

General Discussion: The “Big C”: Identifying and Mitigating Contagion

Chair: Susan M. Collins

Mr. Feldstein: I thought this was a helpful paper: interesting analysis and interesting data. I would like to comment primarily on the discussion of the eurozone, but first make a remark about what you said about mitigating portfolio risk, by increasing private portfolio investment abroad. I do not understand how, when problems arise, countries could cause these private foreign investments to be liquidated for the benefit of the country. Private investors, it seems to me, would be very happy under those circumstances to keep their money away.

But let me turn to the eurozone, where I think your analysis shows that the creation of the euro not only resulted in the traditional problems inherent in imposing a single monetary policy, and single exchange rate, on a group of heterogeneous countries; but also resulted in an additional problem: namely, increased contagion within Europe. The degree of contagion that would have been less, had we stayed with the European Union, rather than moved to a common euro currency. You call for deposit insurance to stabilize the banks, but you say cautiously that doing so would require support from an entity other than the sovereign state. I think that is a euphemism for Germany, and I wonder if you would comment on what you would propose if Germany were to decide not to be that entity. You speak of improving investor assessments of risk and say that the key should be a policy to

increase long-term growth. You then speak of monetary policy as a way of achieving that, although I do not think you really mean that monetary policy would be able to increase long-term growth.

My own sense is that one wants to be able to reduce the debt-to-GDP ratio; and while it would be nice to do so by getting the denominator to grow more rapidly, the simpler way, in some sense, is to reduce the size of the debt in order to deal with the fiscal problem itself.

Finally, what I think is missing here is the problem of current account deficits. I think you either may not have discussed it, or did not discuss it enough. I think it is the key problem that the peripheral eurozone countries cannot resolve by themselves because they lack a currency that they can devalue. And so, I continue to believe that the most helpful way to deal with that problem in the eurozone would be a significant decline of the euro: perhaps from 1.25 today, back to parity with the dollar. That would allow for reduced imports into the peripheral countries and increased exports (not within the eurozone, but vis-à-vis the rest of the world). And that combination would mean stronger GDP, making it easier for them to deal with their fiscal situation as well.

Mr. Shirakawa: I have one comment on trade as a channel of contagion. As Franklin Allen mentioned, Japan's GDP contracted most sharply after the collapse of Lehman Brothers. The size of the trade sector, as a share of GDP, is not so large in Japan. Based on my experience in Japan, what is more important is the composition of trade, particularly the composition of exports. In our case, the shares of trade accounted for by automobile sales and sales of other consumer goods are large; and purchasers of these items are particularly dependent on financing. As a result, the collapse of Lehman Brothers had a particularly sharp impact on the Japanese economy. Thus, when you talk about trade as a channel for contagion, I think you should place more emphasis on financing.

Mr. Blinder: I just wanted to ask you Kristin whether there really is much difference between international contagion and domestic contagion. Franklin spoke of this, to some extent. If you look at your list, aside from items that are tautological to some degree—for example,

that trade goes across boundaries—there is not much that is relevant to international boundaries. You will recall that, some years ago, there was considerable discussion about countries' needing to hold huge amounts of reserves, like China does; about floating a country's exchange rate versus fixing it. The list that you have set out would have been the same list, I believe, if there were only one country on Earth.

Mr. Carstens: I have found this paper and the comments that have been made about it very interesting. I would raise three sets of issues. First, looking at Chart 2 in the paper, we see a clear upward trend in the correlations, in a way that hints at a high probability of contagion. I would say this: that I think one of the factors that have increased the tendency toward contagion is the existence of global imbalances. I believe these imbalances increase overall risks in each economy, coming on top of the intrinsic problems in advanced economies and also in emerging economies. Now, if such imbalances were to be identified clearly as factors that increase contagion—as I suspect they do—then that could pave the way for approaches aimed at diminishing these vulnerabilities, through international policy coordination. So my question would be, what scope is there for employing international policy coordination to reduce contagion?

Secondly, it is difficult not to talk about the role of derivatives. Does the rise of derivative markets increase the risk of contagion?

And thirdly, I would raise an issue that one faces as a practitioner, one who watches the markets continuously and suffers the consequences of problems in the markets. I think the type of reaction that we have been seeing, over the past year or year and a half, is a kind of reaction that I had not seen before, somewhat akin to the way American aviation authorities reacted to the attacks on Sept. 11, 2001. There was a risk of a catastrophic event, and a response that involved requiring all planes in the U.S. to be grounded. Likewise in the markets now, we see that the possibility of a huge, catastrophic event—in this case taking place in Europe—has led many investors to decide that, no matter how strong a given economy is, they must move wholesale to the safest possible asset, and only after the dust settles, possibly start to engage again. The possibility of a really adverse tail event in an advanced economy has increased, and that has

made investors far more sensitive and jittery. If you look at a graph showing the volatility of investment flows to emerging markets, you can see the volatility has increased dramatically. I do not see exactly where this issue could be positioned among the four characteristics you describe in your paper that relate to contagion; perhaps it could become a fifth one.

Mr. Panetta: I have two comments on your results for the eurozone. First, the paper finds that in the last two decades, cross market correlations in the eurozone increased substantially, and you interpret this as evidence of rising contagion. However, you do not test whether this finding is simply due to greater exposure to a common eurozone shock. You test for global shock, but not eurozone-specific shocks and the obvious kind, of course would be a greater exposure to a common monetary policy shock in eurozone markets.

Second, I was somewhat surprised by the finding that the channels through which contagion occurs in the eurozone are no different from the channels through which it occurs in other countries. My sense is that the paper does not provide sufficient evidence to support this finding. For example, given the peculiarities of the eurozone, one might want to examine in greater detail the monetary union period, considering additional channels for contagion, such as banks and private-sector exposures to sovereign debt, which in the context of the eurozone, unlike in other countries, is likely to be a powerful channel for contagion. Thank you.

Mr. Fischer: One of the things we were very bad at, at the International Monetary Fund during the 1990s, was forecasting contagion. Sometimes we got it right, following Russia in 1998; sometimes we expected it and it didn't happen, and so forth. So this is especially useful for those who have to deal with problems of this sort.

I am trying to work out what you say about giving information ahead of time. That seems to me a little more complicated than it sounds. In the extreme, you could say that all this does is to spread out, over the course of time, an impact that would otherwise have been much bigger on the day that it happened, but the whole thing ultimately would be the same size. And then, one would go on to

conclude that it would not end up becoming the same size if countries are then able to take mitigating measures in the meantime. But when I look at the mitigating measures, most of them are long-term structural measures, and I'm not sure what you have in mind there. It would be very important to know.

The problem with informing people about things is that frequently these are events that you didn't want to happen, and if you say, "Country X is going to collapse and we will tell you about it," then Country X may collapse a lot sooner. So, some of this may be more complicated than it seems.

Let me turn to this question. In light of your paper, how should we think about the probability that if Greece goes, another European country will go?

Mr. Kim: I have two comments. The first is about the issue of mitigating contagion related to large trade exposure. You said mitigating contagion is like avoiding disease, and of course it is desirable to avoid disease; but at the same time, the steps taken to recover from disease also attract attention and further elaboration. The four areas that you mention as being important for mitigating contagion may be the same as the ones that are needed to recover from contagion. Particularly, I am concerned about the issue of large-scale trade exposure. Of course a country that is exposed to a large magnitude of trade is likely to be easily mitigated from contagion, but at the same time, such countries are the ones that can recover from contagion more quickly. Many countries in Asia had experience with the process of recovery from the crises of the late 1990s. The countries that were open to foreign competition and had trade liberalization policies were mitigated from contagion immediately, but they were the ones that recovered from the crises more quickly than others.

A second comment relates to your emphasis on the importance of deposit insurance. I agree that deposit insurance is important. However, I noted that you included many emerging economies in your sample. If you were discussing the issue of the establishment of a global safety net, probably that issue could be applicable and more relevant to the case of emerging economies. John Lipsky is sitting

beside me, and when he was at the International Monetary Fund, he was the man who introduced the Fund's Flexible Credit Line, Precautionary Credit Line, Precautionary and Liquidity Line and so forth, and many Asian economies now have the Chang Mai Initiative Multilateralization as a safety net and other financial arrangements. Without changing the argument for insurance, I would suggest that you can introduce the global financial safety net as one of the tools to mitigate contagion and others.

Mr. Kohn: Kristin, two questions about two of the pieces in your policy response table. One is the "Support Investment Abroad" piece: Martin Feldstein raised the question of how you would mobilize that investment abroad, held by private parties in a crisis. My question was, how would you encourage that investment abroad? What policies did you have in mind? I hope it is not the policy of keeping an artificially depreciated exchange rate in order to get a current account surplus that you had in mind. I assumed it was not. But what policies did you have in mind?

And the second question is on deposit insurance. I am assuming that you mean more than just retail deposit insurance, because bank runs today are about wholesale bank runs, and in order to prevent the contagion—if you are going to use that route—you have to insure everything: all the creditors, to one degree or another. And yet the policy direction is to try to reduce the too-big-to-fail problem, put creditors at risk and perhaps use the central banks to lend to solvent institutions, in order to draw firewalls around the problem institutions to prevent contagion. But you seem to downplay that in the paper, and I was curious about what you meant by deposit insurance and how that would work.

Ms. Collins: I would like to follow up on a point that Martin Feldstein made earlier. Kristin writes in her paper about some of the other conditions that might matter, including current account balances, the extent and level of fiscal debt, deficits and so on. She did not talk about that in the presentation and there was relatively little about it in the paper. I wonder whether, if one were to take a more nuanced view, second- and third-best options might look somewhat more appealing than her paper suggests—in particular, some of the more

nuanced types of capital controls—as ways of buying time. I would like to add that to the questions that have been posed.

Mr. Frenkel: I also found the paper very interesting. My comments focus on the concept of contagion as measured by correlations. While such a measure is natural, the interpretation of the correlations is not simple. High correlation may be desirable or undesirable depending on the circumstances. As an example, consider the spreads of long-term government bonds among eurozone countries relative to the German long-term rate. That spread was very low between 2002 and 2007 indicating that the markets priced the sovereign risk of Greece, Portugal, France and other eurozone countries to be very similar to that of Germany. Thereafter, with the burst of the financial crisis, the spreads among the eurozone countries have widened significantly indicating that the market perceived the sovereign risk of the various countries to be very different from each other. The question remains as to whether the low spread which prevailed during 2002-07 was the correct measure of the sovereign risk while the spreads that prevailed subsequently represented a distorted aberration of the measure of risk; alternatively, have the spreads that prevailed during the early period reflected a distorted measure of risk which the financial crisis helped to unmask? During the former period, intercountry correlations among spreads were low, indicating low contagion (by this measure) while during the latter period these correlations were high, indicating high contagion. Whether high or low contagion is “good” or “bad” depends, of course, on whether the low-correlation period represented a correct or a distorted measure of sovereign risk.

A possible reason for the excessively low spread among eurozone sovereign bonds is the implicit assumption that a country in trouble will not be “allowed” to default and that mechanisms will be put in place to bail it out. Under such circumstances, even risky countries were able to borrow at rates of interest which did not reflect their true risk. This phenomenon has relevance to the current debate within Europe on the possibility of an introduction of a Pan-European bond. Proponents of such a bond would like to see the intercountry spreads become as small as possible, while opponents of such a Pan-European bond argue that it will mask the fundamental differences in the risk characteristics of the various countries.

Ms. Forbes: I will just take a few of the questions that are easier to answer quickly, not suggesting any order of importance among them. First, Frank, thank you very much for your thoughtful comments. I want to highlight one point on which you focused, which is the role of wake-up calls in causing contagion. This is my final, catch-all, “fuzzy” channel of contagion. It’s not as clear to categorize or measure as contagion through banks, portfolio investors, or trade. I’m glad you focused on it, as in the paper I struggled with whether to include it as a separate channel. Since wake-up calls usually occur through portfolio investors and banks, they, therefore, could be merged into the other forms of contagion. But the underlying causes of wake-up calls can also be fundamentally different—with different policy recommendations—so I agree with you that it is useful to differentiate this channel as a separate form of contagion.

This discussion brought back memories of when I worked at the Treasury Department with John Taylor from 2001 to 2002. A major focus of our work was that if you reduce the element of surprise in crisis management, you should reduce contagion. This was apparent after 2001 when Argentina defaulted. The default wasn’t a surprise and there was virtually no contagion, partially because there wasn’t any wake-up call effect. This reinforced that wake-up calls can be a powerful channel of contagion. This channel is often overlooked in the academic literature, but it is important to address this channel and avoid these surprises if possible. It is ironic to look back at the discussions about contagion in the mid-2000s after the Argentine default. There were extensive discussions at several conferences about the “end of contagion,” about why contagion risks were largely over, and why widespread contagion was not likely to happen again. Obviously this discussion was wrong.

Now, let me respond to a few of the specific questions: Marty Feldstein and a few other people asked about the policy proposal that encouraging investment abroad by domestic investors can provide a buffer against contagion. I am *not* suggesting that you should force investors to sell foreign investments during a crisis and bring funds home. I am also *not* suggesting that you should force investors to invest abroad. But there are a number of subtle policies that can

support individual decisions to accomplish these goals. For example, some countries limit how much pension funds (or other groups, such as sovereign wealth funds) can invest abroad. Therefore, reducing those limits could support more investment abroad. Marty asked why people who invest abroad would repatriate the funds during a crisis. That's a great question. Recently during the global financial crisis there are amazing trends in which investors in a number of countries chose to repatriate large amounts of funds. When global risk increases, investors, banks and firms in many countries often chose to bring money home. This increase in home bias during crises is a natural tendency for many investors for a variety of reasons. Moreover, it's not just U.S. investors bringing money home during crises. You also see this pattern in countries such as Chile. In a number of emerging markets, there was a large repatriation of funds during the global financial crisis, which supported their economies. It wasn't forced, it happened naturally. Better understanding these patterns is an important topic for future research.

There were a number of other great questions. Given the time constraints, I will respond to three more.

Alan, you mentioned the focus on domestic policies to mitigate the risks from international contagion. You suggested that the policy recommendations look similar to what would be recommended in a paper on domestic contagion. These results also surprised me. For example, the regression results suggest that if you're concerned about international contagion through banks, reducing international banking exposure is less important than reducing domestic bank leverage. I interpret these types of results as highlighting a very important issue—that if you're worried about contagion, there's no better way to mitigate risks than to strengthen your domestic economy and reduce leverage. Stronger macro fundamentals come through as critically important again and again. A number of people also mentioned related concerns about current account deficits. I don't focus on this specific macro fundamental in my comments, mainly because there's already been so much discussion of this vulnerability. I think most of us know what macro fundamentals are important. There's no replacement for addressing debt sustainability issues, strengthening

banking systems and reducing reliance on external borrowing (which includes current account balances). There is already an extensive literature on these issues—and although I did not highlight some of these macroeconomic fundamentals in my discussion—this should not be interpreted as suggesting they are not important.

Stan, you mentioned the challenges in announcing in advance what policies might be enacted in order to reduce contagion through surprises and wake-up calls. I completely agree with you. This is one advantage to writing a paper such as this rather than being on the front lines implementing policy. The broad policy recommendations are often straightforward, and then it falls to people in this audience to work through the implementation challenges. A concrete example is debt restructuring. Debt restructuring is an area that frustrates investors as there is so much uncertainty about how a restructuring will proceed. They don't know when a restructuring will occur and how losses will be distributed. Any country's efforts to restructure (or postpone a restructuring) will, therefore, provide new information about how it will be done in other countries in the future. This can cause contagion to other countries whose debt might be restructured. If policymakers clarified the procedures for future debt restructuring in order to minimize this contagion, you might bring forward the crisis. You're exactly right. So the ideal solution would be to clarify all the different policies so far in advance that no one is yet thinking about an imminent restructuring. But it is incredibly difficult to foresee all scenarios. I fully agree with the points you raised on these challenges to implementation.

Don Kohn, you raised questions about how to implement deposit insurance. I also put this recommendation in the same category: very important, but also extremely difficult to implement. But the empirical analysis in my paper suggests deposit insurance should be prioritized. This is hard stuff. There are imposing challenges in how to make it happen. But, if you are worried about contagion, especially through banks, and especially in Europe today, this needs to be at the very top of any list of priorities. Six months from now may be too late. Yes, it's hard; yes there are challenges. Those of you in the room know the issues better than I. But the analysis in the paper suggests

it is worth the hard work to find a way to resolve these issues because unified deposit insurance should be at the top of European policy-makers' priorities right now.

