Ms. Collins: There is a lot covered in this paper and in the discussion of it, and what is most striking is the degree to which the paper concludes that almost all unemployment can be seen as cyclical. Reflecting on some of the additional comments that Athanasios and others made, it seems it is likely that cyclical components must be a very large part. That comes out clearly from the data presented. But it does seem it is likely that there is some part that is structural as well. And, of course, you do not need it all to be cyclical to argue that there is a continuing role for monetary policy.

The additional piece of evidence that I would be very interested in having you explore as you continue to look at the data is something that has gone up, but that really is not coming down: the share of long-term unemployment, which has gone from about 18 percent before the crisis to over 40 percent and is staying there. It seems possible that if you were to separate out what has been going on in that subset of unemployment it may actually suggest a larger piece that is structural.

Mr. Frenkel: My comments focus on the characteristics of recent unemployment and in that they complement the remarks by Susan M. Collins. First, the duration of unemployment: at present about 41 percent of those individuals who are unemployed, have been
unemployed for more than 27 weeks. As is well-known, the longer an individual is unemployed, the more difficult it is for this individual to find employment. This difficulty is a serious matter since it implies that unemployment that starts from a cyclical slowdown becomes structural if the duration is so long. The current phenomenon is unprecedented. At least from the period of the 1940s through the present, we have never witnessed such a sharp jump in the duration of unemployment. For example, in the 1940s only 5-10 percent of the unemployed were unemployed for as long as 27 weeks; in the 1960s and in the 1980s that proportion was also about 10 percent, and in the year 2000 it was about 13 percent. The sharp jump to the current rate of 41 percent occurred very recently and very rapidly. This indicates that part of the rise in the unemployment rate is structural and one may not assume that a cyclical recovery of output will necessarily reduce unemployment in a comparable way.

My second point relates to education. The most significant deterioration in unemployment occurred in the group of individuals with the lowest level of formal education. For example, for those who have less than a high school education the unemployment rate rose from 6 percent in 2007 to 13 percent today. Such a jump in the unemployment rate is also unprecedented. In fact, the unemployment rate went up for all education groups: for college graduates the rate of unemployment rose from 2 percent in 2008 to 4 percent today. But as indicated, the sharpest deterioration occurred for the group with less than a high school education. The sensitivity of unemployment to the level of education is another structural rather than cyclical phenomenon.

My third point relates to labor force participation, which in the United States has exhibited a downward trend—another structural characteristic. Those three factors—duration, education, participation—suggest that the current unemployment rate may have a more significant component (that is structural) than meets the eye.

Mr. Feldstein: I wanted to make three comments provoked by this very interesting paper. I am persuaded that the current high rates of unemployment are indeed cyclical. But even if they are cyclical, I think there are limits to what monetary policy can now do. I agree
with what Amir Sufi said about the individuals who are underwater with their mortgages. It is still 75 percent of individuals with mortgages who owe more than their houses are worth. They are not going to be helped by monetary policy. The same is true for other parts of aggregate demand. So while bringing down rates back in 2008 made an important potential contribution, I think that there are limits, perhaps complete limits, to what monetary policy can do now.

Second, even if the increase in unemployment is cyclical, the so-called full employment rate—whatever it is exactly, some number in the 5 percent to 6 percent range—does have a structural quality: there are policy changes that could bring it down. We should not forget that. There is always a higher level of unemployment among youth. There are the adverse effects of high unemployment insurance benefits. Various reforms could bring down that high core rate, the full employment rate.

Finally, I want to come back to this issue about the long-term unemployed. I worry that that group could remain higher than normal as the economy recovers and as inflation pressures develop in product markets. So the risk that concerns me is that because of this large group of long-term unemployed, the overall unemployment rate could remain higher than normal at a time when inflation is beginning to creep up, and the Federal Reserve feels that it is necessary to exercise the exit strategy that Ben Bernanke talked about yesterday. But there will be political pressures on the Federal Reserve if the unemployment rate is, say, 7 percent, pressures not to raise interest rates, even though there are beginning to be increases in inflation. And that will be an unusual and, I fear, risky situation.

**Mr. Prasad:** So first of all, I’d like to express some skepticism about the notion of industry-specific unemployment rates. I can understand that if you’re an unemployed investment banker, you want to remain an investment banker with the hope of staying in their industry. But particularly among lower-skill workers, it’s hard to see what exactly one should make of an industry specific unemployment rate. On the second issue, I think, like many others, I’m sort of comforted that your findings provide support for a more active role for
monetary policy. But, like the others, I am somewhat concerned that if you take some of the other evidence that you have in your own paper about what has been happening to the employment-population ratio and, therefore, the labor force participation rate, it’s not obvious that the case is as clear cut as your interpretation seems to suggest. And I suspect that one of the critical things that’s happening right now is the skill mismatch, especially at the lower end of the skill distribution, and that could have pretty serious implications again, as Marty pointed out. This links back to what sort of policies you’re going to adopt, because even if you do adopt the right sort of policies in terms of boosting aggregate demand, if skill mismatch at the lower part of the skill distribution is the problem, then one needs to think more seriously about distribution effects as well.

**Mr. Levy:** I am having a hard time reconciling your conclusion with the simple point that real GDP is now comfortably above its prior expansion peak. And employment is about 4 million below. Also, when you get into the details, construction employment was falling pretty significantly prior to the expansion peak, so I think when we think of data, we have to think about the point you’re measuring it from. Also, I think it’s important to put into context two other facts. One is there has been a stunning decline in returns to labor. In the meantime, largely due to productivity gains, corporate profits have soared and corporations are sitting on top of close to 15 percent of GDP in cash, so how do we reconcile this dramatic shift with 4 million workers out of jobs? Could there be a gray area between cyclical and structural that is not what we would commonly refer to as “structural, long run,” but is just not amenable to traditional, counter-cyclical monetary or fiscal policies?

**Mr. Lacker:** A lot of us who have talked to employers around the country and heard these reports about skill mismatches struggle with how to match that up with the kind of analysis that comes out of the data from the Bureau of Labor Statistics’ Job Openings and Labor Turnover Survey (JOLTS). I think that the data, the JOLTS data and some of the other data you cite, are particularly limited for this purpose. It is like looking under the street lamp and saying, well I
have not found mismatch. You are talking about 12 or 13 industries. Just take one of them: manufacturing. Within manufacturing in the Carolinas, we’ve lost a ton of jobs in textiles, apparel and furniture. The scarcity is in places where they need skilled machinists, aircraft mechanics and so on. So I think that the coarseness of the data hides what could be a fair amount of skilled mismatch that you would not find with that data.

I also think it is quite unhelpful to equate structural and permanent factors. These skill gaps that we see are going to be overcome. People are working on training programs, and both the employers and workers have an incentive to overcome them. Over time, these gaps will close. But in the meantime, these are real costs, these are real impediments to clearing labor markets the way we want and it’s not clear monetary policy can obviate these costs in any meaningful way.

I think the useful distinction is between the unemployment rate that would prevail several years from now, in the absence of shocks, and with appropriate monetary policy, and the unemployment rate that now would correspond to maximum employment: what Athanasios referred to as Sept. 1, 2012 maximum employment. I think that is a useful distinction to carry around. The former is likely to be quite smooth since, by construction, it essentially does not depend on any shocks. The latter, I see no economic reason why the natural rate defined that way isn’t likely to respond to a variety of shocks and isn’t likely to vary quite substantially at business cycle frequencies.

Mr. Buti: This is a policy debate that we have also had across the Atlantic, since the beginning of the crisis, with the interpretation in Europe that the increase in unemployment and decrease in employment was primarily of a structural nature, whereas on this side of the Atlantic, we have heard the opposite interpretation, with the corresponding policy implications. Athanasios was very clear on that point. I think Jacob Frenkel said all the right things.

If one looks at the long-term unemployment rate of more than 40 percent, and the labor force participation rate of 64 percent—an historically low level—there is a chunk of the labor force that has
exited the labor market. Thinking that they will all come back naturally, through monetary policy or further stimulus, is, at best, very optimistic. As I believe Edward said in his presentation, if I understood correctly, it may be that just before the crisis we were not at an equilibrium. If so, then very likely you would get the 2.5 percent that Athanasios mentioned, in terms of increased unemployment, and you would land there. This is consistent with the view of the crisis in which there is a dent not only in actual output but also in potential output: a permanent decrease. And then you have the 2.5 to 3 percentage points of permanent increase in unemployment, which is very difficult to reabsorb through macroeconomic policies.

**Mr. Bullard:** I think the elephant in the room at this conference is the question of whether the U.S. economy went through some kind of structural shift associated with this very large financial crisis and its aftermath. If you look at real GDP, it looks like the economy was on one trend precrisis and is on a very different trend post-crisis. I believe that the longer this goes on, the stronger the statistical evidence will be that we’re on a different trend. You can posit ideas about why that is, but it does have startling policy implications. It could mean that the cyclical adjustment that can be attained in a normal, business-cycle sense has already happened, and that what goes on from here is very different from the ordinary reaction to a recession that you would usually expect.

Regarding Chart 9 in the paper, which shows the employment/population ratio, it strikes me that if Jim Hamilton were here, he could fit a regime-switching model to this picture. It could be a model in which the employment/population ratio has switched back to the level it was in the 1970s and 1980s; that is, down from the level of about 63 percent that it was in the 1990s and 2000s. That would be another way to think about how structural change is affecting our current situation.

**Mr. Bean:** I just wanted to caution about this neat dichotomy between cyclical and structural unemployment. If there is one thing we learned in Europe in the 1980s, it was that over time, cyclical
unemployment could turn into structural unemployment through a series of mechanisms, such as insider or outsider effects in wage bargaining. In particular, the disenfranchisement of the long-term unemployed means they become disconnected from the labor market. One should not assume that they will just naturally be sucked back in when demand recovers. What we found in Europe was that you needed active labor market policies to get those people back in. And you need to take action to try to prevent them being disconnected from the labor market in the first place. The Nordic countries in particular have a lot to teach us in how to do that. I think all the remarks that have been made around the floor about the importance of long-term unemployment just underscore the need to address that issue.

The fact is that in the past, the United States does not appear to have shown these persistence mechanisms to have been particularly important—but I don’t think you should assume that that will necessarily be the case going forward. As Athanasios pointed out, in the past, monetary policy has managed to bring unemployment back down quickly. However, we are in a world where monetary policy has less traction, and unemployment may be much more persistent. The risk of its becoming engrained and turned into structural unemployment is, therefore, higher than in previous recessions.

Mr. Kim: I have two questions. By reading your paper, I found that you raised two very important issues. One of them was that having a 10 percent unemployment rate as now was not an exception, since you had 10.8 percent unemployment in the early 1980s, and I learned that it took nearly a decade to bring that down to a 6 percent unemployment rate. Then, in your conclusion, you say the labor market recovery will depend on the overall economic situation, but we know that the current situation is not good and is probably worse than what you had in the 1980s. So I would ask, what should we read between the lines? Do you mean that it will take at least a decade or longer to return to a level of 6 percent unemployment as it did in the 1980s?
A second question relates to your elaboration of the trend of total number of hours worked, wherein you noted that during the 1990s, there was a 2.1 percent increase in total hours worked, and later, during the 2000s, specifically between 2000 and 2007, the rate of increase dropped to 0.5 percent. But you didn’t elaborate any further on what happened to total hours worked during the crisis period, that is, after 2008. As you know, in almost all other countries, including Korea, and many in Asia, government leaders and labor union leaders during the times of crisis have asked employers to maintain and hold onto their labor forces, through such measures as job-sharing and others. I think the United States is probably the only exception where job-sharing was not proposed. For other countries, where job-sharing was proposed, then when the economy recovered, the unemployment rate could fall rather quickly. I know that your labor market in the United States is very flexible. But your labor market is not as flexible as your product market. I would be interested to hear your thoughts on this issue.

**Mr. Lazear:** Thank you all very much for a great set of comments, both by Athanasios and by the floor as well. A lot of very interesting points were made. Let me start with Athanasios’ first point, which kept coming up over and over again. As you mentioned, in our conclusion you did not find—and were perhaps disappointed not to find—the implication that monetary policy should be implemented more aggressively. That was not an accident. As Alan Krueger put it when we spoke during the break: our results are a necessary condition but not sufficient. The fact that we argue that most or even all unemployment at this point appears to be cyclical does not imply that monetary policy is effective. That is a completely separate issue and one on which we do not weigh in. I want to make it clear that I am not going to address that. We are going to keep the focus directly on the labor market.

There are a number of issues that people raised in terms of whether this could be viewed as structural. Some points relate to such things as the Beveridge curve, which we discuss in the paper. I did not address it in the presentation due to time constraints, but also, the truth is we do not have a lot to say on it. We are agnostic about it, not
because we think that it is not important, but rather because we think that the jury is still out. If you look at the Beveridge curve, you see that the vacancy-to-unemployment ratio is very high right now. That is a pattern that seems to prevail in every recovery. The question is, why is it so much more pronounced in this recovery—but then, this was also a much more pronounced recession. So the question is, will we get back to where we were before? Again, we have no way of predicting that, so we just don’t have that much to say on it.

A number of people raised points about the long-term unemployed. That’s also an issue that we discuss in the paper as well and where we don’t feel that we have a lot of evidence to weigh in. It’s an obvious problem. There has been some work on this. Jesse Rothstein again in his work on structural unemployment tries to address this. His claim is that you can explain it with a combination of long-term trends and the depth of this particular business cycle. We were not quite convinced of that and so have left that question open. Again, I don’t disagree with the comments from the floor on that issue.

In terms of the long-term trends, Jacob, Susan, a number of you raised these points about long-term trends. We think that these long-term trends are very important. I have been studying labor markets since 1960, and there are long-term trends that always take place. The issue is whether these long-term trends can address the increase in the unemployment that you see between 2007 and 2009, and I think we’re pretty clear; I would hold my ground on that. I think that they do not go in the right direction and they don’t fit the timing. It is not that there are no long-term trends, or that they aren’t important. They are certainly important in affecting labor market outcomes: the labor force participation rate, employment-to-population ratios, problems among the unskilled.

A number of people raised the point of mismatch. One of the points that we make in the paper that I’d like to reiterate is that, the fact that we see mismatch retreating to 2005 levels does not mean that you can’t do better. I mean obviously, by retraining and creating skills, you could eliminate some of the mismatch that’s true in long-term equilibrium. But these are long-term trends and they just don’t explain the very sharp increase that you see from 2007 to 2009.
Also, a number of you raised the question of how to explain the fact that output is the same as what it was years ago and yet employment is much lower. The obvious answer is productivity. In fact that’s not an answer; it’s simple accounting. But, again, I think there is a long-term trend there. The question is whether it is sufficient to explain what happened during this period of time. We talk about it a little bit. I think that’s one of the points on which we also feel that we are not as clear as we’d like to be, but we didn’t see a whole lot of evidence that we could bring to bear on that issue. So thanks very much. These were a great set of comments and a great discussion. Thanks, Athanasios.