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Research Summaries

Foreign Direct Investment and the Crisis: Is This Time Different?

Yuko Kinoshita



During the global financial crisis, foreign direct investment (FDI) turned out to be less resilient than in past crises. It is important to go beyond aggregate measure of FDI and look at the composition to make an assessment of its effects on the host country: FDI in the tradable and nontradable sectors have different implications on economic growth and volatility. This article surveys recent IMF research on FDI and its effects on external vulnerabilities and volatility in the global financial crisis.

Foreign direct investment (FDI) is generally considered to be the most stable form of capital flow in a time of distress (Kose and others, 2006; Prasad, Rajan, and Subramanian, 2007; and Tong and Wei, 2010). FDI is also known to bring various benefits to the host country by transferring new technology and know-how and raising productivity and economic growth.

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Food Prices and Inflation

James P. Walsh



High global food inflation, leading in many countries to headline inflation rising above core for a sustained period of time, has led policymakers to question the conventional wisdom of accommodating food price shocks. The issue is particularly important for emerging and developing economies, where food weighs heavily in the consumption basket. Research at the International Monetary Fund has approached this issue from a variety of angles. First, given its high level and important second round effects, excluding food inflation from traditionally defined core measures may not be justifiable in many countries. Second, strict core inflation targeting may not be optimal when many credit-constrained consumers operate at a near-subsistence level. Finally, when global food prices cover a large share of the consumption basket, food shocks can have significant effects on the terms of trade and real effective exchange rate, weakening the case for their exclusion from monetary policy decisions.

The rapid rise in food prices since 2003 has faced policymakers with a difficult predicament. In general, the high volatility of food inflation complicates monetary policy decision making by obscuring underlying signals about infla-

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Foreign Direct Investment and the Crisis: Is This Time Different?

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During the global financial crisis of 2007–09, however, FDI proved not so resilient as initially thought (Lane and Milesi-Ferretti, 2011). Most notably, in the crisis-hit Eastern Europe, FDI plunged as sharply as other short-term capital flows—though to a lesser extent—and three years after the crisis, FDI has yet to recover to the pre-crisis level. The reversal of capital flows was particularly pronounced in the Baltics and South-eastern Europe where the countries received sizable FDI in the financial sector and experienced rapid credit growth during the boom period (Bakker and Gulde, 2010).

FDI volatility in the global financial crisis is explained by pre-crisis differences in the sectoral composition of FDI rather than the aggregate FDI. All countries in Eastern Europe received sizable FDI, but the position of external balances was markedly different across countries in the run up to the crisis. A recent study by Kinoshita (2011) argues that the sectoral composition of FDI before the crisis affected external vulnerability through the trade account balance. FDI in the tradable sectors is likely to be associated with better export performance, whereas FDI in the nontradable sectors is positively associated with the incidence of domestic demand booms and often a large deficit in the trade account balance. Among the countries in Eastern Europe, the boom-bust cycles were most pronounced in Southeastern Europe and the Baltics where external imbalances and FDI in the nontradable sectors were sizable. The study also found that countries with large market size, greater trade integration, good infrastructure, and an educated labor force are more likely to receive FDI in the tradable sectors.

The positive effect of FDI on export performance is one of the main benefits to the host country of FDI, and this conclusion is supported by anecdotal evidence as well as past studies. China is a well-known success story of FDI and export growth. In the mid-1980s, China established the special economic zones on its coastal area in which foreign investors were given special incentives to invest, including tax breaks, duty-free importation of capital goods, and a pool of trained workers. Cumulative FDI inflows have continued to grow to date, accompanied by impressive export growth. China's exports increased ten times between 1995 and 2005, while export share of high-skilled manufactured goods has steadily increased over time. Export promotion and transfer of technology are China's two most important FDI objectives. The policy mix of discouraging foreign

debt and portfolio inflows and providing incentives to FDI further contributed to tilting capital inflows in FDI in the tradable sector (Prasad and Wei, 2007). Using industry-level data, Zhang (2005) finds that FDI indeed has a positive effect on China's export performance, and FDI's effect on exports is much larger than that of domestic capital.

“Some argue that the global financial crisis was simply different from past crises because FDI source countries were equally hit hard by the crisis.”

Similar to China's experience, other developing countries have endeavored to attract export-oriented FDI by offering various incentives to foreign investors in the export sector. Costa Rica launched a proactive attempt to diversify production and exports after the Latin American debt crisis in the early 1980s with the main pillars being FDI promotion and free trade agreements (Moran and others, 2005). Mauritius also transformed itself from an agricultural low-income country to a diversified middle-income country in the span of two decades, initially prompted by the introduction of the export processing zone and FDI inflows that followed.

Other studies also find support for the resilience of FDI in the tradable sectors during the crisis period. Using a worldwide dataset at the establishment level (thus in the tradable sectors), Alfaro and Chen (2010) study how foreign subsidiaries responded to the global financial crisis relative to domestic firms. They find that foreign subsidiaries fared on average better than local firms and that, among foreign subsidiaries, those with stronger vertical production linkages with parent firms exhibited greater resilience. Furthermore, they find that the differences between the performance of foreign and local firms are visible only in the crisis period but not in the non-crisis period.

Some argue that the global financial crisis was simply different from past crises because FDI source countries were equally hit hard by the crisis. Calderon and Didier (2010) find that the scope of mergers and acquisitions (M&A, or fire-sale FDI) was limited during the global financial crisis because this crisis originated in the advanced countries and this explains the very weak recovery of FDI in contrast to previous crises. Moreover, the measurement issue of FDI can also explain the larger-than-expected turnaround of FDI during the crisis. The definition of FDI includes equity capi-

tal, reinvested earnings, and other capital (e.g., inter-company loans). Unlike equity capital, the latter two components are more volatile and sensitive to shocks and this also leads to an exaggeration of FDI in good times.

In addition to tradable FDI literature, there is a strand of literature focusing on the effects of nontradable FDI on the host economy—in particular, FDI in the financial sector. Goldberg (2007) gives a useful conceptual framework to distinguish financial and non-financial (e.g., tradables) FDI in her literature survey on FDI. Drawing a parallel between “general” FDI (e.g., manufacturing and resource sectors) and “financial” FDI (e.g., financial sector) in emerging markets, she concludes that the main benefits of FDI such as improved allocative efficiency and technology transfer and diffusion are also found in FDI in the financial sector, albeit with a time lag. But financial FDI seems to affect the incidence of the crisis, business cycle magnitude, and institutional development—this is different from general FDI. Generally, foreign bank entry may introduce a more diversified supply of funds, leading loan supply to be less procyclical, but it could also increase the potential for greater contagion through common lender presence.

More recently, the stability of financial sector FDI during the global financial crisis was examined, focusing on the credit channel of foreign banks. Kamil and Rai (2010) look at the stability of foreign banks’ financing to emerging market countries and find a surprising resilience of foreign bank’s lending growth in Latin America and the Caribbean (LAC) during the crisis. They also show that the propagation of the global credit crunch was significantly more muted in countries where most foreign bank lending was channeled using domestic currency. In a subsequent study, Canales-Kirijenko and others (2010) show that resilience of lending of foreign banks in LAC is attributed to its reliance on domestic deposits rather than loans and capital transfers from parent banks. On the other hand, foreign banks in emerging Europe were more reliant on funding from foreign parent banks, which resulted in faster credit growth before the crisis and also a deeper credit crunch when the crisis hit.

FDI in the financial sector can be a double-edged sword. Though foreign bank ownership generally contributed to increased vulnerabilities before the crisis in Eastern Europe, foreign-owned banks are found to have a stabilizing effect during the crisis (Berglöf and others, 2009; IMF, 2010). In contrast to the Asian financial crisis, Eastern Europe managed to avoid a currency and banking crisis—with a few exceptions—as foreign banks mitigated some of the capital

outflows by maintaining their local exposure. For a larger set of emerging economies, however, the overall effect of foreign bank ownership on the economy is mixed. Ostry and others (2010) find that FDI in the financial sector is associated with poor growth performance during the crisis, while FDI in the nonfinancial sector is associated with a better performance.

One of the lessons of the global financial crisis is that the composition of capital flows does matter even for countries with a high share of FDI. On one hand, FDI in the financial sector may bring greater vulnerability as part of it reflects intragroup debt that is more akin to debt than greenfield FDI. On the other hand, FDI in the tradable sector is likely to improve export performance, leading to a more sustainable external balance. In this regard, one should look beyond aggregate FDI and examine the sectoral composition of FDI to assess the overall effect on the host economy. However, the right mix of the sectoral composition of FDI is not the only fix for external vulnerability. Other domestic policies and conditions also should be in place to enhance the benefits of FDI. For example, FDI in the tradable sector does not automatically lead to better export performance in the absence of the absorptive capacity and complementary skills of the host country. Similarly, FDI in the financial sector can play a stabilizing role during the crisis with the help of a supportive regulatory and supervisory framework.

References

- Alfaro, Laura and Maggie Chen, 2010, “Surviving the Global Financial Crisis: Foreign Direct Investment and Establishment Performance,” NBER Working Paper 17141 (Cambridge, Massachusetts: National Bureau of Economic Research).
- Bakker, Bas B. and Anne-Marie Gulde, 2010, “The Credit Boom in the EU New Member States: Bad Luck or Bad Policies?” IMF Working Paper 10/130 (Washington: International Monetary Fund).
- Berglöf, Eric, Y. Korniyenko, A. Plekhanov, and J. Zettlemeyer, 2009, “Understanding the Crisis in Emerging Europe” EBRD Working Paper No. 109 (London: European Bank for Reconstruction and Development).
- Calderon, Cesar and Tatiana Didier, 2010, “Will FDI be Resilient in This Crisis?” (unpublished manuscript, Washington: The World Bank).
- Canales-Kirijenko, Jorge Ivan, Brahim Coulibaly, and Herman Kamil, 2010, “A Tale of Two Regions” *Finance & Development*, Vol. 47 (March) pp. 35-36.
- Goldberg, Linda, 2007, “Financial Sector FDI and Host Countries: New and Old Lessons,” *Economic Policy Review* 13 (1): 1-17 (Federal Reserve Bank of New York).

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Food Prices and Inflation *(continued from page 1)*

tion, but their transient nature limits the long-term impact. At the same time, with prices set globally, food price shocks are often viewed as supply shocks, and thus unlikely to be affected by traditional central bank tools. The broad-brush conclusion is that the role of food prices should be minimized in policymaking: central banks should focus on core measures of inflation that exclude food, both in their assessments of inflation and in monetary policy decisions. Broadly, this is the approach most often supported by the IMF, as discussed in the September 2011 *World Economic Outlook* (WEO). However, while this will be justified in many cases, in others, as the WEO notes, extenuating circumstances may call for a focus on headline inflation.

Recent IMF research has looked at some of these assumptions for a range of applications. Walsh (2011) notes that core inflation is intended to eliminate statistical noise to focus on underlying trends, either by minimizing the weight of components displaying extreme changes, or components with relatively transitory shocks. Either measure rests on the assumption that headline and core inflation have the same long-run mean (otherwise core understates true inflation) and that non-core inflation has no long-run effect on core inflation. But simply eliminating food prices from headline inflation can violate these assumptions in three important ways:

- **Sustained high food inflation.** If food prices rise faster than nonfood prices over a long period, then core inflation will underestimate headline inflation.
- **Persistent food inflation.** If food shocks do not dissipate, they will affect inflation expectations and thus headline inflation.
- **Second round effects.** If food shocks affect nonfood prices, accommodated food shocks can have an important impact on nonfood inflation.

These conditions can be found in many emerging or developing economies. Looking at a very wide sample of countries, Walsh finds that the difference between long-run average food and nonfood inflation tends to be minimal in advanced economies, but can be sustained and large elsewhere. A non-food core measure can thus show lower inflation than headline, even in the long run.

Second, three different measures of persistence are derived from fitted autoregressive models. In rich countries, with relatively credible central banks, persistence under all three measures is low or even negative as shocks are quickly countered. But in poorer countries, food and nonfood inflation

are often persistent; thus, excluding either from a core inflation measure is difficult to justify.

Finally, second-round effects strengthen the case for an earlier monetary policy response to limit pass-through to nonfood inflation. But fitted VARs for food and nonfood inflation show that while second round effects are small and quickly reversed in rich countries, they may not be reversed in poorer countries, and can have a significant impact on nonfood prices.

“In many rich countries, the assumptions required to exclude food inflation from core measures are likely to hold.”

Thus in many rich countries, the assumptions required to exclude food inflation from core measures are likely to hold. But in poorer countries, persistence, high means (likely due to rising incomes and demand), and second-round effects signify that core measures should be developed from first principles of reducing volatility or transience where it might be; mere exclusion of food can lead policymakers to underestimate the impact of price shocks on headline inflation, possibly leading to a weaker policy response.

Looking at optimal monetary policy more broadly, Anand and Prasad (2010) question whether targeting core inflation under imperfect markets yields higher welfare than alternate policies. They note that in many emerging markets and low income countries, not only is the share of food in the CPI very high, but the price elasticity of demand is extremely low, and the income elasticity very high. As in Walsh (2011), they note that both the level and volatility of core and headline inflation also tend to be higher in poorer countries than in richer ones.

To model these differences, they incorporate novel features into a basic dynamic sticky price model: a nontrivial share of credit-constrained consumers who produce food, and a base subsistence level of food consumption. While unconstrained consumers can smooth consumption between periods, credit-constrained consumers must finance consumption out of current wages.

The central bank uses a Taylor rule weighing inflation, the output gap, and a preference for interest-rate smoothing, and the model is evaluated under four regimes: strict core or headline targeting (the central bank values only interest rate smoothing and inflation stabilization) and flexible core or headline targeting (the central bank also stabilizes output).

Under complete markets, targeting strict core inflation maximizes welfare. As inflation rises, the central bank raises interest rates. Consumers save more, reducing aggregate demand and bringing inflation back down. Targeting headline inflation thus results in a higher volatility of output and consumption, analogous to other findings in the inflation targeting literature.

On the other hand, when some households are credit-constrained and cannot smooth consumption, flexible headline inflation targeting maximizes welfare. Higher interest rates in this model lead unconstrained consumers to reduce their aggregate demand as above, but credit constrained consumers cannot respond. Additionally, since their incomes come from food, their consumption may increase when food prices rise. Under strict core targeting, the central bank does not react to food price shocks, and this higher demand aggravates inflation. But under strict headline targeting, the central bank reacts to those higher food prices by raising rates, and the falling consumption by unconstrained consumers outweighs rising demand from constrained consumers. This fact, that inflation and output can move in opposite directions, means that stabilizing output (flexible headline targeting) raises welfare further. Thus when some consumers are credit constrained, as in many developing countries, relative food prices affect not only aggregate supply but also aggregate demand, and central banks can raise welfare by acknowledging this.

Catão and Chang (2010) look at setting monetary policy in small open economies (SOEs). Like Anand and Prasad (2010), they note that food often constitutes a large and relatively inelastic share of the consumption basket, and further note that much of this is imported, so food price shifts can have large terms of trade implications.

They employ a dynamic stochastic general equilibrium (DSGE) model, with some important features. Monopolistic competition and nominal rigidities allow domestic policies to affect the real exchange rate and terms of trade. Traditionally, targeting PPI raises welfare relative to CPI targeting, since food is not modeled differently from other goods, and thus has a high intertemporal elasticity of substitution.¹ However, Catão and Chang assume food is imported, priced exogenously, and enters the utility function in a discrete manner.

¹In this context, CPI can be thought of as analogous to headline inflation, while PPI inflation more closely approximates core inflation.

This changes the welfare ranking. When food price shocks are large and the weight of food in the utility function is high, ignoring food prices, either by targeting a (nominal) exchange rate peg or the PPI, raises the volatility of the real exchange rate and lowers the terms of trade. These, in turn, produce more volatile but on average lower consumption, reducing overall welfare. On the other hand, targeting the CPI takes the effects of external food prices into account: if international food prices rise, the central bank tightens more than in a PPI targeter, leading to a more stable (and more appreciated) real effective exchange rate and more stable consumption path over the long run. Moreover, the welfare result of this strict CPI targeting can be improved under certain parameterizations by also placing some weight in the output gap in the monetary policy function.

Each of these three papers highlights a different way in which failing to recognize the distinctiveness of food in assessing economic conditions can lead to suboptimal outcomes. In countries where food is a small share of the consumption basket, this distinctiveness will likely be unimportant. But in many emerging and developing economies this will not be the case. In such countries, Walsh (2011) shows that looking at core inflation measures that exclude food price inflation can lead to a substantial underestimation of inflationary pressures and mislead central banks on the size of underlying inflationary pressures. Anand and Prasad (2010) show that an environment where many food producers are credit constrained is one with significantly weaker monetary policy transmission, and ignoring food price developments can lead to higher and more volatile inflation. Finally, Catão and Chang (2010) show that when food is imported and not easily substitutable, ignoring food prices in setting monetary policy can reduce welfare by leading to more volatile and reduced consumption.

References

- Anand, Rahul and Eswar S. Prasad, 2010. "Optimal Price Indices for Targeting Inflation Under Incomplete Markets," NBER Working Paper 16290 (Cambridge, Massachusetts: National Bureau of Economic Research).
- Catão, Luis A.V. and Roberto Chang, 2010. "World Food Prices and Monetary Policy," IMF Working Paper 10/161 (Washington: International Monetary Fund).
- International Monetary Fund, *World Economic Outlook*, September 2011, (Washington).
- Walsh, James P., 2011. "Reconsidering the Role of Food Prices in Inflation," IMF Working Paper 11/71 (Washington: International Monetary Fund).



Seven Questions: Unemployment through the Prism of the Great Recession

Prakash Loungani



The Great Recession of 2007–09 led to a worldwide increase of 30 million in the number of people unemployed, with about half of that increase among advanced countries. This article discusses the factors behind this rise in unemployment, the reasons why countries such as Germany

experienced little increase in unemployment while others were hit hard, whether policies were able to stave off an even worse outcome, and what the prospects are for labor markets in advanced countries.

Question 1: What was the unemployment experience during the Great Recession?

The global unemployment rate rose from 6 percent in 2008 to 6.8 percent in 2009, based on statistics for countries monitored by the IMF's *World Economic Outlook*, but there was considerable variation among countries.

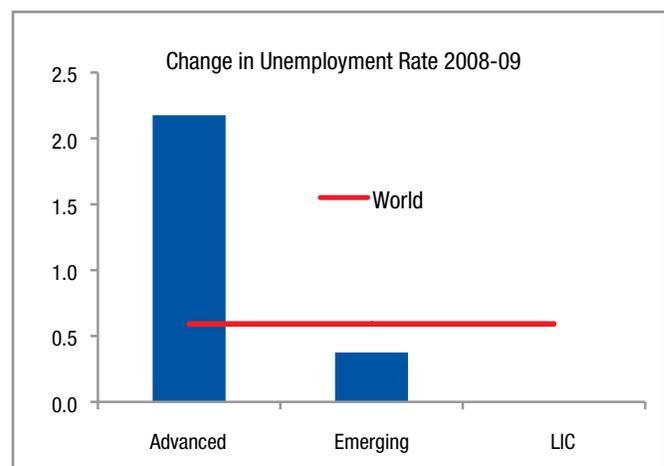
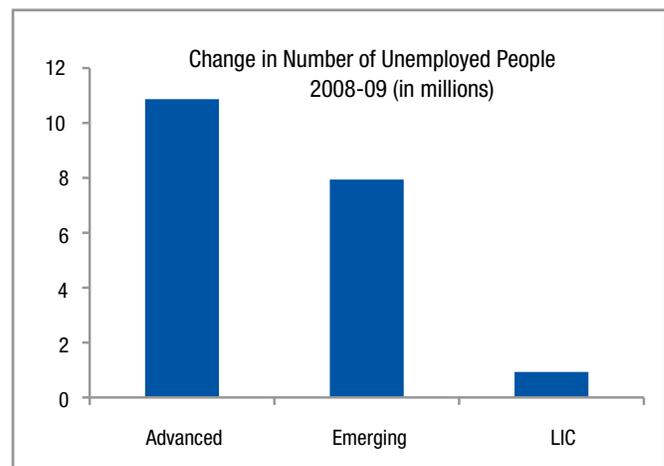
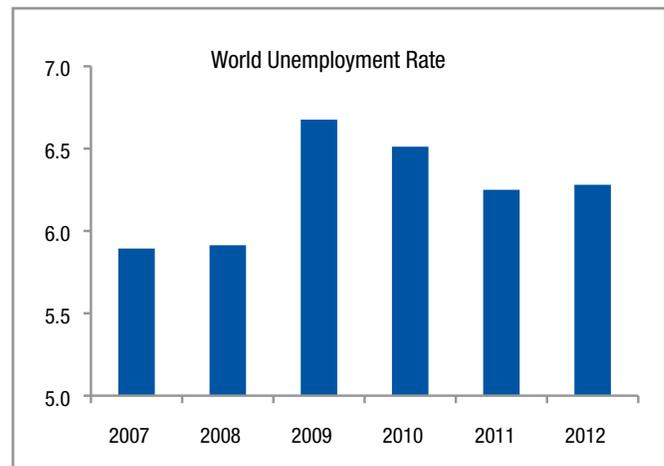
- *Variation across country groups:* The impact was more pronounced in advanced economies than in others. These economies accounted for half of the increase in the number of unemployed people between 2008 and 2009. The unemployment rate went up by 2 percentage points in the advanced economies, by about 0.5 percentage point in emerging markets and barely budged among low-income countries as a whole (Figure 1).
- *Variation among the advanced economies:* Spain, Iceland, Ireland, and the United States experienced the largest increases in the unemployment rate in 2008–09. But countries like Germany, Korea, and Norway went through the Great Recession with hardly any increase in unemployment (Figure 2).

Question 2: What accounts for cross-country differences in unemployment during the Great Recession?

Three factors are likely at play in accounting for the cross-country variation (IMF-ILO 2010; IMF 2010a, 2010b; OECD 2010; Elsby, Hobijn, and Sahin 2010; Vitek 2010; Dao and Loungani, 2010):

- the extent of the drop in output;
- structural bottlenecks in certain sectors or other mismatches;
- the impact of macro and labor market policies.

Figure 1. Unemployment by Country Groups 2008–09



Source: *World Economic Outlook Database*.

The role of each of these factors is discussed in the questions that follow but, to preview the results, the drop in output is the predominant explanation. Most observers interpret the drop in output as aggregate demand-driven and reflecting people’s desire to reduce debt-to-income ratios (“deleverage”); some also assign a role to uncertainty about the policy environment (Baker, Bloom, and Davis, 2011).

Structural factors may have played a supporting role in some countries, particularly where the collapse of the housing sector was a major reason for the drop in output. And the role of policies, particularly labor market policies, could be important in some specific cases, such as in explaining why Germany had such a small increase in unemployment.

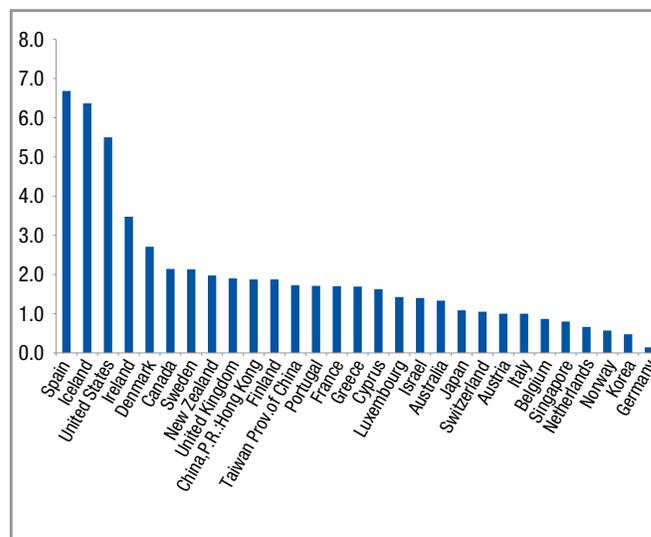
Question 3: Did Okun’s Law survive the Great Recession?

Yes. The relationship between declines in output and increases in unemployment—generally referred to as “Okun’s Law”—held up well during the Great Recession. At a broad level, regions of the globe where growth held up better in 2009 had smaller increases in unemployment between 2008 and 2009 (Figure 3).

For advanced economies, where there is a longer time-series of reliable data, the relationship is much tighter. Figure 4, from Ball, Leigh, and Loungani (forthcoming), shows the relationship for a few countries. Departures from Okun’s Law during the Great Recession were small in magnitude relative to the movement in unemployment. Exceptions include Finland, Germany, the Netherlands, and Sweden, where the unemployment rate in 2009 was a percentage point or more below the level predicted by Okun’s Law. In Spain, unemployment was 1.4 percentage points above the predicted level.

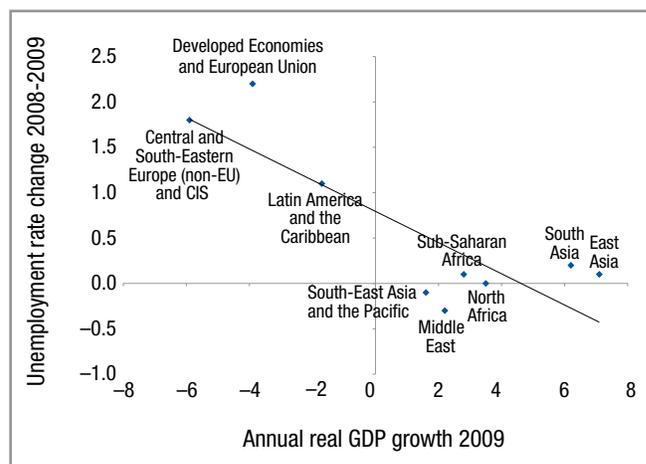
Micro evidence from within the United States also points to the drop in output (or aggregate demand) as a key factor driving the rise in unemployment. Mian and Sufi (2011) test this at a micro level using *industry-by-county* data on employment in *non-tradable* and *tradable* industries. Their hypothesis is that negative consumer demand shock in a given location should reduce employment in industries producing non-tradable goods in that specific location, but should reduce employment in industries producing tradable goods throughout the country. Consistent with this hypothesis, job losses in the non-tradable sector from 2007 to 2009 were significantly higher in high leverage counties that experienced sharp demand declines, whereas employment declines in the tradable sector were *uncorrelated* with leverage. Mian and Sufi estimate that the drop in output can account for 4 million of the 6.2 million jobs lost in the United States between March 2007 and March 2009.

Figure 2. Advanced Countries: Change in Unemployment Rate 2008–2009



Source: World Economic Outlook Database.

Figure 3. Regional Okun’s Law



Source: International Labour Organisation and World Economic Outlook Database.

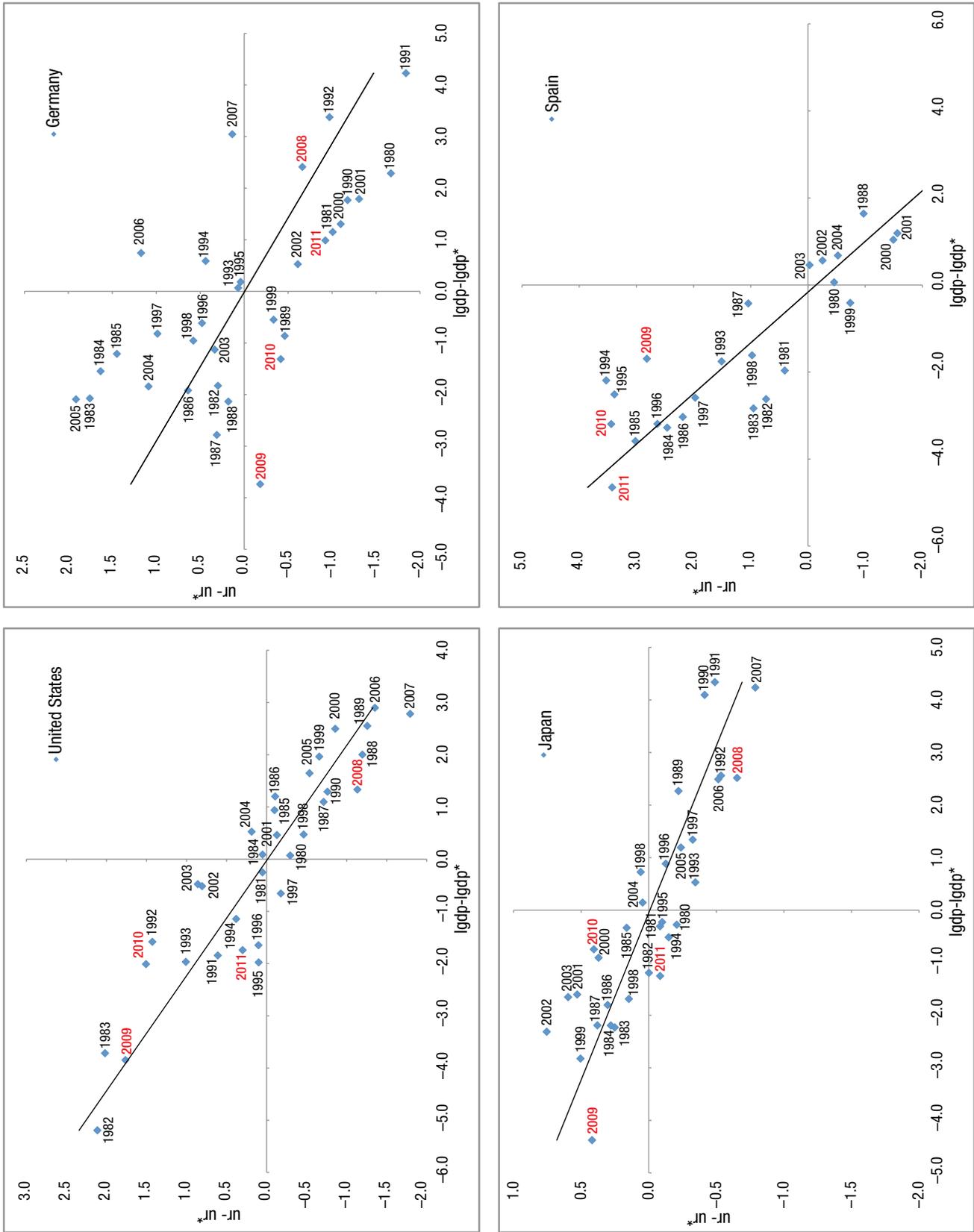
Question 4: What role did structural factors play in the rise in unemployment?

Structural factors may have played a role in countries such as the United States and Spain where the collapse of a housing boom was the major reason for the drop in output. Chen, Kannan, Loungani, and Trehan (2011) measure the extent of industrial mismatch using data on industry stock returns. Increased dispersion in stock market returns across industries is also signaling an increase in structural unemployment. When underlying shocks to the economy have disparate

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Seven Questions (continued from page 7)

Figure 4. Cross-Country Okun's law 1980-2011



impacts on the fortunes of industries, dispersion in stock market returns rises. During the Great Recession, dispersion in stock returns reached historic highs, partly reflecting the hits to the financial and construction sectors. This indicator explains about a quarter of increases in the unemployment rate, with bigger impacts on long-term unemployment (Figure 5, upper panel). In contrast to this structural indicator, the impacts of uncertainty, emphasized by Bloom (2009) and Baker, Bloom, and Davis (2011), are largely on short-duration unemployment (Figure 5, bottom panel).

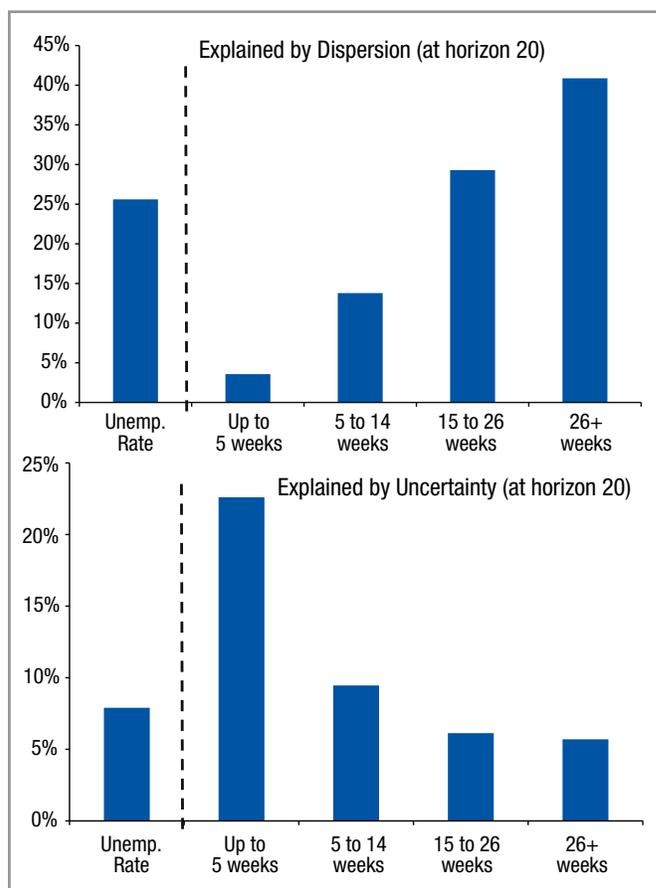
There is also some evidence of skill mismatches playing a role in the United States. Estevão and Tsounta (2011) measure the mismatch in each U.S. state between the demand for workers of various skills and the supply of those skills. They show that several U.S. states saw large increases in skill mismatches over the course of the Great Recession.

Question 5: How was Germany able to survive the Great Recession without much increase in unemployment?

To ease the pain in labor markets, governments complemented monetary and fiscal policy actions with active labor market policies. One of the key policies was to provide government financial assistance for programs to encourage companies to retain workers but reduce their working hours and wages. Such short-time work programs can spread the burden of the downturn more evenly across workers and employers, reduce future hiring costs, and protect workers’ human capital until the labor market recovers. The usage of short-time work programs as well as their contribution to the dampening of unemployment varied considerably across countries (IMF 2010b), implying that the design of the program as well as the underlying economic condition was vital for its success.

During the Great Recession, short-time work programs were most extensively used in Germany and are often credited for having played a crucial role in dampening the increase in unemployment there. However, Möller (2010) challenges this view. Instead, he suggests that the nature of the shock (which hit mostly export-oriented manufacturing firms) as well as the initial condition prior to the crisis, particularly a shortage of trained workforce, high costs of layoffs and rehiring, led to strong incentives for labor hoarding on the part of German firms. However, even if it was not the main driving force behind the behavior of firms, the short-time work scheme does appear to have supported this employment-friendly incentive in a beneficial way.

Figure 5. United States Unemployment



Source: Chen, Kannan, Loungani, and Trehan (2011).

Question 6: Did macroeconomic and financial policies stave off another Great Depression?

At the onset of the Great Recession, monetary and fiscal policies turned stimulative in most countries. The case for a “critical role of an early, strong, and carefully thought out, fiscal response” was made by Spilimbergo, Symankys, Blanchard, and Cottarelli (2008). Estimates suggest that the impact on 2009 global growth from the fiscal stimulus ranges from 1.2 to 4.5 percentage points.

For the United States, a number of papers find that monetary policies, particularly quantitative easing, are likely to have stimulated output and employment, by lowering long-term interest rates and depreciating the dollar (for example, Gagnon, Raskin, Remache, and Sack, 2010). The impact of financial policies, such as the Troubled Asset Relief Program (TARP) and several fiscal stimulus measures, such as the American Recovery and

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Conversations with Visiting Scholars

Tom Sargent on European and U.S. Economic Woes—and History

The editors of the Research Bulletin are pleased to announce the launch of a new, occasional feature: Conversations with Visiting Scholars. In this inaugural interview, Prakash Loungani talks to Thomas Sargent, winner of the 2011 Nobel Prize in Economic Sciences, about problems ailing Europe and the United States—and what each could learn from the other's history. Sargent has made several visits over the past year to the IMF's Research Department.

Loungani: Europe's fiscal challenges are foremost on minds here. This is something you have worked on in the past—the interplay of monetary and fiscal policy.

Sargent: Yes. I think Europe can learn from U.S. history. In the 1780s, the U.S. consisted of 13 sovereign states and a weak center. The states could levy taxes, the federal government could not. Government debt, federal plus state, was 40 percent of GDP, very high for a poor country. It was a crisis. Creditors worried that they could not be repaid.

Loungani: How was it resolved? There wasn't an IMF...

Sargent: Well, in the end the outcome was that the U.S.'s founding fathers rewrote the Constitution so that it gave better protection to creditors. The Constitution reflected a grand bargain: the central government bailed out the states, and the states gave up the power to levy tariffs. Knowing that the federal government had the power to raise tax revenues gave creditors reassurance that their debts would be repaid.

A Fiscal Union

Loungani: You're saying the present U.S. Constitution was adopted to give better protection to creditors?

Sargent: Yeah, makes me sound like a Marxist, doesn't it? But it's all there in our history. Alexander Hamilton was basically creating a fiscal union—bailing out the states in return for a transfer of tax-levying authority to the center. And the point of a fiscal union was to change the expectations of creditors about the chances of being repaid now and in the future. Note, by the way, that the U.S. had a fiscal union before it had a monetary union.

Loungani: So what are the lessons for Europe today?

Sargent: Don't some aspects of the EU today remind you of the historical experience I've described? The member

states have the power to tax, not the center. Many EU-wide fiscal actions require unanimous consent by member states. But reforms that could lead to a fiscal union are being proposed, as they were in the U.S. in the 1780s. I think at the

“Yeah, makes me sound like a Marxist, doesn't it?”

very least the historical episode—not just the one I described but several others that I could—shows that many configurations of fiscal and monetary arrangements are possible, and some of these work to provide assurance to creditors that there will be enough tax revenues to service the debt. I offer this as hope, but I must say that I am not an expert on day-to-day European economics or on their politics.

Curing U.S. Unemployment

Loungani: You are an expert on the U.S., and particularly on unemployment, which you've also worked on over the years. What would you do about the high U.S. unemployment rate?

Sargent: I would deal with the fundamental causes of financial crisis—the housing market particularly, where there are debts that haven't been settled and people can't yet see how they will be settled. And then to the extent that uncertainty about the course of government regulations is holding things back, I'd tackle that.

Loungani: That could take time. How would you ease the pain of the unemployed in the meantime?

Sargent: Some of the European countries, Germany and the U.K., have the right idea. They seem to do better on what's called welfare-to-work programs—ways of helping the unemployed get into new jobs. We could have done more of that here in the U.S.

Loungani: We extended unemployment benefits many times. Were you in favor of that?

Sargent: I worry that can be a trap—we could end up with persistently high unemployment.

Loungani: Why?

Sargent: You have to go back to the basic ideas in the work that I've done with colleagues over the years. Our work builds on the finding that after about 1980 something changed. The [adverse] hits that people suffered to their incomes became more permanent in nature. In the jargon of our profession, the volatility in the permanent component of earnings increased; workers were more likely to suffer permanent shocks to their human capital. Tom Friedman's *The World is Flat* has many examples of all this and the reasons why it happened. So we talk about the Great Moderation at the macro level, but for individual workers it was just the opposite.



An Unemployment Trap

Loungani: How does this lead to the trap?

Sargent: Well, think about what can happen when workers suffer a permanent hit to their incomes, and you offer then the alternative of generous and long-lasting unemployment benefits. For older workers, particularly, the benefits become an attractive option relative to looking hard for another job, which is not going to pay as much because your human capital just took a hit. And getting retrained is hard. I mean I was just 30 when my human capital was

“I was just 30 when my human capital was hit....I had to learn all this math and it was hard...”

hit. You know I went to Harvard, right? I actually got pretty good at playing around with the IS/LM model, which is what I learnt there. And then a new thing—rational expectations—came along and I had to learn all this math and it was hard. Well, if you're in your 50s you're not going to be eager to try out the hard things. You'll try to get by with the unemployment benefits. You end up with lots of workers who are detached from the labor force. I think that's what happened in Europe in the 1980s. They'd always had more a generous welfare system but the impact

of that wasn't felt until the nature of the shocks to incomes changed in the manner that I described.

Loungani: Yes, the interaction of shocks and institutions. Olivier Blanchard once said when the shocks changed Europe became like someone wearing a winter jacket in the summertime—the labor market institutions curbed flexibility when it was needed.

Sargent: Exactly. So I think the people who want to keep extending U.S. unemployment benefits have the right motives but we can end up in the wrong place—a world of persistent high unemployment. So, while in the case of fiscal institutions Europe could look to early U.S. history, in the case of labor market institutions, the U.S. should keep in mind the European experience of not so long ago.

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Foreign Direct Investment and the Crisis: Is This Time Different?*(continued from page 3)*

International Monetary Fund, 2010, *Regional Economic Outlook: Europe*, October 2010, Chapter III (Washington).

Kamil, Herman and Kulwant Rai, 2010, "The Global Credit Crunch and Foreign Banks' Lending to Emerging Markets: Why Did Latin America Fare Better?" IMF Working Paper 10/102 (Washington: International Monetary Fund).

Kinoshita, Yuko, 2011, "Sectoral Composition of Foreign Direct Investment and External Vulnerability in Eastern Europe," IMF Working Paper 11/123 (Washington: International Monetary Fund).

Kose, Ayhan, Eswar Prasad, Kenneth Rogoff, and Shang-Jin Wei, 2006, "Financial Globalization: A Reappraisal," IMF Working Paper 06/189 (Washington: International Monetary Fund).

Lane, Philip R. and Gian Maria Milesi-Ferretti, 2011, "The Cross-Country Incidence of the Global Crisis," *IMF Economic Review*, Vol. 59 (April) pp. 77-110.

Ostry, Jonathan D., Atish R. Ghosh, Karl Habermeier, Marcos Chamon, Mahvash S. Qureshi, and Dennis B. S. Reinhardt, 2010, *Capital Inflows: The Role of Controls*. IMF Staff Position Note 10/04 (Washington: International Monetary Fund).

Prasad, Eswar and Shang-Jin Wei, 2007, "China's Approach to Capital Inflows: Patterns and Possible Explanations," in *Capital Controls and Capital Flows in Emerging Economies: Policies, Practices, and Consequences*, edited by Sebastian Edwards, (Chicago: University of Chicago Press for NBER).

Prasad, Eswar, Raghuram Rajan, and Arvind Subramanian, 2007, "Foreign Capital and Economic Growth," *Brookings Papers on Economic Activity 1* (Washington: The Brookings Institution).

Tong, Hui and Shang-Jin Wei, 2010, "The Composition Matters: Capital Inflows and Liquidity Crunch during a Global Economic Crisis," *Review of Financial Studies*, 24(6): 2023-52.

Zhang, Kevin H., 2005, "How Does FDI Affect a Host Country's Export Performance? The Case of China," Paper presented at the International Conference on WTO, China, and the Asian Economies, III, Xi'an, China, June 25-26, 2005.

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Reinvestment Act (ARRA), are more controversial. Blinder and Zandi use counterfactual simulations from a large-scale macro model to argue that without the financial and fiscal policy responses, the U.S. downturn would have continued into 2011, with a 12 percent decline in GDP—compared with an actual decline of about 4 percent—and a peak unemployment rate of 16.5 percent. They conclude that “this dark scenario would constitute a 1930s-like depression.”

Micro evidence from U.S. states supports the view that fiscal policies had an effect on employment. About \$120 billion of Federal money was given to state and local governments to help them maintain employment and services. A substantial fraction of this spending was determined not by current economic conditions in a state, but to historical formulas that imparted a somewhat random element to the amount of aid that various states received. Chodorow-Reich, Feiveson, Liscow, and Woolston (2010) exploited this feature of the data to show that states that received more state fiscal relief because of these historical factors had significantly stronger employment growth, relative to predicted, than states that received less.

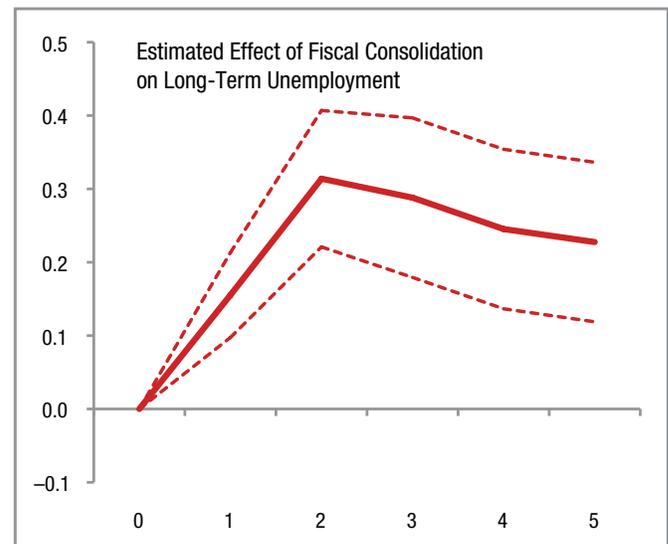
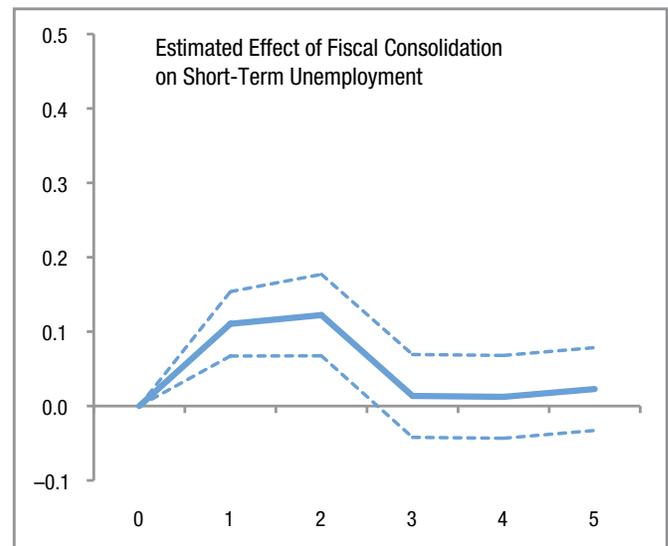
Question 7: What are the prospects for labor markets in advanced economies?

It is likely that labor markets will be slow to recover. In the near-term, the fiscal consolidation that many countries have turned to could act as a drag on the recovery in output and unemployment, particularly long-term unemployment. Ball, Leigh, and Loungani (2011) find that fiscal consolidations raise both short-term and long-term unemployment, but the impact is much greater on the latter. Moreover, while the impact on short-term unemployment comes to an end within three years, long-term unemployment remains higher even after five years (Figure 6).

Moreover, even after a cyclical recovery, structural trends that predate the Great Recession could dim labor market prospects. Loungani, Wang, Feiveson, and Jalles (2011) summarize the evidence on how skill-biased technological change and the increased prevalence of global supply chains have led to a striking loss of middle-income and manufacturing jobs in advanced economies, and the odds for a recovery in these jobs remain low.

The longer-term solutions to the hollowing out of middle-income jobs lie in retraining, better education, and increased

Figure 6. Fiscal Consolidation and Unemployment



Source: Ball, Leigh, and Loungani (2011).

productivity in nonmanufacturing sectors. But more immediate action is also needed to cushion some of the human costs of structural change, just as policymakers acted to reduce the human costs of the Great Recession (Dao and Loungani, 2011). Spence (2011) argues that redistribution must be part of the policy response: the potential benefits include increased social cohesion and continued support for globalization. Spence cautions that if the employment challenges confronting the advanced economies are not tackled, countries may resort to “protectionist measures on a broad front [and] the global economy will be undermined.”

References

- Baker, Scott, Nicholas Bloom and Steven Davis, 2011, "Measuring Economic Policy Uncertainty," working paper.
- Ball, Laurence, Daniel Leigh, and Prakash Loungani, 2011, "Painful Medicine," *Finance & Development*, Vol. 48 (September), pp. 20-23.
- Ball, Laurence, Daniel Leigh, and Prakash Loungani, 2012, "Okun's Law at 50," forthcoming IMF Working Paper.
- Bloom, Nicholas, 2009, "The Impact of Uncertainty Shocks," *Econometrica* Vol. 77 (May), pp. 623-85.
- Blinder, Alan and Mark Zandi, 2010, "How the Great Recession was Brought to an End," working paper.
- Chen, Jinzhu, Prakash Kannan, Prakash Loungani, and Bharat Trehan, 2011, "New Evidence on Cyclical and Structural Sources of Unemployment," IMF Working Paper 11/106 (Washington: International Monetary Fund).
- Chodorow-Reich, Gabriel, Laura Feiveson, Zachary Liscow, and William Gui Woolston, 2010, "Does State Fiscal Relief during Recessions Increase Employment? Evidence from the American Recovery and Reinvestment Act," working paper.
- Dao, Mai and Prakash Loungani, 2010a, "The Human Cost of Recessions: Assessing It, Reducing It," IMF Staff Position Note 10/17 (Washington: International Monetary Fund).
- Dao, Mai and Prakash Loungani, 2010b, "The Tragedy of Unemployment," *Finance & Development*, Vol. 47 (December) pp.22-25.
- Elsby, Michael, Hobijn, Bart, and Aysegul Sahin, 2010, "The Labor Market in the Great Recession," Brookings Panel on Economic Activity, March.
- Estevão, Marcello and Evridiki Tsounta, 2011, "Has the Great Recession raised U.S. Structural Unemployment," IMF Working Paper 11/105 (Washington: International Monetary Fund).
- Gagnon, Joseph, Matthew Raskin, Julie Remache, and Brian Sack, 2010, "Large-Scale Asset Purchases by the Federal Reserve: Did They Work?" Federal Reserve Bank of New York Staff Reports No. 441.
- International Monetary Fund, 2010a, "Cross-Cutting Themes in Employment Experiences During the Crisis," prepared by the Strategic Policy and Review Department (Washington).
- International Monetary Fund, 2010b, "Chapter 3: Unemployment Dynamics during Recessions and Recoveries: Okun's Law and Beyond," in *World Economic Outlook* April 2010 (Washington).
- International Monetary Fund and International Labour Organisation, 2010, "The Challenges of Growth, Employment and Social Cohesion," Discussion paper presented at the Joint IMF-ILO conference, Oslo, Norway, September 2010.
- Loungani, Prakash, Su Wang, Laura Feiveson and Joao Jalles, 2011, "Slow Recovery to Nowhere? A Sectoral View of Labor Markets in Advanced Economies," working paper (available from www.ssrn.com).
- Mian, Atif and Amir Sufi, 2011, "What Explains High Unemployment: The Aggregate Demand Channel," working paper.
- Möller, J., 2010, "The German Labor Market Response in the World Recession—Demystifying a Miracle." *Zeitschrift für ArbeitsmarktForschung*, Vol. 42(4), pp. 325–336.
- Organisation for Economic Co-Operation and Development, 2010, *OECD Employment Outlook 2010—Moving beyond the Jobs Crisis*, (Paris).
- Spence, Michael, 2011, "Globalization and Unemployment," *Foreign Affairs*, Vol. 90 (July/August).
- Spilimbergo, Antonio, Steve Symansky, Olivier Blanchard, and Carlo Cottarelli, 2008, "Fiscal Policy for the Crisis," Staff Position Note 08/01 (Washington: International Monetary Fund).
- Vitek, Francis, 2010, "Output and Unemployment Dynamics during the Great Recession: A Panel Unobserved Components Analysis," IMF Working Paper 10/185 (Washington: International Monetary Fund).



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