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THE FUTURE OF THE EUROZONE: OUTLOOK AND LESSONS

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THE FUTURE OF THE EUROZONE: OUTLOOK AND LESSONS

WEDNESDAY, AUGUST 1, 2012

U.S. SENATE, SUBCOMMITTEE ON EUROPEAN AFFAIRS, COMMITTEE ON FOREIGN RELATIONS, *Washington, DC.*

The subcommittee met, pursuant to notice, at 2:30 p.m., in room SD-419, Dirksen Senate Office Building, Hon. Jeanne Shaheen (chairman of the subcommittee) presiding.

Present: Senators Shaheen, Barrasso, and Risch.

OPENING STATEMENT OF HON. JEANNE SHAHEEN, U.S. SENATOR FROM NEW HAMPSHIRE

Senator SHAHEEN. Good afternoon, everyone. I think half of our audience is out watching the Olympics, so folks should feel free to move up if you would like to do that and not worry about all of the empty seats. That way you can see and hear a little better.

Let me open this hearing this afternoon of the Senate Foreign Relations Subcommittee on European Affairs. We're here today to discuss one of the most critical issues that faces the global economy and that's the ongoing crisis in the eurozone. We're delighted to have our three very experienced and knowledgeable panelists with us.

How Europe responds to this crisis and the lessons we draw from these events will have dramatic implications, not only for Europe, but also across the broad spectrum of U.S.-Europe relations, including political, financial, trade, and security issues. In today's global economy, Europe remains by far America's biggest and most important ally. Europe is the United States largest trading partner and export market. The businesses and employers in most of our States rely heavily on investment from European companies and purchases by European consumers. That's certainly true in my home State of New Hampshire, where three of the top six export markets for our businesses are in Europe, and cross-border investments mean thousands of jobs in my home State.

If there is one lesson we've learned over the past year, it's that Europe continues to matter a great deal to the U.S. economic engine and our prospects for growth. We've seen the eurozone crisis and economic contraction in Europe drag down the American recovery with transatlantic trade and investment flows slowing and financial fears in Europe contributing to volatility in U.S. capital markets. Since 2009, eurozone leaders have undertaken a variety of efforts aimed at curbing the negative effects of the crisis and stemming possible contagion to larger eurozone countries, including Italy and Spain. At the latest round of critical summits over the last year, eurozone members agreed to begin moving toward a unified banking system and a single bank supervisor for the eurozone. Starting with ailing Spanish banks, leaders also attempted to break the vicious cycle between banks and sovereigns by agreeing to inject cash directly into banks, rather than putting governments on the hook for bailout funds.

Despite these efforts, we've not seen any calming of European markets for any significant period of time, and the euro seems to be entering a new phase of difficulties. Spanish and Italian debt is coming under renewed attack by the markets. There are rising questions about Greece's ability to meet its debt conditions. Europe's banking woes continue to fester. Last week Moody's downgraded its outlook from stable to negative for Germany, the Netherlands, and Luxembourg.

It is reassuring that the ECB president last week said that the bank will do whatever it takes within its mandate to preserve the euro, and in addition Chancellor Merkel's call for more Europe and a fiscal and political union indicate German interest in moving toward further European integration. These important statements have calmed nervous investors and may provide some room for governments to take action in the weeks and months ahead.

As Europe struggles to get ahead of this issue, it's incumbent on us to draw lessons from the ongoing struggle. First, it's important to recognize that this crisis is not the result of any single cause. Some continue to argue that Europe got here because of runaway spending. Now, that is an easy bumper sticker response, but the truth is much more complex, I think. The fact is that slow growth, several banking crises, real estate bubbles, a lack of competitiveness, institutional problems, and a high debt have all contributed to what we face today.

Understanding this fact leads to another lesson. Austerity alone can't solve the complex series of problems. Long-term growth, competitiveness, and structural reform all need to play a role in the solution. Austerity-only will not work and can lead to steeper borrowing rates and lower revenues, making the longer term challenges even more difficult.

At the end of the day, the bottom line is that America needs a strong Europe and vice versa. After two devastating world wars, the United States and the transatlantic community have spent countless resources over nearly six decades to help bring about a Europe that is whole, free, and at peace. America made these commitments because a stable, secure, and prosperous Europe is in our own vital interests.

We need to coordinate where we can to support our European partners as they do what's necessary to put these crises behind them and resume creating growth and jobs on both sides of the Atlantic.

The subcommittee looks forward to engaging on these critical questions in the next hour or hour and a half. Before I introduce our distinguished panel, I would like to turn to my colleague, the ranking member of the subcommittee, Senator Barrasso, for his comments.

[The prepared statement of Senator Shaheen follows:]

PREPARED STATEMENT OF SENATOR JEANNE SHAHEEN

The Senate Foreign Relations Subcommittee on European Affairs meets today to discuss one of the most critical issues facing the global economy today: the ongoing crisis in the eurozone. How Europe responds to this crisis and the lessons we draw from these events will have dramatic implications, not only for the future of Europe, but also across the broad spectrum of U.S.-Europe relations, including political, financial, trade, and security issues.

Reflecting the importance of this issue to the United States, this is the third hearing we have held in this subcommittee on the transatlantic economic and trade relationship in the wake of this ongoing crisis. Today, we have an impressive panel of witnesses to guide us through some of the lessons learned from this continuously evolving situation and to assess the outlook for Europe as we consider the near-term future.

In today's global economy, Europe remains by far America's biggest and most important ally. Europe is the United States largest trading partner and export market. Together, the transatlantic economy accounts for over half of world GDP, one-third of world trade and three-quarters of global financial services. The businesses and employers in most of our States rely heavily on investment from European companies and purchases by European consumers. In New Hampshire, three of the top six export markets for our businesses are in Europe, and cross-border investments mean thousands of jobs in my State.

If there is one lesson we have learned over the past year, it is that Europe continues to matter a great deal to the U.S. economic engine and our prospects for growth. We have seen the eurozone crisis and economic contraction in Europe drag down the American recovery with transatlantic trade and investment flows slowing and financial fears in Europe contributing to volatility in U.S. capital markets. As President Obama suggested this week, "Europe is still a challenge" and as a result, the United States is "going to have some continued headwinds."

Since 2009, eurozone leaders have undertaken a variety of efforts aimed at curbing the negative effects of the crisis and stemming possible contagion to larger eurozone countries, including Italy and Spain. We have seen financial assistance packages for Greece, Portugal, and Ireland, a significant restructuring of Greek debt and an increase in the firepower of a permanent Europewide rescue fund. In addition, the European Central Bank (ECB) took unprecedented steps over the winter to increase liquidity, including the offer of unlimited short-term loans to European banks, which has pumped more than \$1 trillion of capital into the banking system.

At the latest of a round of critical summits over the last year, eurozone members agreed to begin moving toward a unified banking system and a single bank supervisor for the eurozone. Starting with ailing Spanish banks, leaders also attempted to break the "vicious cycle" between banks and sovereigns by agreeing to inject cash directly into banks, rather than putting governments on the hook for bailout funds.

Despite these efforts, we have not seen a calming of European markets for any significant amount of time, and the euro seems to be entering a new phase of difficulties.

Spanish and Italian debt is coming under renewed attack by the markets. There are rising questions about Greece's ability to meet its debt conditions. Europe's banking woes continue to fester. Last week, Moody's downgraded its outlook from stable to negative for Germany, the Netherlands, and Luxembourg.

It is reassuring that the ECB President last week said that the bank will do "whatever it takes" within its mandate to preserve the euro. In addition, Chancellor Merkel's call for "more Europe" and a fiscal and political union indicate German leadership interest in moving toward further European integration. These important statements have calmed nervous investors and may provide some room for governments to take action in the weeks and months ahead.

As Europe struggles to get ahead of this issue, it is incumbent upon us to draw lessons from the ongoing struggles.

First, it is important to recognize that this crisis is not the result of any single cause. Some continue to argue that Europe got here because of runaway spending. Now, that is an easy bumper sticker response, but the truth is much more complex. We are witnessing a multifaceted, interrelated series of crises, including financial, political and fiscal problems. There is little doubt that in Greece, profligate spending and a lack of a mature revenue generating system resulted in unsustainable debt and sky-rocketing borrowing rates. However, the same cannot be said for Spain, which was previously running a budget surplus and in 2011, had a manageable public debt total of around 68 percent of GDP. Despite the relatively solid fiscal situation, Spain now also faces market pressures. The fact is that slow growth, several banking crises, real estate bubbles, a lack of competitiveness, institutional problems and high debt have all contributed to the problems we face today. Understanding this fact leads to another lesson: austerity alone cannot solve this

Understanding this fact leads to another lesson: austerity alone cannot solve this complex series of problems. Long-term growth, competitiveness, and structural reform all need to play a role in the solution. Austerity-only will not work and can lead to steeper borrowing rates and lower revenues, making the longer term challenges even more difficult.

One other important lesson for the United States is that we cannot wait to tackle our long-term budget challenges. By the time the markets start raising questions, it becomes much more difficult to restore credibility. Delay or piecemeal reforms can breed uncertainty and erode market confidence. Spain, again, is an excellent example where a new reforming government came to power amid rising costs of borrowing. The Rajoy administration cut spending, engaged in labor reforms and secured significant support for its weak banks. Despite the recent impressive efforts, Spain continues today to face pressure from bond markets, where on July 25, 10year bonds reached a euro record of 7.75 percent.

Spain continues today to face pressure from bond markets, where on stury 20, 10year bonds reached a euro record of 7.75 percent. As we move forward, one unanswered question remains for policymakers here in the U.S.: Considering the importance of Europe to America's economy, what should we be doing on our side of the Atlantic? I asked this exact question at our previous hearing. Each one of our expert witnesses, from across the political spectrum, agreed that the best action we can take for Europe and for the global economy is to get our own fiscal house in order. Domestic and international markets linked closely to the U.S. consumer base would respond positively to a long-term debt and deficit deal.

It is instructive that markets in Europe reacted quite negatively to the poor way Congress handled the raising of the debt limit last summer. In fact, the price of Spanish and Italian borrowing spiked to well above 6 percent in the leadup to our near-default. Immediately following the July 31 debt deal in Congress, bond markets throughout Europe quickly recovered to a much more sustainable 5 percent. This suggests that a long-term deal in the U.S. would have positive consequences for Europe, which would lead to even further positive movement here in America.

This is why we need to continue to work across the aisle and across the Capitol to get to a balanced, long-term debt deal. As is the case in Europe, our debt deal last year only bought us a little time. We need to act.

At the end of the day, the bottom line is that America needs a strong Europe, and vice versa. After two devastating world wars, the United States and the transatlantic community have spent countless resources over nearly six decades to help bring about a Europe that is "whole, free, and at peace." America made these commitments because a stable, secure, and prosperous Europe is in our own vital interests.

We need to coordinate where we can to support our European partners as they do what is necessary to put these crises behind them and resume creating growth and jobs on both sides of the Atlantic. This subcommittee looks forward to engaging on these critical questions in the next hour.

OPENING STATEMENT OF HON. JOHN BARRASSO, U.S. SENATOR FROM WYOMING

Senator BARRASSO. Thank you, Madam Chairman. I want to thank you for your leadership in organizing and holding this important meeting, and I also want to thank and welcome all of our experts for being here today to take part in our subcommittee's second hearing on the Europe debt crisis. Your experience, your thoughts, your analysis are all very valuable to us and to these discussions.

The hearing today is meant to further our understanding of the European debt crisis and to carefully consider its implications for the United States. Since 2009 European leaders have been struggling to resolve the financial crisis which is threatening the economic stability of Europe. There have been numerous bailouts, credit rating downgrades, speculation regarding possible defaults by different nations, and the markets have resulted in and experienced great volatility and uncertainty as a result.

Despite the efforts and reforms being implemented, Europe continues to face serious problems. In the month of June, the Government of Cyprus sought financial assistance and European leaders needed to bail out Spanish banks. Now there are concerns that the Governments of Spain and Slovenia will also be seeking financial assistance.

Like many Americans, I'm concerned about the situation taking place in the eurozone. The problems facing Europe can have a significant and a substantial impact on the United States due to the interconnected nature of our economies.

The United States must take the opportunity to learn from what is happening in Europe. We must clearly identify the risks and work together to limit the fallout from the crisis here at home.

So I look forward to hearing from the witnesses, Madam Chairman, about the possible risks to the U.S. economy, about transatlantic trade, and international security. So thank you again, Madam Chairman.

Senator SHAHEEN. Thank you, Senator Barrasso. Hopefully, they will have some good news for us.

First on our panel is Dr. Frances Burwell. She is the vice president and director of the Program on Transatlantic Relations at the Atlantic Council here in Washington. Dr. Burwell is a long-time friend of the subcommittee and she has an impressive background in U.S.-EU relations and expertise on political and economic dynamics at play in the eurozone.

Next is Nicolas Veron, a French economist who is currently a visiting fellow at the Peterson Institute for International Economics, as well as a senior fellow at the world-renowned Bruegel, a Brussels-based economic policy think tank. Mr. Veron has held various positions throughout the public and private sectors, including as an adviser to the French Labor Minister, as well as an independent financial services consultant.

Finally today, Professor Simon Johnson is the Ronald A. Kurtz Professor of Entrepreneurship and a professor of Global Economics and Management at the MIT Sloan School of Management in Cambridge, MA. Previously, Professor Johnson served at the International Monetary Fund as its economic counselor and director of the IMF Research Department. Professor Johnson is also a senior fellow at the Peterson Institute.

Thank you all very much for being here. We look forward to your testimony.

Dr. Burwell, would you like to begin.

STATEMENT OF FRANCES G. BURWELL, PH.D., VICE PRESI-DENT AND DIRECTOR OF THE PROGRAM ON TRANS-ATLANTIC RELATIONS, ATLANTIC COUNCIL, WASHINGTON, DC

Dr. BURWELL. Thank you very much. Chairwoman Shaheen, Ranking Member Barrasso, members of the subcommittee, I am honored to appear before you today to speak about the evolving crisis in the eurozone. I will focus my remarks on the political aspects of the crisis, including the lessons learned and ramifications for Europe and transatlantic relations.

I believe this crisis is as much about politics as it is about economics. It is the reckoning for Europe's political failure to establish credible governance for economic and monetary policy when the euro was created. The crisis will be resolved only when the governments agree on who has the political power to set policy in the eurozone.

During the last 2 years, European governments have lacked the right mechanisms and institutions to respond to the crisis. They have taken significant strides recently, including creating the EFSF and ESM, agreeing on the fiscal compact, and as was mentioned earlier, deciding to undertake European-level supervision of major banks.

But progress has been slow, incremental, and some would say tortuous. This is my first lesson of the crisis: EU decisionmaking is difficult and will remain so. We will not wake up any day soon and find that the crisis is resolved. Because of the difficulties in reaching decisions among the 27 members, muddling through is likely to be the optimal policy choice.

My second lesson is that European leaders are more concerned with reaching agreement among themselves on internal reforms than with responding to external pressures. For many European politicians, getting ahead of the market is not the objective. Rather, the objective is ensuring structural reforms in the weaker economies.

My third lesson is that the crisis itself is essential to reaching decisions. In Europe the 27 leaders only make tough decisions when standing on the edge of the precipice. When the German vice chancellor comments that a Greek departure from the eurozone has lost its horror, we should remember that it may reflect that person's views, but it also is a very useful threat as everyone shows up to tell Greece that it's time to make reforms. Intra-European negotiations are not for the faint-hearted.

My fourth lesson is that decisionmaking in the EU must reconcile very different national experiences. Only a few years ago, Germany had one of the weakest economies in Europe, something that the German public blamed on the vast financial transfers given to the new eastern lander. Germany undertook serious reforms, including raising the pension age, and they now expect Greece to do the same.

What does all this mean for the future of Europe and the eurozone? First, we will be dealing with this crisis for some time to come, probably 2 years more at least, if not longer. What is likely to emerge very gradually is a much more integrated eurozone, a core group of countries that has undergone serious structural reform, but growth will be slow to return.

This core is likely to be similar to the current eurozone. I see Greece as the only member seriously at risk of leaving. The others will not overtly push Greece and the Greek politician who takes that country out of the eurozone will be committing political suicide. Most other EU countries are pledged to join the euro and will work to make it stronger. Those who've opted out, however, may find themselves on the periphery. Britain especially seems likely to drift farther from the EU, with consequences for itself and for Anglo-American relations.

Some observers have warned of a rise of nationalism as a consequence of the crisis, but I am actually much more concerned that weak European economies may become targets for investors that may erode good business practices and undermine economic policy. Regional energy firms may be more vulnerable to investments by Gazprom and others, and we have seen the Chinese make a significant investment in the Greek port of Piraeus. The Cypriot Government is using the offer of a Russian loan to try to secure better terms for an EU bailout.

What are the consequences of this crisis with the United States and its relationship with Europe? First, there is little we can do to affect the course or speed of European decisionmaking. Calls for Europe to lessen the rigors of austerity or make speedier decisions will be largely ignored, since the pressure is on them to negotiate among themselves.

Instead, we should focus on the new processes and institutions in Europe and how they might affect U.S. firms and regulations. Previous consultations between Congress and the Europe Parliament on financial services regulation should be strengthened. We should continue to consult closely about potential contingency plans.

Second, I also believe that the United States and the European Union face a significant opportunity in the form of a bilateral trade and investment initiative, which could stimulate growth and create jobs on both sides of the Atlantic. It seems counterintuitive to talk about such an initiative now with the eurozone in the midst of crisis, but the removal of tariff and investment barriers and regulatory obstacles should add to the GDP of both regions at a time when that is much needed.

Third, we should continue to work with the Europeans to push forward the agenda of the G20. Many of the emerging economic powers regard this crisis as a European or North Atlantic phenomenon. The United States and Europe should work together to ensure that the commitments made on Los Cabos are addressed equally among all the G20.

The crisis seems not to have eroded Europe's role as a foreign policy partner of the United States. On Libya, Afghanistan, Iran, and Syria, the Europeans continue to be very active, if not leaders. I would just point to the recent EU sanctions on Iranian energy exports and, despite the fact that Iran has supplied several EU countries, including Greece, which had previously received onethird of its oil from Greece—I mean from Iran, sorry. These are sanctions that have a real cost for European countries.

However, the financial crisis has precipitated a crisis in European defense capabilities. We have heard a steady drumbeat of budget cuts, forcing the abandonment of real capabilities among European militaries. It seems likely that our Europe allies will have limited capabilities for deployment in the next few years. The impact of a long-term decline in European defense capabilities as a result of this crisis should be a priority topic among U.S. and European leaders. Finally, Europe remains a key partner of the United States. It is the largest economy in the world and, as Senator Shaheen mentioned at the beginning, our leading partner in trade and investment. The eurozone crisis will change the transatlantic relationship, but it should not define that relationship. With global wealth and power shifting away from the North Atlantic, this crisis can either divide the United States and Europe, leaving us both with reduced influence in the world, or it can be an opportunity for reforming and strengthening our economies and our partnership to remain globally competitive.

Madam Chairman, Dr. Barrasso, members of the subcommittee, thanks for the opportunity to share my views. I look forward to your questions.

[The prepared statement of Dr. Burwell follows:]

PREPARED STATEMENT OF FRANCES G. BURWELL

Chairwoman Shaheen, Ranking Member Barrasso, members of the subcommittee, I am honored to appear before you today to speak about the evolving crisis in the eurozone. Since both my colleagues are accomplished economists, I will let them address the economics of the crisis, and will focus my remarks on the political aspects, including the lessons learned and the ramifications for the future, both for Europe and for transatlantic relations.

I believe this crisis is as much about politics as it is about economics. Its origins are to be found in a political failure to establish credible governance for economic and monetary policy, and European leaders have dealt with the crisis through a series of decisions about political power rather than economic measures. In the end, the crisis will continue for some time to come—not just months, but at least a year and probably two—and will be resolved only when the governments agree on who has the power to set economic and monetary policy in the eurozone.

The euro, just like the European Union itself, all the way back to the European Coal and Steel Community, was an economic initiative designed primarily to achieve a political purpose. It was less about the creation of a currency based on economic demand, but rather about taking another step toward "ever closer Union." At the time, many economists expressed skepticism, especially given the different approaches to monetary policy within the eurozone, but the politicians went ahead. And the euro has been a tremendous political success, as an important symbol of European integration, and rising significantly against the dollar during its lifetime. The current crisis is the reckoning, however, for Europe's failure to establish effective governance when the euro was created.

Throughout the crisis, European governments have been unable to respond to market pressures because the eurozone has lacked the right mechanisms and institutions. During the last 2 years, European leaders have instead focused on creating those mechanisms and institutions. They have taken significant strides, including: adopting a "six pack" of measures establishing European level budget oversight, a fiscal compact that requires national balanced budget amendments; and most recently deciding to undertake European level supervision of major banks, a step which may lead to an eventual banking union. But progress has been slow and incremental, some would say torturous. This is my first lesson from the crisis: EU decisionmaking is difficult and will remain so. We will not wake up any day soon and find the eurozone crisis solved. Because of the difficulties of reaching decisions among the 27 members, muddling through is likely to be the optimal policy choice.

My second lesson is that European decisionmaking is more concerned with reaching agreement among members on internal reforms than with responding to external pressures. Not only does the difficulty of the decisionmaking process make it almost impossible for the europeans who have told me that responding to the market is not the objective. Rather the objective is ensuring structural reforms in the weaker European economies which will eventually allow for a more unified economic policy approach, and eventually perhaps mutualization of debt, which is widely seen as the ultimate solution, but is currently politically impossible. My third lesson from the crisis is that the crisis itself is essential to reaching deci-

My third lesson from the crisis is that the crisis itself is essential to reaching decisions. We often assume that reaching decisions is harder during times of stress, but at least in Europe, that stress forces the 27 leaders to understand that some movement is required. Jacob Kirkegaard and Fred Bergsten have written about this in the current crisis, but speaking as someone who has watched the EU for many years, I can vouch that crisis is often a necessary ingredient to moving Europe forward across all sorts of issue areas. We should also remember, when assessing statements from European leaders that seem extreme—such as the German vice chancellor's comment that a Greek departure from the eurozone has "lost its horror"—that while it may reflect that person's views, it is also a useful threat just before the "troika" arrives to tell Greece it must proceed with difficult reforms. Intra-European negotiations are not for the faint-hearted.

My final lesson is that decisionmaking in the EU must reconcile very different national domestic situations. Every country brings its own experiences to the negotiating table. While Greece, Spain, Portugal, and Italy are genuinely hurting in terms of unemployment and general economic stress, Germany and others in northern Europe remain very comfortable. Yet only a few years ago, Germany had one of the weakest economics in Europe—a situation that the German populace blamed on the generous economic transfers given to the new, eastern part of their country after unification. They also experienced difficult economic reforms, including raising the pension age and making it easier to fire workers. It is no wonder that the average German is not willing to transfer financial resources to Greece before that country has undergone reforms similar to those Germans experienced themselves. Angela Merkel faces elections in fall 2013, but I for one am not worried about her chances: her approval rating recently reached 66 percent and only in the last few days has there been much public criticism of her handling the economic crisis. What does all this mean for the future of Europe and the eurozone, and most im-

What does all this mean for the future of Europe and the eurozone, and most importantly for this committee, for the United States and its partnership with Europe? First, we will be dealing with this crisis for some time to come, probably 2 years at least and perhaps longer. What is likely to emerge very gradually is a much more integrated eurozone, providing Europe with a core group of countries that have undergone serious structural reform. But growth will be slow in returning. At the end of the crisis, the core group will not be much smaller than the current eurozone; I see Greece as the only member seriously at risk of leaving. In that situa-

At the end of the crisis, the core group will not be much smaller than the current eurozone; I see Greece as the only member seriously at risk of leaving. In that situation, the other members will make sure that Greece is not pushed but rather that Greek politicians decide to leave the eurozone. Given the popularity of the euro in Greece, this would be political suicide. Thus, the EU will effectively become three clubs: those in the eurozone; those pledged to join at some point in the future, that is, the "Euro aspirants"; and those who have opted out of joining the euro: Britain, Denmark, and Sweden. Most of the Euro aspirants, largely the new central European members, will stay closely engaged, seeking to influence the rules of the club they seek to join. But Britain and Denmark may drift farther from the EU, especially Britain, which is also not in the Schengen visa regime. That potential for drift should be taken into account as we look at the future of U.S.–UK relations.

Some observers have warned of a rise in nationalism as a consequence of the financial crisis. It is true that any prolonged economic malaise is likely to lead some in societies to become more alienated. Europe is also going through a significant change in its ethnic makeup which is adding additional strains to its social fabric. However, in Portugal, Spain, Slovakia, and eventually in Greece, the voters opted primarily for mainstream parties committed to austerity. Even in France, the vote for M. Hollande seems to have been less against austerity than against Nicholas Sarkozy. The Front National received its highest tally ever in the first round this year, but they did not make it into the second round as they did in 2002, and they have far fewer seats in the Assemblée Nationale than they did in the 1980s. In the Netherlands, Geert Wilders caused a government crisis by withdrawing the support of his Freedom Party, but he also made it very unlikely that he will ever be included in a governing coalition again, even informally. Currently the left-center Socialist Party is leading in the polls with the election on September 12.

The outlook for right wing nationalist parties is mixed; indeed, we may see the rise of more left-wing extremism if austerity policies continue. One big uncertainty is Greece, which has a long tradition of anarchism and where Golden Dawn did better than ever in the most recent elections. But we should remember that in parliamentary systems, with the government and their parliamentary party unified, there is little role for parties that are not part of the government. Finally, the social safety net in most European countries gives the unemployed a relatively secure existence. Thus, my more serious concern is not with right-wing extremism, but with new immigrants, especially from the Muslim world, who are faced with few available jobs and difficulties integrating into society, and who fall prev to radicalism.

able jobs and difficulties integrating into society, and who fall prey to radicalism. More serious than the prospect of European extremism is the potential for weak European economies, especially in the south and east, to become investment targets for companies and countries that may weaken adherence to good business practices and undermine economic policy. This is particularly true in the energy sector, where the need to privatize state energy firms may lead to purchases by Gazprom and other Russian firms just when Europe is making strides in reducing its energy dependence. We have also seen the Chinese make a significant investment in the Greek port of Pireaus, and it is reported that they are looking for other opportunities as Greece undertakes more privatization. And most recently, the Cypriot government, while in the EU Presidency, is using the offer of a Russian loan to try to secure better terms for an EU bailout of its faltering economy.

What are the consequences of the eurozone crisis for the United States and its relationship with Europe? First, there is little we can do to affect the course or speed of European decisionmaking. Calls for Europe to lessen the rigors of austerity or to make speedier decisions will be largely ignored as the Europeans negotiate among themselves. Instead, we should focus on the new processes and institutions in Europe and how they might affect U.S. firms and U.S. regulations. There has already been some cooperation between Congress and the European Parliament on financial services regulation, and this should be strengthened as Europe now examines the possibility of a banking union, and possibly other measures such as a financial transactions tax. We also need to continue the close consultation already developed between European leaders and the U.S. officials about what is happening in the crisis—especially concerning large cross-border banks—and potential contingency plans.

Second, we should avoid making the European financial situation seem more dire than it actually is. This only stimulates the markets into erratic behavior, but does not push European leaders toward finding a resolution. Instead, I believe the United States and European Union face a significant opportunity in the form of a bilateral trade and investment initiative, which could stimulate growth and create jobs on both sides of the Atlantic. It seems counterintuitive to launch such talks with the eurozone in the midst of crisis, but the removal of tariff barriers, investment protections, and regulatory obstacles should add to the GDP of both regions at a time when that is much needed.

Third, we should continue to work with the Europeans to push forward the agenda of the G20. Many of the emerging economic powers regard this crisis as a European or North Atlantic phenomenon. Yet, taking the lessons of our 2008 crisis and the eurozone crisis and applying them in a global framework—as outlined in the declaration of the Los Cabos 2012 summit—is an important task. There are many topics addressed, but just to mention that they include labor reforms, country surveillance, enhancing transparency of credit ratings agencies, and tracking financial sector reforms makes clear that the United States and Europe should work together to ensure that they are addressed equally among the G20 membership.

The eurozone crisis affects Europe, not only as an economic partner, but also as a foreign policy partner of the United States. There is no doubt that the policymaking bandwidth among European governments has been overwhelmed by the crisis. When European leaders meet—as they do very frequently—most of the agenda is focused on economic issues. Yet, the crisis was already well underway when European leaders pushed for the NATO operation in Libya and dedicated significant personnel and armaments to the cause. And Europe has continued to be an effective foreign policy partner on certain key policies.

Soluter and annualities of the table table provides the provided and annualities of the table provided and annualities of the table provided and the efforts of the EU 3 plus U.S., Russia, and China in negotiating with Tehran. The EU has recently imposed sanctions on Iranian energy exports, despite the fact that Iran has been a supplier to several EU countries. The EU had to make compensatory arrangements for Greece, which had previously received one-third of its oil from Iran. These are sanctions that have a real cost for European countries. The EU stopped SWIFT, the Belgian financial transactions clearing house, from dealing with Iranian banks, a move that may have long-term consequences for that institution. The EU has also imposed sanctions on the Assad regime in Syria and with the United States has argued for more sanctions at the U.N. The EU naval mission ATALANTA continues to patrol against pirates off the horn of Africa, while a small, new mission is aimed at training local coast guards to undertake antipirate patrols. The EU and several of its member states have also reached out to the countries undergoing transitions in the Arab world. A new trade agreement has been launched with Morocco, but it remains to be seen if the EU will lessen barriers sufficiently for Tunisia, Libya, and Egypt.

But if the crisis has not taken much of a toll on these foreign policy initiatives, it has had an impact on the future of enlargement, which is the most successful European foreign policy initiative of the last 20 years. The crisis has lessened European appetites for bringing in new members and made the EU less attractive to potential members. Croatia will join next year as the 28th, but it is unclear when the next country might be ready to accede. Because the Balkan States are generally small and there is a feeling of obligation after the conflict of the 1990s, the Balkans are likely to be approved when ready. But the crisis has reduced the EU's attraction among some Balkan capitals even while adding more legislative and regulatory requirements for those seeking to join. The crisis has also diminished the possibility that any of the Eastern Partnership countries might be given a membership perspective if they wanted it. Finally, I think the crisis has significantly lessened any chance that Turkey will eventually join the EU, both because of EU concerns about the cost of such an accession and Turkish views of Europe in the wake of the eurozone crisis.

Even more important for the United States, the financial crisis has precipitated a crisis in European defense capabilities. For the past 18 months, we have heard a steady drumbeat of budget cuts forcing the abandonment of real capabilities among European militaries. These include the loss of British capability to launch fixed-wing aircraft off carriers until at least 2018 and the disbanding of the last two Dutch tank battalions. Despite NATO's efforts to launch a "Smart Defense" initiative at the Chicago summit, it seems likely that our European allies will have limited capabilities available for deployment outside the immediate region for the next few years. The ending of the ISAF mission in Afghanistan will free up some capabilities, but there will be much reluctance in Europe to undertake global deployments. The impact of a long-term decline in European defense capabilities as a result of the eurozone crisis should be a priority topic among U.S. and European leaders.

Despite the difficulties of the eurozone crisis, Europe remains a key foreign policy partner of the United States, as is demonstrated by Iran, Syria, and Afghanistan, among U.S. foreign policy priorities. Even with the crisis, Europe remains the largest economy in the world, and the United States leading partner in trade and investment. The eurozone crisis will change the transatlantic relationship, and in ways that we do not yet know or understand. But we should not let the crisis define the relationship. With wealth and power shifting away from the North Atlantic, this crisis can either divide the United States and Europe, leaving us both with reduced influence in the world, or it can be an opportunity for reforming and strengthening our economies so that they remain globally competitive.

Senator SHAHEEN. Thank you very much.

Mr. Veron.

STATEMENT OF NICOLAS VERON, SENIOR FELLOW, BRUEGEL, AND VISITING FELLOW, PETERSON INSTITUTE FOR INTER-NATIONAL ECONOMICS, WASHINGTON, DC

Mr. VERON. Thank you very much, Chairman Shaheen, Ranking Member Barrasso, Senator Risch, for the opportunity to appear at today's hearing.

The eurozone has many problems. You mentioned this, Ms. Chairman, and there are many causes to the present crisis. I would argue today that the core—very much like Fran Burwell just said, that political authority is at the core of what makes this crisis unique, as opposed to other developments that we have seen in the past decade.

There's a lot of skepticism in the United States about Europeans' natural tendency to put the emphasis on institutional issues. But we've been in this crisis for 5 years now. The banking crisis in Europe started in late July 2007. So there is something systemic in the policymaking framework of Europe that has made it difficult or at some points impossible to tackle the situations at hand, to react decisively, and to bring the appropriate action.

I think there is good news. For the first time, in recent weeks European officialdom has been able, or at least some parts of it have been able, to articulate a holistic agenda to react to this crisis that takes into account not only the short-term aspects, but also the long-term ones. Or I could put this last sentence actually in reverse: Not only the need for a consistent permanent solution, but also the need for adequate immediate action. This is what I would call the European fourfold union, which includes a banking union, a fiscal union, a competitiveness union, and a political union that underpins the first three.

The European Union has suffered from a loss of trust along many dimensions. There has been a loss of trust in the interbank market, basically disappearance of entire segments of the interbank markets in Europe, which underpins the current banking crisis; loss of trust of investors in government debt and an increasing number of eurozone states perceived for the first time in the developed world as carrying a credit risk; loss of trust in the ability of European economies to grow and the difficulty of undertaking the structural reforms that would unleash the growth potential of European entrepreneurs and economic activity; and I have to say a lot of cynicism about the lack of accountability of the decisionmakers compared to the wishes expressed by the general public, what the Europeans generally refer to as the democratic deficit.

But what is important, I think, to understand is the combination between the inability to make decisions and this democratic deficit. So I would call it an executive deficit combined with a democratic deficit, and the two feed each other. It might sound paradoxical because one typically believes that having more democratic checks and balances hampers the ability to make executive decisions, but in Europe it has been the contrary. The absence of proper democratic checks and balances has left executive decisionmakers paralyzed and unable to make the decisions on short-term actions that were necessary. And this I think is the starting point of the crisis, has to be the starting point of our analysis.

So it means creating adequate decisionmaking frameworks, banking union in banking, fiscal union on government finance, competitiveness union to coordinate and monitor structural reforms, and political union, which is a very loosely defined term, but which I would define as providing democratic accountability, in which I think the Europe Parliament has to play a central role, but that requires also reform of the Europe Parliament itself from its current situation, which is not sufficiently representative of European citizenry, in order to provide not only checks and balances, but the legitimacy that is indispensable to make adequate decisions.

It's very difficult to do this at once. One of the problems of Europe has been the inability in many circumstances to distinguish between short-term action and long-term action, between crisis management and the rebuilding of the post-crisis order, between firefighting and design and construction of a new policy framework.

I think this distinction—if you will allow me, I will focus for a brief moment on the banking aspect of the agenda. This distinction is crucial to both resolving the banking crisis and building the banking union that most Europe policymakers have now agreed that they need to introduce.

In terms of the short-term agenda, leaders need to establish a temporary bank resolution authority for the eurozone. It has to be temporary because there is no framework that establishes permanent institutions, there are no existing institutions that can do the job, and it will take a lot of time to establish a permanent institution. So having a temporary thing, like the U.S. Resolution Trust Corporation in the early nineties, so it's not an exact parallel, or like the Auto Industry Task Force in 2009, this is the best way in my view to tackle the systemic crisis.

It's difficult to do. It will require tough choices, but I think it's possible, and it's necessary. With a successful bank crisis resolution process, adequate temporary guarantees, including on deposits, I think it's possible to achieve bank crisis resolution. But at the same time, Europeans need to think about the long term and start establishing the single supervisory mechanism that they have agreed upon and the other features of a permanent banking union.

The difficulty of this fourfold union agenda is that none of the four components can be thought about in isolation from the others. There is a need to make progress in the banking union, but for this you need to make progress on fiscal union, because you need a backstop for anything that looks like deposit insurance at the European level. You cannot do that if you don't make progress on political union because you need legitimacy to make progress.

All these interdependencies make it very difficult to advance, but I think if European leaders are clear-sighted on the need to make progress on these four fronts—and it's very complicated, very difficult—they can overcome the crisis.

The breakup of the eurozone, as has been said by many, would be absolutely disastrous for Europe, for Europeans, and for the global economy. The successful resolution, of the crisis will be very difficult. The slow pace of decisionmaking has already exacted a very large cost for Europe's economies, societies, and families, and Greece—I'm sure we'll come back to this—remains an absolutely burning concern with no obvious short-term solution.

That said, I would say and believe strongly that it's not too late yet for Europeans to take the actions that would ensure the survival, sustainability, and ultimately success of their monetary and economic union, and I trust and expect that such decisions can and will be made.

Thank you very much.

[The prepared statement of Mr. Veron follows:]

PREPARED STATEMENT OF NICOLAS VERON

Thank you, Chairman Shaheen, Ranking Member Barrasso, and distinguished members of the subcommittee for the invitation to appear at today's hearing.

The Europen has many problems. Based on the lessons from the past 5 years, I will argue today that the core of the current crisis, what makes it unique, is Europe's insufficient ability to make authoritative policy and political decisions for the region as a whole. To correct this weakness, Europe must build a fourfold union that would allow such executive decisions to be made. The four components are: (1) a banking union, (2) a fiscal union, (3) a competitiveness union, and (4) a political union, i.e., institutional reform to embed democratic accountability more solidly in the decisionmaking.

In the second part of my testimony, I will explore a few topical questions about the first of these four components, namely banking union.

I work both at Bruegel and the Peterson Institute, on a half-time basis in each organization, and divide my time between Europe and the United States. Bruegel is a nonpartisan policy research institution based in Brussels that aims to contribute to the quality of economic policymaking in Europe through open, fact-based and policy-relevant research, analysis, and discussion. The Peter G. Peterson Institute for International Economics is a private, nonprofit, nonpartisan research institution devoted to the study of international economic policy. The views expressed here are my own. I have no financial or commercial interest that would create a bias or conflict in expressing these views.

- The key points of this statement are as follows:
- The deterioration of credit conditions in the eurozone stems less from inadequate decisions than from an absence of decisions when they were needed. This "executive deficit" is partly a consequence of the European institutions' lack of democratic accountability, often referred to in Europe as democratic deficit. It also contributes to a loss of European citizens' trust in those same institutions. The European Central Bank (ECB) is a partial exception to this problem but cannot make up for the lack of decisiveness of the other institutions.
- Accordingly, profound changes must be made to Europe's institutional framework to make it effective in resolving the current crisis and preventing future ones. An authoritative European-level executive framework must oversee banking, fiscal, and structural policies. This executive framework must be made accountable to Europe's citizens, and for this the European Parliament must become more representative and exert better control over policymaking. Those four components of banking, fiscal, competitiveness and political union will take several years to be completed. They are mutually interdependent and must be taken together, ideally in parallel increments. In particular, the completion of a banking union relies on federal deposit insurance which itself requires a credible supranational fiscal backstop. And without the democratic accountability provided by political union, no new integrated policy framework can be sustainable.
- Europe must also overcome its tendency to jump to permanent solutions, and acknowledge the need for pragmatic short-term actions that are tailored to the urgency of the crisis. Europeans have repeatedly tried to resolve long-term issues before deciding on short-term fixes, but that strategy is a luxury they no longer have. Specifically regarding banking issues, a proper crisis management and resolution system must be put in place before all longer term institutional questions are answered.
 Thus, leaders should establish a temporary eurozone bank resolution authority,
- Thus, leaders should establish a temporary eurozone bank resolution authority, as none of the existing institutions has the skills and mandate that would allow it to perform the thankless task of identifying failing financial institutions and restructure them back to soundness. A successful bank crisis resolution process will require temporary guarantees, including a temporary central reinsurance of national deposit insurance systems by the soon-to-be-created European Stability Mechanism (ESM) or by a more robust future central financial instrument.
- In the longer term, the eurozone needs not only a single supervisory mechanism for banks but also a regionally based deposit insurance system and a central resolution authority for failing banks. The ECB can play a large role in this future framework but cannot be its only component. National bank supervisors will retain many of their attributes but their governance will need to change. Ultimately the banking union should cover all banks in the eurozone and possibly in other European Union (EU) member states, even though it seems likely that exceptions will be initially negotiated by member states to exclude some smaller banks from its oversight.

A breakup of the eurozone would be disastrous for Europeans and to a large extent for the global economy. The choices facing Europe's leaders and citizens are daunting. Their slow pace of decisionmaking has exacted a large cost for Europe's economies, societies, and families. Greece remains a burning concern. No one can be assured that the eurozone would survive its disorderly exit; but there is still no clear enforcement framework available if its adjustment trajectory keeps veering off track, as it has repeatedly over the last 2 years. Investors have good reasons to be nervous.

Yet I believe it is not too late for Europeans to take actions to ensure the survival, sustainability, and success of their monetary and economic union. I trust and expect such decisions will be made.

The rest of this statement expands on these points and provides additional analysis.

EUROPE'S EXECUTIVE AND DEMOCRATIC DEFICIT

Europe's systemic financial crisis has been going on for exactly 5 years. Its start can be dated back to German top banking supervisor Jochen Sanio's reported warning on July 29, 2007, of "the worst banking crisis since 1931" while discussing the public bailout of a medium-sized lender, IKB.¹ Since then, European banking policymakers have been in continuous crisis management mode but have never been able to bring the interbank market back to its normal state without exceptional government guarantees. As is well known, from late 2009 the banking fragility was compounded in the eurozone by growing unwillingness of market investors to lend to sovereigns, first Greece and later others, creating a mutually reinforcing "doom loop" between weak sovereigns and banking credit conditions.

Half a decade is a long time in policymaking. In retrospect, the lack of proactive decisionmaking at the European level is striking. While the common depiction is of a crisis of the eurozone periphery, it can equally be described as a failure of the eurozone center, by which I mean the mechanisms and actors that determine executive policy for the entire eurozone as opposed to individual member states. Prominent among these are the European Commission, European Council of EU member states' heads of state and government, economic and finance affairs (ECOFIN) council of EU member states' finance ministers, Eurogroup meeting of eurozone member states' finance ministers, Eurogroup meeting of eurozone member states' finance ministers, the "Frankfurt Group" in late 2011,² or the four remaining eurozone triple-A-rated countries in early 2012.³ There have been occasional misguided decisions, such as an ill-designed "bank recapitalization plan" adopted in late October 2011.⁴ But, on the whole, such policy errors of commission have been less damaging than the absence of decisions.

While European institutions have long been criticized for their democratic deficit, the crisis has thus revealed an equally gaping executive deficit. Moreover, these two feed each other: the lack of democratic legitimacy contributes to the paralysis of executive decisionmaking; and Europe's inability to solve its collective problems deepens citizens' distrust of its institutions. This is another kind of "doom loop," political rather than financial, but no less damaging than the one between sovereign and banking credit. To be fair to the personalities involved, this failure must be seen as a systemic problem of inadequate incentives and institutions, rather than a shortcoming of individual leadership.

The insufficiently democratic nature of European decisionmaking has many aspects. First, European citizens lack equal representation in the European Parliament, a shortcoming cited in June 2009 by Germany's federal constitutional court as a key reason for Berlin not to surrender national fiscal power to Brussels. In addition, the European Parliament lacks control over financial and other executive decisions. Consequently, it cannot act "in such a way that a decision on political direction taken by the European electorate could have a politically decisive effect," and this constitutes a "structural democratic deficit."⁵ Second, the European Council, a key actor in Europe's collective executive decisionmaking, does not have a framework to ensure collective accountability. Its members, heads of state and/or of government, are exclusively accountable to their respective national citizens, but the Council as a whole is accountable to no one. The same shortcoming hampers the summit meetings of the european Parliament, but it has often been sidelined in the past 5 years (with important exceptions such as on competition policy). Third, when electorates in individual member states were consulted on successive treaty revisions by referendum, negative responses have not been answered by a change of orientation. The French and Dutch rejection of the 2004 constitutional treaty were followed by the reintroduction of a near-identical text as the Lisbon Treaty in 2007; the Irish were asked to vote again on the Lisbon Treaty in 2009 after first rejecting it in 2008. The democratic shortfall has been widely cited as a factor in the rise of populist anti-European parties in recent elections in several member states.

It might sound paradoxical to advocate stronger democratic accountability as a means to reinforce Europe's ability to make executive decisions. Democratic checks and balances, including parliamentary control mechanisms, are constraints on executive discretion. But the lesson of the past 5 years in Europe is that, in a region like Europe where the commitment to democracy runs deep, the absence of such checks and balances cripplingly inhibits decisionmaking as leaders don't feel empowered to take bold action for the region as a whole. Alternative history is always a perilous exercise, but it is likely that if proper European executive decisionmaking and oversight processes had existed in the banking, fiscal, and structural policy areas during the past decade, the European systemic banking fragility could have been resolved as early as 2009 (as it was in the United States); a special resolution regime for all European banks could have been introduced early in the crisis, instead of a legislative discussion about it being started only in June 2012; Greece's sovereign debt could have been effectively contained in early 2010; and the growth potential of Europe, especially of its southern member states, could have been bolstered. In other words, Europe's executive and democratic deficit has mattered hugely for economic outcomes and the inability to tackle the crisis, and will continue to do so.

It must be noted that the ECB is an outlier in this context. Central bankers are inherently less dependent than other policymakers on democratic accountability mechanisms to legitimize their decisions. Therefore, the ECB has been less paralyzed than other actors by the weaknesses of democratic representation at the European level, and it has exercised its authority forcefully. But the ECB must be careful not to act much beyond the treaty-defined limits of its mandate. Its ability to fill Europe's executive deficit is thus limited.⁶

THE NEED FOR FOURFOLD UNION

A resolution of the current crisis must address these mutually reinforcing deficits of executive decisionmaking capability and of democratic representation and empowerment. The key executive functions that need strengthening are financial sector oversight, government financing, and structural reforms, which is why there is a need for a banking union, a fiscal union, and a competitiveness union. In parallel, a transformed European institutional framework must provide democratic accountability, the political backbone of European integration, and address the concerns expressed in the above mentioned 2009 ruling of the German federal constitutional court. This institutional transformation can be called a political union as it would entail the recognition of a political space at the European level and not only in individual member states. Such a fourfold union is needed to resolve the eurozone crisis over the medium term.

These labels, which echo the four "building blocks" proposed by the President of the European Council in a landmark report published on June 26,⁷ are certainly formulaic and they can encompass many possible options. Yet they are used here as a useful way to discuss the preconditions for crisis resolution. Each component union can be seen as a response to lost trust in Europe's collec-

Each component union can be seen as a response to lost trust in Europe's collective future—respectively, the evaporation of the interbank market and especially of cross-border interbank lending (banking union); the erosion of market demand for eurozone national sovereign debt, which is increasingly perceived as carrying a credit risk (fiscal union); the doubts about eurozone countries' ability to generate dynamic economic growth (competitiveness union); and the growing cynicism about the undemocratic nature of European decisionmaking (political union).

In practice, a banking union—as further developed in the latter section of this statement—would entail a common framework for banking supervision, crisis resolution, and deposit insurance.⁸ A fiscal union would include the creation of a commonly issued debt instrument to meet investors' demand for a credit-risk-free asset (or "Eurobonds," but actually there are many possible designs for such an instrument), accompanied by adequate central controls on national budgetary choices.⁹ A competitiveness union would monitor, assess, and coordinate structural reform policies at the national and European levels, including on areas that have high impact on the potential development of high-growth firms in Europe such as insolvency legislation, financial regulation, service sector regulation, and labor law. A political union would make the European Parliament genuinely representative and able to exert due democratic control of relevant executive functions.¹⁰

All these steps are necessary to sustain the eurozone's monetary union and to prevent the dissolution of the eurozone, which, as Anders Aslund at the Peterson Institute among others has convincingly argued, is likely to be disastrous for all parties.¹¹ A fourfold union would not by itself resolve the crisis. But it would effectively address the obstacles that have impeded progress in the past 5 years, and thus make crisis resolution a possibility that is not currently at hand.

Progress toward a fourfold union requires thinking about political obstacles, interdependencies, and sequencing. National resistances vary depending on the component and the country. For example, banking union and fiscal union tend to be supported by troubled countries as a way to share their liabilities with stronger countries. Conversely, fiscally stronger member states tend to emphasize central control over banking, fiscal, and competitiveness decisions as a precondition for liability-sharing. Political union tends to be more easily envisaged by countries with a strong federal tradition, such as Belgium, Italy, or Germany, than by those with a more centralized state, including France. Another impediment to establishing such a union stems from the fact that the European Union possesses a supranational legal and political framework that covers 27 member states,¹² but the eurozone remains only a subset of countries.

Six non-eurozone member states (Bulgaria, Denmark, Latvia, Lithuania, Poland, and Romania) are members of the Euro Plus Pact, a 2011 policy framework that

can be seen as the existing basis for a competitiveness union. The European Fiscal Compact, which provides a possible basis for further fiscal union, includes all EU member states except for the Czech Republic and the United Kingdom. All EU member states participate in the London-based European Banking Authority (EBA) which would have a role to play in a future banking union. Most significantly perhaps, the European Parliament is an EU institution, as is the European Commission. One can imagine restricted formations in which only members of the European Parliament (MEPs) from eurozone countries would have a right to vote, somewhat akin to the Scottish, Welsh, and Northern Ireland Grand Committees in the U.K. House of Commons, with possible observer status for MEPs from non-eurozone countries. For all its importance, the eurozone is embedded in the European Union and cannot envisage its institutional future independently from the Union as a whole.

The components of the fourfold union agenda are mutually interdependent. Because executive capability must be seen as legitimate, banking, fiscal, or competitiveness union will not be sustainable without political union. Fiscal union is also necessary for a stable banking union, because a common deposit insurance system, even one funded by levies on the financial sector, must ultimately rely on a common and credible fiscal backstop. There is also a direct relationship between banking union and competitiveness union, as financial system policy is one of the key areas in which Europe must introduce structural reforms to enhance its growth potential. These observations mean that none of the component of the fourfold union can be seen as a substitute for the others.

In terms of sequencing, progress of all four must occur in lockstep, or at least in parallel. For example, an incremental advance on banking union, such as that achieved at the eurozone countries' summit on June 29, requires further incremental steps forward on fiscal union to pave the way for a common deposit insurance system. Advances toward political union are needed to buttress the pooling of sovereignty entailed by a single supervisory and resolution authority, or by joint issuance of bonds by all eurozone countries. European leaders cannot afford to neglect any of these four components in the difficult steps ahead.

SHORT-TERM AND LONG-TERM RESPONSES

Europe must pay equal attention to short-term crisis management actions and longer term initiatives to build a more sustainable system. An exclusive short-term focus may worsen future problems. But a focus only on the long term, ignoring the most urgent challenges, is no less dangerous.

This may sound self-evident, but is worth emphasizing in the eurozone crisis context. Eurozone leaders have often given the impression of focusing exclusively on long-term legislative and institutional reforms while neglecting more short-term aspects of the crisis. When they did take short-term action, they often sounded as if the result was final and there would be no further steps needed after the one just announced. Yet institutions take time and deliberation to change, while the crisis has a pace of its own, requiring an immediate policy response. Short-term responses must be undertaken despite the absence of a specific legal framework. Pragmatic adaptation is often required. By contrast, post-crisis reconstruction can be carried out after time is devoted to higher standards of consistency and accountability. Short-term emergency legislation is different from permanent legislative reform.

Short-term emergency legislation is different from permanent legislative reform. From this standpoint, the U.S. and European responses to the 2008 crisis stand in striking contrast. A high point of financial turmoil was reached in the early fall of 2008, following the bankruptcy of Lehman Brothers. Broadly speaking, the financial shock was of similar magnitude on both sides of the Atlantic, even though the initial apparent trigger had been the subprime crisis in the United States. In America, the sequence included a highly visible piece of emergency legislation (the Emergency Economic Stabilization Act, enacted October 3, 2008), which allowed the banking situation to be temporarily stabilized in mid-October through bank recapitalizations using the so-called Troubled Asset Relief Program (TARP). The next major step was a comprehensive program of capital assessment and recapitalization of the 19 largest banks (the Supervisory Capital Assessment Program, known as "stress tests" and conducted from February to May 2009). Its completion resulted in a rapid return of the interbank market to normal conditions. Then, in mid-June 2009 the U.S. Government published a blueprint for long-term financial reform, which opened a phase of legislative deliberation concluding with enactment of the Dodd-Frank Wall Street Reform and Consumer Protection Act in July 2010. The imstarted and continues, though with some significant delays. Several issues remain unresolved, including U.S. housing market reform, but it appears fair to say that the United States first adopted short-term crisis management and resolution measures from October 2008 to mid-2009, and then followed by another sequence of long-term reforms.

By contrast, the European Union has persistently focused on long-term initiatives first, and to concede short-term action only under the irresistible pressure of events. This tendency results from the executive deficit described above, and the fact that long-term actions lend themselves to a protracted legislative process that European Institutions favor. To be fair, individual member states have carried out significant short-term actions, but their effectiveness has been diminished by the lack of adequate European-level coordination. For example, the summit of heads of state and government of eurozone members and the U.K. in Paris on October 12, 2008, initially helped stabilize markets, along with the near-simultaneous use of TARP in the United States for bank recapitalizations. But this initial success was not followed by systemwide monitoring and capital assessment in Europe, in spite of successive rounds of "stress tests" in 2009, 2010, and 2011, leaving the European banking sector fragile. A more recent case is the Euro Area Summit Statement of June 29, 2012, which contemplated the direct intervention of the European Stability Mechanism (ESM) to recapitalize banks in certain eurozone countries. It proclaimed the aim "to break the vicious circle between banks and sovereigns," but only "when an effective single supervisory mechanism is established." ¹³ Taken literally, this is somewhat akin to deciding that firefighters can intervene to put out a fire only after architects and builders have completed their work of design and reconstruction of the firehouse.

To be more effective in the next phases of the crisis, the eurozone should adopt more explicit short-term crisis management contingency measures, even if they are designed as temporary steps to be superseded by future permanent arrangements. This is particularly the case in managing the banking crisis and making progress toward the creation of a banking union.

BANKING UNION: SHORT-TERM ASPECTS

Several analysts, including myself, have urged adoption of a federal framework for banking policy with centralized functions of supervision, crisis resolution and deposit insurance as essential to the stability of the European banking system and to the sustainability of eurozone monetary union.¹⁴ Similar views have been advocated by the International Monetary Fund (IMF).¹⁵ Yet such analysis has long remained controversial inside the European Union. As recently as early June 2012, the European Commission proposed draft legislation on long-term reform of bank crisis management and resolution that envisaged no central deposit insurance, supervisory, or resolution authority.¹⁶ However, the vision of banking union as an indispensable component of a sustainable economic and monetary union has gathered a remarkable momentum in the spring of 2012. It was forcefully advocated by IMF Managing Director Christine Lagarde in mid-April,¹⁷ backed by ECB President Mario Draghi in late April,¹⁸ promoted by newly elected French President François Hollande in what can be seen as a significant inflection from previous French policy in late May,¹⁹ and more cautiously yet unambiguously endorsed by German Chancellor Angela Merkel in early June.²⁰

This momentum created the context for the previously mentioned Euro Area Summit Statement of June 29, which asked the European Commission to present proposals (now expected in September) for a "single supervisory mechanism" to be established under Article 127(6) of the Treaty, implying an anchoring role for the ECB. The statement further creates the possibility for the ESM "to recapitalize banks directly. This would rely on appropriate conditionality [for each relevant member state], including compliance with state aid rules, which should be institution-specific, sector-specific or economywide and would be formalized in a Memorandum of Understanding [between European-level authorities and the member state concerned]." This declaration has been rightly hailed as a policy breakthrough, but it also raises far more questions than it answers. As previously argued, the next steps will require careful thinking about the sequence and articulation of short-term and long-term initiatives, as well as about the interdependencies between action on the banking system and the other components of Europe's "fourfold union."

In the short term, policymakers need to think in terms of systemic bank crisis resolution. They could gain precious insight from consideration of the lessons from previous episodes of systemic crises in developed countries, particularly the U.S. savings & loan crisis of the late 1980s, the Scandinavian crises of the early 1990s, the Japanese crisis until 2002–03, and the U.S. financial crisis of 2007–09. The aim is to restore trust in the banking system, starting with the more systemically important banks. This necessarily involves willingness to acknowledge and share losses; a strong and well-empowered resolution authority; significant financial risk-taking

by public authorities; and several phases, from the emergency prevention of contagion to the restoration of individual banks' safety and soundness. The starting point is that there are probably vast unrecognized losses in Europe's

The starting point is that there are probably vast unrecognized losses in Europe's banking sector and that the resolution framework must allow an adequate sharing of these losses among all relevant stakeholders, including private sector creditors. At the same time, ordinary bankruptcy procedures are notoriously unsuitable to systemically important financial institutions. Some European member states, including some but not all in the eurozone, have adopted special resolution regimes for banks. But so far, almost no senior unsecured creditors have been forced to take losses on financial institutions found insolvent in the European Union. Leaving aside a handful of tiny bank bankruptcies in Northern Europe, the only exceptions have been two medium-sized banks in Denmark (Amargebanken in February 2011, and Fjordbank Mors in June 2011) but under a policy framework that was later amended so that subsequent situations would be treated differently. In most cases, even subordinated unsecured creditors of failed banks have been fully repaid, at great cost to the respective countries' taxpayers. This stands in stark contrast with the United States, where a handful of high-profile federal bailouts (most notably Bear Stearns, Fannie Mae, Freddie Mac and AIG) have rightly caused much public controversy, but senior unsecured creditors have been forced to take major losses on their exposures to dozens of depositary institutions, including large ones such as Washington Mutual, and medium-sized nonbanks such as CIT and MF Global, not to mention Lehman Brothers.²¹

The European practice of fully bailing out all senior creditors, even of smaller banks, and many junior ones is clearly unsustainable. The aim to have adequate participation of senior creditors in the sharing of losses should become the driving objective of Europe's crisis management and resolution approach. The ECB has recently signaled its acknowledgement of this reality, in a significant shift from its earlier policy positions.²² However, most member states and the European Commission, ostensibly motivated by contagion concerns, still appear to defend the view that no losses should be imposed on any senior creditors even of failed banks.²³ The best way to address the fear of contagion is to conduct the assessment of bank acharging a graduative basis is a bringhudiar all supremised in instructions.

The best way to address the fear of contagion is to conduct the assessment of bank solvency on a systemwide basis, i.e. by including all systemically important banks throughout the eurozone in a comprehensive, rigorous, and consistent review of balance sheets and capital strength. This was the key to past successful systemic crisis resolutions, including in Sweden in 1992–93, in Japan (belatedly) in 2002–03, and in the United States with the Supervisory Capital Assessment Program in 2009. Conversely, the fact that in the eurozone, capital assessment and restructuring has been left to national authorities in spite of the high degree of cross-border market integration is a major reason why Europe's banking fragility remains unresolved after half a decade of turmoil, three rounds of "stress tests" (2009, 2010, 2011), and the ill-fated "recapitalization plan" of October 2011. There is considerable political resistance against a genuine systemwide approach to banks' capital assessment, particularly in countries such as France and Germany whose official position is that their respective banking systems have been kept sound (notwithstanding past problems at banks such as IKB, Hypo Real Estate, WestLB, and Dexia). But it might be the only possible approach that allows significant burden-sharing with senior creditors, an increasingly evident financial and political imperative, not to mention the moral hazard implications of open-ended taxpayer-supported bailouts.

Creditors, an increasingly evident mancrar and pointcan imperative, not to mention the moral hazard implications of open-ended taxpayer-supported bailouts. Even if it remains impossible to approach resolution synchronously across the eurozone, it is a clear lesson of the past few years that the resolution authority must be centralized. The most evident reason is that national authorities have failed on their supervisory duties in several member states, and have lost too much credibility to remain the main decisionmaker on future restructuring, as in the case of Spain. Moreover, it is difficult to see how to build a perception of fairness in the treatment of controversial situations across several countries without having a single authority in charge for the entire eurozone (or possibly beyond, assuming other member states would want to participate). Furthermore, bank resolution is an extremely time-consuming, skill-intensive, and sensitive process that cannot possibly be coordinated across borders without an unambiguous centralization of information and authority. Many of Europe's larger banks have significant cross-border operations within the European Union, and a centralized resolution process is the only practical way to balance the interest of home and host countries, as national authorities have powerful incentives not to cooperate in such cases. In addition, as some banking operations and assets are likely to be brought under temporary public ownership as a result of the resolution process, centralization of their management and/or disposal would prevent ineffective competition among different national authorities to the collective detriment of taxpayers, and would help an orderly process of price discovery as assets are eventually sold back to the private sector. Finally, it makes operational sense to have expertise and skills concentrated in one central team rather than having it spread thin across various member states, both in terms of cost-effectiveness and more importantly of ability to attract talent and learn from experience.

No existing institution is well equipped to assume this role of eurozone resolution authority. The ECB, in addition to not having the relevant skills directly at hand, cannot assume the politically contentious responsibility of bank resolution in a manner compatible with its jealously safeguarded monetary policy independence. The European Banking Authority, in addition to not having the relevant skills directly at hand either, is ruled out given its governance structure that makes it too dependent from member states and by its location in the U.K., a country that has unambiguously refused to participate in any effort toward banking union. The European Financial Stability Facility (EFSF) and soon-to-be-established ESM are small structures with no expert staff with a specialization in banking, and even more than in the case of the EBA may lack the independence from member states to ensure the impartiality of the resolution process. The European Commission has built valuable experience through the implication of its directorate-general for competition (DG COMP) in most bank restructurings over the past years under the European Union's state aid control policy, and its involvement in the "troika" that negotiates conditionality with countries under assistance programs, including in the recent case of Spain. But it is questionable whether the task of restructuring may conflict with the Commission's many institutional constraints, and whether its staffing by general-purpose civil servants is compatible with the need for specialized skills in the resolution and restructuring task.

This suggests that in the short term the best way to achieve a resolution authority at the eurozone level might be to create a temporary, dedicated structure with wide latitude to recruit specialized staff, both from the private sector and through temporary leaves from national or European public authorities. In addition, bank restructuring and resolution is a thankless task, and those who will perform it will gain few friends, an observation which also favors a temporary structure that can ensure maximum independence and impartiality. Precedents suggest this can be an effective approach to systemic crisis resolution, including the U.S. Resolution Trust Corporation (1989–1995), the Swedish Bank Support Authority (1993–96), or in the case of systemic issues beyond the financial system, the Treuhandanstalt that restructured and sold the former German Democratic Republic's state-owned enterprises in 1990–94, or the U.S. Presidential Task Force on the Auto Industry that coordinated government policy on Chrysler and GM in 2009. While none of these experiences was without its blemishes, they all suggest that a temporary, well-empowered task force structure, obviously with adequate provisions for accountability and transparency, would represent a credible and well-suited response to the shortterm challenge of European bank crisis resolution.

This leaves open the question of future ownership of those institutions that the temporary resolution authority would find insolvent following in-depth balance sheet assessment. In legal terms, those countries that do not currently have a special resolution regime for banks should pass emergency legislation to create one, and those that have one might also need emergency legislation to empower the temporary resolution authority at the eurozone level. Failed banks will generally need to be taken over by public authorities, but there might be no uniform framework as to which public authorities will become equity owners. One can imagine a combination of national government ownership and ownership at the European level (specifically by the ESM as suggested by the eurozone summit statement of June 29), depending on countries and individual bank situations. This should logically be negotiated by the temporary resolution authority together with the imposition of losses on relevant categories of creditors (excluding, of course, those which are covered by explicit guarantees). While these negotiations should be conducted with a sense of impartiality and evenhandedness across the eurozone, differences in legal environments, banking structures and fiscal positions make it unadvisable, and arguably impossible, to adopt a one-size-fits-all approach.

Beyond this, crisis resolution and restructuring will necessarily involve significant financial risk-taking by public authorities—but these have to be compared to the current open-ended explicit and implicit commitments of support to the financial sector that exist at the level of individual member states. Here again, banking policy cannot be considered in isolation from the other components of fourfold union.

This is most obvious as regards the protection of retail deposits, and more generally the prevention of further capital flight, particularly in the more fragile countries. As previously argued, European policymakers should refrain from a blanket and permanent guarantee of all bank liabilities, but they could and should do more to reassure depositors. Deposit data in Europe tend to be only disclosed with a lag. and are far from complete, but the available evidence suggests that deposit flight is occurring, at various paces in several eurozone member states. This is very dangerous for financial stability and should be addressed decisively. It would be irresponsible for policymakers to delay their action until it is forced by a fully fledged retail bank run.

Three main factors appear to motivate deposit flight: a fear of currency redenomination and devaluation in case of eurozone exit; a fear of inability of the government to fulfill its deposit insurance commitments; and for larger depositors, concerns about their deposits above the insured threshold in case of failure of the bank where they are held. Addressing the first concern involves reassuring eurozone citizens that there will be no forced or disorderly exit from the currency union: the crucial case here, in the next few months as in the recent past, is obviously Greece, and to say the least, eurozone leaders have not done enough to remove uncertainties about its future status. To address the second concern, the ESM, when it is in place, should provide a temporary and unconditional guarantee of national deposit insurance systems across the eurozone, at least until progress has been made toward comprehensive bank crisis resolution and possibly until a federal eurozone deposit insurance system is in place. Such "deposit reinsurance" should be temporary as it creates questionable incentives for member states, but might be a necessary step to achieve the eurozone leaders' "imperative to break the vicious circle between banks and sovereigns." The third concern could be addressed by targeted temporary guarantees until the completion of a credible, systemwide process of bank assessment as earlier described.

Finally on the sequencing, several successive steps will be needed and policymakers should preserve as much flexibility as possible in their intervention framework. Even under the most optimistic assumptions, it would take at least 2–3 months to build a temporary European resolution authority; 3–4 further months to reach a comprehensive systemwide assessment of the balance sheet and capital positions of the most important banks (which would represent a sample comparable to that of the 2011 stress tests, say between 60 and 90 banks); and one or two additional months to negotiate the outline of restructuring packages for those banks found insolvent, which might number in the double rather than single digits. As a consequence, the disclosure of capital assessments, which can only be made once adequate backstop plans have been defined for failed institutions, could hardly happen before February or March 2013, and possibly not before the late spring of 2013 at the earliest, with a long period of prolonged uncertainty in the meantime. Even after that, it will take many months if not years to complete the restructurings. As illustrated by multiple recent cases including WestLB, Fortis, Dexia, RBS, and others, resolving or restructuring problem banks in Europe is almost always a protracted and legal-risk-ridden process. This long sequence will be difficult to manage, and will require very careful and professional communication towards the financial community and the wider public.

BANKING UNION: LONGER TERM ASPECTS

In accordance with the June 29 eurozone summit statement, eurozone policymakers have started discussing the long-term design of their future banking union even before having set the key parameters of short-term crisis management and resolution. In this context, essential choices will have to be made shortly about the future institutional framework. The only indication so far is an anchoring role to be played by the ECB, consistent with the statement's reference to article 127(6) of the Treaty on the Functioning of the European Union, which states that "The Council, acting by means of regulations in accordance with a special legislative procedure, may unanimously, and after consulting the European Parliament and the European Central Bank, confer specific tasks upon the European Central Bank concerning policies relating to the prudential supervision of credit institutions and other financial institutions with the exception of insurance undertakings."

A proper banking policy framework includes several dimensions, including regulation, supervision, resolution, deposit insurance, competition, and consumer protection. In the European Union, regulation is mostly defined at the EU level, through legislation (directives and regulations) and "binding technical rules" which are increasingly prepared by the EBA and other European Supervisory Authorities, even though the European Commission retains decisionmaking authority in the current framework.²⁴ While this framework is somewhat clumsy, its reform is not a necessary condition for the establishment of a banking union. Competition policy is conducted under a time-tested integrated policy framework, in which the European Commission's DG COMP plays a pivotal role together with national competition authorities. Consumer protection might require further convergence, including as part of a future economic competitiveness union, even though this has not yet been considered an urgent concern by most European policymakers. This leaves supervision, resolution, and deposit insurance as the key areas on which leaders need to start designing a viable future framework now.

As previously observed, the inherent political nature of bank resolution authority makes it unlikely that such authority could be temporarily or permanently granted to the ECB, even assuming a separation of teams and a dedicated governance framework within the institution. This is especially true in the European context of a weak central executive and problematic democratic accountability, which advises against delegating excessive discretionary power to the ECB. The ECB itself has signaled that it had no appetite to assume the inherently controversial task of bank resolution, including by stressing that the future banking union framework should allow the ECB to act "without risks to its reputation."²⁵ Thus, it appears inevitable that the long-term framework will include a European resolution authority separate from the ECB, and also most likely separate from all other currently existing institutions for the reasons developed in the previous section. However, it is desirable that the resolution authority should be able to have close interaction with the ECB, particularly in times of crisis. For this reason it should preferably be located in Frankfurt, as geographical proximity would help in this respect even as the two institutions would remain separate.

The supervisory function has synergies both with the lender-of-last-resort role of the ECB, and with resolution authority. If the June 29 decision is to be implemented, the ECB will develop supervisory functions of its own in any case. It is likely that the resolution authority will require a supervisory mandate as well, as is the case with the Federal Deposit Insurance Corporation (FDIC) in the United States;²⁶ as in the United States, it could be coupled with the deposit insurance function, even though a formally separate deposit insurance fund could be envisaged as well. Some overlapping of supervisory functions across two or more European institutions should of course be kept to a minimum as it involves duplication of some costs and complexity, but its existence should not necessarily be seen as a problem in itself: situations of overlap exist in several jurisdictions including the United States (Federal Reserve/FDIC/Office of the Comptroller of the Currency) but also Japan (Bank of Japan/Financial Services Agency) and Germany (Bundesbank/ BAFin). If the eurozone is to avoid such overlap, its leaders may need to envisage a change from the June 29 decision and a buildup of the supervisory function entirely outside of the ECB even though adequate operational links with the Central Bank should be established, as is the case in Australia, Canada, China, Sweden, and Switzerland among others.

National supervisors would continue to exist in a future banking union, at least in a first phase. The European principle of subsidiarity, according to which a European authority should perform only those tasks which cannot be performed effectively at the national level, suggests in particular that the supervision of most local banks should remain in their scope, and they could be delegated other tasks by the European supervisor(s). However, their mandate and governance will need to be adapted to the new, more integrated approach. To be consistent with the eurozone's claimed "imperative to break the vicious circle between banks and sovereigns," at least some of their functions should be placed under the authority of the European supervisor(s) rather than of the respective national government as is currently the case, with possible corresponding changes in terms of their accountability framework. Conversely, one can imagine a role for national supervisors in the governance of the new European-level authorities, including possibly of the new supervisory function within the ECB, a possibility made arguably easier by the fact that many of these supervisors are part of the National Central Banks that participate in the eurosystem together with the ECB itself. However, appropriate lessons should be drawn from the experience of the EBA and other European Supervisory Authorities, suggesting that such role should not be exclusive. Officials with a European as opposed to national mandate and accountability, as is the case of members of the ECB's executive board, should be prominent in the key decisionmaking bodies, unlike the situation of the EBA where the so-called supervisory board, which in spite of its name is in charge of most key executive decisions, is composed exclusively of national representatives. In line with previous arguments about political union, strong channels of accountability should be built vis-a-vis the European Parliament.

In relation with the above arguments about the role of national supervisory authorities, the European supervisory, resolution, and deposit insurance authorities should have competence not only over those financial institutions that are systemically important at the European level (or E–SIFIs, to mimic the current jargon of the Financial Stability Board and Basel Committee on Banking Supervision, which identifies G–SIFIs as financial institutions that are systemically important at the global level, and D–SIFIs as those that are systemically important at the domestic level). It should also cover smaller banks, even though most operational duties related to these could and should be devolved to national supervisors. This would also help maintain, or rather establish, a competitive level playing field across the banking union. It is likely however that some member states will try, at least in a first phase, to negotiate exceptions for sections of their respective banking systems with particularly strong links with local and regional environments. Such exceptions from the general framework of banking union, which would also encompass separate deposit insurance systems, appear unadvisable from the standpoint of policy consistency and effectiveness, but may be inevitable to reach a political consensus at least in an initial phase. They may concern the German Sparkassen-Finanzgruppe, with the possible exception of the Landesbanken within it, and perhaps also Germany's cooperative bank system (Volksbanks and Raiffeisenbanks, and DZ-Bank). Whether other exceptions will be sought by member states other than Germany remains to be seen.

In terms of geographical scope, the generally adopted working assumption is that the banking union would be identical in perimeter to the eurozone. However, it can also be envisaged that its perimeter would be wider and include some EU member states that may not join the eurozone in the short term, say Poland or Denmark. This would create additional complexity and potential risks, but it is technically conceivable and may be ultimately determined by political considerations. Under this scenario, common supervisory and resolution authorities might span different currency areas (the eurozone being by far the largest among them) and be linked to different deposit insurance funds, as it appears difficult to envisage how a single deposit insurance fund could span multiple currency areas. The opposite option, of a banking union that would include some eurozone countries but not all, is harder to imagine.

This brief and incomplete enumeration shows that many different parameters remain to be discussed in order to put in place a consistent permanent institutional framework for the future banking union. In this context, it is to be hoped that pragmatism will prevail and that direct financial intervention by the ESM in individual banks will be unlocked before all these parameters are set, in order to allow swift and effective crisis management and resolution. However, it is also desirable that eurozone leaders achieve consistency between their short-term and long-term planning, and that an early version of a future European supervisor can be set up rapidly and provide continuity of approach beyond the short-term phase and beyond the possible lifetime of a temporary resolution authority, if such an option is indeed chosen.

OUTLOOK

Even under optimistic assumptions, the situation in the eurozone will remain affected by high levels of market volatility. Many observers and investors have gradually lost hope in the eurozone's ability to resolve its problems. They are not encouraged by what they perceive as a state of denial affecting several senior European policymakers, about both the severity of the region's problems, and the need to maintain or regain investors' trust to resolve them. In their narrative, the eurozone is too diverse to survive as a monetary union, and centrifugal forces are too strong to be contained.

I share the view that Europe's current institutions are not strong enough to contain such forces indefinitely, but the European Union is and remains a work in progress and is capable of change. The completion of a fourfold union as advocated in this testimony would create a much more robust and resilient framework that could enable decisions to repair investors' trust and keep centrifugal forces in check. Arguments that Europe is too diverse for stronger central institutions to exist do not hold up to scrutiny. India is one example of a fairly stable democratic polity whose internal historical, social, economic, religious, ethnic and linguistic diversity is greater than in the European Union, let alone the eurozone. Among more advanced economies, Canada and Switzerland are other examples of stable, yet diverse and multilingual democracies. Many pessimistic observers underestimate the extent to which well-designed political institutions can tie different communities, provided there is a desire to hold together.

European integration has been a process of political innovation from the start. There is no precedent, and still no equivalent elsewhere in the world, for the kind of supranational institution-building that has been going on in Europe since 1950. Even though parallels might be drawn with some cases of constitution of federations, particularly the United States in the 1780s and Canada in the 1860s, these cases are too different from Europe to have any predictive relevance. As with all

innovation, success can neither be taken as given nor considered impossible. In the specific case of the eurozone, powerful "de facto solidarities" exist and make the bloc more resilient than superficial observation might suggest. These solidarities are of a different nature from those involved in earlier steggest. These solutions are of a different nature from those involved in earlier steps of European integra-tion, and are often ill-understood including in the European economic policy and re-search community itself, as the rambunctious debate about so-called Target2 imbal-ances among Eurosystem Central Banks, among others, has illustrated.²⁷ They are particularly strength the case of Community the superson, the superson of the states. particularly strong in the case of Germany, the eurozone's pivotal member state.

Nonetheless, Greece remains the litmus test of whether the eurozone will hold to-gether, and the outcome there is hard to predict. Eurozone leaders, including Greek ones, might come to the conclusion that further transfer of economic sovereignty by Greece to the eurozone level is the only way to prevent a disorderly dislocation. If this happens, the issue of European institutions' democratic accountability, in other terms the political union agenda, will gain even more urgency than is currently the case. Similarly, if a legal impasse is reached as the consequence of future rulings case. Similarly, if a legal impasse is reached as the consequence of future rulings of Germany's constitutional court about crisis management initiatives, a major strengthening of the democratic underpinnings of EU institutions might be the only way to overcome the court's reservations against more transfer of decisionmaking toward the supranational level.

There is no easy, simple or painless way to resolve the eurozone crisis success-fully. An enormous effort of adjustment and transformation lies ahead, in addition to the substantial sacrifices already incurred by Europe's member states and citito the substantial sacrifices already incurred by Europe's member states and citi-zens. In my opinion, achieving a fourfold union as described here is indispensable to avoid a disorderly and disastrous eurozone breakup. Time and stamina will be needed. The changes involved are significant, but not impossible. The European does not have to become a "superstate" to overcome the crisis, and will remain a hybrid in which component nation-states play an irreducible role. The fragmentation of Europe's financial, economic and social space that has occurred since the crisis started is damaging and worrying, but has not reached a point of no-return beyond which it could not be reversed. The eurozone faces daunting challenges, but is far from condemned to failure yet ²⁸ from condemned to failure yet.28

End Notes

¹Financial Times, "Germany Rescues Subprime Lender," August 2, 2007. ²This informal group included, in alphabetical order: European Commission President José Manuel Barroso; European Central Bank President Mario Draghi; Europroup Chairman Jean-Manuel Barroso; European Central Bank President Mario Draghi; Eurogroup Chairman Jean-Claude Juncker; International Monetary Fund Managing Director Christine Lagarde; German Chancellor Angela Merkel; European Commissioner Olli Rehn; French President Nicolas Sarkozy; and European Council President Herman Van Rompuy. See for example Peter Spiegel, "EU Presses Rome and Athens," Financial Times, November 14, 2011. ³ Finance ministers of Finland, Germany, Luxembourg, and the Netherlands held joint meet-ings in the context of the Greek debt restructuring negotiations. See for example Associated Press, "Greek Debt Talks to Stretch Into Weekend," February 3, 2012. ⁴ See for example Nicolas Véron, "Banking Federalism is Key to the Eurozone's Survival," Emerging Markets G20 Edition, November 3, 2011. ⁵ Press release No. 72/2009 of 30 June 2009, "Act Approving the Treaty of Lisbon compatible with the Basic Law; accompanying law unconstitutional to the extent that legislative bodies have not been accorded sufficient rights of participation," Federal Constitutional Court of Ger-many.

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⁶It may be noted that an early call for a stronger European executive policymaking capacity in the context of the eurozone crisis came from then-President of the ECB Jean-Claude Trichet, "Building Europe, Building Institutions," speech on receiving the Charlemagne Prize 2011 in

"Building Europe, Building Institutions," speech on receiving the Charlemagne The 2011 in Aachen, June 2, 2011. ""Towards a Genuine Economic and Monetary Union," Report by President of the European Council Herman Van Rompuy, Brussels, EUCO 120/12. ⁸ A possible blueprint was outlined before the last European Council meeting by Jean Pisani-Ferry, André Sapir, Nicolas Véron and Guntram Wolff, "What Kind of European Banking Union?" Bruegel Policy Contribution 2012/12, June 2012.

⁹One exploration of the policy options is in Benedicta Marzinotto, André Sapir and Guntram Wolff, "What Kind of Fiscal Union?" Bruegel Policy Brief 2011/06, November 2011. ¹⁰National Parliaments may also play a role in strengthening democratic accountability, but

cannot replace the European Parliament as the only assembly where all EU citizens are rep-

Cannot replace the European ransmussion and resented together. ¹¹Anders Aslund, "Why a Breakup of the Euro Area Must be Avoided: Lessons from Previous Breakups," Peterson Institute Policy Brief, August 2012. ¹²This number will grow to 28 in mid-2013 with the planned enlargement of the European

¹³Euro Area Summit Statement, Brussels, 29 June 2012.
 ¹⁴In my case, relevant references include "Is Europe Ready for a Major Banking Crisis?,"
 Bruegel Policy Brief 2007/03, August 2007; "A Solution for Europe's Banking Problem," with

Adam Posen, PIIE Policy Brief PB09–13 and Bruegel Policy Brief 2009/03, June 2009; prepared statement on "The European Debt and Financial Crisis: Origins, Options and Implications for the US and Global Economy," U.S. Senate Committee on Banking, Housing and Urban Affairs, Subcommittee on Security and International Trade and Finance, hearing on September 22,

¹⁵See in particular Dominique Strauss-Kahn, "Crisis Management Arrangements for a European Banking System," keynote speech at the European Commission conference "Building a Crisis Management Framework for the Internal Market," Brussels, March 19, 2010.
 ¹⁶European Commission Press Release IP/12/570, "New crisis management measures to avoid the bart bail outs," Brussels, June 6, 2012.

 ¹⁶ European Commission Press Release IP/12/570, "New crisis management measures to avoid future bank bail-outs," Brussels, June 6, 2012.
 ¹⁷ Christine Lagarde, opening remarks at the IMF/CFP Policy Roundtable on the future of financial regulation, Washington DC, April 17, 2012, available on www.imf.org.
 ¹⁸ Mario Draghi, introductory statement before the Committee on Economic and Monetary Affairs of the European Parliament, Brussels, April 25, 2012.
 ¹⁹ Transcript of the President of the French Republic's press conference in Brussels, May 23, 2012, available in French on http://www.elysee.fr/president/les-actualites/conferences-de-presse/2012/conference-de-presse-de-m-le-president-de-la.13289.html.
 ²⁰ Reuters, "Merkel calls for body to supervise major EU banks," June 4, 2012.
 ²¹ For a discussion of this contrast see Morris Goldstein and Nicolas Véron, "Too Big to Fail: The Transatlantic Debate" in J.F. Kirkegaard, N. Véron and G.B. Wolff (editors), Transatlantic Economic Challenges in an Era of Growing Multipolarity, Peterson Institute/Bruegel Special Report 22, July 2012. ²²Interview of Mario Draghi in Le Monde, July 21, 2012. ²³Gabriele Steinhauser and Brian Blackstone, "Europe's Bank Shifts View on Bond Losses,"

Wall Street Journal, July 16, 2012.

Wall Street Journal, July 16, 2012. ²⁴ There are however multiple exceptions to the principle of a "single European rulebook" for banking regulation, as illustrated among others by the U.K. debate over implementation of the recommendations of the Independent Commission on Banking, or Vickers Commission. More-over, corporate law applicable to banks remains exclusively national, a situation which may re-quire modification with the creation of a permanent European resolution authority. Banks across the European Union will also need to continue to adapt to different national tax systems for the foreseeable future. ²⁵ Jörg Asmussen, "Building deeper economic union: what to do and what to avoid," speech at the European Policy Centre, Brussels, July 17, 2012. ²⁶ The FDIC is the primary supervisor of only a subset of depositary financial institutions in the U.S. but has backup supervisory authority over all others and is a prominent member of

the U.S., but has backup supervisory authority over all others and is a prominent member of the U.S. supervisory community. ²⁷See for example Isabelle Kaminska, "*That* Target2 presentation," FT Alphaville, June 27,

2012

²⁸Insightful comments on an early draft of this statement by my colleagues André Sapir, Shahin Vallée and Guntram Wolff at Bruegel, and Martin Kessler, Ted Truman, Steve Weisman and John Williamson at the Peterson Institute are most gratefully acknowledged.

Senator SHAHEEN. Thank you.

Dr. Johnson.

STATEMENT OF SIMON JOHNSON, PH.D., RONALD A. KURTZ PROFESSOR OF ENTREPRENEURSHIP AND PROFESSOR OF GLOBAL ECONOMICS AND MANAGEMENT, MIT SLOAN SCHOOL OF MANAGEMENT, CAMBRIDGE, MA

Dr. JOHNSON. Thank you very much, particularly for holding this hearing on such an important and timely topic.

I would describe myself as much more pessimistic about the European situation than either Dr. Burwell or Mr. Veron. I think I would try to communicate this pessimism in the following way. Senator Shaheen, you said in the beginning that this crisis has many causes, and of course you're right in some sense. But I think also that there is an overarching explanation or driving force behind what we're now seeing, which is the end of a very large credit boom.

Now, we had a credit boom, obviously, in the United States and we're familiar with the devastating consequences across mortgages and across many parts of the economy that are still with us 5 years after our crisis, and I think we'll struggle for another 5 years to get out from that. The Europeans didn't just go crazy on real estate. That was the situation in Ireland and Spain. They also went crazy on government spending, including most spectacularly

in Greece, and their banks became very highly leveraged, speculative operations. The notion of "too big to fail," which is obviously a problem still with us, the Europeans have that and more. Their banks became much bigger relative to their economies. In Ireland three banks were two times the size of the Irish economy. Switzerland, two banks eight times the size of the Swiss economy. Not a member of the eurozone, but the same general phenomenon.

The crisis, as Mr. Veron said, absolutely began in the summer of 2007. We are 5 years into a financial crisis that continues to drag out and a crisis within which the Europeans have made many awful mistakes, including introducing or, let's say, communicating with some clarity that sovereign debt is not necessarily backed by the Central Bank in the European context.

They have in a sense recreated on the fly a version of the gold standard, in which you're not going to get bailed out, but they're doing it in a situation where people have already borrowed massively assuming that there were Central-Bank-type bailouts of the kind to which people have become accustomed in recent decades in this country and in Europe.

This is a really toxic and dangerous combination. I think that when people say, as they are now saying, that Mario Draghi, the president of the European Central Bank, can solve the crisis, he can do whatever it takes, they're kidding themselves. The European Central Bank cannot issue credit to any degree in any form that will deal with the underlying problems, some of which my colleagues have absolutely nailed and I would just add on top of that and emphasize the competitiveness problem, the intra-European problem that the Greeks' real wages relative to the Germans are too high relative to their productivity. Either you devalue in that kind of situation or you lower your wages and prices, and we know that lowering wages and prices is extremely difficult.

These serious, deep-rooted problems all exacerbated, pushed further than would otherwise have been possible by the credit boom, all of these problems now need to be dealt with. The European Central Bank can't do that.

In fact, as the Central Bank now moves to provide more credit, more so-called liquidity to this situation, I fear we move into the most dangerous phase of the eurozone crisis, the one in which people seriously begin to question whether or not the euro will break up, this dissolution risk. If you have a contract with a German bank, for example, you may feel comfortable with the creditworthiness of that bank. You may even like the creditworthiness of the German state, which you might presume stands behind their largest banks. But how certain are you that when this contract comes due, for example in a year, there will be such a thing as a euro?

Or perhaps the euro will exist in parallel with other currencies. In what currency will you be paid? Does it matter whether or not that contract was in Frankfort, London, New York, or the Cayman Islands?

All of these questions become enormously important. And remember, we are sitting on a powder keg of opaque, over the counter, derivative transactions. The amount of derivatives notionally linked to Euribor, the European version of Libor, or to the London Interbank Offered Rate, a rate which is already called into question by the apparently fraudulent activities of the big banks engaged in reporting information used for the construction of those interest rates, the notional value of these contracts is in the hundreds of trillions of euros.

Nobody can tell you what is the true exposure of American banks to these problems. No one can tell you if Greece exits the euro in the coming months, which is my expectation, what will be the knock-on effect on the balance sheet of French banks? How will that affect the largest U.S. banks?

I think as a matter of pressing policy in this country the Federal Reserve should suspend the payment of dividends and suspend share buybacks for all systemically important financial institutions. Those funds still belong to the shareholders. They remain on the balance sheet of the bank as a buffer against the losses they are likely to incur as the European situation worsens and as a protection against the taxpayer being dragged into another round of expensive and damaging bailouts in the United States.

Thank you very much.

[The prepared statement of Dr. Johnson follows:]

PREPARED STATEMENT OF SIMON JOHNSON¹

SUMMARY

(1) Successive plans to restore confidence in the euro area have failed. The market cost of borrowing is at unsustainable levels for euro banks and a significant number of governments.

(2) Two major problems loom over the euro area. First, the introduction of sovereign credit risk has made nations and subsequently banks effectively insolvent unless they receive large-scale bailouts. Second, the ensuing credit crunch has exacerbated difficulties in the real economy, causing Europe's periphery to plunge into recession. This has increased the financing needs of troubled nations well into the future.

(3) With governments reaching their presumed debt limits, the European Central Bank (ECB) is now treading a dangerous path. It feels compelled to provide ade-quate "liquidity" to avert systemic financial collapse, yet must presumably limit its activities in order to prevent a loss of confidence in the euro-i.e., a change in market and political sentiment that could lead to a rapid breakup of the euro area.

(4) Five measures are needed to enable the euro area to survive: (1) an immediate program to deal with excessive sovereign debt, (2) far more aggressive plans to reduce budget deficits and make peripheral nations "hypercompetitive" in the near future, (3) supportive monetary policy from the ECB, (4) the introduction of mechanisms that credibly achieve medium-term fiscal sustainability, and (5) institutional change that reduces the scope for excessive leverage and consequent instability in the financial sector.

(5) Europe's leaders have mainly focused on a potential long-term fiscal agreeever, the other elements are essentially ignored.

This crisis is unique due to its size and the need to coordinate 17 disparate nations. I suggest four examples of economic, social, and political events that could lead to more sovereign defaults and serious danger of systemic collapse. Each trigger has some risk of occurring in the next weeks, months, or years, and

these risks will not disappear quickly.

1. The Euro Area's Last Stand

For over 2 years Europe's political leaders have promised to do whatever it takes The October 27 and December 9, 2011, agreements of European leaders failed to change the dangerous trends in Europe's economies or markets. The implicit risk of default priced in sovereign bond markets reached all-time highs in the last 3 months. The trend is similar with bank default risk. The crisis is continuing to get deeper, broader, and more dangerous.

A combination of misdiagnosis, lack of political will, and dysfunctional politics across 17 nations have all contributed to the failure so far to stem Europe's growing crisis. I begin with our view on the main problems that are pushing the euro area toward collapse. I then turn to potential solutions (although we are very aware that the complexity of the problems in Europe renders any solution questionable), and finally I outline several factors that could trigger rapid financial collapse in the euro area.

2. Key Systemic Problems in the Euro Area

Within the complex sphere of Europe's crisis, if we had to pick one issue that turns this crisis from a tough economic adjustment into a potentially calamitous collapse, we would argue it is the transformation of Europe's sovereign debt market. We outline this in section 2.1 and then discuss the economic ramifications in sections 2.2 and 2.3.

2.1. European Sovereign Bonds Are Now Deeply Subordinated Claims on Recessionary Economies

In July 2011, Peter Boone and I laid out the case that the euro area's immediate problems, in large part, reflect transition from a regime where sovereign debts were perceived to be sacrosanct ("risk-free") to one in which investors perceived that sovereign defaults were possible.² Neither investors nor Europe's politicians understood the full ramifications of no bailout clauses in the Maastricht treaty until recently. With the new risk premium needed to compensate for default risk, some European nations will need to radically reduce their debt levels and change its maturity structure.

The treatment of private investors in the upcoming Greek debt restructuring has made it ever clearer that Europe's sovereign bonds bear substantial risk. On July 27, 2011, the EU Council of Ministers finally admitted that a Greek default was needed—although to date they prefer to describe this default as voluntary, referring to it as private sector involvement (PSI).³ By choosing a default over bailouts, it is as if the politicians have inserted a new clause into all European sovereign bonds:

In the event that the issuing sovereign cannot adequately finance itself in markets at reasonable interest rates, and if a sufficient plurality of the EU Council of Ministers/Euro group/ECB/IMF/the Issuer determine it is economically or politically expedient, then this bond may be restructured.

Soon after this announcement it was apparent Greece could not afford the proposed deal, and more funds would be needed. At the summit on October 27, 2011, Europe's leaders announced that for Greek debt the PSI "haircut" would rise from 21 to 50 percent in order to provide these funds, while the official creditors promised no additional funds specifically for Greece.⁴

Those nonofficial creditors holding Greek bonds learned a new lesson: They are the residual financiers to European issuers when the troika's programs fail.⁵ The Greek press reported that the government was prepared to change laws governing its bonds in order to force nonofficial creditors to bear these losses. For nonofficial creditors, a further clause has thus been effectively and implicitly inserted into European sovereign bonds:

In the event of default (i) any non-official bond holder is junior to all official creditors and (ii) the issuer reserves the right to change law as needed to negate any rights of the non-official bond holder.⁶

We should not underestimate the damage these steps have inflicted on Europe's $\in 8.4$ trillion sovereign bond markets. For example, the Italian government has issued bonds with a face value of over $\in 1.8$ trillion. The groups holding these bonds are banks, pension funds, insurance companies, and Italian households. These investors bought them as safe, low-return instruments that could be used to hedge liabilities and provide for future income needs. It was once hard to imagine these could ever be restructured or default.

Now, however, it is clear they are not safe. They have default risk, and their ultimate value is subject to the political constraint and subjective decisions by a collective of individuals in the Italian Government and society, the ECB, the European Union, and the International Monetary Fund (IMF). An investor buying an Italian bond today needs to forecast an immediate, complex process that has been evolving in unpredictable ways. Investors naturally want a high return in order to bear these risks.

Investors must also weigh carefully the costs and benefits to them of official intervention. Each time official creditors provide loans or buy bonds, the nonofficial holders become more subordinated, because official creditors including the IMF, ECB, and now the European Union continue to claim preferential status. Despite large bailout programs in Greece, Portugal, and Ireland, the market yield on their bonds remains well above levels where they are solvent. This is partly due to the subordinated nature of these obligations. De facto, if not de jure, Europe's actions have turned these bonds into junior claims on troubled economies.

Once risk premiums are incorporated in debt, Greece, Ireland, Portugal, and Italy do not appear solvent. For example, with a debt/GDP ratio of 120 percent and a 500-basis-point risk premium, Italy would need to maintain a 6 percent of GDP larger primary surplus to keep its debt stock stable relative to the size of its economy.⁷ This is unlikely to be politically sustainable.

2.2. Crisis Spreads Into Europe's Core Banks and Incites Capital Flight From the Periphery

On August 27, 2011, Christine Lagarde, the managing director of the IMF, shocked European officialdom with a speech decrying inadequate capital levels in European banks.⁸ She referred to analysis by IMF staff showing that, if European banks were stressed for market-implied sovereign default risks, they were \in 200 billion to \in 300 billion short of capital. Lagarde's speech was courageous and the logic of her analysis raised deep concerns.⁹ This was the first time the IMF admitted that sovereign default risk needed to be taken into account for the largest banks in Europe. Europe's regulatory regime does not require banks to have equity capital funding for sovereign debt—there is no capital requirement, in banking jargon—so banks accumulated these debts over many years under the assumption no additional capital would be needed. They must now revisit those portfolios to take account for capital needs on risky sovereign debt. However, the IMF analysis of the capital needs to offset this risk was odd. Markets price in a small risk of sovereign default, yet a major sovereign default would be a large, discrete event. Regulators need to decide: Sovereigns are safe, in which case banks need little capital protection against sovereign default, or they are not safe. If they are not safe, then banks need to accumulate adequate capital—raising their equity relative to total assets—to survive plausible sovereign defaults. For example, Bank for International Settlements (BIS) data show French banks in June 2011 had claims worth \$109 billion (on an ultimate risk basis) on Greece, Ireland, Italy, Portugal, and Spain (GIIPS); if these nations were to default on their sovereign claims, then French banks would surely experience large losses on the entirety of this portfolio while the repercussions for France's own economy would add further domestic losses.¹⁰

If sovereign default risk is not removed, then banks need nearly full equity funding to cover plausible states of nature where disorderly defaults do happen. The lesson for banks is clear: They need to reduce exposures to troubled nations and batten down the hatches.

In addition, Europe's peripheral banks are suffering large funding losses as capital moves to safer nations—most notably Germany.

2.3 Macroeconomic Programs: Too Timid To Restore Confidence or Growth

While it may already be too late to avoid extensive defaults, we can still consider what needs to be done to reduce the risk of default. To avoid defaults and restructurings, Europe needs to introduce policies that bring market risk premiums on sovereign (and hence bank) debts down. Investors need to feel confident that, with a 2- to 3-percent risk premium, it is worth the risk to hold onto several trillion euros worth of troubled nations' sovereign debts, as well as the much larger nonsovereign debts.

In a nation with a flexible exchange rate, adjustment is usually achieved with budget cuts and a sharp devaluation. Since euro area nations have forgone their right to devalue, they need to regain competitiveness through price and wage cuts, while even more sharply cutting budget spending. In essence, they need to increase volatility of their wages, prices, and budgets if they are prepared to forgo similar changes that could be achieved through the exchange rate.

The available evidence from the outcomes of the troika programs in Portugal, Ireland, and Greece, as well as the recently announced budget plans in Italy and Spain, suggests current policies will fail at this task. These programs all plan for gradual reductions in budget deficits, implying continued buildup of total government debts, while partially substituting private debt for official debt. In Portugal and Ireland the programs rely on external financing until 2013 when it is anticipated the program countries will reenter markets to finance ongoing budget deficits and ever higher debt stocks at modest interest rates. In Italy, optimistic growth assumptions help bring the budget to balance in 2013, but debt stocks remain far too high. Spain announced it would miss its 2011 budget deficit target of 6 percent, raising it to 8 percent. In Greece, budget revenue and GDP growth forecasts are again proving too optimistic. Any successful program must recognize the fact that appetite for periphery debt amongst investors will not recover to "pre-crisis" levels, because default risk is now a reality that was not foreseen prior to 2009 and because debt stocks are now higher in the periphery. For example, Ireland is currently running a budget deficit measured at 12.5 percent of GNP.¹¹ The troika program calls for that budget deficit to fall to 10.6 percent of GNP in 2012. Ireland's stock of official debt will reach 145 percent of GNP in 2013, while it also has contingent liabilities to its banking sector that amount to over 100 percent of GNP. An investor looking at these numbers must recognize there is serious risk of default. Since market access is highly unlikely, who will finance Ireland from 2013 onward?

A successful program must also take steps to quickly improve competitiveness.¹² The only nation that shows moderate improvement in relative unit labor costs is Ireland, but this is largely a statistical artifact driven by the decline of unproductive industry in the weighting.¹³ Italian Prime Minister Mario Monti's program includes no general wage cuts.¹⁴ In Portugal, the government abandoned attempts to engineer unit labor cost reductions through "internal devaluation" after meeting political opposition. In Ireland, the Croke Park accord prevents the government from further reducing public sector wages.¹⁵ Despite nearly 2 years of troika programs, Greek unit labor costs have hardly budged.

With sovereign risk premiums rising, and capital flowing out of the periphery from banks while deficits and competiveness improve little, it is not surprising that peripheral economies are in trouble. The Purchasing Managers' Index (PMI) indicates a bleak picture. It is no coincidence that a new major "downturn" started soon after German politicians made clear they were planning to let Greece default. It is also clear that the troika programs are failing to restore growth.

The stark contrast between unemployment in Germany and the periphery reflects the dynamics of the crisis. The strong core is becoming stronger—German unemployment is lower than it was in 2008—while Greece, Ireland, Portugal, and Spain have high unemployment that continues to rise.¹⁶ Italy's troubles are recent, so with a sharp recession beginning, we anticipate Italian unemployment will soon rise sharply also.

3. Solutions

Europe may continue to veer toward a major financial collapse. European economies are in decline due to capital outflows from fear of sovereign and bank defaults. Recessions and continued budget deficits only raise the risk of default. Macroeconomic adjustment programs are not strong enough and do not reflect the large measures needed given the lack of exchange rate devaluation. As the GIIPS decline, there is serious risk that other indebted and heavily banked nations in the euro area, such as France, Belgium, and Austria, could be pulled into trouble themselves.

3.1. The Big Bazooka

Some analysts are now calling for a massive ECB-led bailout to arrest sovereign risk and stop this dangerous trend. The general hope is that, if the ECB offered to massively finance the periphery, investors would return to buying those sovereign and bank bonds. Lower interest rates would give breathing space for sovereigns to correct budget deficits and banks to build capital.

To see how feasible this is, first consider the sums required. Any bailout would need to unequivocally convince investors that for several years these nations will simply not see serious financial problems. This means the bailout would need to have enough funds to buy up a large portion of the existing stock of "risky sovereign debts" plus finance those nations for, say, 5 years. The bailout must buy the debt, rather than simply refinance debt rollovers, since otherwise secondary market interest rates would stay high. The secondary market rates will determine the lending capacity of local banks and their creditworthiness. We have calculated the sums required to purchase 75 percent of the outstanding

We have calculated the sums required to purchase 75 percent of the outstanding government debts of the troubled nations (leaving aside debt owed to official lenders), plus finance their deficits over 5 years. In this base case we assume troika programs are implemented and deficits decline gradually over 5 years. The total adds to $\epsilon 2.8$ trillion, or 29 percent of euro area GDP.

We can then contrast this with alternative assumptions.¹⁷ The most dangerous risk facing the euro area is if a "bazooka" is employed and yet the troika programs fail to restore growth and improve budgets. We assume budget deficits decline only modestly, and we calculate the financing needed to cover deficits until 2020. Our negative outcome implies nearly ± 5 trillion would be needed just for GIIPS, something the IMF implicitly flagged when they reported recently that Greece alone may need ± 500 billion (½ trillion) by 2020.¹⁸

Successful "bazooka" interventions often occur when the extra financing is no longer needed, so that the financing acts as a backstop but is hardly used. For example, when Poland launched its stabilization program in early 1990, the \$1 billion stabilization fund was never spent. The U.S. Troubled Asset Relief Program (TARP) was quickly repaid by almost all banks. This is not possible for the euro area. Some euro area nations have too much debt in the new regime with default risk. In the early days of such a program we expect large purchases would be needed. The ECB would have to drive market interest rates down to levels where private creditors would not be well rewarded to hold the debts. As the ECB purchased the debts, private creditors would be further subordinated, and this would add to their desire to sell their bonds.

There are many reasons we believe such ECB "bazooka" programs won't occur and are potentially dangerous to euro area survival. First, while using the ECB balance sheet may make such risks more opaque, any large bailout still poses potential heavy losses for Germany and other healthy members of the euro area. In the event there is default in the GIIPS, Germany would be responsible for 43 percent of the capital needs of the ECB. Hence with a bailout fund of $\in 2.8$ trillion, Germany would be assuming $\in 1.2$ trillion, or 45 percent of German GDP, in credit risk. The Bundesbank and other National Central Banks are likely to refuse.

Second, this measure on its own does not resolve competitiveness problems or large budget deficits in the periphery. It would undoubtedly cause the euro to fall but the benefits of euro depreciation are somewhat muted since Germany would remain relatively competitive compared with the periphery. The periphery will still need aggressive fiscal and wage cuts to improve their deficits and competitiveness relative to Germany.

Third, it would place the unelected ECB governors in a political role they were never destined to play and were legally forbidden to play according to the Maastricht treaty. The ECB could quickly become the largest creditor to peripheral nations, and as their financier it would ultimately need to negotiate budget programs, wage cuts, and structural change. It may choose to relinquish those powers to the IMF, but it would be the true power behind all these negotiations.

Finally, the bazooka could well incite an eventual crash of the euro area. If the ECB embarked on a program to backstop troubled nations, observers would quickly recognize that the potential sums needed to maintain stability could be large. Our bad case scenario implies over 341 percent of the ECB monetary base and 46 percent of euro area GDP might be needed.

For markets, what matters are the perceived future bailout costs. Hence, an announcement of a "bazooka" will lead to varying reactions in markets as the perceived bailout needs rise and fall. Investors could become very afraid if peripheral adjustment programs appear to fail or bailout needs spread to more nations. Such concerns could rapidly cause financial-market turmoil and euro area collapse (see section 4).

3.2 A More Comprehensive Solution

If the bazooka is unlikely and probably won't work, while the status quo is failing, what is an alternative? The focus needs to be on returning the relevant sovereigns to solvency. Once the sovereigns are solvent, most commercial banks will have breathing space to rebuild capital through operating profits and retained earnings.

However, there is no easy means to achieve this. In our assessment, the GIIPS will need to restructure their debts by extending maturities and reducing coupons to levels that they can afford. There is some scope for official assistance to offset the total costs of such restructuring by subsidizing debt swaps. However, the Greek example suggests Europe's politicians have little appetite to provide more taxpayer funds for this purpose.

While preemptive restructuring seems attractive, the needed extent and scope is unclear. Carmen Reinhart and Kenneth Rogoff argue that countries with no lenders of last resort typically run into problems when debt levels reach 60 percent of GDP. Even if we assume advanced European economies could manage more debt, it would not be higher than the 90 percent that Reinhart and Rogoff flag as a threshold for developed markets. Such figures imply that greater than 50 percent writedowns of nonofficial debt in Portugal and Ireland may be needed, while Italian debt writedowns might be close to 50 percent.

If the GIIPS followed preemptive restructurings, Europe's core banks, insurance companies, and pensions funds would need substantial recapitalizations, and the costs of this could draw France and other core nations into debt crises of their own. Hence, any plan to preemptively restructure debts would need to be applied carefully across Europe. The second ingredient is a far more aggressive program to reduce budget deficits and improve competitiveness in the periphery. These nations need to be highly competitive if they are to generate growth soon given the large risks overhanging their economies. This requires large wage cuts, public sector spending cuts, changes in tax policy to attract investment and business, and stable politics.

If these two steps were implemented, then a bailout program from the ECB would pose lower risks. The debt restructuring and measures to improve competitiveness would mean far less funds were needed. The ECB's role could be to provide confidence that stability would be maintained—a sensible central bank role—rather than to refinance large amounts of debt and deficits.

While these steps would be a major improvement on current programs, they are hardly likely to be implemented. As discussed in section 2, the troubled nations have declined to implement large budget and wage cuts. Political conditions have prevented them. Meanwhile, creditor nations are claiming there will be no more debt restructurings beyond Greece, and at the same time the creditors are refusing to substantially raise bailout funds needed to prevent high interest rates and default. None of this leads to a credible path out of crisis.

4. Playing With Fire: Ways the Euro Area Could Come to an End

Policymakers often have trouble grasping the danger that small tail risks pose to leveraged systems. As we discussed above, a mere 10 percent annual risk of an Italian crisis is already inconsistent with Italian long-term solvency. If Italy has a disorderly crisis, how safe are French banks? And if those banks aren't safe, how safe is France's sovereign debt? Low-probability bad events can very quickly generate a wave of collapse through leveraged systems.

Our concern is that, when compared with financial crises elsewhere, the potential triggers for a euro area collapse are numerous.

4.1 A Unilateral Exit, or the Credible Threat of One

At a midnight press conference on November 2, 2011, in southern France, German Chancellor Angela Merkel and French President Nicolas Sarkozy for the first time entertained the idea that a nation could leave the euro area. Merkel and Sarkozy chose to take a hard line with Greek politicians and their electorate: either complete the existing agreement or leave. The background to this threat was the tough politics in Greece. After 18 months of large budget cuts and some structural reforms, Greece's economy remained in decline. Prime Minister George Papandreou's government was weak, and in a last desperate gesture he attempted to force further reforms through by offering Greek citizens a referendum with an implicit choice of "reform or exit."

An exit from the euro area can be forced in minutes. The Eurosystem only needs to cut off a National Central Bank from the payments system and prevent that nation from printing new cash euros. Once this is achieved, a bank deposit in Greece would no longer be the same as a deposit in Germany, because one would not be able to get cash for a Greek deposit and one would not be able to transfer it to a non-Greek bank. Of course, the moment people understand such a change could be imminent in their nation, they would run to their banks and attempt to withdraw cash or transfer funds. This is what is now happening in Greece. The country is losing 2.5 percent of GDP monthly in deposits from banks.¹⁹ There would be enormous, painful ramifications for all of Europe if Greece or another nation made a disorderly exit. Since there is no legal basis for exit, all finan-

There would be enormous, painful ramifications for all of Europe if Greece or another nation made a disorderly exit. Since there is no legal basis for exit, all financial contracts and indebtedness between Greek and non-Greek entities would have uncertain value as the parties could dispute whether these are to be paid in drachmas or euros. Trade between the exiting nation and the rest of the euro area would dry up. The mere fact that a country did exit would have ramifications for the other troubled nations, most likely inciting further capital flight from those nations and producing sharp economic downturns. This in turn would question the viability of Europe's core banks and some of the core sovereigns. The euro itself would probably weaken sharply, and "currency risk" would be added into the euro.

4.2 The Weak Periphery Lashes Out Against Germany, While Germany Fights Back

The political dynamics of crisis invariably pit creditors against debtors, potentially leading to flareups that cause creditors to give up. In Ireland, against strong popular opposition, the ECB is forcing Irish citizens to take on further debt in order to bail out creditors of bankrupt banks. In Greece, Prime Minister Papandreou was essentially ordered to revoke his planned referendum, while Greece's opposition leader was ordered to write a letter promising he supported Greece's troika program, despite the fact that he clearly did not support it nor did he participate actively in any negotiations to agree to it. French and German politicians are also playing an instrumental role in supporting Italy's new technocratic Prime Minister, while they eschewed former Prime Minister Silvio Berlusconi toward the end of his term. Meanwhile in Germany, "bailout fatigue" has set in as electorates and politicians turn against more funds to nations that, they perceive, are failing to reform sufficiently quickly.

While there are many outcomes of such discord, one possibility is that it leads to a messy grab for power. The troubled nations already have the power to take over decisionmaking at the ECB. They may well usurp control in order to provide much larger ECB bailouts. This would raise concerns in financial markets and could lead to rising long-term yields on all euro-denominated debts. Germany would be forced to pay more to finance itself, and German savers would ultimately be paying for the periphery bailouts through inflation and a weak euro. In Germany this would lead to rising calls to leave the euro area.

Once there is a small risk that Germany could leave, market prices for eurodenominated assets would again change sharply. New risk premiums would need to be added to national debts where nations are expected to have weak currencies, while Germany and other strong nations might see their risk premiums fall even further. Such changes would reinforce the recent trends in which the core nations continue to strengthen relative to the periphery, but those changes would also be highly destabilizing for financial markets.

4.3 Economics of Austerity May Fail

The third risk for the euro area is that economic, political, and social realities eventually prove that the system simply cannot work. After all, the euro area is a dream of political leaders that has been imposed on disparate economies. Few nations sought popular support to create the euro. The German leadership avoided a referendum, and in France the Maastricht treaty was passed with a thin majority of 51 percent. Even though most European leaders are highly committed to maintaining this dream, no one can be sure what the costs are in order to keep it.

A plausible negative scenario is that those costs, in the eyes of the electorate, eventually appear too high. The evidence to date suggests Europe's periphery, even in a fairly benign outcome, will be condemned to many years or even a decade of tough austerity, high unemployment, and little hope for future growth. A good comparison is the "lost decade" of the 1980s in Latin America when nations hardly grew due to the large debt overhangs from unaffordable debts. However, those nations had the benefit of flexible exchange rates, while Europe's periphery faces a more difficult period with uncompetitive economies. Latin America's problems ended only when the creditor nations accepted large writedowns and debt restructuring. Another comparison would be the heavily indebted United Kingdom during the

Another comparison would be the heavily indebted United Kingdom during the 1920s when the government managed policies to restore currency convertibility after the war. Britain suffered with a weak economy for a decade, before ending in the Great Depression, despite a booming global economy throughout the 1920s. However, this too is not a good comparison since Britain had far more flexible wages and prices than Europe's periphery, with nominal wages falling 28 percent during the 1920–21 recession.

4.4 Markets Lose Patience

Our final scenario is the most likely. Faced with the reality of failing adjustment programs, difficult politics, and rising risks that one or more peripheral nations may rebel, or Germany may rescind its support, investors may simply decide that the cumulative risks mean the euro area has a moderate risk of failing.

If investors decide there is a low but significant probability that the euro area might fail, we would encounter another version of Rudi Dornbusch's astute observation: "The crisis takes a much longer time coming than you think, and then it happens much faster than you would have thought." Here's why: The failure of the euro area will be a calamitous financial event. As Dornbusch famously remarked of the Mexican 1994–95 crisis, "It took forever and then it took a night."

If one believes the euro might fail, one should avoid being invested in European financial institutions, and in euro-denominated assets, until the outcome of the new pattern of currencies is clearer. As a result, a large swathe of euro-denominated assets would quickly fall in value. The euro itself would cheapen sharply, but so would the value of European bank debt and European shares, and most sovereigns would see their bonds trade off sharply. This in turn would make it expensive for even the Germans to raise finance in euros. Despite their impeccable credit record, they would be attempting to issue bonds in what is perceived as a flawed currency.

they would be attempting to issue bonds in what is perceived as a flawed currency. A small risk of the euro "breaking up" would have great importance for the euro swap market. This market is used by Europe's insurance companies, banks, and pension funds to hedge their interest rate risk. A swap contract allows, for example, a pension fund to lock in a long-term interest rate for their investments, in return for promising to pay short-term interest rates to their contract counterparty. It is an important market that underlies the ability of insurance companies, pension funds, and others to make long-term commitments to provide society with annuities, pensions, and savings from insurance policies. The notional value of these swaps is many times euro area GDP.

The euro swap market could quickly collapse if markets begin to question the survival of the euro. Euro swap rates are calculated as the average interest rate paid on euro-denominated interbank loans for 44 of Europe's banks. Approximately half of these banks are in "troubled nations." So the interest rate will reflect both inflation risk and credit risk of the participating banks. If investors decided that the euro may not exist in several years' time, swap interest rates would naturally rise because people would be concerned that banks could fail and that the "euro" interest rate could turn into something else—for example, the average of a basket of new currencies with some, such as the Greek drachma, likely to be highly inflationary.

If euro swap interest rates start to reflect bank credit risk and inflation risk from a euro breakup, then the market would no longer function. A pension fund could no longer use it to lock in an interest rate on German pensions since it would not reflect the new German currency rates. The holders of these contracts would, effectively, have little idea what they would be in a few years' time. Hence, investors would try to unwind their swap contracts, while the turmoil from dislocations in this massive market would cause disruptive and rapid wealth transfers as some holders made gains while others lost. If the euro swap market ran into trouble, Europe's financial system would undoubtedly face risk of rapid systemic collapse.

Europe's financial system would undoubtedly face risk of rapid systemic collapse. This example illustrates why a small perceived risk of a euro area breakup could rapidly cause systemic financial collapse. The swap market is only one mechanism through which collapse could ensue.

In through which collapse could ensue. On November 23, 2011, Germany was unable to sell as many bonds as it wished.²⁰ The auction failure caused an immediate steepening in the German sovereign bond yield curve. Some German officials argued this failure was due to "volatile markets," but there is a more fundamental concern. Germany's ability to pay low interest rates in euro-denominated assets requires the euro area be a financially stable region. Today, German yields remain very low and are not at worrying levels. However, if these rates were to rise due to fears of currency breakup risk, then the euro area would quickly enter deep crisis as even Germany would have trouble financing itself.

5. Dreams Versus Reality

There is no doubt that European political leaders are highly committed to keeping the euro area together, and so far, there is widespread support from business leaders and the population to maintain it. There is also, rightly, great fear that disorderly collapse of the euro area would impose untold costs on the global economy. All these factors suggest the euro area will hold together.

However, many financial collapses started this way. A far more dramatic creation and collapse was the downfall of the ruble zone when the Soviet Union collapsed in 1991. Argentina's attempt to peg its currency to the dollar in the 1990s was initially highly successful but ended when its politicians and society could not make the adjustments needed to hold the structure together. The Baltic nations—Estonia, Latvia, and Lithuania—have managed to maintain their pegs but only after dramatic wage adjustments and recessions.

More relevant, the various exchange rate arrangements that Europe created prior to the euro all failed. With the creation of the euro, Europe's leaders raised the stakes by ensuring the costs of a new round of failures would be far greater than those of the past, but otherwise arguably little has changed to make this attempt more likely to succeed than the previous one. Small probabilities of very negative events can be destabilizing. A lot of things can go wrong at the level of individual countries within the euro area—and one country's debacle can easily spill over to affect default risk and interest rates in the other 16 countries. The euro swap market is based, in part, on interest rates charged by 44 banks in a range of countries; about half of these banks may be considered to be located in troubled or potentially troubled countries. If the euro swap market comes under pressure or ceases to function, this would have major implications for the funding of all European sovereigns—including those that are a relatively good credit risk.

At the least, we expect several more sovereign defaults and multiple further crises to plague Europe in the next several years. There is simply too much debt, and adjustment programs are too slow to prevent it. But this prediction implies that the long-term social costs, including unemployment and recessions rather than growth, attributable to this currency union are serious. Sometimes it is easier to make these adjustments through flexible exchange rates, and we certainly would have seen more rapid recovery if peripheral nations had the leeway to use exchange rates. When we combine multiple years of stagnation with leveraged financial institu-

tions and nervous financial markets, a rapid shift from low-level crisis to collapse is very plausible. European leaders could take measures to reduce this risk (through further actions on sovereign debt restructurings, more aggressive economic adjustment, and increased bailout funds). However, so far, there is little political will to take these necessary measures. Europe's economy remains, therefore, in a dangerous state.

End Notes

¹This testimony draws on heavily on joint work with Peter Boone, particularly "The European Crisis Deepens," Policy Briefs in International Economics 12–4, January 2012; Peterson Insti-tute for International Economics, and "Europe on the Brink," Policy Briefs in International Eco-nomics 11–13, July 2011; Peterson Institute for International Economics. For more background, please see also our paper "Will the Politics of Moral Hazard Sink Us Again" (Chapter 10, in the LSE volume on "The Future of Finance," July 2010). I also draw on joint work with James Kwak, including "13 Bankers: The Wall Street Takeover and The Next Financial Meltdown" (Pantheon, 2010) and, on the U.S. fiscal outlook, "White House Burning: The Founding Fathers, The National Debt, And Why It Matters To You" (Pantheon, April 2012). Underlined text indi-cates links to supplementary material: to see this, please access an electronic version of this cates links to supplementary material; to see this, please access an electronic version of this document, e.g., at http://BaselineScenario.com, where we also provide daily updates and detailed policy assessments for the global economy. For important disclosures relative to affiliations, ac-

tivities, and potential conflicts of interest, please see my bio on BaselineScenario. ²Peter Boone and Simon Johnson, "Europe on the Brink," Policy Briefs in International Economics 11-13, July 2011, Peterson Institute for International Economics, available at

Bethom is 11-10, but 2011, research interest in the energy www.pie.com. ³For the definition of PSI in the euro area context, see page18 in "European Financial Sta-bility Facility (EFSF)," available at www.efsf.europa.eu/attachments/faq_en.pdf. ⁴At the July 21, 2011, summit euro area leaders called for $\in 109$ billion of official assistance. On October 26 they committee to $\in 100$ billion of official assistance. The IMF did not provide

any additional commitment in October. ⁵The troika is the informal name given to the European Union, ECB, and the IMF, which negotiates the terms of external assistance to Greece and other troubled peripheral countries.

⁶To be clear, this "clause" and the preceding clause are just our interpretations—such clauses are nowhere written down, which greatly adds to the prevailing uncertainty. ⁷A 500-basis-point risk premium is consistent with an annual 10-percent risk that something will trigger a decision to restructure and that there would be a 50-percent mark-to-market loss

on bonds under such an event. ⁸ Christine Lagarde, speech at Kansas City Federal Reserve conference, Jackson Hole, August

27, 2011, available at www.imf.org. ⁹European politicians first dismissed Lagarde's analysis and later the European Banking Authority revised down the needs to €114 billion. They argued that the IMF failed to take into account a potential rally in the price of safe haven bonds, such as France and Germany, which banks hold on their balance sheets. We believe the analysis far underestimates the potential capital needs since it does not take into account the full macroeconomic ramifications of sov-arear default

in a tax-free nation, in order to take advantage of Íreland's regulations that specify that the controlling owner, rather than the resident company, is subject to tax. For this reason companies such as Google, Yahoo, Microsoft, Forest Labs, and many others channel license revenues and royalties through Irish subsidiaries. These royalties and revenues are in large part excluded from the tax base in Ireland. These companies would move if Ireland changed rules and made such revenues taxable. Since the relevant concept for fiscal sustainability is the taxable base, it makes sense that this should be used to measure Ireland's indicators. No other nation in Europe has a large difference between GNP and GDP. The IMF regularly reported Irish GNP in its staff reports but recently removed all reference to GNP. This raises concerns that the IMF is attempting to mask fiscal sustainability problems by not reporting these data. ¹² Unit labor costs are the best measure of competitiveness, but the general pattern is clear—over the past decade Germany has really diverged from its European trading partners by becoming more competitive.

¹³Ireland's nontraded goods sector is less productive than its traded goods sector (which in-cludes companies such as Google that choose to report earnings in this low corporate tax environment.) As part of the Irish recession, the nontraded goods sector has contracted while "ex-ports" from large multinationals have remained relatively robust. ¹⁴See, for example, Alex Roe, "Monti's Measures for Italy," Italy Chronicles, December 5,

¹⁵ See Harry McGee, "Freeze on Cuts After Croke Park Accord," Irish Times, July 21, 2011, available at www.irishtimes.com.

¹⁶The latest unemployment numbers are bad, including 22 percent in Spain and 14 percent

¹⁰ The latest unemployment numeric are 2..., ¹² in Ireland. ¹⁷ For more detail, please see Peter Boone and Simon Johnson, "The European Crisis Deepens," referenced in footnote 1 above. ¹⁸ This is a stress scenario in the IMF's debt sustainability analysis for Greece. In our view, this scenario could reasonably be regarded as something closer to a baseline forecast. ¹⁹ Deposits have declined by €61 billion, or 24 percent of GDP, since spring 2009. See Bank of Greece, "Aggregated balance sheets of monetary financial institutions (MFIs)," available at www.bankoforece.gr. of Greece, Aggregation Salaria www.bankofgreece.gr. ²⁰ Paul Dobson, "German Auction 'Disaster' Stirs Crisis Concern," Bloomberg News, November Newshore complete the second second

Senator SHAHEEN. Well, where to begin? That made me feel so much better, Dr. Johnson, about our prospects.

I actually am going to start. We did another hearing on the eurozone crisis before this subcommittee last November, and I'm going to start with the last question that I asked that panel. That was what the United States could do to help address the situation in Europe. I will tell you that to a person the members of that panel said the most important thing we could do is to get our own fiscal house in order here.

I want to ask each of you to start, if you agree with that assessment? Dr. Burwell, you actually mentioned some other things in your testimony, but how do you assess what we heard from that other panel?

Dr. BURWELL. I do agree with that, if for nothing else than it gives us more credibility when we talk to the Europeans about their crisis. I also think, though, that one of the other things that we can do is to try and keep the temperature low. The European situation is often made worse by the market. As I pointed out, I think European leaders do not see it as a priority to respond to the market in the way that perhaps some of our leaders do. We could talk more about why that is. But I do think that it's in our own interest not to spur the market into going after certain currencies.

But yes, first we have to get our own house in order in order to be credible in this discussion.

Senator SHAHEEN. Thank you.

Mr. Veron.

Mr. VERON. In a way, it's frustrating, but my impression is that there is relatively little that the United States can do on top of what it already does, which is provide discreet and sometimes public advice to European leaders and play its role in the International Monetary Fund, which is one of the members of the European troika.

Beyond this, it's my impression that the European crisis can only be solved by the Europeans themselves. And one reason for this is that Europe is a rich continent. The problem is not that Europe needs external financial assistance. Actually there is enough wealth and money inside Europe to resolve this crisis by a margin. So the roadblock is internal in Europe. It is political inside Europe. There is little that the United States can do except leading by example, as you have suggested.

Senator SHAHEEN. Thank you.

Dr. Johnson.

Dr. JOHNSON. I would make three suggestions. The first is to strengthen the capital basis, increase the capital funding, the equity funding of our largest financial institutions. That's tremendously important, both for our own financial stability and for global financial stability because we're the heart of the world's financial markets.

The second point would be clearly to at least avoid another debilitating fight over the fiscal cliff or over the debt ceiling. Remember that, while the GAO has recently, their study recently said that the last fight we had in the summer of last year did push up U.S. borrowing costs by a little, an insignificant amount, the big impact was on other countries. When you scare the world and investors become frightened, actually the larger effect is that capital comes into the United States, which, other things equal, would tend to push down our interest rates. But that will make it harder for countries that are viewed by the market as potentially in trouble, harder for them to fund themselves.

If you want to cause a sovereign debt crisis for France, the best thing you can do is have an enormous fiscal fight on Capitol Hill in January and February of next year. I don't think you really want to go there.

The third point is with regard to the IMF. I completely agree with what Mr. Veron said. The eurozone can, should, and must, and ultimately will solve this problem by itself. The IMF's involvement in the eurozone and intra-European support I think should be wound down. The IMF played a useful role initially in Greece. I'm not supportive of the IMF being dragged into and being used as a scapegoat, for example, in a program for Spain or Italy, wherever this goes.

However, in terms of potential knock-on effects, if you take the downside scenario seriously, as I'm urging you to do today, you should worry about lots of other countries that are not in the eurozone, that don't issue a reserve currency, that are also important to us for trading reasons, financial sector reasons, or security reasons. Those countries could well suffer a huge hit, and we are not good and we're not organized in such a way as we can provide bilateral support quickly and effectively. We always work through the IMF in these kinds of settings. We need to look at whether the IMF has the resources, the people, and the right mindset, given that it is excessively dominated by Europeans, to handle the potential knock-on effects of the European crisis really does get out of control quickly.

Senator SHAHEEN. So let me just ask you, when you talk about the potential impacts on other countries outside the eurozone, you're not talking about other countries that might be members of the EU. You're talking about a much more extensive global impact.

Dr. JOHNSON. Yes. Certainly the impact could be completely global. I would worry about some parts of Eastern Europe, by the way. East European countries that are not members of the eurozone, it's not clear, if the pressure is really on, how much support they could count on purely within that European context. They don't have the euro as their currency. They're not issuing a reserve currency. They're much more likely to be pressed hard by the markets, and we could go country by country or talk about it with your staff afterward.

So I would not rule out some dangerous developments within Europe, and I think we have serious security interests there that need to be—on which we've done very well over the past 20 years. Those need to be safeguarded, because you can throw away a lot of progress very quickly in this kind of crisis.

Senator SHAHEEN. Sure. No, I was just trying to get some sense of, when you said the other countries that would be affected, where your focus was, whether it was on the rest of Europe or whether you were thinking in particular some other region of the world.

Dr. JOHNSON. Well, anyone who's a commodity exporter is typically vulnerable when you have a dramatic slowdown, and there are many countries which really have made progress with democratization and with opening themselves up in a responsible way to global trade, in Africa, in Latin America, in some parts of Asia. All of this could take a big step back if the European crisis causes big disruptions and if nobody is there to help. Who is there to help? We're not going to do it ourselves. You're

Who is there to help? We're not going to do it ourselves. You're not going to put that in next year's budget, I'm sure, under any circumstances. It falls on the IMF. Is the IMF prepared to do this? I worry because we've allowed the IMF to become excessively dominated by the Europeans, who are largely in denial about the scope of their own problems and the way in which those can damage the world.

Senator SHAHEEN. Thank you.

My time is up. Senator Barrasso.

Senator BARRASSO. Thank you, Madam Chairman.

I want to follow up, as we had been doing from the hearing from last November, and specifically with the implications for the U.S. economy, for our financial system. Perhaps we could just start in the order in which our guests have testified. So could you talk about some of the implications to the U.S. economy, financial systems, transatlantic relations, should the current crisis lead to a breakup of the eurozone or specific countries leaving, as Dr. Johnson has suggested that may be occurring within the next 6 months, and how would that specifically impact us as well as U.S. exports?

Dr. BURWELL. Let me first say that I think the breakup of the eurozone and certainly the breakup of the European Union is a very unlikely event. I think that we often in this country underestimate how closely tied these countries are, how integrated they are.

It is true that over the last 18 months many of the non-Greek countries have been pulling their assets away to protect themselves should something happen in Greece. But what we need to think about in terms of the implications for the United States, even if the crisis goes forward as I would predict for 2 more years with European summit after European summit that incrementally puts in place the minimal decisions that they need to make to keep their heads above water, I think we're looking at a couple of consequences and then I think my colleagues who are real economists are much more capable of talking about some of the specifics.

But two that I see on the economic side are: first off, the impact on the stock market, and for many middle-class Americans and others who have their retirement in 401(k) plans.

The other consequence is the lack of business confidence. You have many companies in this country who have funds to hire or expand or invest, but who are being conservative, little "c" conservative, about that, and it's probably prudent business practice, because they don't know what markets will be like in the future. So I think that those are things that we will have to deal with in terms of the U.S. economy not growing as fast because the overall pressures are to be very guarded about what you do in terms of investment and expansion. So I'll leave it at that.

Senator BARRASSO. Thank you.

Mr. VERON. First, I think it's striking to see the contrast between the seriousness with which the breakup scenario is taken on this side of the Atlantic and the denial of the possibility of breakup that you often sense in Europe and particularly in Brussels. I would inevitably sit a little bit in the middle of this. Personally, I think that a breakup is seen as more likely than it really is in many American circles, but I would also accept the proposition that many Europeans are in denial and that actually this denial is very harmful in terms of crisis management, where those who would need to be most paranoid, those who would need to take the downside scenario most seriously, should be the European policymakers, and I often have the impression that they're not doing that enough.

That said, on Greece particularly, which is a flashpoint and will remain one I think for some time, I don't share Dr. Johnson's prediction. I think that many observers, including many market participants, are considering the possibility of a Greek exit more likely than I would. The reason that I consider it less likely is not that I see Greece doing well or being on track in its adjustment program, which it is not, but just the fact that I think the contagion of a Greek exit to other member states would be absolutely impossible or at least could be absolutely impossible to manage. I think there is an awareness of this situation in European policy circles.

Now, that doesn't get us to a clear view of what to do with Greece if it continues to veer off track, and I think here we'll have very difficult decisions to make in Europe in the next few months, including some that could go further than what the troika has already done in terms of temporarily depriving the Greek Republic from some attributes of sovereignty.

For the United States, the United States has to cope right now with a European recession. I think in any scenario Europe will remain in recession in the near future. I don't see a scenario of a strong European rebound. Maybe I'm not optimistic enough on this one, but I really don't see it as possible under the present circumstances.

However, a breakup of the euro would plunge Europe into a deep depression, and I think this would create shock waves that the United States would not be able to escape, even though, as Dr. Johnson mentioned, it's very difficult to model this. It's very difficult to know where exactly the exposures are because the system is so complex. The interactions are everywhere. There are linkages all over the place.

As regards financial institutions, I'm less sure than Dr. Johnson about the need for radical measures in terms of capital strength. My impression is that many U.S. banks, including large U.S. banks, have rebuilt capital in a fairly strong manner in the past few years. Maybe I should take a closer look at them, but my impression is that the Federal Reserve and other members of the U.S. supervisory community have been very careful in watching the interconnectedness of the U.S. financial system with the European financial system and in nudging the financial institutions into adequate contingency planning.

But I think there's no denying that shock waves from a eurozone breakup and depression would affect the United States. I think in terms of the rest of the world, the point that was discussed just before, we already have seen a lot of European bank deleveraging, particularly in Asia, also in Latin America and other parts of the world. So this has already started, and I think this has strategic consequences, including for the United States, because what we have seen is that a lot of the credit that was provided by European banks to Asian or Latin American economic agents has been replaced fairly effectively by credit from other players, including U.S. or Canadian banks, but including also Chinese or Japanese or other Asian banks. So there is a redrawing of the global financial map which has already started, has actually gone very rapidly in the past 2, 3 years, and I think this has strategic consequences as well. It's already happening. It has already happened to a large extent.

Senator BARRASSO. Thank you.

Dr. Johnson.

Dr. JOHNSON. It's all about the financial sector, Senator, and the transmission of shocks, I believe, through opaque derivative transactions. To give you one specific example, not to single someone out, but to give you an example. J.P. Morgan Chase has a published balance sheet under U.S. GAAP of \$2.3 trillion. U.S. GAAP allows a very generous netting of derivative transactions. If you use international accounting standards, as they use in Europe, with a less generous netting of derivatives and one that is considered by many authorities on resolution to be more appropriate when thinking about the potential losses, then J.P. Morgan Chase's balance sheet is not \$2.3 trillion, it's \$3.9 trillion.

They have shareholder equity around \$180 billion capital. In their own living will that they have presented, they model the scenario in which losses of \$20 to \$30 billion trigger a collapse of J.P. Morgan Chase and therefore a systemic crisis. Now, that living will was put together before they lost \$6 billion on those trades in London, which happened in a relatively benign period for the world economy.

We need to worry a great deal about the vulnerability of the systemically important institutions. Unfortunately, with all due respect, I disagree very strongly with Mr. Veron. I spend a lot of time with regulators. I'm on the FDIC Systemic Resolution Advisory Panel. I do not believe that our authorities, including specifically the Federal Reserve, both the Board of Governors and the New York Fed, have pushed hard enough to strengthen the capital base.

The stress tests that were run repeatedly, including most recently this year, did not model any of the events that we are now all regarding as part of our baseline scenario.

Senator BARRASSO. Thank you.

Thank you, Madam Chairman.

Senator SHAHEEN. Senator Risch.

Senator RISCH. Thank you very much.

For those of us I think that are unschooled to the extent that you are in economics, it was fascinating to watch the eurozone first of all be created. I just kind of shook my head and I didn't understand how this could work, where you had sovereigns who had not given up sovereignty, but yet decided to combine their currencies.

I suppose it's not dissimilar to what happened at the Constitutional Convention when the States got together and did this. They created a constitution and probably had a lot of the same questions that were presented to the eurozone, and they left the Constitutional Convention without resolving those. Indeed, a lot of them walked away with different ideas about the sovereignty versus the strength of the central government.

However, fortunately they lived in a lot simpler times than we live in today. You don't have the complexity of the institutions or the interrelation of the institutions that you have today or, for that matter, the Internet and communications that tie us together. So as the country went along, they had serious problems, but I guess they had the luxury of the train wreck was slow instead of a fastmoving train wreck, which we don't have the luxury of today.

So as these issues come up and as the EU continues to wrestle with them, but not seem to be able to resolve them, I think I worry about how quickly the house of cards could come down. So I guess I'd like all of your thoughts about how—I mean, this is going to end sooner or later. You have to think it's going to end sooner or later, one way or another.

So the question I guess I have for each of you is your predictions as to how this—what does this look like on the other side?

Dr. Burwell.

Dr. BURWELL. Well, I think it will be very messy getting to the other side. I think that no matter—I consider myself an optimist on this and my prediction is still that we have a few years to go. I believe that if we come to the point where it looks like Italy or Spain will fall out of the eurozone that the Germans at that time will lift their political objection to mutualization of debt. As Mr. Veron said, there are the resources in Europe to solve this problem.

The scenario that Dr. Johnson has painted of what happens at the end of the breakup of the eurozone I think is something that everyone keeps in mind, and precisely for that reason they're unwilling to go there, because it is so horrible. The estimates that I have seen for even Greece leaving the eurozone are 30 to 50 billion euros in costs for Greece. That doesn't say anything about the costs outside Greece for that. You can imagine what that would be if we actually had 17 countries who were all using one currency suddenly decide not to use that currency any more.

Germany, which is leading a very comfortable economic existence right now, would suddenly find that its exports were priced much more highly if it went back to its own, the deutschemark.

Senator RISCH. You're convinced, though, that there will be mutualization of debt at some point in the future?

Dr. BURWELL. At some point in the future. If we take the nonemergency scenario, then I think that we will see over the next 2 to 5 years—they will bring the fiscal compact into the European institutions, which means having another round of referendums, which will be difficult, but I think will happen. You will see more and more of the countries actually bring their economies closer together through these structural reforms that are being pushed on Spain and the others at this point.

Only once that has been in practice for some time, so perhaps 10 years from now, will you see a formal eurobond issuance or something of that sort.

Senator RISCH. And of course there's huge political problems in places like Germany before that gets done.

Dr. BURWELL. The problem actually is that Germany is doing well right now. I mean, there are little issues and we've seen business confidence decline in the last couple of months. There are little indications in Germany, for example, that their exports are slowing because of the slowing of economic action in the rest of Europe.

But Angela Merkel will face election in fall 2013. Her approval ratings now are at 66 percent. Most of the Germans believe that she's doing pretty well handling this.

Senator RISCH. Those of us in politics know that there is a short, very short shelf life on your ratings.

Dr. BURWELL. Yes.

Senator RISCH. Mr. Veron, could you give us your view on how this unwinds, what this looks like after it's resolved?

Mr. VERON. I think it looks different. In other terms, I certainly don't believe and have never believed that the eurozone and the European Union could come out of this crisis with a return to something that would look like what they had before. This crisis is transformational and there is no middle ground, and I would argue has never been, between resolution by failure, which is the breakup of the eurozone and the dire consequences that we've already talked about, and what I would consider a successful resolution, even though it will carry a cost and it will not be a cakewalk, which is deeper integration.

In a very remarkable speech in Berlin a couple of months ago, Radek Sikorski, the Foreign Minister of Poland, expressed it that way: "If we are not willing to risk a partial dismantling of the EU, then the choice becomes as stark as can be in the lives of federations: deeper integration or collapse." And this is a noneurozone country which was considered by a former Secretary of Defense here as part of so-called "New Europe."

Senator RISCH. Mr. Veron, do you agree that eventually there's going to be mutualization of debt?

Mr. VERON. Yes.

Senator RISCH. Dr. Johnson, how about you?

Dr. JOHNSON. Well, Senator, I wrote a book recently on U.S. fiscal history and I think we share the same perspective on what happened at the Constitutional Convention in 1787. The key issue coming out of that, as you know, was exactly the assumption of State debts by the new Federal Government.

I think that will be the sticking point for the Europeans. There was a legitimacy to those debts in the United States because of the joint effort of the War of Independence. There's no legitimacy behind the fact the Greeks had a great party and the Spanish went crazy with their real estate, and so did the Irish, and that banks are going to be failing left, right, and center. That's going to be the problem.

So that mutualization of debt on an ongoing basis, perhaps that could be one thing that gets put on the table. But what are you doing about this overhang of debts? After Hamilton restructured the debt in 1789, 1790, the United States had a debt-to-GDP of around 40 percent. That was high for the day. The Europeans, the eurozone, are at 90 percent average if you take all of their debts and divide by eurozone GDP. There's not a lot of room to play with there, and I think ultimately it's going to come back to the political legitimacy. Ultimately, why should the Germans pay for what their euro partners did over the past 10 years, the counterpart of the massive credit boom that led them into this.

Senator RISCH. That's a good point. There's a little bit of that debate going on up here because some of the States have, although not directly, at least obliquely, looked to the Federal Government, saying: Look, we've got serious problems here.

Dr. JOHNSON. But the problem we haven't had in the United States, at least not since the 1840s, is the expectation that the Federal Government is going to be bailing out the States. And that's clearly an expectation that-

Senator RISCH. But some do.

Dr. JOHNSON. Agreed. But that was an expectation that was more generally shared in Europe recently, and that's now been withdrawn, or maybe it's not. Or maybe Mr. Draghi will provide it, or maybe they don't know what they're doing.

That I think goes directly to the issues that were salient in 1787 and unresolved, I would argue, until after the War of 1812.

Senator RISCH. Thank you, Dr. Johnson.

Thank you for being generous with the time. Senator SHAHEEN. Thank you, Senator.

I want to go back to Greece because it's come up both from all of your testimonies. Dr. Burwell, let me start with you because I think you pointed out in your testimony that Germany's vice chancellor, it was reported, said that a Greek exit from the eurozone had "lost its horror," quoting. So what do you think would be the actual impact of Greece leav-

ing the eurozone? First, if you will, talk about what the prospects of that are if you had to weigh the percentages, and then what you think the impacts of that would be?

Mr. VERON. Frankly, I'm reluctant to give a percentage. I think it's a very difficult question to answer. I would say that the only way I find to escape the burden of your question is to say something like 50–50. It's very undecided.

I think many investors think the likelihood is more than that, but I would submit that the marketplace is overestimating the chances.

Senator SHAHEEN. Let me then get to Dr. Burwell and then Dr. Johnson on that question. I won't ask you to give me a percentage. Everybody can assess it at 50–50. But what would be the real impact of Greece's leaving?

Mr. VERON. I think investors-

Senator SHAHEEN. Mr. Veron, can I get Dr. Burwell to answer that first?

Mr. VERON. Sorry.

Dr. BURWELL. I think Nicolas can talk more on the actual economic consequences. I do think that the biggest risk probably is contagion. Greece is something like 2 percent of the European economy. I think politically, internally in Greece, it would be a huge blow to the country's confidence and perhaps to its democratic institutions.

I would say that we currently face a situation in Greece where many in the public blame their political leaders for the situation which they are now in and there is some justice in that, given that some of this crisis comes out of the fact that no one quite knew how big the Greek deficit was.

And I fear that if Greece leaves the euro, which has been a very popular symbol among the Greek people of their acceptance as one of the mature European countries, even though we all know that when Greece got into the euro, was accepted, there were some, shall we say, financial tricks that were accepted. But if that is taken away, I fear that there would be a real loss of legitimacy of the government among the Greek people and a much more serious rise of nationalism in Greece than we face today even with the struggles to try and restructure their economy.

As long as they are in the EU, one of the safety valves they have is that Greeks can leave Greece easily and go work and make money elsewhere in the Union. If they leave the Union, they lose that opportunity and they remain stuck in Greece with very few jobs.

Senator SHAHEEN. Mr. Veron, I'll ask you to answer this. Haven't we seen, though, opposition on the part of the Greek public to be willing to accept the reforms that their leaders have negotiated? Then, recognizing what Dr. Burwell said about how Greeks feel about themselves and their involvement in the euro, isn't there a contradiction here, and can we expect that the reforms that are being required of Greece will actually have public support to be completed?

Mr. VERON. There's a massive contradiction, but I would argue that Greece, the Greek public opinion's, willingness to stay in the euro is even greater than their reluctance to face the reforms that are needed. So obviously the message of the two rounds of elections this year was that they would like to have both, not do the reforms and stay in the euro.

But ultimately my understanding of the current state of Greek public opinion—and who knows about the future, but my understanding of the current state is that they prefer to stay in the euro, even though that means very bitter medicine. Of course, the question is will this be delivered by the Greek political system. I think this is the most difficult question, because so far the Greek political system has displayed a systemic difficulty to deliver.

Senator SHAHEEN. Dr. Johnson, do you think that the eurozone could survive a Greek exit?

Dr. JOHNSON. Well, Senator, I think the probability of Greece leaving the euro by the end of this year is about 90 percent. This would do without question significant damage to the eurozone and how far that would go depends on how they handle it. If they decide to form a more unified core completely and unambiguously backed by the European Central Bank and they put in place the fiscal unification measures, for example, to make that meaningful, that will be one thing. If they leave Portugal, Spain, Italy out in the wind to be beaten by financial markets, that's obviously a very different and much more scary scenario.

On the dynamics of Greece, I would just point out that the measures currently under way call for the banks to be taken over by the government and brought closer to the government apparatus. This government is the same government that managed Greece—is led by the same people who managed Greece into the crisis prior to 2008, 2009. The level of corruption, for want of a better word, throughout Greek political life is profound.

I'm not sure if you remember, but when the United States and the IMF tried to help Indonesia in the fall of 1997 a key issue that emerged was the corruption of the Suharto regime as manifest in how the banking system behaved and in who did and did not get a banking license, including in one notable example Mr. Suharto's son. I think the same kind of collapse of the legitimacy of the bailout effort as seen from the outside, as seen by people who feel they've been trying honestly to help over the past 3 or 4 years, that is exactly where this is heading.

Senator SHAHEEN. So you're not optimistic, not only that the leadership in Greece will deliver the correct message to the public, but that they will actually be willing to undertake the reforms, and haven't been to date, that are going to be necessary in order to stay in the eurozone?

Dr. JOHNSON. I think they're in an end game within which elites typically grab what they can, take the resources, move them offshore, get ready for being wealthy after the collapse; you can come back and buy assets. This is what you saw at the end of the Soviet Union, for example. This is what you see at the end of other kinds of regimes. That is the moment at which I believe Greece now finds itself.

Senator SHAHEEN. Thank you.

Senator Barrasso.

Senator BARRASSO. Dr. Johnson, I know you spent time at the IMF as the chief economist there. I'm just curious about the role of economic growth in a time of austerity and how to balance that out and what sort of economic growth potential you see in it. Perhaps you can give just a little discussion on the role there, given the IMF has requirements of significant austerity currently combined with the monetary policy constraints.

Dr. JOHNSON. So the thinking at the IMF and the experience in recent decades has exactly been that, while some situations call for and require austerity, and the Greek public finance would be one of them, in other situations it can be quite counterproductive to press your foot too firmly on the fiscal brakes. Spain today would be one example. Italy would be another example.

The question is always one of financing. Do you have the ability to finance yourself in markets or is someone else willing to lend to you so you can have a larger deficit on a temporary basis to help buffer your way through your troubles and aim for—the IMF will always tell you—aim for a sustainable medium-term fiscal outcome. Now, I think that that can be done in some parts of Europe. That is where the IMF has urged the Europeans to go at some moments in the past. It's obviously not the trajectory right now in Greece.

Senator BARRASSO. Just to kind of follow up, I'm looking at, there was a column in The Economist this past week. You're familiar with the Big Mac Index, relative value of Big Mac hamburgers around the world. I think they mentioned that a couple years ago the euro was about 18 percent overvalued relative to the dollar, now it's about 4 percent undervalued relative to the dollar.

So I just look in terms of the implications for a long-term continued weakening of the euro versus the dollar and the impact of that on U.S. businesses and consumers as we get back to the question of how does this all impact the United States and our own economy. I would like you to comment on that.

Dr. JOHNSON. Well, it's very hard, as you know, to forecast where exchange rates are going to move. But I agree with the logic of your question, which is that the European situation, whether I'm right on the more negative side or whether my colleagues are right on a more positive side, this would seem to push the euro to becoming more undervalued and therefore at least some parts of Europe become more competitive relative to U.S. industry.

Now, remember, though, that credit is becoming extremely disrupted in many parts of Europe. In Germany, however, it's not. In Germany credit is pretty easy, partly because the capital flight from southern Europe or peripheral Europe is going toward, at this stage still going toward, Germany.

So competition between German firms and United States firms, yes, I would expect that to be heightened. Will other parts of Europe be stronger as a result of this? No, probably not. And overall I would expect the euro to weaken significantly, which is not going to help our economic recovery.

Senator BARRASSO. Thank you.

Thank you, Madam Chairman.

Senator SHAHEEN. I'd like to pursue that a little more, because, Dr. Johnson, I think you talked about the extent of exposure, that we're not even sure—let me rephrase that. We're not sure about the extent of the exposure on U.S. banks because of the opaque instruments that exist.

Secretary Geithner has consistently stressed that direct U.S financial exposure to the European crisis is modest. So I wonder if you can elaborate a little bit, Dr. Johnson, on the reasons that you draw the conclusions that you do about the extent of the exposure and whether you have any assessment as to how great that exposure is for U.S. banks?

Dr. JOHNSON. Well, Senator, I would remind you of the complexity of these derivative markets and the difficulty even of the organizations themselves, the institutions, to understand their true exposure. So again just as an example, J.P. Morgan Chase's trading losses in London were not known to Jamie Dimon and other senior executives in New York until they read about it on the front page of the Wall Street Journal.

So it is actually not possible for Mr. Geithner or any other official to know more than the banks know about their true exposures, and the banks do not know to what extent severe movements in security prices, which is what's implied in the scenarios I'm talking about, would impact their counterparty risk.

For example, if you come to believe, just as a hypothetical, that the French Government will not stand fully behind all of the obligations of large French banks—I'm not saying they'll default, but I'm saying they could selectively choose to pay out on a different basis to different kinds of creditors—how would that impact the position of J.P. Morgan Chase or Bank of America or Citigroup? We don't know. We do know that they have very large derivative books. We know that their net exposure measured properly, I would suggest, under international accounting standards is very large relative to their capital base, and according to the modeling that they present in the public domain—for example, I recommend to you the living will discussion that J.P. Morgan Chase executives have made publicly available—the dynamics there are potentially devastating.

I don't know how much capital would be necessary to safeguard the American financial system. I'm not comfortable we've got there and I don't believe, or I know for a fact, the stress tests run by the Federal Reserve did not take into account any of these scenarios, any of these massive losses that we're now discussing.

Senator SHAHEEN. So are there other measures that you would suggest that we as Members of Congress ought to be thinking about in terms of how we could better assess the extent to which our financial system is exposed to what's happening in Europe?

Dr. JOHNSON. This is a hard thing to do from where you sit, but I think a key point on which to press is the Office of Financial Research, OFR, which was created by the Dodd-Frank legislation to support the Financial Stability Oversight Council, needs to work on exactly this and needs to be in here on a very frequent basis presenting to all relevant committees, including your committee.

presenting to all relevant committees, including your committee. I don't know if you and your staff had a chance to review their latest report that just appeared yesterday. It's about 400 pages long, so I understand it may take some time. There's nothing in it with regard to the issues that we're discussing, nothing that would significantly inform or reassure you that I'm wrong or my concerns are exaggerated, nothing in it.

OFR, I'm afraid to say, has not done a good job. The Financial Stability Oversight Council is generally considered to be moving slowly. I belong to a new private sector Systemic Risk Council founded and chaired by Sheila Bair and we have released some public statements about specific pressing measures that could be taken now and should be taken to safeguard the system. I'm not saying that Ms. Bair or the rest of the council shares my view on the dangers that could come from Europe. So whether or not I'm right, we're arguing that these changes should be pressed forward, and it's not happening. This administration is not pushing to make our financial system safe enough soon enough.

Senator SHAHEEN. Do either of you want to comment on that?

Mr. VERON. I would absolutely agree with what Dr. Johnson just said about the need to have a well-resourced, competent, and reactive Office of Financial Research. That said, it is also my impression that a purely American such organization cannot really do the job that you have outlined, because we are talking here about a very integrated global financial system on which many of the information points are outside of the United States. So of course, the United States can do what it does at its own scale, which is building an Office of Financial Research, and more should be done in that direction. But I think there is also a need to scale up global initiatives to collect data and analyze them in a way that would provide more insight on the very complex, very difficult issues that we are talking about here.

I would argue in the same logic that what Dr. Johnson said about the need to have a better understanding of big banks' balance sheets in the United States is an argument for more decisive adoption of international financial reporting standards or at least some moves in that direction, which this administration unfortunately has not made. It doesn't have to be quick, it doesn't have to be radical, but I think this would be very constructive on the global stage, even though it's a slightly different consideration from the main focus of this hearing.

Senator SHAHEEN. So should the ECB be taking measures that it isn't currently, recognizing that there has to be agreement from a lot of places in order for that to happen? But are you also advocating that they take different measures?

Mr. VERON. I think the ECB has signaled in the past few days that they will do more to stabilize the situation in the marketplace even than the significant actions that they have undertaken so far. This goes back to the executive deficit at the core of the eurozone problem, because the ECB has been forced to take action in place of the political authorities, and I think we'll continue to see that because ultimately the ECB is the only institution which is able to act in the short term. And I think they are taking this responsibility very seriously.

I also believe that, compared to some of the criticisms that are placed on the ECB, especially from here in the United States, that it doesn't do enough, the ECB cannot act as if it was the Federal Government of the eurozone. So it has to acknowledge that its scope for action is limited and that elected governments, elected institutions, political institutions, have to do a bigger part of the heavy lifting.

So I would submit that the ECB has a very difficult balance to keep here, but I think they have kept it fairly skillfully in the past few months at least.

Senator SHAHEEN. I know Dr. Johnson wants to comment, but, Dr. Burwell, did you want to comment on the original question before we go back to him?

Dr. BURWELL. Yes, just two comments. Dr. Johnson pointed out, brought to the fore a very good question, I think, which is: Greece didn't undertake reforms before; these are the same people or the same political elite that got Greece into so much trouble; so why should we believe anything will change? I think in point of fact, because there are so many EU supervisors in the Greek Government at this point. They have extensive supervision on the ground, to the point where I've had Greek officials certainly tell me that there is no sovereignty left in Greece as far as economic policymaking goes.

And of course, they are being held with their backs to the wall if they want to get any more money from the EU. And if they don't get money from the EU, if they don't get the tranche that is now overdue because of the elections, I've heard some estimates that they will have to start issuing script in about 2 months to be paying government employees, of which there are quite a few in Greece.

So the government is in a position where it will have to make some very difficult decisions, but it will be forced to make them.

I also think that Dr. Johnson was right in pointing out that we don't really know what's going on in terms of the banks' balance sheets. The conversation that I'm hearing from Europe is about too big to supervise and too big to fail, and the idea that these banks are now simply too large. I would expect that we will see some legislative movements in the European Parliament to explore whether there are ways of making the banks more supervisable, more susceptible to adequate supervision.

In a way, the LIBOR scandal and HBSC has kind of morphed together with this eurozone crisis in a way in Europe which has become much more susceptible to strong banking regulation than we have heard discussed in the United States, and that's something that I think the U.S. Congress should be aware of and be watching in terms of its own agenda in the future.

Senator SHAHEEN. So you think there will be a move to set limits on size?

Dr. BURWELL. I don't know quite how it would be done, because, as Mr. Veron pointed out, these are global entities in many regards. So I'm not quite sure how you would be able to do it. But I have-when Sharon Bowles was here, the head of the Econ Committee in the European Parliament, which is the legislature now for doing this, addressing this question, she was quite concerned about this in a public forum. So I would expect that there will be some serious thinking about how one does this.

Senator SHAHEEN. Thank you. Dr. Johnson, I think you wanted to respond to the ECB question. Dr. JOHNSON. Yes. The problem is that if you ask the ECB to do more, you're asking it to provide more credit to the system, which will weaken the euro, create the prospect of inflation, and further undermine the legitimacy of the monetary union for key countries, including Germany. So it's not clear at all that doing, "whatever it takes" has any meaning when providing more credit actually

undermines the political legitimacy of the very arrangement that you're trying to protect. If I could just add a point to what Dr. Burwell said about the extensive supervision on the ground of the Europeans, the experi-

ence of the IMF quite clearly is that when you're on the ground doing someone else's reforms for them it doesn't work. There has to be local ownership. The politicians have to want it. There has to be a mandate. It has to be in this kind of context—it has to have sufficient democratic support. That support has to be sustainable.

That's where all these programs fail, not because they're poorly designed. Typically you can always adjust the design. And not just because of creditor fatigue. Creditors get fatigued because you don't deliver things on the ground because there's no ownership. I think that's exactly where the European situation is going.

On the bank size, I think this is a very important point that again will become increasingly salient. Too big to manage. The banks don't know what's going on. The bank executives have no idea of the exposure. As banks collapse or come under pressure and have to be rescued, you will see more and more of these stories in the European context, just as we're seeing more of them now in the American context.

Senator SHAHEEN. Well, so that really leads back to the question about to what extent is public opinion behind the efforts to address the eurozone crisis. Dr. Burwell, you talked about Chancellor Merkel's continued popularity among the German public, but in fact somebody just pointed out to me this week that there is a recent poll that was published that showed that 33 percent of Germans believe that she's making the right decisions on the eurozone crisis, down from 63 percent back in earlier in July.

So how much is public resistance going to impede the ability to really address the crisis in Germany? I guess we could ask the same thing about France. Obviously, we've already seen the change in government in France as the result of concern among the electorate about whether they were headed in the right direction. Obviously, Spain is an ongoing issue.

Can we expect that public interest—it goes back to the Greek question: Can we expect that public interest in staying in the eurozone is ultimately going to outweigh frustration with the impact of austerity measures on people's own personal prosperity and thinking about their futures?

Dr. BURWELL. I believe that the public's commitment to the eurozone and to the EU particularly is strong enough so that it will get through this point. However, I would say that the decline in Chancellor Merkel, public opinion is not because Germans believe she is being too tough and not making the right decisions as we would see them, but because they think she's being too soft.

Senator SHAHEEN. Right. No, I understand that.

Dr. BURWELL. So, if anything, you do have diametrically opposed public opinions. But the one thing they're all united on is they want to stay, not necessarily together, Greeks and Germans, but they all want to stay in the European Union, with one exception, and that one exception is the U.K. And here I think what we are seeing is a combination of, shall we say, longstanding British skepticism coupled with the eurozone crisis, which I think is on the verge of leading to a very real change in Britain's position within the EU. That is something that as we think about Anglo-American relations we should think about very seriously.

But on the whole—

Senator SHAHEEN. Can you elaborate on that a little bit in terms of what you think the effect will be on Britain's position in the EU?

Dr. BURWELL. The December decisions on the fiscal compact, when Britain decided not only not to be in the fiscal compact, but prevented the others from making this intra-EU, and now they had to do this outside, was kind of a final straw for many in Europe about the British, what they see as the British lack of commitment to the European Union.

What I have been hearing since then is that if the British want to go, that's OK; we'd like for them to stay, but it's their decision. Whereas before there was much more of a desire to have the British engaged.

I do think that the Cameron government until very recently has managed their euroskeptic constituents skillfully. However, they have I think—recently this has been something that has threatened to get a little out of control. There are increasing calls for a referendum and if we see the fiscal compact eventually being put into a treaty and the need for referenda in some countries and probably in the U.K., then I think you have a crisis point about 3 to 5 years away where this question will be asked.

So I think there is more talk now in the U.K. about halfway arrangements. The problem is that most of those halfway arrangements, the one that Norway has, for example, where it's part of the Europe economic space, they have to agree to everything but they don't get to sit at the table, and I think that would be unacceptable.

So we are a long way from any decisions, but I think the temperature has changed, if I can put it that way. It's subtle. It could change back. The city of London has a lot to gain or lose through Britain's participation in designing the rules for financial services within the EU, and I think that will be the thing that will keep Britain in if it decides to stay that way.

Senator SHAHEEN. Thank you.

Mr. Veron, did you want to add to that?

Mr. VERON. I totally share the concern about the position of the U.K. I think it's a strategic worry and challenge for the U.K., for the rest of Europe, and also for the United States. I think that the U.K. has gone very far already on a slippery slope that could bring it outside of the European Union and I personally believe this would be to the advantage of precisely no one.

So I think there's a big concern. It was a big change a year ago when Chancellor Osborne spoke about the remorseless logic of political integration inside the eurozone that is reversing almost three decades or four decades almost of U.K. policy, where the stance had always been having a seat at the table. So I was surprised by this change of tack and I think it will have consequences.

In Spain, Greece, Italy, I think we're seeing serious indications of deep problems in the political system, to say the least. But I'd like to comment on Germany and France because that was your initial question. In Germany, we've seen time and again that the commitment of the main parties ultimately was for more Europe, and this has been most obviously the case when the liberal party, the LDP, started to consider a different strategy. This led it nowhere and that reversed to a large extent this stance.

It's notable in Germany, it has been—I'm sure you're aware of this and it has been commented many times, but it has to be reaffirmed, that in Germany the opposition is criticizing the government for not going far enough in terms of European integration, in spite of the difficult situation of public opinion that you have referred to.

If I get back to the question which was asked by Dr. Johnson, why would Germany accept debt mutualization, given the difference in historical circumstances with, say, the assumption of States debt by the federation in the early history of the United States, I think there is a very deep sense of responsibility in Germany, that Germany has a stake and has a burden to carry in terms of the future of Europe, the future of the eurozone.

So my response to this question, which is a very relevant question on why would Germany accept mutualization, is that there is an awareness that the consequences of not accepting it is something that Germany doesn't want, the German elites don't want it, but more importantly the German public doesn't want it, and that would be the breakup of the euro.

As regards France, I would not see the recent change in government as a direct consequence of the European saga. It had been driven—first, it was a very close result, and I would argue as a French voter that it has been driven predominantly by domestic issues and individual issues that had little to do with European policy.

Now, in terms of European policy there is a lot of continuity between the previous administration and the current one. I will note that the one point on which there is a change of direction, which is the push toward banking union, which was not there under the previous administration, the inflection has been in the direction of more integration, not less. Of course, this is not a judgment on what the future steps will be, and I think when we are talking about political union and empowering the European Parliament and basically having some more political features of a federation in the European institutional framework, this is something that will be more difficult possibly in France than in any other eurozone member state. So I am not underestimating the future challenge and I think the current administration is very aware of it. But I would argue that there is no indication that France is becoming more euroskeptic, particularly in the recent political transition.

Senator SHAHEEN. Thank you.

Dr. Johnson.

Dr. JOHNSON. Well, I hate to sound more optimistic than my colleagues, but I will on this point. I think the eurozone is going to go into a deep crisis. It will break up. A core will be reconstituted and work together very closely. The big question is whether or not France is in that core, and related whether or not Italy is in that core.

The British like to complain and certainly have not been always constructive. But in this crisis type situation, I think that they will be helpful and I think Europe will pull together. I don't think the European Union will disintegrate. I don't think we're going to have a war in Europe. They have far too much history. And I think the British will negotiate some complicated arrangement where the big question is to what extent you can do that and have a proper seat at the table and get to have some say with regard to regulations, including around finance. That's hard to predict. But I think the British will stay engaged and I think that ultimately Europe will come out of this. Ultimately there will be a shared currency, a more Germanic eurozone, and a rival reserve currency to the U.S. dollar. Of course, at that time we should worry about how international investors see the United States. If and when there's a viable reserve currency to the dollar, the pressure on us potentially becomes much greater. And if we don't have our fiscal house in order by that time, there will be trouble.

Senator SHAHEEN. Listen. If we don't have our fiscal house in order by that time, we've got a lot more things to worry about than just how the dollar's going to compare against the euro, at least by my assessment.

Dr. JOHNSON. I agree, Senator. But in terms of interest rates and in terms of pressure on short- and long-term interest rates, those presumably would be much more severe if international investors already could shift out of the dollar into some other asset.

Senator SHAHEEN I know we're about to wind down, but I did want to ask before we close about the potential for growth in Europe because, as several of you have mentioned, one of the debates that's gone on has been austerity versus growth, and at what point do you need to include some growth measures along with austerity in order to provide hope. And Europe's back in, at least I think everybody agrees that Europe is now in a double-dip recession, so to what extent do measures need to be taken that can help speed growth in Europe in order to improve prospects for economic prosperity there.

I don't know who wants to address that first. Dr. Burwell?

Dr. BURWELL. Let me take a noneconomic stab at it and say that I think sometimes on this side of the Atlantic and on the other side, when we talk about growth versus austerity we're actually talking past each other and talking about different things. The countries that are in difficulty right now often have large public sectors, where getting a job in the government is the best thing and you should be there for all of your career. The universities have not learned how to educate people for jobs. It is very difficult to start a new business, so they don't have the small business sector that has been the engine of employment in this country.

I'm not saying necessarily that they should come to duplicate our economy. There will always be differences. But when Americans go over and talk about growth, Europeans are often leery about a stimulus from the government because they fear that it will only lead to the hiring of more government workers, which then exacerbates the problem and how they got there.

So hence the very strong emphasis on austerity, which is really code for structural reforms. And the German experience is that if you do these reforms then you will see growth. We can ask whether the German model is the only one suitable in Europe, but right now Germany is the predominant country calling the shots in this economic crisis.

We have seen some moderation of the emphasis on austerity and I think, in fact, that President Hollande's election has allowed more discussion of the need for growth and, as one of my Spanish colleagues put it to me once: We can do the austerity, but we need to have a glimmer of hope at the end of that. So I think the conversations we have seen between Mr. Monte and Mr. Hollande about this, it's not necessarily that they're setting up an opposition to Germany, but they're setting up a moderation of the debate.

There are some infrastructure funds that are now going to be disbursed. Infrastructure is something the EU has always used to boost economies. It's one of the reasons for the success of the Polish economy right now. So I think you will see more along those lines, more moderation. But the trick in Europe is to do it without necessarily funding the public deficit.

Senator SHAHEEN. Am I correct that one of the other successes of the Polish economy has been that their banking system was not affected by the fiscal crisis that we experienced here and in Europe?

Mr. VERON. The Polish banking system had been very conservatively supervised in the years before the crisis. It's also a relatively unsophisticated banking system, so fewer of the big derivatives exposures that Dr. Johnson talked about.

Senator SHAHEEN. That may be a good thing, though.

Mr. VERON. In the circumstances, it has been a good thing. There is a wider debate which goes beyond this hearing whether it's always a good thing. But in the circumstances it has certainly been, as in a number of emerging economies, by the way.

I completely agree that the terms of the debate on austerity versus growth are very different in Europe and the eurozone from what they are in this country. One simple difference is that this is one single currency zone, with no risk of fragmentation, and where, at least since the middle of 2009, in spite of possible problems in the banking system, credit is flowing relatively normally in the U.S. economy, more in some segments than others, but generally normally.

In Europe, credit is a major factor and the threat of fragmentation is a major factor. So basically you have a situation where in countries like Greece, but also in Spain or Italy or others, one of the main impediments to growth is that many people are concerned about investing in a currency area where there could be a depreciation risk. You see that in terms of capital flight, but you also see this in terms of paucity of investment.

So the risk of breakup to me is the No. 1 factor that inhibits growth in the eurozone. The second most important factor is the lack of credit because of the dire condition of the banking system, which goes back to the debate on banking union. These factors to me are bigger factors than the fine-tuning of the fiscal stance or of what the European Investment Bank can do.

Obviously very important is the question of structural reforms in order to boost the potential of high-growth firms, which is what Europe needs most, not just new firms but new firms that grow fast from small to large. This is the biggest challenge I think in almost all of the European Union, particularly in the periphery.

Part of this is state reform. I think there is no denying that the state needs to be reformed for growth to come back, for both economic and political reasons, in countries like Greece, but also some other eurozone countries.

So I would see all these factors as really center stage. So yes, Europe needs more growth, but the determining conditions in the near future will be about the perception of breakup risk and credit conditions.

Senator SHAHEEN. Thank you.

Dr. Johnson, final word?

Dr. JOHNSON. If these countries did have flexible exchange rates with their major trading partners, so if Spain had an exchange rate that could depreciate, then the way that you would square the circle and have austerity but also get growth is the kind of way that Korea did it, for example, in 1997–1998, which is you'd have some tightening on the fiscal side, you would have a big depreciation, you'd have an export boom.

You can't do that as long as you remain within the currency union. You would therefore have to get something similar through a fall in your nominal wages and your nominal prices. That's incredibly difficult. The history of modern economics—go back to the 1920s, go back to the gold standard. It broke down in part because our societies don't tolerate that kind of nominal flexibility. The Governor of the Central Bank of Mexico, Agustin Carstens,

The Governor of the Central Bank of Mexico, Agustin Carstens, likes to say it: There's two ways to paint a house; either that the house stays where it is and the person with the paintbrush moves around it, or the painter stays where he is and you move the house. That's what you're asking the Europeans to do within this fixed exchange rate system, this ultra-gold standard arrangement that they have between the major trading partners. It is incredibly difficult to do that. The Central Bank can't wave some magic wand and make it happen. The result is going to be, I think, exactly what I guess that you fear, which is austerity on top of austerity, loss of growth prospects. Then everybody's debts look much worse because there's no private sector growth and there's no growth to sustain the public finances, and then you go into some even deeper crisis from which it's harder to extricate yourself.

Senator SHAHEEN. Well, thank you all very much. You've given us a lot to think about. I appreciate your insights.

I will submit all of your testimony for the record, and I also had a longer statement that I will submit for the record. We will leave the record open for 48 hours in case there are other questions that are submitted.

At this time, again I want to thank you, and declare the hearing closed.

[Whereupon, at 4:08 p.m., the hearing was adjourned.]

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

Responses of Nicolas Veron to Questions Submitted by Senator John F. Kerry

Question. Business groups on both sides of the Atlantic are advocating a U.S.-EU agreement to further reduce barriers to trade and investment. Would such an agreement help with the eurozone crisis, and if yes, what should the scope of such an agreement be?

Answer. A substantial transatlantic trade and investment agreement would be a welcome signal of economic cooperation and openness and a positive factor for Europe's overall economic outlook. However, it cannot be seen as central in terms of crisis resolution given the nature and magnitude of the eurozone crisis.

Question. Despite the effects of the crisis, Europe remains a wealthy continent, with ample resources to address the crisis. If a solution were to be found that required greater financing than has been marshaled to date within Europe: (i) what would be the most efficient way to raise these resources; (ii) how would the burden be distributed across euro area countries; and (iii) on whom is the burden likely to fall the hardest?

Answer. Indeed, the eurozone crisis differs from many crises of the past, especially in developing and emerging countries, in that external financial assistance is not indispensable to resolve it successfully given the high level of wealth of the eurozone as a whole. The roadblocks are about economic and political decisionmaking arrangements inside Europe. Even though individual member states' fiscal discipline is necessary for the future robustness of Europe's monetary union, I also believe that a degree of debt mutualization will have to be part of a successful crisis resolution strategy. In my opinion, this requires significant changes in the EU institutions which might need to go as far as the creation of a European framework for taxation, and granting powers to the European Parliament to exert adequate control over revenue and expense decisions at the European level.

Responses of Dr. Frances Burwell to Questions Submitted by Senator John F. Kerry

Question. In your testimony and responses to questions, you suggested that some degree of increased integration was required to resolve the current crisis. You also noted the risk that, through that process, the U.K. would become increasingly estranged from the rest of the EU. To play devil's advocate, in light of the disparate views on political integration and economic policy within the euro area and the broader EU, should the resolution of the crisis be sought, instead, in a smaller, tighter euro area, and less centralization of authority among other countries and in other policy areas?

Answer. The crisis has made clear that the European Union is now at a transition point. Greater integration—at least in financial policy—will be required to resolve the current situation, but for a few EU members, the further transfer of sovereignty in such a core area is unacceptable. Currently, it is estimated that between 60–70 percent of national legislation is actually determined by the Brussels institutions, and then "transposed" by national parliaments. Although the EU has brought many benefits to Europeans (and we should not forget the anniversary of the outbreak of World War II in September), there is no doubt that it also constraints national policy options. The fiscal compact will certainly add to that constraint. In this environment, some governments accept that their small countries can only be secure and influential as part of a larger group. Others, like Germany, find some constraints acceptable for historic reasons. Others (France, Poland) believe they can lead the EU and thus have greater global impact than on their own. But some, particularly the U.K., but perhaps also Denmark, do not relish giving up so much sovereignty to Brussels.

There has long been talk of a multispeed Europe or "Europe a la carte" and we already see this in the eurozone, Schengen arrangements, and even the Common European Security and Defense Policy (Denmark has an "opt out), where the memberships can vary from that of the EU. But we are now at a fundamental division: those who remain in the eurozone can only keep the currency healthy by embarking on a much more unified set of economic policies. They now realize that they cannot be held back by the objections of those outside the eurozone who wish to move more slowly. As we see the eurozone government seek to resolve the crisis, we will see the emergence of a two-tier Europe. Most of the current eurozone will remain, and those new countries pledged to join the eurozone will eventually come in (there may be some delays, as these countries will have to meet tighter requirements and will also be reluctant until the eurozone has recovered).

also be reluctant until the eurozone has recovered). But beyond the core and the "core aspirants," there will be an outer ring of the U.K., perhaps Denmark and Sweden, but also Norway, Liechtenstein, and others in the European Economic Area may reconsider whether they wish to join this "outer EU." As for Turkey, whether Ankara would find being in such an outer ring acceptable is uncertain. The evolution of such an EU, may well lead the Turkish Government to rethink the desirability of EU membership. The main challenge of such a structure will be defining the rights and responsibilities of those in the outer ring so that it does not become just a way station on the path to exiting the EU. In sum, whether one favors it or not, the most likely future of the EU is along the lines of the bifurcated two-tier organization suggested by the question.

Question. Business groups on both sides of the Atlantic are advocating a U.S.-EU agreement to further reduce barriers to trade and investment. Would such an agreement help with the eurozone crisis, and if yes, what should the scope of such an agreement be?

Answer. A U.S.-EU "jobs and growth initiative" would not help directly to resolve the eurozone crisis, but it could have some important and positive indirect consequences. The announcement of such an initiative could signal U.S. confidence in the long-term health of the European economy, and perhaps encourage the markets to be a bit more patient, thus lowering the costs and risks associated with the current sovereign debt and banking crises in Europe. The markets may even realize that such an accord would have significant economic effects for both the United States and EU, and inspire a greater sense of business confidence. [Figures range from \$180 billion added to GDP over 5 years from an agreement that only eliminated tariffs on goods (A Transatlantic Zero Agreement, ECIPE Occasional Paper #4, 2010) to significantly higher (but less certain) gains from an agreement also erasing barriers on services and investment.]

Once the launch of negotiations is announced, most policymakers anticipate that it would be 2 years at least before an agreement is signed and accepted by the U.S. Congress and European Parliament. Only then would the economic effects be felt directly. However, even before the final agreement, companies may start to anticipate the impact of the accord, especially as they make decisions about establishing or enhancing investments (including factories). One peculiarity of the transatlantic economy is that at least 30 percent of trade is intra-firm; that is, companies such as Ford or Unilever shipping parts from one factory to another. In these cases, tariff reductions free up funds that could be used for greater investments—and job creation—on both sides of the Atlantic. Tariffs also affect decisions on where to put manufacturing facilities. If it looked, for example, as though U.S. tariffs on the export of fully assembled cars to the EU would be reduced to the level charged by Mexico, some companies may think about building more facilities in the United States. Because such decisions are normally made with a long lead time, we may see some developments before the final conclusion of an accord.

As for the scope of such an agreement, most experts agree that it should be comprehensive, going beyond elimination of tariffs and quotas (including on agricultural goods) to include services, investment, and regulatory measures, as well as some specific areas such as trade facilitation and government procurement. Some analysts (including this one) look forward and think that privacy/data protection issues might also be important, as they are likely to become a significant factor in future transatlantic commerce and investment. Similarly, the issue of visas, especially for highly skilled workers, is likely to grow in importance as companies become more "transatlantic" and need a mobile workforce. These last two issues, however, are not on the current mainstream agenda, but rather identified as challenges that will increasingly confront an integrated transatlantic economy.

The main question about negotiating such an agreement is whether it is a "single undertaking"; that is, follows the normal practice of trade negotiations that "nothing is agreed until everything is agreed." This strategy does allow tradeoffs between the parties across different issues. In the current political climate, however, it is worth considering whether certain elements of such a comprehensive accord should be separated out when agreed and thus allow for some early victories, while preserving a comprehensive accord as the end goal. A trade facilitation package (supposedly largely agreed already under the Doha Round) might be a good example of an accord that can be relatively quickly concluded, or even the elimination of manufacturing and agricultural tariffs and quotas. A public victory or two might invigorate negotiations as they reach the difficult and opaque areas of trade in services and regulatory mutual recognition. In the end, however, this distinction between a single undertaking or separate packages leading to a comprehensive accord is less important than simply getting this initiative underway.

Question. Despite the effects of the crisis, Europe remains a wealthy continent, with ample resources to address the crisis. If a solution were to be found that required greater financing than has been marshaled to date within Europe: (i) what would be the most efficient way to raise these resources; (ii) how would the burden be distributed across euro area countries; and (iii) on whom is the burden likely to fall the hardest?

Answer. I will let my two economist colleagues comment more specifically on the technical aspects of such financing, and will focus on the political. It is certainly possible that greater resources will be required, especially as the eurozone crisis is likely to persist for a few years. That funding can come from three basic sources: private sector, ECB, and governments (via the EFSF and ESM). I believe that we will see greater use of all of these. First, except for the Greek case, the private sector has not taken large, official losses (in Greece, the "haircut" was about 70 percent). Especially as the banking crisis in Spain must now be faced squarely—a crisis that results at least in part from speculative real estate investments—more private sector investors will be forced to write off debt. Second, the ECB will also be forced to intervene more frequently and in more direct ways. This will only happen gradually, and there will be much uncertainty largely because of German criticism of such actions. At times, Mario Draghi will have to be very imaginative in finding a way forward that works but also keeps German pressure at an acceptable level. Third,

during this crisis, we have seen an accumulation of capital in Germany as investors seek a safe harbor (even though German bond yields have sometimes been negative). Some countries, such as France, will be limited in contributing further to financing arrangements as their own debt level is now affected by their earlier contributions. In this situation, it will be Germany that will bear the primary burden of future financing (although it will insist on other countries continuing to pay into the ESM, perhaps at lower percentages).

the ESM, perhaps at lower percentages). Although Germany might seem reluctant to provide more funds, based on the public debate in that country, there are two countervailing factors. First, the Chancellor has made clear that she will do what is necessary to save the euro, and her dominance of the German political scene is still strong. Second, there seems to be a distinction among German policymakers between making an additional, but finite contribution to the ESM, and making an open ended commitment to support pan-European financing through a eurobond. Thus, particularly in a crisis, and confronted with a possible default by a eurozone country, Germany is likely to step forward and provide an agreed amount of additional funds, even while it continues to object to any open-ended commitment.