Re-Evaluating Labor Market Dynamics: An Introduction to the 2014 Economic Policy Symposium

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Although several years have passed since the global financial crisis of 2007-09, or the Great Recession, labor markets in many countries remain far from their pre-crisis conditions. In those hardest hit, persistently high long-term unemployment, elevated youth unemployment and low labor force participation are just a few examples of the long-lasting impact of the crisis. As policymakers seek to normalize labor markets, several developments pose challenges. Technological and demographic changes, for example, have displaced workers in some sectors while creating shortages in others. The crisis itself may have left long-lasting scars on the labor market. And although the damage inflicted by the crisis has commonalities across countries, not all the issues are the same.

To address the array of labor market issues facing policymakers, the Federal Reserve Bank of Kansas City sponsored a symposium titled "*Re-Evaluating Labor Market Dynamics,*" Aug. 21-23, 2014, in Jackson Hole, Wyo. Participants included central bankers, leading academic economists and individuals engaged in labor market issues from around the world.

During the proceedings, a number of themes emerged. First, policymakers in many countries continue to weigh evidence as to whether elevated unemployment rates reflect structural changes or cyclical weakness. The question is not merely of academic interest, as many participants believed monetary policy has the tools to address cyclical shortfalls. Many acknowledged, however, that mistaking high structural unemployment for cyclical weakness risks possibly higher future inflation. Second, because no single labor market indicator is perfect, policymakers are best served by monitoring a broad array of labor market data. Third, labor market dynamics, at least in the United States, have changed in recent decades and by some measures are less fluid: fewer workers are changing jobs and the pace of job creation and destruction has slowed. Fourth, technology has a significant effect on labor markets, but the extent to which it can displace human labor may be limited. And fifth, labor market issues vary significantly across countries due to demographics, history, institutional structures and policies, including policies implemented in response to the global financial crisis.

Chair Yellen on Labor Market Slack and Pent-Up Wage Deflation

Federal Reserve Board Chair Janet L. Yellen opened the symposium with comments on labor market developments. She reviewed the Federal Reserve's focus on U.S. labor market improvement and discussed the significant progress made toward full employment, though she said labor markets had "yet to fully recover." Significant structural factors have affected labor markets for some time, including an aging population, a possible decline in dynamism and job polarization due to declining middle-skill employment. In particular, the decline in labor force participation after the Great Recession has changed the U.S. labor market. Retirements were pulled forward, school enrollments and disability rolls increased and many discouraged workers exited the labor force. With an improving labor market, Yellen anticipated that some, but not all, of these factors will be partially reversed. For example, to the extent more workers retired earlier as a result of the Great Recession, fewer can be expected to retire over the next few years. In addition to the decline in labor force participation, the U.S. labor market had experienced a sharp increase in involuntary part-time workers. The increase may reflect structural factors, such as the shift from manufacturing and goods production to service industries which historically have employed a higher share of part-time workers. She viewed the combination of the longer-run trends and cyclical dislocations caused by the Great Recession as complicating assessments about the slack remaining in labor markets.

On wage growth, Yellen noted that real wage gains had been subdued during the recovery and increased less than productivity, allowing nominal wages to rise without placing any "meaningful upward pressure on inflation." She cautioned, however, that subdued wage growth may be a misleading signal about the degree of labor market slack. Employers often do not cut nominal wages during a downturn, which kept them artificially high during the Great Recession. As a result of this "pent-up wage deflation," wage gains may be unusually low for a time during the recovery. In conclusion, she emphasized that judging labor market conditions requires reliance on a broad range of variables and that monetary policy needs to respond to changes in the labor market outlook.

Labor Market Fluidity

Professors Steven J. Davis of the University of Chicago and John Haltiwanger of the University of Maryland presented a paper documenting a number of significant shifts in the U.S. labor market over recent decades. They described the changes as reflecting a decline in labor market fluidity. By their definition, fluidity means the rate of job creation and destruction across different firms and industries—that is, job reallocation—and the rate at which workers move from one job to another—or worker reallocation. For the United States, they show the decline in fluidity has been broad-based across states, industries, firm sizes and demographic categories.

Several factors may contribute to the decline in fluidity. Davis and Haltiwanger noted that economic activity has been shifting to older firms and establishments which are often more stable, so they both create and destroy fewer jobs. An aging workforce has also played a role, as older workers are less likely to move to a new employer or switch occupations later in their careers, resulting in less worker reallocation. Policy may have also been a factor. For example, more occupations in the United States now require a license or certification, which may increase a worker's costs of changing jobs or employers.

To the extent fluidity contributes to productivity, real wage growth and overall employment levels, Davis and Haltiwanger noted policymakers should be concerned with these changes. Regarding employment, they discussed how the decline in fluidity may have the largest effect on the employment prospects of workers who are only marginally attached to the labor force, particularly younger workers or those with limited skills. As a result, achieving the relatively high employment rates in the U.S. observed prior to the Great Recession may be a challenge, particularly without an increase in labor market fluidity.

Their discussant, Professor Richard Rogerson of Princeton University, focused on the implications of declining fluidity for total employment and how changes in fluidity relate to productivity. In his view, a lack of flexibility in labor markets may hamper reallocation across different sectors and reduce productivity growth, but the overall effect on employment may be quite limited. Instead, he suggested fluidity may have a larger effect on how an economy responds to various shocks. For example, he considered the influence of technological advancement under two different scenarios, drawing comparisons between Europe and the United States. Less flexible labor markets that limit how much wages can adjust will likely cause a persistent increase in unemployment following an adverse shock. More flexible labor markets, in contrast, adapt more quickly and can avoid a long-lasting increase in unemployment, but may possibly lead to greater inequality.

Job Polarization, Automation Anxiety and Polanyi's Paradox

Professor David H. Autor of the Massachusetts Institute of Technology provided a perspective on how technological advancements affect the labor market. He began by documenting the rising share of individuals employed in high-skill, high-pay jobs and low-skill, low-pay jobs. In contrast, the share of middle-skill employment, which includes sales, administrative positions and production, has declined. He showed this trend in "job polarization" exists not only in the United States, but also in other countries, such as those in Europe. Technology is a major factor in polarization, as high-skill work that requires abstract analysis has been complemented by advancements in computing technology. In contrast, technology has been able to substitute, rather than complement, tasks performed by many middle-skill workers, resulting in less employment in these occupations.

As technology continues to advance, Autor noted that "automation anxiety" can be a concern, as innovations may replace individuals performing high-skill work amenable to automation. He noted such concerns are not unique to the present but have a long history, citing the observation of philosopher Michael Polanyi that "We can know more than we can tell … ." Despite rapid advances in computing and technology, machines remain inept at executing abstract tasks, which require intuition and skills such as creative problem solving and persuasion. The point of Polanyi's Paradox is that although humans often possess these skills, we cannot program a computer or write a set of instructions for a machine to routinely and accurately execute abstract tasks. Looking ahead, Autor does not anticipate job polarization to continue indefinitely, but instead sees the need for different types of middle-skill jobs that combine a variety of skills and tasks.

Professor Lisa M. Lynch, dean and the Maurice B. Hexter Professor of Social and Economic Policy at Brandeis University, discussed Autor's paper with a particular focus on wage inequality. She discussed how technological advances likely played some role in inequality. However, other factors related to globalization, innovations in organizational structure, declining union membership and the declining value of the real minimum wage have also had a role in driving wage inequality. These factors, she noted, can help explain the disconnect between real wage growth and productivity gains. The two moved closely together in the past, but the relationship has weakened over time. Overall, the range of different factors has displaced many workers, so Lynch discussed the importance of education and training to prepare workers to succeed in a changing labor market.

Facing the Demographic Transition

To complement the discussion of labor markets, a panel of experts on demographics shared its views on changes occurring in several major populations around the world. Professor Karen Eggleston of Stanford University opened the panel with her perspective on China's demographic changes. She couched her comments in terms of three interwoven transitions. First, China is experiencing a demographic transition driven by low fertility rates and improving health, which is leading to a rapidly aging population. Second, better control of infectious diseases has created a healthier population, which has led to an epidemiologic transition in which chronic diseases pose an increasing threat to the health of individuals. And third, steps toward transitioning from a centrally planned, agriculturally dominated economy toward an urbanized and more market based economy have left large differences between the urban and rural populations. Eggleston concluded by noting that these transitions, combined with a declining share of the Chinese population devoted to the labor force and large gender imbalances, are likely to hold "profound challenges for social policies, especially insurance and pension systems" in the future.

Professor David Lamb of the University of Michigan discussed demographic issues across emerging market economies. He emphasized that declining infant and child mortality starting in the 1950s drove rapid population growth in recent decades, as reflected in East Asian and Latin American populations. Growth has since slowed and become more concentrated in older age groups. These changes pose challenges to policymakers, as many countries will need labor markets that can absorb a growing share of older workers. However, not all emerging markets are the same. High fertility and rapid population growth continues in sub-Saharan Africa, where policymakers will need to foster labor markets that can absorb 1.7 million net new workers each month in 2030, compared to 1.1 million today.

Professor Ronald D. Lee of the University of California-Berkeley also discussed demographic change and the implications of aging populations. In particular, he pointed to the Demographic Transition, a term demographers use to refer to a transition in many countries where rising life expectancy, followed by falling fertility rates, eventually leads to on older population. He noted wealthier countries are further along in the Demographic Transition and thus face a notable decline in the support ratio, defined as the number of effective producers per consumer. An increase in the workforce, either by postponing retirement or increasing female labor supply, could help maintain support ratios. However, Lee noted that the elderly labor supply has actually declined in recent decades. As a result, the difference between lifetime consumption and labor income is increasing in many countries, which is likely to create further policy challenges as populations age and countries move through the Demographic Transition.

Labor Markets Within the Eurozone

Mario Draghi, president of the European Central Bank, gave the luncheon address and highlighted the different trajectories the unemployment rate has taken in the euro area compared with the United States. In the euro area, successive recessions since 2008 caused the unemployment rate to move higher over two different episodes, leaving it significantly higher than in the United States. The first episode was common to both areas, but the second episode was driven by the sovereign debt crisis concentrated in the euro area. Draghi noted that the fiscal contraction resulting from this crisis affected employment in many sectors and tightened credit conditions in several countries, which disrupted the monetary policy transmission mechanism.

Although the episodes of rising unemployment coincided with cyclical downturns, Draghi viewed "a significant share" of euro area unemployment as structural. He noted that a mismatch between the skills of the unemployed and the skills employers need is an issue, and also called for demand-side policies to address the cyclical component of unemployment. He argued that risks of "doing too little" outweighed risks associated with "doing too much," since aggressive policies can help prevent cyclical unemployment from becoming structural. Finally, Draghi argued aggregate demand policies, complemented by structural reforms at the nation level, have important roles in addressing high unemployment.

Labor Market Scarring and the Great Recession

Professor Till von Wachter of the University of California-Los Angeles presented a paper co-authored with Jae Song of the Social Security Administration that addressed whether the Great Recession's scarring of the labor market has persistently altered the employment rate. Using a unique dataset, they tracked and evaluated the effect of recessions and expansions on the employment prospects of individual workers. Using a broader definition of unemployment than is common, they evaluated how the business cycle affects "nonemployment." This measure captures all individuals who did not work over the course of a year, whether due to job loss, retirement, a return to school, or other factors. One finding is that although the rate of long-term unemployment increased significantly following the Great Recession, long-term nonemployment increased more modestly. For example, von Wachter and Song found only a modest increase in the number of extended spells of nonemployment, such as those lasting two years or longer, compared with earlier recessions.

In terms of the experiences of individual workers, they reported that compared with earlier recessions, job finding rates of the nonemployed were not significantly altered. When workers lose their jobs, they typically experience a sharp decline in their ability to quickly find new employment. In addition, the declines in job finding rates are magnified during and shortly after recessions, though this effect dissipates over time. These factors suggest recessions often lead to a permanent decline in future employment, driven in part by workers permanently leaving the labor force.

Overall, von Wachter and Song concluded that current labor market conditions can permanently affect employment rates, though the Great Recession's longer-term scarring effect on workers is likely only moderate. As a result, they viewed low levels of employment in the United States as reflecting slack, rather than a persistent shift in the employment rate.

Discussing the paper was Antonella Trigari of Bocconi University, who focused on the advantages and disadvantages of measuring nonemployment rates, rather than the more commonly measured unemployment rates. One issue she raised was that the availability of data limits measuring nonemployment spells to only those greater than one year, whereas other research suggests job finding rates vary the most in the first year an individual is not employed. She noted job finding rates tend to flatten after one year, raising questions about whether looking only at nonemployment spells greater than one year misses important aspects of labor market dynamics.

Trigari also discussed the implications of nonemployment rates for monetary policy. She noted that if longer-term unemployed individuals play less of a role in affecting wages, as some research suggests, then there may be useful alternative labor market measures for evaluating the appropriate stance of monetary policy. For example, longer-term unemployment is relevant for measuring full employment, whereas shorter-term unemployment may be a more appropriate measure for wage and inflationary pressure. She noted that when the two measures diverge, as when longer-term unemployment is elevated, optimal monetary policy should allow the inflation rate to overshoot a central bank's inflation target in an effort to restore full employment.

Natural, or Unnatural, Unemployment

The final paper of the symposium was presented by Professor Giuseppe Bertola of the EDHEC Business School, who addressed the effects of various labor market rigidities on labor markets and unemployment. He discussed how some labor market rigidities are not necessarily detrimental, especially from the standpoint of workers or broader economic activity. For example, a negative shock can cause a feedback cycle between declining wages and falling aggregate demand, which can be more pronounced when workers do not have the ability to borrow and smooth consumption. Rigidities arising from policy, such as unemployment benefits, can help arrest such a cycle, but come at the cost of raising the reservation wages for those who are unemployed. As a result, unemployed workers are less likely to accept a job offer. As another example of labor market rigidity, wages often do not sufficiently fall to clear the labor market during recession, but do support demand for the workers who remain employed. Other rigidities, such as job security provisions, can also limit unemployment during a downswing in economic activity, but at the cost of less hiring during upswings. More generally, Bertola discussed how rigidities move labor markets away from the perfectly competitive equilibrium. Rigidities may hamper the reallocation of labor across different sectors, but they can also stabilize labor income.

The paper's discussant, Professor Mark Bils of the University of Rochester, asked whether the rigidities Bertola discussed are likely to be quantitatively important. He pointed out that policies limiting worker-employee separations may reduce firing, but may similarly reduce hiring. As a result, these labor policies will likely result in a less dynamic labor market. He also questioned the role of sticky wages in consumption smoothing, citing evidence that consumption fell for higher-income households during the Great Recession. Consequently, wages that remain high during a recession do not necessarily maintain consumption levels since the employed, or high-income households, are just as likely to reduce spending as the unemployed population.

Labor Markets and Monetary Policy

In the closing panel of central bankers, Ben Broadbent, deputy governor for monetary policy at the Bank of England, reviewed how Britain settled on an inflation targeting framework for monetary policy. He emphasized that on the road to adopting an inflation target, the general view was that no "real variable should have equal status to the nominal objective." However, monetary policy in the United Kingdom was concerned with developments on the real side of the economy even after adopting an inflation target. Under inflation targeting, monetary policy responded more to economic growth than to movements in the unemployment rate, since growth often moved before employment in the U.K. On the supply side of the economy, he noted a common assumption that it grew at a relatively stable rate. Since the crisis, however, labor productivity has slowed. This suggests the supply side may not be expanding at its pre-crisis rate, raising questions about potential growth. In light of these developments, Broadbent discussed how labor market developments can be a valuable indicator for monetary policy. An uptick in growth, for example, may not need to be met with tighter policy if it's supported by faster productivity growth. Alternatively, an increase in growth accompanied by a rapid increase in employment may eventually lead to wage and other inflationary pressures, potentially warranting a policy response. In the end, he called for a range of indicators, including those from the labor market, to be monitored when setting monetary policy.

Governor Haruhiko Kuroda of the Bank of Japan then explored the implications of deflation, combined with a rapidly aging population, for Japan's labor market. In Japan's deflationary environment, firms were unable to raise prices and therefore reduced costs by shifting to part-time employees. As a result, many of these workers faced stagnant or falling wages. Firms also retained higher cash balances to guard against potential downturns, cutting investment and becoming net savers, rather than net investors. He noted that as firms continued to cut wages to build up internal funds, aggregate demand fell and reinforced a cycle of declining wages and falling aggregate demand. Kuroda discussed the Bank of Japan's policy response—Quantitative and Qualitative Easing (QQE)—which he viewed as "producing its intended effects." For example, he noted some firms began raising wages following implementation of QQE, though he indicated challenges remain related to elevated levels of part-time workers and an aging population.

To conclude the panel, Governor Alexandre Antonio Tombini of the Central Bank of Brazil discussed a number of developments unique to emerging market economies and, in particular, Brazil. On domestic economic conditions, he highlighted the progress Brazil has made over the past decade in stabilizing prices and reducing inequality in the midst of solid economic growth. Improved education has increased living standards and left a shortage of low-skill workers. As a result, wage gains have favored low-skill workers over the past decade. He also discussed Brazil's demographic transition, in which the share of younger workers is declining and growth of the working-age population is decelerating. He concluded by noting the policy challenge is evaluating how much Brazil's natural rate of unemployment has fallen rather than risen, as is the case in many advanced economies.

Postscript

The 2014 Jackson Hole Economic Policy Symposium raised many new issues about labor markets and how they have evolved in recent decades. The changes pose challenges to central banks, though many policymakers continue to view understanding these issues as critical to effective formulation of monetary policy. Following the symposium, the pace of labor market improvement varied across different regions, particularly the United States and the eurozone. In the fall of 2014, the Federal Reserve concluded its asset purchase program, while the European Central Bank expanded its quantitative easing programs. The ultimate success of these programs to foster price stability and healthy labor markets will likely be discussed in future symposiums.