David H. Romer and Justin Wolfers, Editors

Brookings Papers

ON ECONOMIC ACTIVITY

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Editors' Summary

THE BROOKINGS PANEL ON ECONOMIC ACTIVITY held its eighty-ninth conference in Washington, D.C., on March 18 and 19, 2010. The recent financial crisis and ensuing recession continue to dominate the minds of leading economists, and this conference was no exception. Three of the papers in this volume assess macroeconomic developments in light of these remarkable events, examining the downturn in the U.S. labor market, the vulnerability of the financial system, and the spread of the crisis to emerging market countries. In each case the authors illustrate how economic institutions mediated the consequences of the macroeconomic shocks. A fourth paper, which addresses how best to measure GDP, is also highly relevant, showing that an alternative to the most commonly used measure would have yielded a clearer early warning of the size and scope of the U.S. downturn. The two remaining papers compile interesting new data that speak to ongoing longer-term debates about the balance between work and family and about health care reform.

IN THE FIRST PAPER in this issue, Michael Elsby, Bart Hobijn, and Ayşegül Şahin provide a heroic real-time analysis of recent labor market outcomes, comparing the recession that began in late 2007 with earlier downturns. All major measures of labor market conditions—including changes in unemployment, employment, participation, and hours—indicate that this most recent recession has been more severe than any since the Great Depression. The impact of the recession has been widespread, as unemployment rates among most major socioeconomic groups have exceeded previous postwar peaks.

Yet this recession also mirrors previous downturns in many respects. As in those recessions, the total decline in labor input is about one-third due to a shorter workweek and two-thirds due to fewer people working. Labor force participation has fallen, muting the impact of this decline on the unemployment rate. And the sharpest impacts of this recession also follow the pattern observed in earlier downturns, with men suffering more than women, the young more than the old, and the less educated and racial minorities bearing disproportionate impacts.

The authors then turn to examining inflows and outflows from unemployment. They find that inflows into unemployment rose sharply, particularly in the early stages of the recession, and that the subsequent rise in unemployment largely reflects a rise in the duration of unemployment spells. Yet the rate at which workers separate from jobs has not risen—a fact that suggests a change in the composition of separations toward fewer quits (which often involve job-to-job flows) and more layoffs. The important role of layoffs early in this recession represents a departure from recent downturns, but it parallels earlier severe recessions. Outflows from unemployment (the flip side of the rise in duration of the typical unemployment spell) have been strikingly similar across demographic groups, and hence demographic differences in the impact of this recession—as in previous downturns—are largely driven by the different rates at which members of each group typically enter unemployment.

Looking forward, Elsby, Hobijn, and Şahin note that the rise in inflows to unemployment has abated, and that the rate at which workers are exiting unemployment has fallen further than in previous recessions. Consequently, the key to subsequent recovery will be further rises in the unemployment exit rate. Indeed, perhaps the most distinctive feature of this recession is the recent record low in the exit rate, which is also reflected in current record rates of long-term unemployment. Unfortunately, recent job vacancy data suggest that the Beveridge curve, which relates unemployment and vacancies, has shifted outward, perhaps because of a decline in the efficiency with which job seekers are being matched with available jobs. In turn, outflows from unemployment are lower than might be expected on the basis of the vacancy-unemployment ratio, which, the authors argue, may be partly (but only partly) due to the temporary extension of unemployment insurance for the long-term unemployed. Because the long-term unemployed tend to exit unemployment only very slowly, outflows from unemployment may remain depressed for some time, dampening the recovery. Even so, the authors note that the emerging long-term unemployment problem in the United States remains small relative to the stagnation that virtually halted the recovery of European labor markets in the 1970s and 1980s.

IN THE SECOND PAPER, Jeremy Nalewaik turns to a critically important issue in economic measurement. GDP, a country's overall economic output, can be measured either as the sum of all final expenditures or as the sum of all incomes earned. Yet despite the conceptual equivalence, the measure based on expenditure—which Nalewaik calls GDP(E)—has often differed substantially over recent decades from the measure based on income, or GDP(I). Currently, the Bureau of Economic Analysis, the official source of data for both measures, emphasizes the expenditure-based measure as its "top line" measure, and the income-based measure (which the bureau calls gross domestic income, or GDI) rarely receives much mention in public discussion.

Nalewaik compellingly demonstrates that this emphasis is misplaced. Real-time estimates of the income-based measure of GDP growth have yielded a much more reliable picture of the contours of the business cycle than the expenditure-based measure. He makes his case in three steps. First, he runs an array of horserace regressions, assessing the relative weight that one should put on real-time GDP(I) and GDP(E) data in predicting each of a wide range of measures of business cycle conditions, including changes in the unemployment rate, employment growth, the slope of the yield curve, growth in stock prices, and periods of recession. In each case he finds that GDP(I) vastly outperforms GDP(E). Likewise, GDP(I) does a better job of predicting the future path of many of these business cycle indicators, as well as the GDP predictions of professional forecasters and next quarter's growth in both GDP(E) and GDP(I) themselves. In fact, the only variable that GDP(E) significantly helps predict is the final revised value of growth in this quarter's GDP(E). And even on this score, the regressions using data since the mid-1990s suggest putting about equal weight on GDP(E) and GDP(I).

Second, Nalewaik turns to evaluating the estimates after they have been thoroughly revised. Since the 1980s, the gap between the revised measures has been highly cyclical, with GDP(E) recording a shallower and less distinct business cycle. Digging into the construction of the estimates, he concludes that GDP(E) is constructed from data sources that appear to miss important parts of the business cycle. And indeed, he shows that the final GDP(I) data are much more highly correlated with numerous other indicators of business conditions than are the final GDP(E) data.

Finally, Nalewaik shows that GDP(I) has identified the beginning of each of the last four recessions more quickly than GDP(E). Indeed, one reason that there was some debate as to whether the economy had entered a recession in late 2007 is that the expenditure-based measure continued to show economic growth throughout 2008.

The paper concludes with a modest proposal: that the Bureau of Economic Analysis emphasize as its top-line estimate of GDP growth a weighted average of GDP(E) and GDP(I), placing at least as much weight on GDP(I) as on GDP(E). We believe that Nalewaik has presented an overwhelming case and hope that the bureau will be responsive; until then, macroeconomists would do well to make themselves more familiar with income-based measures of GDP.

IN THE THIRD PAPER, Garey Ramey and Valerie Ramey bring to light a rather extraordinary recent trend in Americans' use of time: parents—and in particular highly educated parents—have greatly increased the amount of time they spend on childcare activities. In time-use surveys from 1965 to 1995, mothers recorded an average of about 12 hours per week looking after their children, and the gap between college-educated mothers and those with less education was about 1 hour. Yet by 2007 this time commitment had risen to 21 hours per week for college-educated mothers, and to 16 hours per week for non-college-educated mothers. Similar changes were observed among fathers: the rise in their childcare time was smaller in absolute terms, but larger proportionally. These are macroeconomically important shifts, representing around $300 billion in forgone wages, and the change in time use is roughly comparable to the effect of a typical recession on work hours.

The authors present a novel hypothesis for these observations. The child population has grown with the baby-boom "echo," but ever-more-valuable spots in elite colleges have not increased commensurately. In response, parents, and especially college-educated parents, are engaged in a "rug rat race," making ever-increasing investments of their time in activities that they believe will help build a compelling college application for their children. Just as in an arms race, or as in the original "rat race" among urban white-collar workers, this rivalry can lead to overinvestment in some activities relative to the social optimum.

The authors document several facts consistent with their explanation: the rise in time spent with children paralleled the rise in the number of graduating high school seniors; much of this rise reflects time spent caring for older children, and in particular transporting them to extracurricular activities; and the trend toward increasing childcare time is less evident in Canada, where college admissions are less rivalrous. The authors also assess—and reject—a number of competing explanations, including changes in who becomes a parent (the rise in average childcare hours remains even when averaging across all adults); rising incomes (an insufficient explanation given the moderate income elasticity of childcare time); increasing safety concerns (survey data suggest that such concerns actually fell over the relevant period); greater enjoyment of childcare (which predicts, counterfactually, that fertility would also rise); and more flexible work schedules (which cannot explain why the rise is even greater among nonworking mothers). The facts so carefully catalogued by the authors will surely generate further research, and with it, even more hypotheses about just what factors are driving these enormous and important changes in family and work life.

IN THE FOURTH PAPER, Alan Greenspan offers his diagnosis of the recent financial crisis and his proposals for reducing the chances of future crises. The seeds of the crisis, in his view, were sown by a period of historically low real interest rates, unprecedented macroeconomic stability, and low inflation. These developments led to large increases in investors' willingness to take on risk and, partly as a result, to the rapid growth of home prices in the mid-2000s. This price growth in turn fueled (and was reinforced by) an explosion of securitization of mortgage loans into assets whose risk characteristics were often poorly understood and that were often held by highly leveraged institutions. When home prices began to fall in 2006, the result was a cascade of financial failures and contagion. Greenspan assigns some of the blame for the crisis to failures of regulatory oversight, but he finds no evidence that the conduct of monetary policy played a role: economic theory, time-series evidence from the United States, and cross-country evidence all suggest that the central bank's decisions about its interest rate target over a period of a few years are not a major driver of home prices.

Greenspan then turns to the issue of how to reduce the risk of future crises. He argues that policymakers face daunting empirical difficulties in fully understanding risks and in identifying asset bubbles and potential incipient crises in real time. This implies that policies that require regulators to forecast financial instability are unlikely to succeed, especially considering the political and practical difficulties in continually adjusting regulation in response to economic developments.

Instead, he argues, the system needs to be designed so that it is broadly robust to shocks. One key feature of such a system would be increased capital requirements for financial institutions. Based on historical relationships, he estimates that these could be as high as 10 to 15 percent without impairing the functioning of the banking system. Such requirements would need to apply both to existing regulated banks and to the "shadow" banking system and be accompanied by ample collateral and liquidity requirements. Finally, Greenspan argues that it is essential to address the problem of financial institutions that are "too big to fail," either by breaking them up or by putting in place mechanisms that subject their equity holders and creditors to the possibility of large losses without threatening the stability of the financial system.

IN THE FIFTH PAPER, Olivier Blanchard, Mitali Das, and Hamid Faruqee investigate the short-run impact of the global financial crisis on emerging market countries. They begin with a simple reduced-form model to identify possible channels of transmission. Some channels involve trade, through reduced demand for a country's exports when its trading partners enter a crisis. Others involve financial markets, through reduced demand for a country's assets and increases in risk premia. The authors argue that it is crucial to recognize the adverse effects of depreciation of the home currency on real debt burdens, and the possibility that depreciation may reduce net exports in the short run. Once these complications are introduced, even a comparatively barebones model allows for a potentially rich set of effects of the initial shocks and for complex interactions with the policy responses.

Blanchard, Das, and Faruqee then turn to the cross-country data. They find evidence of effects working in the expected directions. In late 2008 and early 2009, countries whose trading partners suffered larger shortfalls in growth relative to precrisis forecasts suffered substantially larger growth shortfalls themselves, suggesting an important impact through trade. And countries that had more debt coming due during the crisis also suffered much larger growth shortfalls, suggesting an important impact through financial markets.

At the same time, no simple story explains the different effects of the crisis across countries. Although both trade and financial variables typically are significant when both are included in the regressions, a substantial portion of the variation in growth remains unexplained. The results also imply that a hypothetical country with no trade or financial exposure to the rest of the world would nonetheless have suffered a significant growth shortfall from the precrisis prediction, suggesting that more was at work than the channels the authors focus on. The authors are unable to detect any large role of reserve holdings, the exchange rate regime, or the fiscal response in determining the short-run impact of the crisis.

The paper concludes by looking at three countries in detail: Latvia, Russia, and Chile. The contrast between Russia and Chile is particularly striking. Much about the two countries before the crisis was similar: both are financially open economies whose exports are dominated by commodities. Yet Russia had one of the largest growth shortfalls, while Chile's shortfall was below the average. The different outcomes are not entirely mysterious, however: Chile's stronger institutions and longer track record of sound policies seem to have prevented a net capital outflow, whereas Russia's attempt to use its reserves to stem what proved to be overwhelming pressure for depreciation led to very large capital outflows.

IN THE FINAL PAPER, Tomas Philipson, Seth Seabury, Lee Lockwood, Dana Goldman, and Darius Lakdawalla examine geographic variation in health care utilization and spending. An important line of inquiry—most prominently associated with the Dartmouth Atlas project—has documented large disparities in health care use and spending across regions of the country. These disparities cannot be explained by differences in observed patient demographics or disease prevalence, and regions using more health care do not exhibit substantially better outcomes. But the authors note that these findings are largely based on data from Medicare, which is a public program. By contrast, private payers may have stronger incentives to restrain costs and utilization, and hence greater incentives to eliminate wasteful procedures. On the flip side, government-run insurers have greater bargaining power, which they may use to restrain costs.

In their empirical analysis, the authors compare health care use and spending records of employees and retirees of 35 Fortune 500 firms with patient records from a survey of Medicare beneficiaries. In order to analyze samples with roughly comparable health status, they focus only on patients with a diagnosis of heart disease. The authors find that the variance of health care utilization across 99 metropolitan areas tends to be lower in the private than in the public sector, although this finding is sensitive to controlling appropriately for differences in the demographic and health status of the two samples. The geographic variation in health care spending (as opposed to utilization), on the other hand, is generally lower in the public sector. The authors highlight the need for further research on the determinants and benefits of health care utilization and spending in the private sector.

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The Labor Market in the Great Recession

ABSTRACT From the perspective of a wide range of labor market outcomes, the recession that began in 2007 represents the deepest downturn in the postwar era. Early on, the nature of labor market adjustment displayed a notable resemblance to that observed in past severe downturns. During the latter half of 2009, however, the path of adjustment exhibited important departures from that seen during and after prior deep recessions. Recent data point to two warning signs going forward. First, the record rise in long-term unemployment may yield a persistent residue of long-term unemployed workers with weak search effectiveness. Second, conventional estimates suggest that the extension of Emergency Unemployment Compensation may have led to a modest increase in unemployment. Despite these forces, we conclude that the problems facing the U.S. labor market are unlikely to be as severe as the European unemployment problem of the 1980s.

Since December 2007, labor market conditions in the United States have deteriorated dramatically. The depth and duration of the decline in economic activity have led many to refer to the downturn as the "Great Recession." In this paper we document the adjustment of the labor market during the recession and place it in the broader context of previous postwar downturns. What emerges is a picture of labor market dynamics with three key recurring themes:

—From the perspective of a wide range of labor market outcomes, the recession that began in 2007 (hereafter "the 2007 recession")[1] represents the deepest downturn in the postwar era.

—Early on, the nature of labor market adjustment in the 2007 recession displayed a notable resemblance to that observed in past severe downturns.

—During the latter half of 2009, however, the path of adjustment exhibited important departures from that seen during and after prior deep recessions.

These broad conclusions arise from a detailed investigation of the behavior of labor market stocks and flows over the course of the downturn.[2] Our point of departure, in section I, is to document patterns over time in key labor market indicators—unemployment, employment, labor force participation, and hours per worker—during the 2007 recession. No matter what indicator of labor market activity we consider, the deterioration of labor market conditions during this recession is the worst on record since the late 1940s. Rates of unemployment among most major subgroups of the labor market reached postwar highs. From the perspective of the labor market, the 2007 recession is truly a Great Recession.

As noted above, we nonetheless observe that many dimensions of these key indicators mirror those seen in past recessions. Labor force participation declined, reflecting the modest procyclicality observed in many postwar recessions; the relative contributions of the intensive and the extensive margins (that is, of changes in hours per worker and in the number of workers employed) to the decline in total labor input typify the conventional one-third hours to two-thirds bodies split observed in the past; and the constellation of demographic groups most affected—younger workers, male workers, less educated workers, and workers from ethnic minorities—is reminiscent of previous downturns.

1. We adopt this terminology because although the recession is widely believed to have ended in 2009, as of this writing the Business Cycle Dating Committee of the National Bureau of Economic Research (NBER) has not yet fixed an end date. In some of our figures, specification of an end date is unavoidable and is not intended as a firm judgment as to when the recession ended.

2. A drawback of the real-time nature of our analysis is that a detailed treatment of the cyclical behavior of wages is infeasible. Although timely aggregate compensation data are available, such data are plagued by countercyclical composition biases, as low-skilled workers are more likely to lose their jobs in time of recession. As emphasized by Solon, Barsky, and Parker (1994), obtaining an accurate sense of real-wage cyclicality requires the use of longitudinal microdata that are available in a less timely manner.

It is well known that changes in aggregate unemployment in the United States mask substantial variation in underlying worker flows, a point emphasized by Olivier Blanchard and Peter Diamond (1990). Reflecting this fact, in section II we investigate the sources of increased unemployment in the 2007 recession by analyzing the behavior of unemployment flows. This analysis reveals that both increased inflows into unemployment and declines in the rate at which workers flow out of the unemployment pool play crucial roles in accounting for the recent upswing in unemployment. As in previous severe recessions, the initial ramp-up in unemployment was accompanied by a sharp rise in inflows. In contrast to the claims of some recent literature on unemployment flows (Hall 2005, Shimer 2007), elevated rates of inflow in time of recession appear not to be a relic of past downturns, but rather a distinctive feature of severe recessions, both old and modern. The behavior of the outflow rate also mirrors that observed in past deep recessions: as the wave of inflows receded in the latter stages of the 2007 recession, the outflow rate continued to fall. Reflecting the distinctive severity of the downturn, recent data have seen the outflow rate reach a postwar low.

Measures of unemployment flows for different labor force groups yield an important message on the sources of the disparate trends in unemployment across those groups: higher levels and greater cyclical sensitivity of joblessness among young, low-skilled, and minority workers, both in this and in previous downturns, are driven predominantly by differences in rates of entry into unemployment between these groups and others. In sharp contrast, a striking feature of unemployment exit rates is a remarkable uniformity in their cyclical behavior across labor force groups—the declines in outflow rates during this and prior recessions are truly an aggregate phenomenon.

In the remainder of section II, we take advantage of a unique opportunity to assess the role of labor turnover in the 2007 recession. This is the first full upswing in unemployment covered by the new Job Openings and Labor Turnover Survey (JOLTS), which reveals some stark findings. In contrast to the behavior of unemployment inflows, rates of separation of workers from employers did not rise in the 2007 recession. This suggests support for a hypothesis offered by Robert Hall (2005): increases in unemployment inflows may have little to do with increased rates of job loss, but merely are a symptom of declining rates of job finding among potential job-to-job movers. Our analysis of the JOLTS data points to a different story: increased inflows into unemployment are driven predominantly by a change in the *composition* of separations toward layoffs, which are likely to result in unemployment, and away from quits, which often represent workers flowing to new jobs upon separation. Job loss played a key role in driving increased unemployment in the 2007 recession.

We close our analysis in section III by assessing the outlook for the recovery of the labor market in the wake of the current downturn. Motivated by the recent subsidence of inflows into unemployment and the historic decline in the outflow rate from unemployment, we emphasize the importance of a rebound in the latter for future reductions in unemployment and highlight a potential cause for concern in recent data. The postwar U.S. labor market has been characterized by two remarkably stable aggregate relationships: the inverse co-movement of unemployment and vacancies—the Beveridge curve—and the positive association between the outflow rate from unemployment and the vacancy-unemployment ratio, a point noted by Robert Shimer (2005). The latter half of 2009 witnessed a break from these relationships, with unemployment rising higher than implied by the historical Beveridge curve, and the outflow rate from unemployment falling significantly below the path implied by the past relationship with the vacancy-unemployment ratio.

These trends resemble those observed in the breakdown in efficiency of matching jobs with workers that accompanied the European unemployment problem of the 1980s, raising the concern of persistent unemployment, or hysteresis, in U.S. unemployment going forward. We consider a range of possible causes of hysteresis, including sectoral mismatch, the extension of the duration of unemployment insurance benefits, the dependence of unemployment outflow rates on the duration of unemployment, and reductions in the rates of worker flows—what Blanchard (2000) has termed "sclerosis." Recent data point to two warning signs. First, the historic decline in unemployment outflow rates has been accompanied by a record rise in long-term unemployment. We show that this is likely to result in a persistent residue of long-term unemployed workers with relatively weak search effectiveness, depressing the strength of the recovery. Second, conventional estimates of the impact of longer unemployment benefit duration on the length of unemployment spells suggest that the extension of Emergency Unemployment Compensation starting in June 2008 is likely to have led to a modest increase in long-term unemployment. Nonetheless, we conclude that, despite these adverse forces, they have not yet reached a magnitude that would augur a European-style hysteresis problem in the U.S. economy in the long run.