Banking Crises around the World

Different Governments, Different Responses
Banking Crises around the World

Over the past 40 years, there have been more than 120 banking crises around the world. Different governments have responded in different ways. The gross and net costs as a percentage of GDP range wildly, anywhere from less than 1 percent to well beyond 30 percent.

Headline vs. Core Inflation: A Look at Some Issues

Monetary policymakers are responsible for maintaining overall price stability, which is usually interpreted as low and stable inflation. In order to decide on appropriate policy actions given their objective, policymakers need to know the current rate of inflation and where it is headed. What makes for a reliable predictor of future inflation has been debated throughout the years and continues to be the subject of economic analyses today. One debate that has received attention recently is whether the focus should be on headline or core inflation. The former is calculated on an all-item index, whereas the latter is commonly calculated from a price index that excludes the highly volatile food and energy components. Central bankers around the world have taken both sides of the debate. For instance, the inflation goals of the European Central Bank and the Bank of England are explicitly stated in terms of headline measures, and their policymakers pay less attention to core measures. In contrast, the Federal Open Market Committee (FOMC) focuses on inflation on the assumption that the personal consumption expenditures price index excluding food and energy (“core PCE”) does not usually diverge from headline inflation over the short run. By Kevin L. Kliesen

PRESIDENT’S MESSAGE

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As I discussed in a 2007 commentary, the relationship seemed to break down in the mid-2000s when there was persistent divergence in headline and core inflation rates.1 Measured on a year-over-year basis, headline PCE remained higher than core PCE from 2002:Q4 to 2006:Q3. During that period, the divergence was largely driven by rapid economic growth in Asia; the rising global demand for commodities caused their prices to rise faster than other prices, putting upward pressure on headline inflation. During the financial crisis and recession, the expected patterns re-emerged—headline PCE inflation fluctuated around core PCE inflation. But now that the economy is recovering again, we do see the mid-2000s trend reasserting itself? Since June 2010, the two measures have been diverging slowly, with core inflation below headline. It is too early to tell if the divergence reflects another persistent increase in the relative prices of global commodities or if the divergence is more temporary. Given the strong growth rates of emerging economies during the global recovery, though, the divergence in the two inflation measures deserves closer attention.

What would it mean for monetary policy analyses if the FOMC does expect headline and core inflation to continue diverging in 2011 and 2012? As I asserted in my previous commentary, one interpretation is that, during times of continuous increases in the relative price of energy, perhaps core PCE is a misleading indicator of underlying inflation trends. This implies that core PCE may not be a good predictor of future headline inflation after all. Under these circumstances, headline PCE inflation should probably have more weight in policymaking decisions than core PCE inflation. Of course, if the evidence shows that core PCE is not the best measure to focus on for policy purposes, exploring other options may make sense. One alternative measure could include all components but put less weight on those that have highly volatile prices. Such a measure would avoid systematically excluding certain prices and would more accurately reflect consumers’ expenditures. Additionally, studies have shown that other existing “core” measures, such as PCE trimmed-mean inflation, or PCE weighted-median inflation, may be better predictors of headline PCE inflation than core PCE.2 In the end, the policymakers’ goal is to use the inflation measure that helps them achieve low and stable headline inflation in the long run.

2 For example, see Smith, Julie K., “PCE Inflation and Core Inflation.” Unpublished manuscript, Department of Economics, Lafayette College, Easton, Pa., January 2010.


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2 For example, see Smith, Julie K., “PCE Inflation and Core Inflation.” Unpublished manuscript, Department of Economics, Lafayette College, Easton, Pa., January 2010.
Trade

Currency Is No Quick Fix

The Regional Economist

Why “Fixing” China’s Currency Is No Quick Fix

By Brett Fawley and Lucia Jerven

O n set, the U.S. economy added zero jobs over the past decade. Eight million jobs gained from 2003-07 were countered with eight million jobs lost from 2008-09. The recent recession, despite its severity, cannot shoulder all blame for this outcome. Average job growth during the 2003-07 expansion was 60 percent slower than average job growth over previous economic expansions following World War II.

The sluggish growth was likely driven by a combination of internal factors (increased productivity) and external factors (job outsourcing and large sustained trade imbalances). For example, Figure 1 shows that from 1994 to 2006 the U.S. multilateral trade deficit in goods grew from 2.5 to 6.5 percent of GDP. To the extent that this trend reflects diminished U.S. competitive-

ness in international goods markets, some U.S. manufacturing jobs may have been lost to foreign competitors.

Meanwhile, the U.S. Treasury is threatening to label China as a “currency manipulator” for allegedly using foreign exchange intervention and currency controls to fix the value of its currency (the renminbi) to the dollar in order to prevent appreciation of its currency and to gain a trade advantage through lower international prices for its exports. As revealed in Figure 1, the U.S. bilateral trade deficit with China has remained relatively constant. Unfortunately, the answer is “probably not to any meaningful degree.”

It’s Not Just U.S. vs. China

Assuming that the renminbi is undervalu-
ed,¹ any effect its revaluation would have on U.S. labor markets depends entirely on its impact on the U.S. multilateral trade deficit with all countries, not on the bilateral trade deficit with China taken in isolation. Smaller U.S. trade deficits with China, offset by larger bilateral deficits with other countries, cannot be expected to provide material job growth. A renminbi revaluation is unlikely to seriously impact the multilateral trade deficit for two reasons. First, multilateral trade balances are in part determined by domestic preferences that may not hinge on the exchange rate. For example, a country importing more than it exports must fund this spending with inflows of foreign capital. The magnitude of capital inflows is primarily determined by the gap between domestic investment and gross domestic savings.

Revaluing the renminbi is unlikely to fundamentally shift U.S. domestic preferences for saving and investment. Second, regional specialization patterns in Asia suggest that a major component of the U.S. bilateral trade deficit with China is a persistent trade deficit with Asia. The price, and hence, quantity of Chinese exports may be surprisingly resilient to changes in the value of the renminbi.

In 2003, tension was equally high with respect to China’s dollar peg, and the U.S. Congress was also considering retaliatory measures. The Congressional Budget Office (CBO), however, concluded that a revaluation of the renminbi would have little effect on U.S. manufacturing employment. In particular, China, owing to cheap labor costs, had already shifted most assembly for the Asian region. Intermediate goods were exported to China from other Asian countries, these goods were then assembled and exported to the United States. As evidence of this emerging special-

ization pattern, the CBO reported that from 2000-02 a large portion of the increase in imports from China was offset by declining imports from Japan. Among developing Asian countries (outside of China), nearly all showed declining exports to the United States during this period.

Accurately estimating the size of this regional trade effect over a longer period of time is essential for U.S. trade policy, but such estimation is not without obstacles. In particular, the CBO analysis benefited from looking at a period of U.S. recession. Dur-

ing times of economic expansion, imports from nearly all trading partners increase, making it hard to distinguish between the effects of increasing globalization and the potential redirection of exports within trading partners.

To help disentangle the two effects, consider what bilateral exports would be, had countries’ export growth been evenly distributed across all trading partners. Specifically, we compute for 174 countries what exports to the United States and China would have been in 2007, had each shipped the same fraction of its total exports to the United States and China as it did in 1994. We then compare this hypothetical number to actual exports and plot the differences in Figure 2. Interestingly, the countries that stick out with the largest unpredicted increases in exports to China (and correspondingly largest unpredicted decreases in exports to the United States) are, in fact, the Asian countries implicated by the CBO as moving their assembly to China.

This is in stark contrast to the high density of points centered at zero-zero, revealing that most countries’ trade shares with the United States and China remained remarkably constant. Incidentally, a simple linear regression reveals that the relationship between greater-than-predicted exports to China and less-than-predicted exports to the United States is strongly statistically significant.

To the extent that Chinese exports to the United States originate beyond China’s borders, such trade flows are generally insen-

sitive to changes in the value of the renminbi. Most of the value of the goods is added in other countries and denominated in other currencies. Specifically, the 2003 CBO report cites estimates that only 20-30 percent of the total value added of Chinese exports occurs in China. Hence, only 20-30 percent of the value of Chinese exports is subject to the effects of a renminbi revaluation. The dollar value of the remaining 70-80 percent of the goods would remain unaffected. Chinese manufacturers could import intermediate inputs for less money following a renminbi revaluation and pass the cost savings directly through to the final price, largely offsetting any increase in the price due to the higher value of the renminbi. Such results confirm that persistent global trade imbalances will require multilateral solutions.

Revaluation May Be Inevitable

China will probably have to revalue its currency in the near future even without the threat of U.S. retaliation. The true relative purchasing power of two countries is determined not by the nominal exchange rate (the price of one currency in terms of another as reported on a currency exchange), but by the real exchange rate, which takes into account relative changes in domestic price levels. When China sells renminbi for U.S. dollars in order to affect the exchange rate, it adds currency to its domestic money supply. When the dollar appreciates, the increase in the currency base increases domestic prices, canceling out any change in the real exchange rate due to nominal depreciation of the renminbi. Countries can absorb some of the additional liquidity through “sterilization,” i.e., buying back the currency by selling bonds, but only to a point. The dependence between monetary and foreign exchange policy will ultimately force China’s hand, but the United States cannot expect any quick labor market fixes due to Chinese currency revaluation. Instead, the United States would be advised to follow China’s suit in identifying and exploiting its own comparative advantages.

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REFERENCE


ENDNOTES

¹ Consensus estimates are that the renminbi has been undervalued by 25-40 percent, but there are reasons (like a still developing Chinese banking sector) why even if allowed to float, the renminbi could depreciate, rather than appreciate.

² If the renminbi were half of its value against the dollar, but domestic prices in China dou-

bly the good of a Chinese good, in U.S. dollars, remains the same. No effect on trade would be expected from the nominal depreciation.

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FIGURE 1

U.S. Balance of Trade in Goods

SOURCE: IMF Direction of Trade Statistics (DOTS) and Bureau of Economic Analysis.

FIGURE 2

Asian Exports Have Shifted Toward China, Away from U.S.

SOURCE: IMF Direction of Trade Statistics (DOTS) and authors’ calculations.

NOTE: This figure compares reported 2007 bilateral exports to the United States and China with what they would have been had countries maintained their 1994 export shares with each trading partner. Asian countries stood out as increasing their share of exports to China while decreasing their shares of exports to the United States. One plausible explanation is that these countries moved final assembly of their domestically produced intermediate goods to China.
Which Came First—Better Education or Better Health?

By Rubén Hernández-Murillo and Christopher J. Martínek

The more you learn, the more you earn! This phrase has been used by education proponents to encourage young students to stay in school or pursue higher education. But higher lifetime earnings are not the only positive outcome from increased schooling. As it turns out, the more you learn, the more likely you are to stay in good health. For example, in 2007, the age-adjusted mortality rate (measured in deaths per 100,000 people) among American males between 25 and 64 years was 665.2 for individuals without a high school diploma, 600.9 for individuals who completed high school and 238.9 for individuals with some college or higher.¹ In terms of health behaviors, the estimated incidence of smoking among American males over the age of 25 with a bachelor’s degree or higher was 10.4 percent, while this figure among males with a high school degree or less was about 30 percent.² Similar differences exist for obesity and physical inactivity.³

If more education can lead to better health, addressing the processes by which differences in education translate into differences in health can be useful to public policymakers. Identifying a causal relationship is of crucial importance in the design of policy. For example, if more education causes better health, then policies to increase education might also be effective at improving health in the population.

However, if the association (often called correlation) between education and health exists because better health allows individuals to attain a better education (reverse causation), then the correlation between education and health results from the correlation of education with other factors that also improve health (such as income of the parents), then education-improving policies might not be effective at improving health.

**Better Education—Better Behaviors**

Economists David Cutler and Adriana Lleras-Muney are among those analyzing the education-related health disparities.⁴ The authors examine responses to the National Health Interview Survey in the United States and find a statistically significant effect of education on various measures of health, including mortality (measured as death within five years of the survey) and incidence of common acute and chronic diseases (such as heart condition, stroke, hypertension, high cholesterol, diabetes, asthma and so on). The authors report that more-educated people are less likely to suffer from these diseases. Interestingly, some common diseases, such as cancer, do not seem to exhibit an effect from education (which indicates that incidence does not vary with education). A major reason for the differences in health outcomes is, not surprisingly, differences in healthy behaviors. For example, in the United States, the incidence of smoking, obesity and heavy drinking is lower among the better educated.⁵ More-educated people are more likely to exercise and obtain preventive care (flu shots, vaccines, mammograms). More-educated people are also more likely to use seat belts and have smoke detectors in the house. Differences in behavior, however, do not explain all the differences in health outcomes by education, but they do explain a significant proportion: Cutler and Lleras-Muney find that the effect of education on mortality is reduced by 30 percent when they control for exercise, smoking, drinking, seat belt use and use of preventive care.

**Information**

Cutler and Lleras-Muney consider several alternative mechanisms for why education affects health. Perhaps the most obvious factor to explain differences in health outcomes would be differences in income. More education generally leads to higher income, which, in turn, allows for better access to better health care. However, they argue that it is unlikely that income is the sole factor in health care can account entirely for the association between education and health as many of the behaviors they analyze occur independent of health care access. The authors estimate that differences in income account for about 20 percent of the impact of higher education on health behaviors. Price differences are also unlikely to be an important determinant, considering that unhealthy behaviors such as smoking, drinking and overeating are costly but are, nevertheless, more prevalent among less-educated individuals.

An interesting theory developed by Cutler and Lleras-Muney is that education provides individuals with better access to information and improves critical thinking skills.⁶ What this means is that people with more education tend to be better informed and more likely to make better use of the information they acquire when making health-related decisions. These attributes of education are, in turn, reflected in health-related choices. For example, people with more education seem to understand more clearly the dangers of smoking, are more likely to be informed about new drugs or complex medical procedures and seem to better understand diagnosis instructions after emergency room visits. The authors estimate that cognitive skills account for up to 30 percent of the effect of education on health behaviors.

**Passing Good Health on to Children**

On top of its association with adult health, greater educational attainment informs parents to encourage young students to stay in school or pursue higher education. For example, in a recent overview of the economics literature on health-care access, the authors estimate that parental socio-economic status has an effect on test scores, educational attainment, wages and probabilities of being employed.⁷ Understanding the role of health in the intergenerational transmission of socio-economic status is a promising avenue for policy. For example, the evidence supports the causal relationship between parental socio-economic status and child health and a causal relationship between child health and future outcomes is for now still limited. As noted earlier, distinguishing between simple correlation and causality is important for designing effective public policy. If parental socio-economic status does not impact child health, then public policies aimed at improving socio-economic status of the parents will not necessarily improve their children’s health.

Second, she finds strong evidence that childhood health plays an important role in future outcomes. In fact, some economists believe the observed relationship between income and health in adulthood may have its roots in childhood.⁸ Currie reports that in developing countries there is a lot of evidence indicating that individuals with poor health during childhood also tend to achieve lower education levels later in life. A similar relationship is found in developed countries; in particular, low weight at birth (a strong predictor of childhood health) has been associated with lower test scores, educational attainment levels, wages and probabilities of being employed.

**References**

1 See National Center for Health Statistics, 2010.


5 The authors use self-reports of the incidence of smoking as opposed to objective measures (doctor diagnosis). For some of the more serious diseases considered, such as heart conditions and cancer, self-report would indicate that individuals have been already diagnosed, however.

6 Currie and Lleras-Muney report that each additional year of education is associated with a reduction in the probability of smoking of 3 percent points, a reduction in the probability of binge drinking of 4 percentage points and a reduction in the probability of offering a heavy drinker (defined as drinking an average of five or more drinks when a person drinks alcohol) of 8 percentage points.

7 The most common of these cognitive skills are the ability to retain and recall information and spatial reasoning.

8 Economists Anne Case, Darren Lubotsky and Christian Ferson find that gap in childhood health status between children of low socio-economic status and high socio-economic status grows with age. Children from lower income families end up with both lower socio-economic status and poorer health.

**Endnotes**

¹ See National Center for Health Statistics, January 2010.


⁵ The authors report a 30 percent reduction in mortality rate (measured as death per 100,000) among American males among males between 25 and 64 years.

⁶ The authors use self-reports of the incidence of smoking as opposed to objective measures (doctor diagnosis). For some of the more serious diseases considered, such as heart conditions and cancer, self-report would indicate that individuals have been already diagnosed, however.

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Are Small Businesses the Biggest Producers of Jobs?

By Kevin L. Kliesen and Julia S. Mauss

Two-thirds of all new jobs created between 1969 and 1976, firms with 100 or fewer employees accounted for 82 percent of all new jobs created. Conversely, he found that large firms (500 or more employees) accounted for only 15 percent of net job growth. Birch’s finding challenged the conventional wisdom about job creation at the time and, accordingly, had enormous influence on policymakers and researchers.

Some economists soon began to challenge Birch’s findings. Using the same data as Birch, Catherine Armington and Marjorie Odle found in 1982 that businesses with 100 or fewer employees accounted for only 39 percent of net new jobs. Several years later, Charles Brown, James Hamilton and James Meddoff pointed out that 40 percent of jobs created in small businesses in 1980 no longer existed in 1986. A more up-to-date assessment of the job-creation characteristics of small businesses can be found in work published by Stephen Davis, John Haltiwanger and Scott Schuh in 1996. These authors noted that “a common confusion between net and gross job creation distorts the overall job creation picture and hides the enormous number of new jobs created by large firms and small firms that Birch originally suggested.

Business Employment Dynamics

Researchers who want to assess the claim that small businesses account for a disproportionately high number of new jobs must first confront several issues. First, what is the best data source for the hypothesis to be tested? Second, how should a small business be defined? Third, should the focus be on the gross number of jobs created or the net number of jobs created? The research suggests the latter. Why? Because even during the depths of the 2007-09 recession, businesses were still adding an average of nearly 900,000 new jobs a month. But they were shedding an even larger number of jobs per month—about 971,000. In this article, we use the Business Employment Dynamics (BED) dataset from the Bureau of Labor Statistics.¹ One drawback of the BED is that it has less than 20 years of experience. The analysis in this article uses the following breakdown of firm size: 1-19 employees; 20-99 employees; 100-499 employees; and 500 or more employees.

Job Gains by Firm Size

The table shows average gross and net job gains at all private business establishments from the third quarter of 1992 through the first quarter of 2010.² Over this roughly 18-year period, gross job gains per quarter averaged a little less than three million, or about 929,000 per month. Since the 2007-2009 recession was extremely severe, the table includes a separate column that excludes the data from that period. The lower half of the table shows that businesses with fewer than 20 employees provided the largest percentage of gross job gains (about 30 percent). Businesses with between 20 and 99 employees accounted for the next largest share (about 27 percent), with the largest firms (500 or more) accounting for a somewhat smaller percentage (about 26 percent). The remaining category—businesses with between 100 and 499 employees—accounted for a smaller percentage of gross job gains. All of these percentages are little changed if we exclude the recession period.

The analysis in this table seems consistent with the conventional wisdom that small businesses are the largest source of job creation in the economy. However, as suggested by previous studies, the analysis tends to change when the focus switches to net job creation.

The two right-hand columns in the table examine net job gains. Net job gains are defined as job gains minus job losses. Three findings are apparent from the table. First, net job gains were significantly smaller than gross job gains. The net jobs per quarter averaged only 105,000, or 35,000 per month. Second, the table shows that the recession dramatically reduced the rate of net job creation. Once net job losses during the recession are removed from the calculation, the number of net jobs rose to 173,000 per quarter (about 58,000 per month). Finally, and perhaps most importantly, the BED data show that since 1992, net job creation tended to be largest among the largest firms: these firms accounted for about 38 percent of the total. The smallest firms showed the smallest percentage of net jobs created. This result does not change if the past recession is excluded from the sample. In short, small businesses showed higher rates of gross job creation, but they also exhibited higher rates of job destruction. Looked at from this standpoint, net job creation matters much.

Endnotes

1 Birch followed up his original study with several subsequent studies (not cited herein).

2 One drawback of this study is that it focused on the manufacturing sector, which is relatively small share of the economy and, thus, probably not a good representation of total job creation.

Kevin L. Kliesen is an economist and Julia S. Mauss is a research associate at the Federal Reserve Bank of St. Louis. Leping Zheng provided research assistance. See http://research.stlouisfed.org/es/kliesen for more on Kliesen’s work.

References


1 See Neumark, Wall and Zhang.

2 The BED is a quarterly series that is based on the Quarterly Census of Employment and Wages, which uses establishment-based insurance records. See Neumark et al. for more information about the BED.

3 Changes in employment can arise from opening of expanding businesses, or closing or contracting businesses. Gross job gains include the sum of all jobs added at both opening and contracting establishments. Gross job losses, then, include the sum of all jobs lost at both closing establishments or contracting establishments.
The latest U.S. financial crisis is one of many in the recent economic history of both advanced and emerging economies. Each crisis is somewhat unique and is triggered by different processes and events. However, some common elements can be identified in the way different governments intervene to help financial sectors return to health and to soften the economy-wide impact of the crisis.

Central banks tend to adopt measures that provide liquidity to the system and that can be considered as part of a broader mandate to carry out monetary policy. In contrast, governments and parliaments tend to design and implement programs that provide more direct support to specific industries and occasionally to specific institutions; these programs are more properly associated with fiscal policy intervention. This article will focus on the latter: direct support to commercial banks and savings institutions. The article will compare the United States’ Capital Purchase Program (part of the Troubled Asset Relief Program) with capital-injection programs enacted by other countries around the world during banking crises.
Governments intervened with some form of recapitalization or capital injection in 32 of the 42 banking crises identified by the IMF economists between 1970 and 2007. ... Most of these programs are often justified politically by the objective of preventing or reducing lending declines and recapitalizing financial institutions, with the ultimate goal of alleviating strains in financial markets and restoring their functioning. But instead of providing general liquidity to the financial system, they target specific financial institutions. Perhaps this is one of the reasons why—even when they are necessary and eventually prove useful—they frequently face vocal opposition from the public. Taxpayers worry that the costs of the support programs may outweigh their benefits and may eventually lead to higher taxes. Economists worry that government intervention may plant the seed of future crisis by exacerbating moral hazard problems.1

It is fair to say that there is no consensus among economists and policymakers on the optimal resolution mechanisms of banking crises. How To Define a Banking Crisis

Thanks to its expertise in monitoring and analyzing a large number of countries, the International Monetary Fund (IMF) is particularly well-positioned to collect, study, and disseminate information about banking crises in a comparative perspective. IMF economists Luc Laeven and Fabian Valencia analyzed crises between 1970 and 2007 among a large set of countries, and much of what follows derives from their work.

Banking crises can occur either independently or concurrently with a currency crisis (a so-called twin crisis) or with a sovereign debt crisis, or both. How are these crises defined? In a systemic banking crisis, a country’s financial and banking industry experiences a significant number of defaults while financial entities face vast problems fulfilling financial contracts on time. As a consequence, a country experiences a large increase in nonperforming loans, and a large part of the capital in the banking system is reduced. Sometimes, these events follow a fall in asset prices (for example, in the real estate market) and sometimes overlap with runs on banks, but in order to be defined as “systemic,” such crises must involve a large number of institutions, cover a large portion of the banking system.

Sweden and Latvia experienced such crises in the 1990s. (A more detailed account of the mechanisms involved is provided later in this article.)

A currency crisis is often defined as a situation in which a country experiences a nominal depreciation of its currency by at least 30 percent, while at the same time the rate of depreciation increases by at least 10 percent compared with one year earlier. The collapse of the Thai baht during the Asian Crisis of 1997–98 is a prime example of a large currency crisis. The currency depreciated by more than 30 percent less than two months after the fixed exchange rate was abandoned in the summer of 1997.

In a sovereign debt crisis, a government fails to pay its own debt, either in part or in full. For example, in 1998 Russia defaulted on its Soviet-era debt and began restructuring the components of its sovereign debt. Notice that at least partial default is required to meet the definition of “sovereign debt crisis” used by the IMF. That means the current difficulties experienced by some European countries would not qualify as a “sovereign debt crisis.”

During the recent financial crisis, no twin or triple crisis (as just defined) has occurred so far. Some European countries have experienced difficulties in managing and refinancing their debt, but so far none has defaulted.

Many countries have experienced various combinations of these types of crises in recent history. Economists Laeven and Valencia identified 124 systemic banking crises, 208 currency crises and 63 sovereign debt crises; the two economists observed that some countries were repeatedly affected by these events between 1970 and 2007. One such country is Argentina. Its prosperity rivalled that of the United States in the beginning of the 20th century. Yet in the past 30 years, Argentina has experienced four banking crises (1980, 1989, 1995 and 2001). All but the 1995 crisis were also currency crises, and one (2001) was contemporaneous to a sovereign debt crisis.

Argentina is not an isolated case. The IMF study identifies 26 twin crises (banking and currency) and eight triple crises. Overall, banking and currency crises were more frequent in the 1990s, while sovereign debt crises were more frequent in the 1980s.

The recent global financial crisis witnessed many countries experiencing banking crises. After 2007, there were 13 cases of systemic banking crises in which all countries experienced extensive liquidity support, increases in guarantees on liabilities and significant nationalizations. In some cases, the countries also experienced significant asset purchases (as in the United Kingdom and United States) and sizable restructuring costs.2 During the same period, a smaller group of 10 countries experienced serious problems in its banking sectors that entailed extensive liquidity support and increases in guarantees on liabilities; in these 10 countries, there was only one case of asset purchases (Switzerland) and there were no cases of significant nationalization.3

Luckily, none of these countries has experienced either a currency crisis or a sovereign debt default since 2007.

Options for Direct Support in Banking Crises

Commonly adopted resolution policies include various types of large-scale government intervention, such as bank closures, nationalizations, mergers, sales to foreigners, the assumption of a bank restructuring and/or an asset-management company, and recapitalization. Sometimes, these actions are accompanied by forbearance that allows the suspension or reduction of loan payments under certain circumstances and for specified lengths of time; sometimes, changes in loan classification and loan-loss provisioning are also allowed.

Often, direct government support to ailing financial institutions takes the form of recapitalization, a process in which the amount of debt and assets of a particular entity are reorganized in order to meet a financial goal. The goal may be an attempt to limit the amount of tax owed on assets in hand on, as part of a reorganization, to avoid bankruptcy.

Financial institutions can be recapitalized using a variety of measures: cash transfers, government bonds, issuance of subordinated debt, issuance of preferred shares, government purchase of bad loans, assumption of bank liabilities or the purchase of ordinary shares by the government. Financial support policies are also allowed.

Within four years of its independence, Latvia gained independence from the Soviet Union and transitioned from a centrally planned economy to a market economy. Within four years of its independence, Latvia had more than 60 licensed banks for a population of 2.3 million.5 As government policy established the right for any person or entity to establish a bank, the motivation for founding a bank quickly became the ability...
to access cheaper funding rather than go through more-established channels. These private banks continued to grow with little supervision from the Central Bank of Latvia and, as a result, much bad lending took place.

The precipitating factor of the crisis occurred in early 1995 when the Central Bank of Latvia requested that all banks present their audited financial statements. The largest Latvian bank in terms of assets and deposits—Bank Baltija—failed to present its statements, revealing its potential insolvency. The central bank took control of Bank Baltija in July 1995, and a liquida- tor took control in 1996. Other mid-size and smaller banks also faced difficulties during this time, and several were catego- rized as insolvent. About 40 percent of the banking system’s assets and liabilities were impacted.

During the transition period, nonper- forming loans increased throughout the banking sector as banks granted loans even to high-risk borrowers, and collections were made difficult by a lack of laws governing loan collateral. However, a swift stabiliza- tion policy helped restore viability to the banking system with the liquidation of cer- tain banks, foreign help from the European Bank for Reconstruction and Development, and a new banking law strengthening the central bank’s regulatory powers. The coun- try also established a deposit insurance sys- tem, and the government decided to refund lost deposits to depositors up to a certain amount and conditioned on the existence of proceeds from the bank liquidation process.

Argentina

Argentina has experienced four banking crises since the 1980s, with one triple crisis in 2001. During the 1980s, the government transformed the banking sector through privatization and consolidation and allowed for increased entry by foreign institutions, all of which improved the banking system’s effi- ciency. However, bank profitability remained low, and more than 20 percent of total assets in 2000 were represented by government debt, which left banks vulnerable in the case of government default.

The triple crisis broke in 2001 when, out of fear from the deteriorating economic cli- mate, people rushed to withdraw their pesos from the banks in order to convert them into dollars and ship them abroad. The already ailing banks were further devastated when the government defaulted on its debt in December 2001.

As a result of the financial distress, the country was forced to exit its currency board regime, a convertibility program that tied the peso to the dollar at parity. At the same time, the government responded to the bank runs by restricting withdrawals, essentially freezing all accounts. In addition, private deposits and credit to the private sector declined dramatically, which further weakened the ailing economy. The resolution of the banking crisis was part of a larger set of policies that had to deal with the economy-wide crisis. The government ended the currency board regime in early 2002 (allowing a massive devaluation of the peso) and eventually restructured its debt.

Besides freezing bank accounts, the government intervention took several additional forms, including converting dollar-denominated loans and deposits from dollars to pesos at different rates, authoriz- ing regulatory forbearance and a temporary decrease in banks’ capital, and nationalizing three banks and closing another.

The U.S. Experience

In the United States, the main instrument of direct support to banks by the U.S. Trea- sury is the Troubled Asset Relief Program. TARP was established at the peak of the crisis in the fall of 2008, a bit more than one year after the initial problems in the financial system had emerged. For the first year of the crisis (which began in August 2007), there were no significant legislative changes, perhaps because the risk of a major crisis seemed minimal or because sufficient institutional flexibility seemed to guarantee the ability to intervene with exist- ing instruments.

However, the existing toolkit of support programs was substantially expanded soon enough. By October 2008, in the midst of the panic that ensued after the failure of Lehman Bros., the Treasury proposed to Congress the idea of purchasing troubled assets to stabilize the financial system, through TARP, an essential component of the Emergency Economic Stabilization Act. Within a week of approving the legislation, the core sup- port was refocused toward buying equity in financial institutions, using a new instrument of support, the Capital Purchase Program (CPP), which fell under the big umbrella pro- vided by TARP. Within weeks, nine major banks received a capital injection of $450 billion, and the idea of purchasing troubled assets was temporarily set aside in favor of buying equity.

In November 2008, one of the beneficia- ries of the CPP, Citigroup, received a second round of government assistance, under another program of the TARP; and in Janu- ary 2009, Bank of America also received additional government support. The new administra- tion defined a set of criteria for “stress tests” aimed at determining the capital adequacy of the largest banks and presented a new program aimed at purchasing assets (the Public-Private Investment Program), which makes up a small percentage of TARP funds.

Similar to other countries, U.S. authorities adopted a complex strategy to support the economy during the financial crisis, almost all of the policy options deployed in the U.S. were attempted in Japan during the 1990- 2003 period. The TARP eventually included 13 programs implemented by the U.S. Treasury: The Treasury allocated $250 billion for CPP, which represents a large part of the total allocation of government funds under TARP ($700 billion). Of the $250 billion allocated, approximately $205 billion was distributed to 707 institutions, largely toward the end of 2008 and the beginning of 2009, with the last disbursements occur- ring Dec. 29, 2009. Figure 1 plots the monthly number of beneficiaries (red bar), the total amount of gross disbursements (gold line) and the value of outstanding disbursements (gross payment net of repay- ment, blue dots) until the end of 2010. It should be noted that some financial institu- tions—Citigroup, Bank of America, GMAC and Chrysler Financial—were supported with other TARP programs, as well.

The pool of eligible institutions that could apply for CPP funds included more than 8,000 commercial banks, savings and loan institutions, and some other financial.
intermediaries. However, only qualified financial institutions, those deemed strong enough to survive on their own, are considered for direct support. As later events showed, very few of the CPP beneficiaries failed in the period between 2008 and 2010. The application process for the CPP involved several stages, which involved consultations with primary regulators, analysis of their regulatory ratings and final approval by the Treasury. Investment amounts initially varied from 1 percent to 3 percent of the institution’s risk-weighted assets (up to a maximum of $25 billion). After May 2009, some financial institutions voluntarily to return their capital injections earlier than expected. The position of repayments is clear in Figure 1. By the end of 2010, only one-fifth of the original pledged funds had yet to be returned by the beneficiaries.

Comparing U.S., Other Countries

In the 42 aforementioned banking crises between 1970 and 2007, the estimated cost of direct support recapitalization varies sub-
stantially, with gross costs (not accounting for repayments) ranging from an estimated 0.28 percent of GDP in Argentina during the 1995 crisis to 37 percent in Indonesia during the 1997-98 crisis. Initial estimates for the 2007-09 financial crisis, available in another study by economists Laeven and Valencia, placed gross direct fiscal costs of financial sector recapitalization varies substantially (up to 3 percent of GDP) in the early stages of the crisis but less so in later stages, as shown in Figure 1. By the end of 2010, only one-fifth of the original pledged funds had yet to be returned by the beneficiaries. If only the CPP were considered for the U.S., the ratio for the U.S. would fall to approximately 1 percent of 2009 GDP.

A more informative measure of the cost of capital support programs looks not at gross costs, calculated as the difference between the amount of funds disbursed and those repaid to the government. The median net cost across 42 banking crises between 1970 and 2007 was 3.4 percent of GDP. Its dis-
tribution across some of these countries for which data are available is plotted in Figure 2. Although the median net costs are growing at about the same rate, 2009 GDP, substantially lower than in previous banking crises. Compared with Japan (the only other large economy that has experienced a widespread banking crisis following a housing crisis), the United States appears to be transitioning out of the crisis relatively quickly. Although the U.S. has had more bank failures (mostly small institutions), banks have more swiftly repaid the majority of their CPP than banks in Japan and other countries affected by banking crises.

The gross direct fiscal cost of financial sec-
tor restructuring during the recent financial crisis has been estimated at roughly 5 percent of GDP for the U.S. (counting the $780 billion that was the total budget for TARP), close to the 1-4-11 Transaction Report for the period ending Dec. 31, 2010, which have been received. The Board’s gross outstanding amount ($204.9 billion), the total repaid ($167.9 billion), the total outstanding CPP investment ($34.4 billion).

ENDNOTES
1 Moral hazard is when an individual or a comp-
pany is incented to take actions that benefit it without consideration of its decisions and, therefore, acts care-
tfully than it otherwise would, having another party (e.g., the government) to bear part or all of the cost of the effects of those decisions. The 13 countries are Austria, Belgium, Can-
ada, Denmark, France, Germany, Iceland, Ireland, Lux-
embourg, Norway, Netherlands, Sweden, United Kingdom and the United States. The 16 countries are France, Greece, Hungary, Kazakhstan, Portugal, Romania, Slovenia, Spain, Sweden, Switzerland.
2 See Engberg. See Bank of Latvia. See IBFD. See Hess and Kaspary. See Baur and Wheeldon. See the 2008 study by Laeven and Valencia. This figure is computing using the 1-4-11 Transaction Report for the period ending Dec. 31, 2010, which have been received.
3 The 10 countries are France, Greece, Hungary, Iceland, Ireland, Latvia, Luxembourg, Mongolia, Netherlands, Ukraine, Sweden and Switzerland.
4 The gross direct fiscal cost of financial sec-
tor recapitalization varies substantially (up to 3 percent of GDP) in the early stages of the crisis but less so in later stages, as shown in Figure 1. By the end of 2010, only one-fifth of the original pledged funds had yet to be returned by the beneficiaries. If only the CPP were considered for the U.S., the ratio for the U.S. would fall to approximately 1 percent of 2009 GDP.

The Economy Continues To Strengthen, but Risks Remain

By Kevin L. Kliesen

D uring the first year and a half of the business expansion, the U.S. recovery was characterized by below-average growth of real GDP, anemic job creation and a high unemployment rate. It was fairly weak by historical standards. Early this year, however, the U.S. economy seemed poised to grow by more than the roughly 2.75 percent growth of real GDP registered last year. This strengthen-
ing, which is consistent with the projec-
tions of the Federal Open Market Committee and the consensus of private-sector profes-
sionals, likely reflects a few key factors. These include the economy’s natural built-in corrective forces and the expansion of monetary and fiscal policies put in place to jump-start the economy. In addition, financial markets have healed, and the worst of the housing crisis appears to be behind us.

Key Trends Remain Positive

Last year, real GDP grew by about 2.75 percent. This increase was significantly larger than in the previous year (0.2 percent), but still only about equal to the economy’s estimated growth of potential real GDP. When actual real GDP and potential real GDP are growing at about the same rate, there is not much scope for improving market market conditions—particularly after a deep recession. Indeed, jobs gains were deci-
edly languishing last year, as nonfarm payroll employment rose by an average of 76,000 per month. Likewise, the unemployment rate averaged 9.6 percent in the fourth quarter of last year—a not too modestly from a year earlier (10 percent).

Growth of real GDP was strengthening over the second half of last year after a springtime lull that saw the nation’s out-
put growth slip to about 1.75 percent in the second quarter. Broadly speaking, the economy’s momentum at the end of 2010 appears to have carried over into 2011, as many of the nation’s key indicators are point-
ing to a quickening in the pace of economic activity this year. First, the Conference Board’s Index of Leading Economic Indicators increased by nearly 8 percent in 2010, which was the largest annual increase since 1983. Second, productivity growth remains quite strong. One immediate manifestation of this is reflected in strong growth of corporate profits, which then helps to increase stock prices. Rising stock prices against the backdrop of an improving outlook provide firms with an incentive to expand their capi-
tal stock. Rising stock prices also increase household wealth, which may provide a boost to consumption spending. At some point, strong productivity growth should lead to faster growth of real income and, thus, rising employment. Indeed, according to the February 2011 Survey of Professional Forecasters, nonfarm payrolls are projected to increase by an average of 200,000 per month over the final nine months of this year. Despite this robust job growth, forecasters expect that the nation’s unemployment rate will remain quite high this year (9.1 percent) and next year (8.5 percent). Larger declines in the unemployment rate are possible, but probably only if real GDP increases by more than the roughly 3.25 percent growth that forecasters expect for this year and next.

Risks to the Outlook

Financial crises tend to have long-lasting effects. One notable legacy of a financial crisis is a large increase in government debt to GDP. The government’s fiscal balancing act (CBO) now projects that the federal budget deficit will average about 8.5 percent of GDP for fiscal years 2010 to 2012. This compares unfavorably with an average of 2.1 percent from 1960 to 2007. Typically, as the economy strengthens, the deficit naturally lessens as tax revenues increase because of rising real incomes, and government outlays decline as fewer individuals require unem-
ployment benefits or other forms of assist-
tance. However, the CBO estimates that the lion’s share of the deficit in 2010 was not due to these cyclical factors. Thus, something more than a strengthening of the economy is required to reduce the budget deficit to its longer term levels. Unless addressed promptly, these outsized budget deficits present several risks to the economy. First, large deficits tend to put upward pressure on interest rates, as the government absorbs more of the funds avail-
able for private-sector investment. Second, the threat of rising interest rates may cause investors to either sell their existing holdings of government securities or refrain from purs-
uing newly issued securities. Finally, the prospect of larger future corporate tax rates might also cause businesses to cancel or delay capital investment projects.

The sooner that governments at all levels return their finances to sustainable levels, the better off the economy will be for the long haul.

Kevin L. Kliesen is an economist at the Federal Reserve Bank of St. Louis. See http://research.stlouisfed.org/ekliesen for more on his work.
although the Great Recession ended in
August 2009 and overall economic activity has exhibited signs of recovery, labor market conditions remain disappointing. Payroll employment has been recovering slowly; the average number of unemployed workers at a historical high, and the unemployment rate is projected to remain above 7.8 percent until 2013. Economists are concerned that the U.S. economy is mired in another jobless recovery — when economic activity continues to grow but the unemployment rate remains high. To determine the severity of current job-
lessness, it is useful to compare the current state of the labor market with that during previous economic recoveries. The figure shows the U.S. unemployment rate during the past four recoveries alongside the current recovery. In the first two phases, shortly after the 1973-75 and 1981-82 recessions ended, the unemployment rate started to decline, 15 months after the end of these two recessions, the unemployment rate had dropped to significantly lower levels. These were not considered jobless recoveries. In contrast, in the wake of the two recessions in the 1990s and early 2000s, the unemployment rate con-
tinued to increase 15 months after the end of the recessions. These were jobless recoveries. Current developments in the labor market similar to the jobless recovery cases. Since the Great Recession ended in June 2009, the unemployment rate has remained high. It topped 10 percent in late 2009, remained above 9.4 percent for the next four years and stood at 8.9 percent in February 2011—much higher than during any other recovery since the 1970s. Persistent and unusually high unem-
ployment suggests that this jobless recovery might be more painful than the previous two.

Potential Causes of a Jobless Recovery

Many researchers have pointed to a labor market mismatch as one of the reasons for persistently high unemployment. Job growth polarization, industrial reallocation and organizational restructuring create a severe mismatch between available workers and appropriate job opportunities. Unemployed workers are forced to look for jobs in different occupations, industries and locations.

Unemployment Rates after Recent Recessions

<table>
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<th>Percentage</th>
<th>Previous Economic Recession</th>
<th>Great Recession</th>
<th>Current</th>
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<tr>
<td>1990-91</td>
<td>7.8</td>
<td>10.2</td>
<td>8.9</td>
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<td>8.1</td>
<td>9.8</td>
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<tr>
<td>1973-75</td>
<td>6.2</td>
<td>7.5</td>
<td>5.8</td>
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MIT Professor David Autor examined U.S. employment opportunities over the past three decades. He found that the U.S. employment growth has polarized into relatively high-skill, high-wage jobs and low-skill, low-wage jobs while middle-skill routine jobs have diminished. Some routine jobs, such as administrative and operative positions, have been replaced by computer automation. Other routine jobs, such as bill-processing and manufacturing positions, have been moved overseas to take advantage of lower wages. The Great Recession accelerated the trend.

Yale economist Lisa Khan found that college graduates entering the job market during economic downturns experience a large, negative and persistent effect to their lifetime opportunities. Young workers entering the job market during a jobless recovery may experience temporary unemployment and are more likely to accept less-attractive and lower-skill jobs due to limited opportunities. On average, their initial wage is significantly lower than the initial wage of their counter-
parts who graduate when the job market is strong. This disadvantage persists, even 15 years after graduation, their wages and career attainment remain lower than those of their luckier counterparts.

The social consequences of a prolonged jobless period may be as significant as the economic consequences. For example, the majorities of studies on unemployment and crime suggest that a high unemployment rate is positively linked to increases in property crime. What is more, economists Naci Mocan and Turan Bali found that the connec-
tion between joblessness and property crime is asymmetric. An increase in the unemploy-
ment rate is accompanied by soaring property crime, while a decline in the unemployment rate is followed by only a gradual drop in property crime. Serious property crimes may further damage the economic development and social welfare in urban areas, especially in inner-city neighborhoods.

A recent study by economists DhavalDave and Inas Rashid Kelly found that an increase in the unemployment rate results in negative changes in eating habits among a studied group of people with a high risk of unemployment. A 1 percent increase in the unemployment rate is associated with a 2.4 percent reduction in the consumption of fruit and vegetables. Such a reduction in healthy food intake potentially affects workers’ health in the long run. In low-income families, inadequate nutrition could affect the physical and mental development of children; the stress that affects the parents also affects the children. Since the welfare of children in some communi-
ties could further be undermined because a high unemployment rate may affect family stability by restricting the retreat from marriage. In less-affluent communities, economic status has been a requirement for marriage. Less-educated people are even less likely to have a job than when the unemploy-
ment rate is high. Because of that, they find it harder to meet the material threshold for marrying. Persistent joblessness may result in a permanent cultural change in some communities if marriage becomes a luxury good.

A Long Road Ahead

Federal Reserve Chairman Ben Bernanke said last fall that job creation is probably the most important problem facing the U.S. economy. As of January 2011, the U.S. economy needed roughly 6.8 million jobs to return to a 5 percent natural unemployment rate. This estimate is more cautious than popular population growth, the discouraged worker effect and the extension of unemployment benefits are taken into account.

Unemployed individuals who stop looking for a job are called discouraged workers and are not considered part of the labor force. Discouraged workers may re-enter the labor market during a jobless recovery, but not in sufficient numbers to lower the unemployment rate. A massive re-entry would temporarily raise the number of unemployed workers so that the unemployment rate could remain unchanged or even rise as payroll employ-
ment increases.

An extension of unemployment insurance would probably produce mixed effects on the job market. Such an extension could improve the efficiency of matching workers with appropriate jobs. On the other hand, extended benefits could discourage jobless workers from accepting unattractive jobs, thus keeping the unemployment rate relatively high.

Taking these additional factors into account, if the economy immediately generates 350,000 jobs a month—the pace of the late 1990s—four years would be needed to reach a 5 percent unemployment rate, whereas a rate of 210,000 jobs a month—the 2005 pace—11 years would be needed to achieve a 5 percent unemployment rate. Regardless, the current recovery may be remembered as the longest in U.S. history.

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Employment in Major Cities in the District Slumps Relative to the Rest of the Country

By Michelle Armeto and Maria E. Canon

The most recent recession was deep and long, the longest recession since the Great Depression. Economic growth has been positive since the fourth quarter of 2009, but the labor market recovery remains slow. From the business cycle peak in December 2007 to the trough in June 2009, the U.S. economy lost over 7.5 million jobs, a decline of 5.4 percent of total employment.

Over the same period, the Eighth District lost 306,412 jobs (4.6 percent of total employment). In contrast, during the 2001 recession, the U.S. economy lost 1.6 million jobs (1.2 percent of total employment) and the District lost 107,547 jobs (1.6 percent of total employment).

The 2007-09 recession is very similar to the 2001 recession in one way: Each was followed by a “jobs recovery.” In such recoveries, employment climbs back at a much slower rate than economic activity. After each of the past five recessions ended, it took an average of 18 months after the trough for the employment level to reach its pre-recession level. The longest return to “full” employment, 39 months, followed the 2001 recession. Although this recovery did not return to “full” employment, 39 months, followed the 2001 recession. Although this recovery did not return to “full” employment, most of the workforce in sectors that experienced large declines in employment stayed away.

Louisville Zone

From December 2009 to December 2010, payroll employment in Louisville dropped 1.3 percent, the most severe drop among the four MSAs. Louisville experienced the greatest decline in six of the 10 sectors: resources/mining/construction (–7.3 percent), manufacturing (–5.6 percent), other services (–5.3 percent), financial activities (–3.5 percent), government (–2.2 percent), and trade/transportation/utilities (–1.7 percent). However, it had the greatest growth among the four major MSAs and the nation in leisure/hospitality (0.4 percent) and information (2.1 percent).

The professional/business services sector in Louisville also experienced an employment growth of 2.2 percent, best among the four major MSAs but not as good as the nation as a whole (2.5 percent). Other MSAs in the Louisville Zone had greater employment growth than Louisville. Clarksville, on the Tennessee-Kentucky border, and Bowling Green, Ky., had a positive employment growth of 1.0 percent and 1.5 percent, respectively. Evansville, Ind., saw its payroll employment decline by 0.6 percent.

Memphis Zone

Within the last year, although eight out of 10 sectors in Memphis experienced declines in employment, Memphis’ payroll employment declined a modest 0.9 percent, which was in the middle of the pack among the U.S. and the major MSAs in the Eighth District. Memphis employed a relatively large share of its workforce in sectors that had positive growth or relatively small declines. With 26.6 percent of the Memphis workforce in trade/transportation/utilities, the 0.9 percent employment decline in this sector helped to mitigate the larger declines in sectors with a smaller share of the workforce. For example, even though Memphis saw employment declines of 4.5 percent in manufacturing and 3.0 percent in resources/mining/construction, the employment in these sectors was only 1.1 percent, 7.4 percent and 3.5 percent of the workforce, respectively. Moreover, employment in the government sector and in the education/health sector grew 0.4 percent and 0.9 percent, these two sectors had the second-largest (15.0 percent) and the third-largest (14.0 percent) share of the workforce in Memphis.

St. Louis Zone

St. Louis is the District’s largest MSA, and its labor market most closely resembles the national labor market. From December 2009 to December 2010, St. Louis experienced a positive employment growth of 0.2 percent while U.S. employment grew 0.7 percent. In both the St. Louis economy and the national economy, about 13 percent of employment was in goods-producing industries, and about 87 percent of employment was in service-producing industries. In 2009, the four major MSAs and the U.S. all shed manufacturing jobs at about 10.0 percent. Last year, an entirely different picture was painted. While the other District MSAs continued to shed manufacturing jobs at a rate of about 4.5 percent, St. Louis and the nation’s manufacturing employment increased. The resources/mining/construction sector in St. Louis continued to shed manufacturing jobs at a rate of about 4.5 percent, and St. Louis’ and the nation’s manufacturing employment increased. The resources/mining/construction sector in St. Louis continued to shed manufacturing jobs at a rate of about 4.5 percent, and the nation’s manufacturing employment increased. The resources/mining/construction sector in St. Louis continued to shed manufacturing jobs at a rate of about 4.5 percent, and the nation’s manufacturing employment increased. The resources/mining/construction sector in St. Louis continued to shed manufacturing jobs at a rate of about 4.5 percent, and the nation’s manufacturing employment increased. The resources/mining/construction sector in St. Louis continued to shed manufacturing jobs at a rate of about 4.5 percent, and the nation’s manufacturing employment increased. The resources/mining/construction sector in St. Louis continued to shed manufacturing jobs at a rate of about 4.5 percent, and the nation’s manufacturing employment increased. The resources/mining/construction sector in St. Louis continued to shed manufacturing jobs at a rate of about 4.5 percent, and the nation’s manufacturing employment increased. The resources/mining/construction sector in St. Louis continued to shed manufacturing jobs at a rate of about 4.5 percent, and the nation’s manufacturing employment increased. The resources/mining/construction sector in St. Louis continued to shed manufacturing jobs at a rate of about 4.5 percent, and the nation’s manufacturing employment increased.

St. Louis was the only major MSA to experience positive employment growth. Louisville had the greatest decline in employment. Employment growth varied markedly across different sectors. For instance, Louisville had an employment decline of 7.3 percent in resources/mining/construction from December 2009 to December 2010, while it had a 3.4 percent employment increase in leisure/hospitality. This huge gap in the employment growth rates across sectors may cause a skill mismatch between laid-off workers in one sector with job vacancies in other sectors. This skill mismatch and its relation to the slow recovery in employment have been of increasing concern to economists.

Maria E. Canon is an economist at the Federal Reserve Bank of St. Louis. See http://research.stlouisfed.org/con/canon for more of her work. Michelle Armeto is a former research analyst at the Bank.
Town Hangs On to Old Economy Even as It Embraces the New

By Susan C. Thomson

The Great Recession came early and hard to Bedford, Ind. Visteon Corp. closed its plant in 2008, a year after Dana Corp. shut down its operations in nearby Mitchell. The departures wiped out 1,300 jobs and left the General Motors aluminum die-casting plant as Bedford’s only major survivor of the once-thriving local auto parts industry. The 915,000-square-foot GM complex has been a community fixture since the early 1940s. But by the time of the latest recession, its impact had already been greatly diminished. Though highly automated, it was down to making only transmission cases and housings. Employment had dwindled by more than two-thirds from its peak about 30 years ago. Further clouding the plant’s future, its parent company was restructuring after emerging from bankruptcy.

Bedford/Lawrence County, Ind.
by the numbers

Population .............................................13,413/46,134
Labor Force .................................................NA/21,896
Unemployment Rate ..........................NA/10.7 percent **
Per Capita Personal Income...................... NA/$29,626

* U.S. Bureau of the Census, 2010 census
** BLS/HAVER, December 2010, seasonally adjusted
*** BEA/HAVER, 2008
† includes part-time employees

LARGEST EMPLOYERS

North Lawrence Community Schools .............. 800†
Indiana University Health-Bedford Hospital .......... 600†
General Motors ........................................... 400
Wal-Mart ..................................................... 334
Scientific Applications International Corp. ......... 300†

SOURCES: General Motors, East Gate Business & Technology Center, Lawrence County Economic Growth Council

At Bedford’s GM plant (clockwise from upper left): Skilled maintenance worker Justin Wells performs an inspection on one of the plant’s new state-of-the-art die-casting machines. Dave Hunt (left), a skilled maintenance worker, charts on the floor with the plant’s finance manager, Glenn Sampson. A robot removes a die-cast transmission housing from one of those machines. For quality control, a special device measures a new housing down to 0.01 millimeter. Two of the 17 new machines planned for the plant as part of its $111 million renovation.

PHOTOS BY SUSAN C. THOMSON
the two buildings have listed them for sale.

the downtown corner to housing. the city had hoped to win a state grant to convert neighborhood. Downtown (right) is being renovated and floors are being cleared to prepare the new machinery. In return for GM's $111 million investment, the Indiana Economic Development Corp. promised the company up to $2.5 million in income tax credits over 10 years. the city of Bedford pitched in, agreeing to a 10-year phase-in of local taxes on the new machinery.

Text Break

The city has granted the same kind of tax breaks to two promising new businesses, as they, too, have invested in new equipment. They were started by Tom Miller in one case and by Doug Conrad and Larry Parsons in the other. All three are former GM engineers.

Miller developed a pump system used in geo-thermal heating and cooling applications for homes and businesses. In 1986, he started Geo-Flo Products Corp. to make his product, and in 2000 he moved his company from Bloomington, Ind., to Bedford. It has since expanded there twice, most recently more than doubling the plant's footprint to more than 50,000 square feet.

Conrad and Parsons co-own Bedford Machine & Tool Inc. In the beginning, 23 years ago, GM and various auto-related customers accounted for about 80 percent of the specialty manufacturer's sales, Conrad said. As the company has grown, it has diversified into other lines of work, including the machining of iron housings for wind turbines. The company turns out four or five a week, each weighing 18.5 tons.

These remain small companies, Bedford Machine & Tool with 70 employees, Geo-Flo with only 13. Nevertheless, they show Bedford "revamping our old way of doing things and entering new markets," noted business development specialist, Gene McCracken, executive director of the Lawrence County Economic Growth Council. For immediate impact, the city's stand-out new market has been defense. The city has already made the heads for a new engine going into the company's next generation of lighter trucks and sport utility vehicles. To that end, the plant is now undergoing what Gonzales described as "an extreme manufacturing makeover." Walls are coming down, ceilings are being raised and floors are being cleared to prepare the way for new casting robots. The company has promised to create 245 new jobs over the next couple of years.

To head off a possible closing, the plant's management and representatives of the local unit of the United Auto Workers "worked very closely and together" to streamline the plant's work rules, said plant manager Eric Gonzales. By making the plant more efficient, they hoped to ensure its survival.

Their strategy paid off. A year ago, GM picked Bedford over other plants contending to make all of the cylinder heads for a new engine going into the company's next generation of lighter trucks and sport utility vehicles. To that end, the plant is now undergoing what Gonzales described as "an extreme manufacturing makeover." Walls are coming down, ceilings are being raised and floors are being cleared to prepare the way for new casting robots. The company has promised to create 245 new jobs over the next couple of years.

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Miller developed a pump system used in geo-thermal heating and cooling applications for homes and businesses. In 1986, he started Geo-Flo Products Corp. to make his product, and in 2000 he moved his company from Bloomington, Ind., to Bedford. It has since expanded there twice, most recently more than doubling the plant's footprint to more than 50,000 square feet.

Conrad and Parsons co-own Bedford Machine & Tool Inc. In the beginning, 23 years ago, GM and various auto-related customers accounted for about 80 percent of the specialty manufacturer's sales, Conrad said. As the company has grown, it has diversified into other lines of work, including the machining of iron housings for wind turbines. The company turns out four or five a week, each weighing 18.5 tons.

These remain small companies, Bedford Machine & Tool with 70 employees, Geo-Flo with only 13. Nevertheless, they show Bedford "revamping our old way of doing things and entering new markets," noted business development specialist, Gene McCracken, executive director of the Lawrence County Economic Growth Council. For immediate impact, the city's stand-out new market has been defense. The city has already made the heads for a new engine going into the company's next generation of lighter trucks and sport utility vehicles. To that end, the plant is now undergoing what Gonzales described as "an extreme manufacturing makeover." Walls are coming down, ceilings are being raised and floors are being cleared to prepare the way for new casting robots. The company has promised to create 245 new jobs over the next couple of years.

In return for GM's $111 million investment, the Indiana Economic Development Corp. promised the company up to $2.5 million in income tax credits over 10 years. The city of Bedford pitched in, agreeing to a 10-year phase-in of local taxes on the new machinery.

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