of the TARP. But how much risk could, or should, taxpayers take? So, that is the nature of the challenges.

"Are you happy with the results?" That is what the paper I wrote with [Nellie Liang and Meg McConnell, in chapter 18 in the volume from Yale University Press, handles. That is what we focused on: trying to evaluate the overall impact. On the whole, the TARP and the associated programs worked very well. It is a difficult thing to say because, of course, the crisis still happened, and millions of families lost their homes and millions of people lost their jobs. There was very considerable economic and social suffering and disruption. So, saying that the interventions worked does not say that all these bad things did not happen. It is just to say that the interventions helped in the sense of making it not as bad as it would have been otherwise. Things worked but it is hard to escape the reality that all the difficult things happened to the American economy and to families. So, there is no way to be happy about the crisis but just at least to have an evaluation of the results.

Then, in hindsight, could or should anything be done differently? Well, obviously start with not having the crisis in the first place. It is hard within the
American political system to act on the sort of emergency basis that the TARP involved, before the crisis actually takes place. I think that is just a constraint of our democracy and of our political system and it is not a problem. It is just a fact of life: It is hard to undertake emergency interventions until the emergency actually takes place.

Even if acting earlier would be better, it is hard to do that in a democracy, it is just a feature of our system. It is not a problem to be solved, it is just a fact of life. Can anything else be done differently or better? I think on the whole we did a good job. Of course, some of those banks did fail. We put some extra money into some banks that failed. Obviously, it would have been better not to have done that, but I suppose one could say that our job was to take some risk on the part of the taxpayer and on behalf of the overall economy. If none of the investments ever went bad, maybe that would be a sign that we were not taking enough risk.

Obviously, if we could have had a perfect record of not having any banks that we invested in fail, that would have been preferable. So that is something, certainly, one could do differently. There are probably lots of other things. Maybe later I will come back to this and think about other things, too, [that could be done] differently.

YPFS: Do you think it was possible to have all the banks that you chose not to have failed?

Swagel: It would have been possible if we had sort of drawn the line differently, in a safer place. However, even there, it is hard to say... I think the largest bank that failed with the TARP investment was CIT- and it failed in part because it did not have access to a liquidity facility from the FDIC’s guarantee of bank lending which other banks had access to, and arguably, if CIT had been given access to that, [it] would not have failed. CIT had problems and so investing the TARP money in it as a capital injection arguably could have been seen as risky from the beginning. The economy did improve, the financial markets improved not long after it failed. So, had it been given more liquidity by the FDIC, it might have succeeded. That is the kind of difficult decision that is always easier to make in hindsight. And even in hindsight where... There is one particular bank we know failed and the TARP lost a lot of money, had something been done differently, had the FDIC made different decisions... That is an instance where it might have gone differently. So, even in hindsight, it is difficult sometimes because we do not know what would have happened with different decisions.

YPFS: It sounds like there were many, many variables that could have affected the result very differently.

Swagel: Yes, of course, not just at the time, but even in retrospect, we just do not know all of those [variables.] My sense is that TARP interventions, the decisions
made at the Treasury in late 2008 and early 2009 through the end of the Bush administration, got the big things right. The capital injections were done when they were needed. They were done relatively quickly and [were] relatively effective. The Fed (Federal Reserve) took effective and innovative steps that worked well together.

The Treasury injecting capital, the Fed providing liquidity, the FDIC made important decisions, guarantees on bank lending... Even if maybe not every decision was exactly right, on the whole the big things were right. Some of the other programs, [such as] the (Term Asset-Backed Securities Loan Facility) TALF, the joint Treasury-Fed lending facility that supported securitized lending took a while to design and get off the ground, but it looks to have made an important contribution to stabilizing economic activity in sorts of assets that were supported by this particular type of security.

So, yes, on the whole, it seems like the, the TARP inventions were effective and important. Again, notwithstanding the fact that the crisis still happened and there are still terrible impacts on the economy and on many American families.

YPFS: Why and how did the subprime mortgage crisis become a such a huge global crisis? Could that have been avoided at all?

Swagel: Yes, it is an interesting question. I can remember at points when I was at Treasury talking to officials from other countries, say government officials from Europe who were visiting Washington or to the various embassies in Washington. We would have interactions with them, they were very helpful. On the other hand, I think some of them thought, then, they were safer than we were, and that, "Oh, these are American problems and our system is insulated from them." As it turns out, of course, many international banks had exposure to the bad assets.

Banks from Germany, the large bank owned by the governments of France and Belgium... That [bank] failed because it invested in these bad assets. There are other financial institutions in other countries that had their own problems. There are other countries that had financial crises: Ireland and Iceland and others. Not because of the U.S. financial sector [or] housing [sector,] but because of problems in their own countries.

So, in some sense, there were fundamental problems across the world. Different problems, housing related problems or lending related problems, but the financial systems were interconnected. Again, this could be the problems in U.S. housing and U.S. financial markets having negative effects on financial institutions in Europe and in other countries.

Then of course there are the knock-on effects. As the U.S. [experienced] economic slowdown, as economic activity slowed in other countries, that had a global effect. Countries that were not directly exposed to U.S. housing
markets or U.S. financial markets, were exposed to the negative effects through trade or through the availability of financing. So, [when] the U.S. economy went into recession, that affected economic activity in other countries.

And then, say if the economic growth slowed in China, if Chile’s economy depends on exports of commodities such as copper and the export market is slow, well that was a negative effect on Chile. So, there was sort of a mix of financial connections and a real side of these trade and other connections that made it [into] a global crisis. How could we have avoided it? Well, in some natural ways, if there had been more capital, in financial institutions, both in the U.S. and other countries. A key problem that was revealed by the crisis was the insufficient capital at these firms. That is something that the post-crisis financial regulatory regime focused in on. There is much more capital at U.S. financial institutions, which means they have a greater ability to absorb losses.

That is first and foremost [way] to avoid a crisis: Have more capital. Also a lot has been done in the post crisis financial regulatory regime to provide better transparency on what is going on in financial markets. The globalization of financial markets and of economies was a source of risk in that it meant that problems in one country or another were transmitted around the world. However, there are benefits to this: Capital flows and international trade, on the whole, have benefits.

I would not want to pull back from the kind of global connections that provide benefits. I would rather make the financial system and the economy safer. I think that is what the post crisis response has focused on.

YPFS: You mentioned in a couple of your papers that the U.S. government was late in taking action. What was the reason behind waiting “until conditions were so eroded that markets and institutions were having runs, contingency and panic” as you put it? Was it only optimism on people's part saying, "Oh, things cannot go that bad?"

Of course, it was hard to envision the full severity of the economic crisis that eventually ensued in late 2008 and early 2009. So, there was certainly the failure of imagination, and, in that dimension, an understandable one. Some of the work we did at the Treasury early in 2008 was sort of an early or a primitive version of a stress test, not in the same detail as the Fed is doing now, which was an important achievement of the Treasury and the Fed in the wake of the crisis. The sort of thing we were doing early in 2008 was to say, "What is a very negative shock to the economy?" and we expressed that as a negative shock to economic variables that affect business investment.

We would question, “Would business investment then fall? What would it do to the GDP? To output growth? What does it do to labor markets? To the
unemployment rate?" And so on. We looked at what we thought was a very negative, very serious, severe negative shock. Of course, that had a meaningful negative impact on the economy, but eventually the crisis was worse.

We thought we were showing what was really bad and in the end it was worse. The runs, loss of confidence and ultimately panic that you pointed to, that was what was different by the end of 2008: Following the events of September 2008, panic set in. Even people who are not directly affected by financial markets were changing their behavior, pulling back, spending from investment. That, of course, had knock on effects on the economy.

Why was the government late in taking action? Well, in some ways it is just intrinsically hard to act ahead of an emergency. The idea that the government is going to take a massive intervention, unprecedented perhaps, to invest public money in private financial firms... This was eventually done with the TARP. It was just very difficult to do that until the moment when it was actually needed.

Imagine if in early 2008, Treasury Secretary Paulson had gone to the Congress and said, "I need a fund of $700 billion to invest in banks and that will head off a problem that is not happening yet, but might happen in the future..." I think it is just politically very difficult to get that authority. That is not a criticism of the Congress, it is just an intrinsically difficult thing to consider. So, it was not optimism. It was, I think, political reality that some of the interventions happened later than might have been desirable otherwise.

YPFS: Were there any more subtle earlier signs that we could have told, "Oh, it is going to happen, so we better start [intervening?]" But I think you already said that you were already doing some stress tests. You kind of foresaw it, I guess?

Swagel: By far we did not foresee everything. There were others who were very insightful. The head of the FDIC was very insightful about the challenges happening in the housing industry and the negative effects that it would have on the broader economy. Of course, there were many others. We knew things would be bad. I think we just did not anticipate how negative the situation would become. After the events of September 2008, there was just a change in confidence, a change in beliefs that led to a worse situation.

There were signs, such as rising foreclosures and losses being taken by financial institutions. There was information on the mounting foreclosures, but I think there was not full information on all the problems in housing and all the bad loans and all the misbehavior within the housing finance system. The bad loans that were made, the mortgages that were bundled into mortgage backed securities and then sold to investors... All of the misdeeds that took place within that system, at the time, were just not understood.
Since the crisis, a lot more information has come out. Many of the firms involved have made settlements with the Department of Justice and, in some instances, stipulated to what they did and admitted all the misdeeds. But at the time we just did not know the size and the scope and the magnitude of the bad lending. So, the signs were there because obviously the housing market was really having difficulty, but I think there was not full information on all the problems embedded in financial markets. Had there been that information, that might have been helpful. Or if the firms involved had not done their misdeeds, that certainly would have been helpful as well.

YPFS: You also mentioned that the government's actions prevented the global financial crisis from becoming the second great depression, which I found to be very interesting. Could you please elaborate on this?

Swagel: The effectiveness of the actions of the TARP were to help restore confidence in the financial system. The capital injections with the TARP were broad and so it was not singling out a few banks or one bank or a handful. The broad interventions helped market participants understand that the financial system as a whole would remain solvent. It was stabilizing the system as a whole in addition to individual institutions. Stabilizing the financial system was essential to ensuring that the broad economy did not plunge into another depression. Now, of course, there was a recession. It was a very serious and severe recession. So, it is not the case that TARP and the other programs prevented all the bad outcomes. However, I think it is fair to say they did prevent the second Great Depression. There were lots of programs that were effective. I have mentioned some of them; the capital injections were certainly very important, the capital purchase program by which taxpayer money went into banks. The Treasury Department and the Fed took actions on money market mutual funds to stabilize lending, essentially disabling the short-term lending. The FDIC helped guarantee the borrowing by large banks. That was important to stabilizing those banks and they did it in coordination with the TARP capital injections. There is a sense in which the FDIC was willing to take on the risk of guaranteeing banks’ borrowing under the TLGP, the Temporary Loan Guarantee Program, because the TARP had put in capital.

Even if we argue, "All that was needed was to just give the bank some confidence in their funding and then they go ahead and lend," well, that confidence in the funding was made possible only because the TARP capital was there.

It was an example of how the programs work together. Then the intervention with the GSEs, with Fannie Mae and Freddie Mac, helped ensure that mortgage markets continued to function even while other parts of the financial system experienced considerable strains. So, Americans can continue to get mortgages because of the intervention into Fannie Mae and Freddie Mac to stabilize those two firms.
Those interventions also helped make the Fed’s monetary policy more effective as the Fed lowered interest rates, including long-term interest rates when it bought treasury bonds and mortgage backed securities. Those Fed actions brought down long-term interest rates and brought down mortgage interest rates. People either bought homes or especially refinanced and that provided effective economic support as well. So, a broad number of measures were effective and worked well together.

**YPFS:** Looking back at it now in retrospect, do you think that some of these measures were more effective than others? Or was it a whole package that, without one, it could not have worked at all?

**Swagel:** Certainly, the most important would be the combination of the Capital Purchase Program, the Temporary Loan Guarantee Program, the GSE intervention, and some combination of the interventions with money market mutual funds in commercial paper markets. This stabilized the banking system through the Capital Purchase Program, short term funding markets, money markets and commercial paper. Again, bank liquidity through the TLGP and then the housing market, the mortgage market through the GSE interventions. I think that was the core, which is pretty remarkable actually, the massive scale of the interventions to stabilize different parts of the financial system. I think that worked also.

I had mentioned the TALF before, the joint program between the Treasury and the Fed that stabilized the lending that depended on securitized credit. It helped to restart and securitized lending. It turned out not to be a huge program because once it restarted, that activity did not need much support. But just getting it restarted was very important. I think it was successful. There is a small business lending program that President Obama announced early in his administration that never launched. So, there is something like that, which did not quite work super well, but there are also some of the TARP capital injections that lost money.

On the whole, they did well but some of the banks went bad. So, there were some things that were less effective but on the whole, the program was effective. I should mention one thing on the housing side: I contributed to the housing paper in a different chapter, the same volume. There is a sense, in which some of the steps that were eventually taken on housing were effective but started slowly. So, maybe there could have been scope for moving sooner in some ways on the housing programs and that might have been more effective. However, eventually the housing programs helped, it just took a little while for those to get going.

**YPFS:** What were the challenges in finding an effective measure to help resolve the crisis while the crisis was underway?
Swagel: I have a mix of things... Certainly, just the human capacity to get the programs going, the legal authorities... Obviously, once the EESA was enacted that provided considerable authority for the Treasury to act under the rubric of the TARP, but still designing the programs took time. I had pointed to the Capital Purchase Program, the capital injections in the banks as an example of something that was designed very quickly and was very effective. That is the one that I would look at and say, in retrospect, it worked and was designed well, though it was designed quickly. It is just that while the crisis was underway, it is difficult to know how bad things would get.

This is possibly [the case] with housing. With some of the housing interventions that happened in 2009 and afterwards, there is a sense in which I think some of those interventions worked too slowly because they were designed in a way that was overly prudent in trying to balance the desire to help homeowners but not give help to undeserving homeowners. If someone had bought two homes, there is a desire not to subsidize the person’s second home. Or if someone had bought a much bigger home than they could have possibly afforded, there was a desire not to have the government keep someone in that home if they really could never have afforded it. So, in the sense that there was a challenge just to draw the line right between saying, "The government should support the economy and support financial markets and help people, but help the right people or the deserving people.” Just getting that right is a tough thing.

YPFS: In *Responding to the Global Financial Crisis, What We Did and Why We Did It*, you mention eight lessons that we can draw from this recent crisis. What are they? This was written about a year ago which is not too long a time ago, but do you still see that these eight lessons go true? Or have they changed?

Swagel: It is good to look back on what we wrote. I think the lessons are valid. We are talking, in early November 2019, so it is 11 years after the heart of the crisis in the fall of 2008. The lessons still make sense. It still makes sense that having a strong regulatory and supervisory structure is necessary to reduce the expected cost of the crisis on the real economy. That is lesson one. It makes sense that getting regulation right both helps avoid the crisis in the first place and also makes the impact of the crisis less bad.

If there had been more capital and more transparency and other regulatory authorities, the crisis would not have been as bad. The misdeeds that I mentioned in housing finance, the bad loans and the bad practices in the bundling of those loans into mortgage backed securities, if regulators and supervisors had better visibility into those bad practices, the crisis might not have happened or it would have been less bad. So, that is the sort of lesson that I think is right.
At the same time, it is important to have good crisis management capabilities to prepare for what could happen and understand that there will be surprises. Some of the lessons that we had written in this paper were about when to intervene and it is a very difficult one. Again, it is not just an economic issue. It is a political issue, a social issue, that it is hard to intervene until the crisis is visible.

It is better to intervene sooner and, given the negative possibilities of the crisis, it is better to intervene more, but this is not always possible. There is a tradeoff between the considerations of making sure any intervention is targeted to the people they are meant to help against effectiveness. One of my co-authors observed that when fighting a fire, firefighters use a lot of water and they do not worry as much about how much water, as long as the water is available. That is an insightful way of putting it: It can be difficult in the middle of a crisis to get the political permission or the social cooperation. It is a challenge in terms of social cooperation to use a lot of water. So, one of the lessons is that late intervention can make the interventions less effective or raise the potential for unintended consequences. That is a challenge, and it is just a challenge of the way it works in our democracy.

YPFS: So, late intervention maybe not as effective and early intervention is pretty much impossible, so we have to intervene at the right time?

Swagel: It is almost like saying, if you are drilling for oil, you will only drill where you are going to find the oil, there is no other way it works. It is an intrinsically difficult thing and that is why crisis intervention is so difficult. There is no way around it. Thinking about it in advance is very valuable and having people who are experienced and thoughtful and decisive is all important. Each crisis will be different and will pose challenges. There is just no way around that.

YPFS: Should we have too big to fail financial firms and banks? Because I know you did a lot of work on this.

Swagel: I did. Yes, I have thought about that. There is a tradeoff, and this is a general statement, there is a tradeoff between the benefits of regulation and other steps, and the impact on efficiency and growth. That is what crisis management and pre-planning is about: It is trying to get those tradeoffs right and this is an economic judgment, a political judgment, a social one. The post crisis response looked at the “too big” part to say there should be more capital. There certainly is [more capital] today than there was before the crisis, and that will make it less likely that an institution will fail. And then on the “to fail” part, the post-crisis response put in place authorities in Title II of the Dodd Frank Act that if a large bank does fail, policy makers now have the ability to intervene in ways that were not possible before the financial crisis.
So, in some sense the policy environment is focused on the “to fail” part, at least as much as the “too big” part. It seems like an appropriate thing to do. The reality is we do have large banks and even if we broke up some of the largest banks, we would have more banks that are still pretty big. So, whether or not we should do the breaking up or not, is a question that I think will be debated for a long time, and I do not have the answer right now. However, being prepared, having a safer regulatory system and more authorities to be used in crisis, they all seem like a good thing. Again, as long as the authorities are not misused, which has still a lot of difficulties there. But maybe that is a different subject.

YPFS: A question that popped up into my mind as you were explaining this point... Do you think we are more ready for a crisis than we were 10, 11 years ago?

Swagel: Yes, for sure. There is certainly more capital in the financial system, there is much more transparency, practices are different. It is not that the failure of a large bank would be a simple thing by any means, but policy makers are just much more prepared for it and have much greater authority to intervene. So, hopefully there is not another crisis, but, if at some point there will be [a crisis,] we are in a much better shape. It does not mean it is not going to be a bad thing, but we are still in much better shape.

YPFS: What would have happened if the U.S. had gone the Icelandic way and let the banks unwind themselves?

Swagel: So, [if we did] not have the intervention of the TARP and so on... The bankruptcy system certainly is available in the U.S. The problem is that, for financial firms, the bankruptcy system can unavoidably destroy some of the value, that is not the case in a non financial firm. So, if an airline goes bankrupt, well, the airplanes do not disappear and the pilots, flight attendants, mechanics, and gate agents do not forget how to do what they are doing. If a bank goes bankrupt, obviously, the people at the bank do not forget how to do the work, but the depositors, who in a sense are the input to the function of the bank, do not put their money [in that bank.] So, the bank will lose its funding and collapse. Confidence is just essential to the operation of a banking system. Had the U.S. not intervened, that would have greatly affected, in a negative way, the competence of financial market participants in the system, I think, would have led to many more failures and much greater negative economic effects. So, there would have been a lot more negative activity, a lot of more negative implications.

YPFS: So, as a whole, the U.S. can never do this, if I understand right, because it would block the whole banking system, the whole the economy. Is that right?
Swagel: I think there are always tradeoffs and that is the difficulty of figuring out the tradeoffs. Allowing the things to fail would have some very negative implications on the whole. On the other hand, banks fail in the U.S., one at a time or dozens a month, very routinely, and we, the U.S., do that very well. The FDIC is very skilled at disposing of failing banks. Bigger banks are harder, but even big banks fail. The biggest ones could still pose a challenge or if many big ones fail at the same time. We will not know until the next crisis: I think we are in better shape, but obviously we will only find out for sure during the next crisis. But I can say we would have been worse without the interventions. So that is for sure. Interventions certainly helped things.

YPFS: How do we strike a balance between regulation and economic vitality? Because it came up while we were talking, but also in your papers.

Swagel: That is exactly the right question: getting that balance right. We want to avoid things that have cost without benefits, from intervention and financial markets that detracts from economic activity but does not provide more safety. That is something we clearly want to avoid. So, what is the right tradeoff between more safety and economic cost? That is the harder one and I think it requires analysis. I would reject the idea that the cost of the financial crisis is so big and so negative that any intervention is therefore justified. I think it is important to do the analysis and see what will be beneficial. However, getting the tradeoff you identified, that is at the heart of the difficulty in the decision making.

YPFS: Are there any guidelines to do this analysis?

Swagel: There are people who have looked at the cost of crises and I have done some of that work. So, certainly analysis can be done. It is a task for research in the future: to keep doing it and keep looking at the costs and benefits of interventions and the costs of crisis and keep doing the work. For regulators, [it is] to make sure that the financial system has adequate capital and they have the right authorities and visibility into the activities of banks. That work will always be there and be ongoing.