

General Discussion: Reassessing Economic Constraints: Maximum Employment or Maximum Hours?

Chair: Peter Blair Henry

Ms. Ramey: This was a fascinating paper and discussion. I wanted to suggest an alternative that can also help us understand why hours would go down. It's based on the sorts of things that Neville Francis and I talked about in our *Century of Work And Leisure* paper. Over the course of the 20th century and into the 21st century, there's been a decrease in specialization. At the beginning of the 20th century, most men worked in the market and most women worked in the home. But with technological progress, the housework became less onerous. For employment, brawn became less important and brains became more important. This change led to more opportunities for women to enter the labor force.

But imagine that you're in a household where initially the husband is working 50 to 60 hours a week and the wife is not in the market earning income. If the wife suddenly has many more opportunities and starts working, then there will be a big increase in income for the household. And the natural consequence, which John Knowles argued in his 2013 paper, is for the husband's hours to go down and for the husband and wife to share the amount of work that's done. Thus, as female labor force participation rises, you should expect to see a decrease in hours per worker. It's just the natural outcome of a maximizing household.

Mr. Gorodnichenko: This is a fascinating paper and I like this classification into world A and world B. I think it also has implications for how we calculate potential output and how much slack we have in the economy. I know we have historical correlations, but the COVID crisis accelerated many trends, broke some trends. I was wondering if you can speculate on how much slack we have now if we are in world B.

Ms. Mann: This really was a fascinating paper, and I enjoyed reading it very much. The question that I have is to take a closer look at the cyclical component of the intensive margin. And in particular, there's research that we have that focuses on how firms want to decrease, at the intensive margin, hours worked in a cyclical downturn, but at the same time a set of workers wants to increase their hours worked because of the income component. So if we put those two things together where firms want to decrease the intensive margin and the downturn, and workers want to increase the intensive margin at the downturn, you have implications for wages. And bringing that back to our monetary policy situation that we face right now, this downward pressure, which would occur in equilibrium on the wages, is an additional channel through which this intensive margin dynamic could affect the progress and prognosis for inflation going forward. So anything that you could offer on the firm side would be very interesting.

Mr. Obstfeld: This is a great paper, Nicola (Fuchs-Schündeln), so thank you for presenting it to us. One of the issues that this makes me think about, and I'm not sure how much we worry about this in our models, is the worker's marginal productivity over the day. I know that my first hour of work is much more productive than my 10th hour worked. And it would seem that if we could measure that and take that into account, that would have big implications for thinking about not only labor productivity, but also the cyclical behavior of firm demand for workers.

Mr. Henry: Nicola, why don't you take some time to respond to these questions, then we'll take the next round

Ms. Fuchs-Schündeln: Thanks a lot for all the questions. And thanks a lot to Stephanie (Aaronson) for the discussion. Let me an-

swer both to the discussion and to the questions very quickly, so that we have time for more questions. Let me start with pointing out that Stephanie discussed more the short-run implications of our model and how the workweek behaves over the cycle. Clearly, we have more of a longer-run focus and are thinking of potential output going ahead. But, also coming back to Yuri (Gorodnichenko)'s question, there is very interesting work that shows that the intensive margin also matters a lot in short-run fluctuations. Ayşegül Şahin and co-authors have some work on the aggregate hours gap, which takes into account not only the unemployment rate but also how many hours individuals want to work—both individuals who are unemployed and those who are employed—and what the discrepancies to their actual hours are. They find that the aggregate hours gap predicts a tighter labor market today than implied by just the unemployment rate. And on the other hand, the aggregate hours gap pointed to more slack in the labor market after the Great Recession than the unemployment rate alone, which is also found in European data by David Blanchflower. So I think there's also value to think about the intensive margin at business-cycle frequency.

Then let me comment on the differences between the U.S. and Europe. Clearly, we paint with a broad brush because we show patterns across 19 countries, and the U.S. is at one extreme of the negative correlation between changes in employment rates and hours worked. First, the U.S. is special because it experienced a decrease in the employment rate. We find that the negative effect that population aging has on employment is actually stronger in the U.S. than in other sample countries because of the larger share of the Baby Boomer generation. Also, immigration plays a role for the employment rate decrease in the U.S. Related to trends in hours worked, what stands out in the U.S. is that part-time work is not as frequent as in Europe. And I think it is a very interesting question why that is the case. In European countries, workers have more rights to work part time than in the U.S. Also, features like health insurance that often comes with fixed costs for employers in the U.S. prevent employers from offering part-time jobs, while in many European countries insurance premia are rather proportional to earnings and there is public health

insurance. So all these factors could explain why we see these muted responses in hours worked to decreasing fixed costs in the U.S.

And just a last quick reply to Stephanie: Looking ahead, she was a bit more cautious whether we should expect further increases in labor force participation and in employment. What we find is that for married women of core age, the employment rate is actually higher nowadays in Europe than in the U.S. And I think childcare does play a role here. So there is scope to increase employment. And we also should take into account that for older individuals, work from home really makes it much easier to participate in the labor market, as does generally improving health. I haven't had time to talk about that, but we see in the data that health improvements among older workers increase their employment. So I would be a bit more optimistic that we might see increasing trends in employment, but at the same time these older individuals or women might work lower hours.

And coming back to the other question, Valerie's (Ramey) point is very important. In this very stylized version of the model, we just have the composition effect. We discuss what you are pointing to in the paper as well—I think it makes perfect sense. In the joint household decision of a couple, if the woman participates more, the man can cut back hours. I wish we would then also see an increase in the sharing of household chores to the same degree.

Then to the question on the firm side and implications for wages, we don't go into that in the paper, and I think it's a very interesting research topic. Just to make this clear, the decreasing fixed costs can come from the firm side as well, and we mention that. I think that this is something that, going ahead, can be part of our research agenda, really understanding better what are the different forces that contribute to these decreases. We focus in the survey more on the pandemic-related issues, but I think the firm side is also very important there.

And then to Mauri's (Obstfeld) question on the marginal productivity of hours over the day and which effect working long hours has on productivity: I don't think there exists good estimates of this yet. It's a fascinating topic. It's obviously difficult to measure productivity

at the hourly level. My co-authors have some work in which they find that there exists not only a part-time wage penalty, there's also a long-hours wage penalty, and that could be due to decreases in productivity after some point, but it could of course also be due to other things. But at least it gives some indication in that direction. Thanks

Mr. Henry: Stephanie, do you have any responses to the questions from the audience?

Ms. Aaronson: I just wanted to make a couple of comments. First, Valerie, I totally agree. The decline in male labor force participation is consistent with this idea of joint household labor supply decisions. One puzzle is that this story is hard to find in the data. There's an interesting paper by David Ratner and some co-authors from a while ago where they look at household income sources for men who aren't working, and it is very hard to match it up with that theory.

Yuri, I want to acknowledge that I think what you're saying is true: that the pandemic should change the way we think about slack. I view this as being related to Yuri's point about productivity as well. Jan (Eberly) has done some interesting work thinking about the household as a source of potential capital during the pandemic. And similarly, there could be margins of adjustment that people could use to change their hours of work that in the past we haven't used or weren't even available. Over time, that could change the way we think about potential output, which would then have implications for slack. I think that's an important long term research agenda.

Ms. Dynan: This is a wonderful paper. I'm so glad you wrote it. I just want to flag the connection of this issue to fertility across countries, because that's another way in which this issue can affect potential output, albeit over the longer run. But basically, if you're in world A, then women essentially have to choose between a good job or having a family, and that's going to depress fertility. So as countries—particularly those that are worried about low fertility, with Korea as a prime example—think about whether to push, to move from world A to world B, effects on fertility are another consideration they want to take in mind.

Mr. Yaron: Great paper, really important topic. I just want to say that an important part of the fixed cost of work is actually the cost in the process of finding a job, the cost of matching between a vacancy and worker. It's plausible to think that part of that fixed cost is actually coming down due to technology from postings, from remote types of interviews that are being able to be done after COVID. In addition, the cost of finding a job also changes over the business cycle, such that during downturns the worker needs to exert much more effort to find a job. I think that's likely going to affect more the extensive margin perhaps even more than the other margin that you mentioned, and I'm wondering how important that will be in the analysis. Thank you.

Mr. Prasad: It'll be interesting to look at this by skill level as well. Once upon a time, there was this notion that for high-skilled workers, there was an incentive for the firm and the worker to maintain their employment. And therefore, a lot more adjustment would occur at the intensive margin because both the firm and the worker wanted to maintain their match-specific capital. But I suspect something very different is going on right now, because at least one gets the sense that a lot of the low hourly workers are low-skilled workers in the services sectors. So perhaps the shift from manufacturing to services, where manufacturing fits in a little better with your world A and services fits in better with world B, but also the factory of unskilled workers have the ability to take on these low-wage jobs might be affecting things in a very different way than in the past.

Ms. Boushey: It's a fascinating paper and I really enjoyed, Stephanie, your comments as well. One of the questions that I had as I was thinking about it is there was such different structural labor market institutions between the U.S. and Europe. One of the really key trends that's been happening since the pandemic, of course, has been the failure of folks in care jobs to get back into the labor force, to get back to work. So both childcare and nursing home assistance are still down in double digits. Childcare workers may be now down by just 9 percent relative to pre-pandemic. I'd be very curious whether or not that's also the case in European countries, because one of those fixed costs is childcare. And if we are losing workers in those care sec-

tors, then who is providing that labor, that can then make it possible for other workers to participate.

So that just might be one fact to kind of add to this, to sort of look at the structural differences because U.S. is such an outlier in the institutions that we have around care. And then one other comment on Karen's (Dyran) point, I think one of the questions moving forward is in the changed climate around abortion in the U.S. What will that do to some of the labor force participation in hours question, especially for young women. I think that would be something I would be thinking about, U.S. versus Europe.

Ms. Şabin: Thank you for a great paper and discussion. One question I want to ask, is fixed costs of work what's driving a lot here. One way to proceed is take the data as given and back out fixed costs in different countries. Like the U.S. would have different cost structures than Germany and try to justify it with dependent care, child care, schools, commuting, gas prices, etc. So that exercise might be very useful to think about fixed costs of working going forward. So I was wondering what you would get from your model, U.S. versus Germany, if you do that. Thank you.

Ms. Fuchs-Schündeln: Thanks a lot. I will try to respond to a few of the questions, I don't have the answers to all of them. Starting with the point on fertility, I think this is a very important topic. What is very interesting is that back in the '70s and '80s, what we used to see was that countries that had a high labor force participation of women had low fertility. Back then the argument was that if women work, they can't have a family, and if women want to have a family, they stop working. So the cross-country correlation between fertility and female labor force participation was negative back then, but that meanwhile completely flipped. So now it's the other way around. It's in countries where women participate a lot in the labor market where we also see high fertility. And so it seems that women are only willing to have children if they can combine career and family. And this is very important. I think it has a lot of important implications and is definitely something that we should think more of. So as labor markets are moving from world A—in which fixed costs of work are high, only full-time jobs exist, and thus only the employment rate

matters—to world B—in which there are no fixed costs of work and a full menu of hours choices, and thus employment will always be at almost 100% and the intensive margin is the one that matters—fertility will also be affected.

Coming back to the question on institutions, in Europe we have the institution of short time work, which leads to more adjustment on the intensive margin over the cycle, and could also explain some differences between Europe and the U.S. coming out of a recession, when it matters whether workers are just increasing their hours or they have to be rehired or actually find a job. There Stephanie's point on fixed costs of labor force participation could be very important, because if a worker is dismissed, this person might change his or her plan going ahead, and that can lead to sticky behavior. And that could explain why we see less people coming back to work also in care work in the U.S., which I think is less of an issue in Europe.

And last, to Ayşegül's (Şahin) question, I think it's a very good suggestion to back out these fixed costs and correlate them with different measures. We actually do that in the companion paper that I mentioned. But that paper is focused on the difference between poor countries and rich countries. And so there, we find that fixed costs of work decrease as countries grow richer. This is very important. Otherwise, there's no way to match differences in labor supply behavior between individuals in poor countries and rich countries. And we correlated these fixed costs with a few things, but these are more related to differences between poor and rich countries. The fixed costs do correlate with factors like the health risks of a job and also job satisfaction more generally, so how much can I influence what I'm working on, or how fulfilled am I at my job. But I think it'll be very worthwhile to focus on the rich countries and redo this analysis, and then correlate the fixed costs with the factors that you mentioned.

Ms. Aaronson: To follow up on the comments Karen and Heather (Boushey) made, which I think are related, ability to control fertility has clearly been a huge contributor to the rise in female labor force participation. There are many studies that show the importance of the introduction of the pill in enhancing female labor force participation.

And there is also some work showing that abortion as well contributed to increases in female labor force participation. And then family friendly policies can help to enhance female labor force participation. And Europe is just far ahead of the U.S. in this latter regard, and that is why many of these countries have higher female participation rates. Also, I'll say that in the U.S., part-time jobs typically are bad jobs. We don't have a very strong social safety net and a lot of benefits come through your employer. So when I think about the expansion of part-time work in the U.S., it makes me a little nervous because there is a huge wage penalty for working part-time in the U.S., and the jobs don't come with benefits. So I think policy makers are going to have to think about the implications of expanding part-time work. That is different than in Europe where, for instance, your healthcare is provided largely by the state.

The last point I'll add is spurred by the questions around matching, and who is going to be able to do part-time work and who's going to be able to work from home in the future. There has been some research done by Nick Bloom, Steve Davis, and co-authors on remote work. It shows that the workers who can take advantage of these jobs are largely higher educated workers. They live in metropolitan areas. So there are going to be limits on who can take advantage of the jobs and it could create inequality with respect to access to this important benefit. I think that is also something to take into account going forward.

Mr. Henry: Very rich discussion. I see there are some more questions.

Mr. Furman: I wanted to ask you less about predicting the future and more about what this means for welfare analysis and what the goals of policy should be. One thing that's long confused me is in micro, work is bad, because you're giving up leisure. If you get someone into a job who wasn't in a job, maybe they're giving up \$39,000 of value of hanging out with their grandchildren to take a job for \$40,000, and the world was made \$1,000 better off. In macro, we tend to think of jobs as unqualifiedly good things. And if a hot labor market draws new people into the workforce who weren't in it before, we think of that more like the world's got \$40,000 better because that person got employed.

When you're thinking about these different margins in terms of participation and hours, when you're thinking about different people have different dis-utilities of work, what does this mean in terms of whether policy makers should care about participation, should care about hours, should only care about unemployment, etc. I've no idea the answer to this. So I'm hoping one of you does.

Mr. Bullard: So I just want to piggyback on Jason's (Furman) comment, because I think this model, which I love, has a potential to get at this question. You'd like to calculate based on the simple fixed cost friction, the optimal labor force participation rate and the optimal work week. And then as policy makers, we could be saying, do we always want more participation or not, do we always want a higher work week or not. And that would inform the discussion quite a bit, because the way the policy and the debate goes today, more participation is always better. And a bigger work week is always better. And I don't think you want to think about it that way because people do value leisure, and you want them to get exactly the right trade off in the household. And it's not "more is always better."

The policy discussion as it exists today across Europe and the U.S. says that we want 100 percent labor force participation. And surely that is not the correct answer. That would be kind of a wartime labor force participation or something, where everyone's forced to work. We don't want to be thinking about that.

Mr. Hassett: Yeah, really great papers, and I love your correlation charts. They're awesome. What's different right now is just that we're in a period of high inflation compared to most of our careers. And I've been, just like a historian, just digging through inflationary recessions in the U.S. and around the world. And I see a regular pattern in them that's different from what you guys are talking about. And I would encourage you to go back and extend your charts to the '70s and do some Chow tests. Because what happens is real wages are declining sharply when there's a period of inflation. And so the employer can kind of hold onto guys who don't necessarily want to be unemployed because this real wage bill is declining.

And so what you see is a very regular pattern where employment goes up in the middle of the '70s, employment went up by about a million from the start of the recession before employment started to go down. And so my view is that these inflationary recessions have a stage where price inflation gets down to wage inflation. And then to get it to go below that, that's when you have to get the unemployment rate to go up. And so my expectation is that if you redo your charts and focus on inflationary recessions, that you're going to find that the mechanism adjustment are pretty radically different.

Ms. Richardson: One thing that we've seen in the data that, at least that we have, is that female participation for low-income workers drops every summer. And that was a surprise to me. I first saw it dramatically drop in 2020 of the pandemic. But then when we look back in time, it actually drops every year for women making under \$25,000 a year. And I wonder how much the pay distribution affects the hours worked, because if you do hit a summer or a chicken pox outbreak at school, or an extreme weather event, you're much more vulnerable to that change. So as you've cut the data in so many different ways, I think the pay distribution cut will be an important add to understanding who's really driving the trend. You don't see this drop, for example, in employment for higher income women. So who's driving that lower output per worker trend would be an important addition, but thank you for the comment

Mr. Henry: Nicola, we're availing you to respond one more time.

Ms. Fuchs-Schündeln: Many thanks. Starting with the question on what optimal hours and employment should be, I leave that question to the policy makers in the room, and there are enough of them. We point out that if you are interested in potential output, which central banks certainly are, you should take into account the intensive margin. But the welfare implications are not clear. What we clearly find in our analysis is that estimates indicate that income effects are stronger than substitution effects. So that points to the direction that, yes indeed we do enjoy leisure, and it's not desirable to always work more. On the other hand, there was a lot of talk here about intra-household issues. And I think female labor force

participation is also very important for the empowerment of women and their position in intra-household bargaining. So that could be an additional benefit of work that goes beyond the immediate income. But clearly how we think of it in welfare terms is a tricky question

Then, I think that it is very important, very illuminating, to think about historical recessions. We take a cross-country approach, but you can also take a historical approach in documenting our patterns. I do think that when we think about recessions now and in the past, the changing labor force composition does have an effect, and it would be very interesting to take that more into account also in a model. What the literature finds, for example, is that the labor supply elasticity is lowest for the typical full-time workers. So those workers who are at the mode of the hours distribution, these are individuals who basically want to work and are very attached to the labor market. Also, given the part-time and long-hours wage penalties, they don't want to adjust their hours. Instead, part-time workers show a much higher labor supply elasticity. These are mostly women, and it's hard to disentangle whether this is a female effect or it is a part-time worker effect. But that should also illuminate how we should expect economies to come out of recessions or go into recessions, and how this could change over the course of history.

And then lastly, pay distribution certainly is a very important topic. We haven't focused on it, and it would be interesting to split the facts up more along the pay distribution as well, and see what we find there. It's always tricky, however, that if people drop out of the labor market, we don't observe their income anymore. So there are some selection issues that one would have to address. There are papers that relate job polarization to female employment. Low-paying service sector jobs, whose importance has grown over time, are taken up mostly by women. And these jobs enable, on the other end of the spectrum, the high earning women to participate more in the labor market. So I think these are very important and very interesting issues, and it would be interesting to explore this link for hours as well.

Mr. Henry: Stephanie, final thoughts for us?

Ms. Aaronson: I'll start with Kevin's (Hassett) remark. I think it's very true that inflationary recessions and expansions act very differ-

ently. Mary (Daly) has written about this. Part of the reason we've seen jobless recoveries from the 1990s on has been, I think, due to the low-inflation environment. Real wages took a long time to adjust. And I think the fact that the real-wage adjustment will happen more quickly now is something that policy makers should definitely be taking into account.

Just to end on the welfare point, I agree. Sometimes people will say to me, "Participation, it's falling, it's so low," and I respond, asking, "How much do we need to work?" There was a vision that at this point we'd all be working much less, given technological advancement, and that has not come to fruition. But when I think about what this means for monetary policy makers, the welfare consideration is moot. Potential output is just the target for a monetary policy maker, and it's important that they know what they're aiming for. So, monetary policy makers have to understand what the trends in the workweek are, what the trends in participation are. But it is the unemployment rate that sends the most signal about the state of the economy, because that is the cyclical indicator.

For fiscal policy makers, this presents a different set of choices, because there are things that fiscal policy makers can do to encourage participation and work, to make part-time work more appealing or have people work more hours. And so, for fiscal policy makers, the welfare considerations of encouraging greater work are a more salient question.