

General Discussion: Long-Term Nonemployment and Job Displacement

Chair: Christina D. Romer

Mr. Williams: The estimates of the hysteresis effects from job displacement, obviously are very important and timely, but I was wondering whether you see a symmetry around this. In other words, if you have an employment boom, would you get hysteresis effects on the positive side and whether your research can speak to whether there's asymmetry or symmetry in terms of these effects?

Mr. Davis: I read the evidence as suggesting the hysteresis effects on unemployment are somewhat larger than Till von Wachter suggested. So let me give you my reasoning. It's really related to something Antonella Trigari said. First if you go to page 12 in her paper, you see a key figure there. It looks like after four years, the estimated effect on the employment rate is about minus 10 percent. Von Wachter said that he thinks the overall displacement rate is about 10 percent, so that gets his number of about 1 percent. But then you need to remember a missing part—the intrayear nonemployment spells—because you have only annual data. It would be very helpful to simulate the impact, the implied impact, on the current monthly employment rate. You can do that under two assumptions: one, a simple approach, is to assume that the distribution of job losses and new jobs found is uniform throughout the year, and ask what would be the implied effect on the monthly employment rate coming from

your numbers. A more sophisticated approach would be to use other data sources to calibrate the timing of job loss and job finding within the year. The BLS Business Employment Dynamics, which is quarterly, is a natural source to calibrate the timing of job displacement events within the year. And the CPS data on say job finding rates, which you can construct in various ways, would be a natural way to calibrate the timing of new re-employment events during the year. I think if you did either one of those exercises, the implied hysteresis effect would be substantially greater than what is suggested by your exercise here.

Mr. von Wachter: I missed a crucial half sentence at the beginning. Why are you concerned? We have everybody that's displaced in a year. Are you concerned that we hit sort of a bar at the end of the sample?

Mr. Davis: It's Trigari's point that there are some part-year spells of nonemployment that are associated with the displacement event that you're not capturing and this is a way to bring those into the ...

Mr. von Wachter: You mean the shorter spells?

Mr. Davis: Yes.

Mr. von Wachter: Got it.

Mr. Haltiwanger: I think it's great to see this use of administrative data in this creative way. One of the themes of the paper is that the Great Recession doesn't look so different than previous recessions in key parts of labor market dynamics. And I want to quibble with that some, given the nature of your measures. I think it's a little hard to compare your long-term nonemployment measures to the long-term unemployment measures. When we think about unemployment durations, we take all the unemployed and then we look at the distribution of durations. When you look at nonemployment, that's not what you're doing. You're not taking all nonemployed and looking at distribution of durations. Instead, because you want to force some labor force attachment, you require them to actually be working in the prior year. So in that sense, your measure mixes a bit of incidence and duration. For your measure, a worker had to have been employed in the prior year. So why is that relevant in terms of

thinking about differences across recessions? I think what's different about the Great Recession, and this is consistent with your findings, is job destruction didn't do anything special in the Great Recession. If you look at job destruction patterns, it looks kind of like the early 1980s and probably not even as severe, partly because of the decline in trends. But job creation looks really different in the Great Recession than in the early 1980s. In the early 1980s, job creation did not take such a big hit and came back very fast. In this recession, job creation and hires fell dramatically and have been very slow to recover. So that's relevant here because among other things, you don't have the nonemployed who didn't have a job in the first place. And so those workers, those young workers for example, the new entrants, are struggling to get jobs. And another piece of evidence that I think actually shows that the Great Recession is different from the early 1980s, is your figure 7b, but not the version that you've got in the handout. In the handout, you don't put the early 1980s in. So what I was struck when I looked at 7b, the survivor curves are substantially lower in the early 1980s. The implication is that it's become harder to leave nonemployment. So I think there are some differences in the structure of labor markets. Among other things are the issues that Steve Davis and I talked about yesterday.

Mr. Buti: Actually, my question is the continuation of the previous one. Taken at face value, your results seem to confirm that the Great Recession is not different than the previous ones. And I would like von Wachter and possibly Trigari as well to speculate on these type of findings for Europe. You derive your results for the U.S., I would like to know whether, with a leap of imagination, you would conclude *prima facie* that in Europe we have a similar situation. I would tend intuitively to doubt it considering also that at least for a number of European countries such as Spain or Ireland, the kind of shock and the impact of this on growth and industry structure has entailed a dramatic shift. This may lead to the conclusion that in Europe, indeed, the Great Recession may be different than the previous ones.

Mr. von Wachter: Antonella Trigari did a fantastic motivation of what we do, and I wish I would have done it. It was great in the sense that, what we do is about very long unemployment spells. The key

question is, do these people who are in these very long unemployment spells, end up coming back? And this is the right data you can use to measure that. For example, for job losers, we can look many years out and see when they come back. In this context, let me mention one additional result that didn't come up in the talk. We also measure whether the employment gap for job losers is due to recurring employment spells, or due to a permanent departure from the labor force. It matters whether the employment gap is because people are essentially "dead" from the point of view of the labor market, or whether they are continually attached and just have repeated spells. What we find is that at least in the short run, these job losers keep having an attachment to the labor force, so the permanent declining employment rate in the short run is driven by an increase in the incidence of unemployment spells, and that's important. That said, it's clear that this measure is partial because we have annual earnings, instead of, say, monthly earnings. But as I said, for these long spells, the annual nonemployment rate is not too bad a measure. One can compare this measure to the long-term unemployment rate for 12 months in December, because that's a calendar year of having not worked. Now, suppose you have a comparable monthly long-term unemployment rate. How would you construct an annual unemployment rate? You would average these up, right? And so you could think of our measure as approximating that average—what you have to assume that there is no big within-month, within-year variation. But that's certainly useful to think about a simulation of the kind that Trigari and Steve Davis suggested, and we will work on that for the revision. Another point Trigari raised is what is the role of the job loss analysis in the paper? Well, it's my understanding that the literature on hysteresis has somewhat languished over the last 20-30 years. And part of my interpretation was that it's very hard to interpret the duration of joblessness as meaning anything causal. And so my proposed jolt to that literature is to suggest a different measure of hysteresis. That's where job loss comes in, it is easier to measure.

Let me address some comments from the audience. John Williams raised a great question, whether the effects are symmetric or not. We have looked in a paper, published in the *American Economic Journal*, at people who stay employed throughout booms. And as people

before us have found, if you were at a firm when times were good, your wages get bid up, and your wages keep being higher. So in a way there's symmetry; however, we also find these people are more likely to get laid off later on, and they lose exactly that premium once they get laid off. So our finding suggests there is some sort of symmetry, but it dissipates over time, whereas the job loss effect does not dissipate over time.

I'm still digesting Steve Davis' point. It's true that we won't capture durations that are smaller than a year. And as a result, our estimates are an underestimate of the potential for hysteresis. I think we could try and think of doing something with displaced worker surveys, which have their problems, to look at sort of immediate effects of job displacement on employment to capture the within-year effects. But I'll have to think about what the best thing to do.

Regarding John Haltiwanger's point, we can look at labor market entrants and we started out doing that, but at some point we had to focus given we had only four months to write the paper. But this is definitely something we will look at. We did look at young workers, and young workers had a trend decline in the employment-population ratio starting in the mid-1990s, possibly due to school enrollment. But during the early 2000 recession and the 2008 recession, young workers saw a staggering decline in employment. So I agree there is a chance for some additional hysteresis going on that's not captured by our main measure based on those that have been employed at least once. I think the point here is that the long-term unemployment rate rose by over 100 percent. If you factor in the labor market entrants, maybe we get a little bit more long-term nonemployment. However, I don't think it goes up by 100 percent, so we're shifting the benchmark of the discussion in a way. The survivor curve shifts may partly shift during the jobless recoveries in the early 1990s and 2000s, and I fully agree that this may be related to your work.

For Europe, we did a comparable analysis of job displacement for Germany over the last 30 years. And we find persistent employment effects as well. Now Germany didn't have any job loss in this recession, but for any country that has a large amount of job displacement, I would expect an important hysteresis effect coming through

job loss, because these effects can be very persistent. They don't have to be, of course, but in many countries they are.

Mr. Romer: I wanted to follow up on Steve Davis' question about what the right number to multiply that 10 percent of long-term job loss is. You argue in the paper that it's everyone who loses their job, which was about 10 percent of the labor force population cumulatively over this period. Davis said that might be an underestimate. I'm wondering if that's actually too high because in normal times, some people lose their jobs. We want the differential effect of the Great Recession. But that means we need to know how many extra people lost their jobs and weren't hired in a given month. Isn't that just the change in aggregate employment, relative to the usual change? So I think you should multiply that 10 percent number by the fraction of the population by which employment went down during the Great Recession, which would give you a number less than 10 percent.

All this just seems almost like a matter of almost arithmetic, but right now we have three views—the one in the paper, Davis' and mine. I'm not at all confident I'm right. But since it will affect the bottom line by at least a factor of two, I think it's important to figure out which view is correct.

Mr. Poterba: This paper reminds us of just how sensitive the measured unemployment rate, especially for the long-term unemployed, can be to various economic institutions. Especially if you've been unemployed for a year, the amount of search effort that goes on in a typical week is likely to be quite small. Surveys that ask individuals how many hours a week they are searching for work typically show relatively small numbers. When UI benefits are available if you say that you are searching, but are denied if you say you are not, the incentive to report some search is very substantial.

Let me also suggest an interesting extension of the analysis of this new administrative data, in particular to compare with standard surveys like the CPS. There may be some very low income earners who do not receive W-2s and do not file tax returns but who may self-report earnings in household surveys. The surveys may also capture the informal sector, individuals who are being paid to do some job,

but who are not “on the books.” A comparison of the tax return data and survey data might inform the magnitude of this sector.

Mr. Rogerson: I think you used the term recession-induced job loss and I just wanted to pick up on that. I think in some of the measures in talking about hysteresis, there’s this idea that the only reason these jobs disappeared was because of the recession. And I don’t want to go to the other extreme—but I think we have to understand that business cycles induce bunching in job losses—there are lots of declining industries where the jobs are going to be lost, and the recession is just inducing the timing of those losses. So it’s not that we could prevent those losses if we just didn’t have the recession.

Mr. Frenkel: I would like to make two points related to the comparison between labor markets in the U.S. and in Europe. The first point relates to the duration of unemployment on both sides of the Atlantic. In the U.S. today, about 33 percent of those who are classified as unemployed have been unemployed for more than six months. For comparison, this number was about 10 percent in 2000. Thus, the duration of unemployment in the U.S. has risen significantly, especially in the wake of the recent financial crisis. The situation in Europe is much more serious. There, more than 50 percent of those who are unemployed have been unemployed for more than a year. An additional 18 percent of those who are unemployed in Europe have been unemployed for a period between 6-12 months. Hence, more than two-thirds of the unemployed in Europe have been unemployed for more than half a year. These statistics suggest that a significant portion of the unemployment today is structural rather than cyclical and this is especially the case in Europe. The policy implication is clear: structural unemployment needs to be addressed by structural measures and monetary policy alone will not suffice. The second point relates to the vast differences in the trends measuring labor force participation on both sides of the Atlantic. Whereas labor force participation in the U.S. declined significantly since 2000, the opposite trend occurred in Europe. In fact, a significant proportion of the recent decline in the unemployment rate in the U.S. is accounted for by the fall in labor force participation and the opposite is the case in Europe. Finally, some of the decline in the measured unemployment rate in the U.S. reflects

a growing share of the service sector in which there is a significant incidence of part-time employment.

Mr. Bils: Till, you focused on across the recessions, but you have this great figure 9b in the paper where you just look at recessions versus nonrecessions. In the handout, you focus across recessions—these long-term effects tend to be the same across recessions. But if I look at the people who are displaced in recessions and nonrecessions, after two years out, those also look the same. So it seems like there's a stronger statement, which is recessions don't seem to have any extra long-run effects from displacement. I wonder if that doesn't follow.

Secondly, I wonder if maybe, this is a stronger suggestion, maybe there's just no scarring effect at all from recessions. When you come out in recessions, you definitely have a couple of years where your employment rates are worse. But you seem to get back on track, the same employment rates going forward as whether you're laid off in the recession or not. I wonder if that conclusion is right. I wonder if there's any scarring effect at all, or whether it's more selection of whose getting displaced. That's a little bit related to Richard Rogerson's question.

Mr. Autor: A very ambitious paper. This is an extremely constructive debate. I wanted to point out that your measure of nonemployment—zero earnings in the calendar year—is an extremely insensitive measure, more precisely, an extreme measure. In related work with David Dorn, Gordon Hanson and Jae Song, we call this measure the “extreme intensive margin” when we're looking at the effect of trade shocks on workers' careers over a 16-year period. I don't want to impose the cross-paper restrictions between Song's paper here and there. But a lesson from the work with Dorn, Hanson and Song is that when we look at workers and trade-exposed industries, we find big effects on job churn and we find big effects on earnings, but we do not find any measureable effect on periods with zero earnings inside of a year. These effects are negative but they're never significant. So my suggestion is that if you were to expand your measures to include average earnings or earnings above \$1,000 or above \$2,000 per year of work, you would probably find deeper scarring effects potentially, or at least more sensitivity along these margins. It's not a

criticism per se of the measure you're using, but a recommendation that (in the remaining 10 days before you finish the paper) you look along these other margins which may prove more sensitive.

Mr. von Wachter: So, on the question that David Romer raised, I expect that is a key sticking point, and I expect that the debate will be on the right measure of incidence. And I agree with that; it is worth considering subtracting the incidence in booms from that occurring in recessions, and then you get a somewhat smaller number. On the other hand, numbers based on net employment changes or changes in separation rates will be quite large. So I suspect it's again going to be between half a point, a point, 1.5 point.

In terms of measurement, Jim Poterba mentioned the informal sector. We can look at self-employment separately, and as Romer mentioned, it's a good idea to sort of provide some sensitivity for our measures of employment. Zero is where we start. Some people just work a couple of hours, so having a minimal earnings threshold is a good idea. Similarly, we've been thinking about having some measure of part time because we can clearly distinguish workers who had extremely low wages and hours from those who are likely to have full-time jobs. That's Jacob Frenkel's point. It's very important as well.

Regarding Mark Bil's point, yes the recession effects on job displacements is bigger in the first two years and then similar in booms. It's a little bit sensitive, which booms and which recessions you compare. On average, the recession effect tends to be somewhat larger. My take-away is, even in regular economic conditions, there are always some people that are going to be pushed out of the labor market. The question is how many? And it is the incidence that goes up in recessions that matters, and that leads to potential scarring. So my take away is that not that there's no scarring, but that there is always scarring. The question is by how much?

Richard Rogerson made a good point about recessions being points in which job loss that would have happened anyways is concentrated; I have to think more about that. I think I am fine if recessions are a period of "cleansing" in the labor market. That would lead to a large amount of job loss and potentially a large amount of scarring. The

result is independent of whether the recession itself causes the job loss, or whether it is simply a moment where job loss happens that really occurs for reasons other than the recession.

On Jacob Frenkel's point in Europe, I think part of the literature on the discussion of unemployment rates versus nonemployment rates arose in the '80s when trying to compare unemployment in Europe and unemployment in the U.S. and unemployment between European countries, because of the differences in institutional and cultural environments that affect self-reporting of employment in survey data. So Europe is a case where it's particularly hard to compare unemployment. Even though there have been considerable efforts in trying to harmonize unemployment measures, Europe is a case where having a sort of a baseline measure based on comparable administrative data that allows on to just count the people who are not working would be extremely useful.