The Current Financial Crisis:

WHAT SHOULD WE LEARN FROM THE GREAT DEPRESSIONS OF THE 20TH CENTURY?

The Region

THE FEDERAL RESERVE BANK OF MINNEAPOLIS 2008 ANNUAL REPORT

Message from the President

I want readers to understand

the background to this year's Annual Report *essay.*

We are not trying to weigh in on a political debate;

rather, we are trying to inform the discussion about

economic policy by applying work that was begun

here years ago.

Nine years ago a research conference was held at this Bank, during which economists from around the world presented papers on one of the most vexing questions in economic history: What caused the great depressions of the 20th century? No reporters were in attendance. There were no heated debates in the blogosphere. There were no real-time policy implications drawn from the papers' conclusions. There was simply the lively and energizing discussion that is always present when economists get together to discuss their work. That's because the idea of another Great Depression occurring in the United States was more a theoretical exercise than a practical concern.

Those were the days. If such a conference were held today, it would not only be a news story but would likely become immediately politicized, with economists' work categorized as representing one political view over another, and thus being categorically dismissed by the opposing camp. Academics are accustomed to having their work dismissed, but it's usually by colleagues who have qualms about such things as models or methodology. However, given the recent financial crisis and the concomitant recession, economic analysis of the Great Depression has become fodder for columnists, cartoonists, pundits, bloggers and, oh yes, economists too.

I mention this context because I want readers to understand the background to this year's *Annual Report* essay. We are not trying to weigh in on a political debate; rather, we are trying to inform the discussion about economic policy by applying work that was begun here years ago. In that regard, the year before we held our conference, we published papers on this subject in a 1999 issue of our *Quarterly Review*. We also published an article about the conference in the December 2000 *Region,* and this Bank published a book in 2007 that gathered the conference papers and other contributions. Finally, I would add that I penned a 1987 *Annual Report* essay on the Great Depression following the stock market crash in October of that year. So we have established our *bona fides* on this subject.

And yes, for those of you who don't remember, many people said we were entering another depression 22 years ago following the stock market's plunge. Needless to say, it didn't happen. Indeed, quite the opposite happened—we experienced two decades of strong growth, interrupted by two relatively mild recessions. The current recession is anything but mild, but it too will end, and if history is any guide, we will once again return to normal rates of growth—and likely sometime in 2010, following a turnaround this year.

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to what degree history is a guide for current policy. Do the lessons of the Great Depression have anything to teach us about our current situation? They almost certainly do. Do we claim that the authors of this essay have all the answers? Of course not. Do we think they have something useful to contribute? Yes.

tainly do. Do we claim that the authors of this essay have all the answers? Of course not. Do we think they have something useful to contribute? Yes. In that regard, this year's essay sounds a cautionary note about government's response to economic downturns. Views like those expressed in this essay challenge conventional wisdom about the government's role in an economy or the likely impact of government intervention. That doesn't mean the conventional wisdom is necessarily wrong, but if the views expressed in this essay have merit, then it means that conventional wisdom should at least confront these challenges.

Absolute certainty is a rare commodity even in tranquil times, and we shouldn't kid ourselves into thinking that it's more easily mined in times of crisis. One thing that current events have reinforced is the need for open-mindedness when it comes to policy response. The Treasury Department, the Federal Reserve, the Federal Deposit Insurance Corp., the Congress and many private-sector players have engaged in activity that none would have considered even remotely possible two years ago. It's become a cliché to suggest that these extraordinary times call for extraordinary measures, but it's no less true. However, they also call for extraordinary analysis, and now is the time for due consideration of challenging ideas, however iconoclastic. It is in that spirit that we offer this year's essay. As always, we welcome your comments, and doubtless you will have some.

Before I sign off, I want to note that this will be the final President's Message I will write for this Bank's *Annual Report,* as I plan to retire later this year. I have had the distinct honor to serve as president of the Federal Reserve Bank of Minneapolis for 24 years. For an economist with an interest in public policy, few jobs offer such challenges and rewards. Also, as someone who grew up in Wisconsin, it has been especially gratifying to serve the states of the Ninth District. I have traveled from western Montana to the Upper Peninsula of Michigan a number of times and met many people throughout the district, all with a keen interest in their central bank. A real strength of the Federal Reserve System is its decentralized nature that encourages the participation of bankers, business owners, farmers and laborers from every state. It has been my privilege to work with these people over the years, especially including those who have served on our Board of Directors and on our Advisory Councils, and to them is owed a special debt of gratitude. Thanks to all of you for your interest in this Bank and in the Federal Reserve.

Gary H. Stern

The New York Times

TUESDAY, OCTOBER 7, 2008

$1.50

FED WEIGHS BID TO SPUR ECONOMY AS MARKETS PLUMMET WORLDWIDE

Asia

Europe

Americas

Credit Markets Stayed Tight . . .

- Yields on one-month T-bills fell to almost zero as investors rushed for safety.
- Rates on overnight commercial paper, or i.o.u.'s sold by companies, jumped to 3.7 percent.
- High-grade corporate bonds fell, driving yields, which move in the opposite direction of prices, to 8.15 percent.

. . . Dow Ends Below 10,000 . . .

Monday's close: 9,955.50 −369.88 −3.58%

. . . and World Markets Fall Amid Fears of Banking Instability and Global Recession

Australia, Japan, Hong Kong, Indonesia

Major Asian markets fell about 3 to 5 percent after European leaders failed to stanch fears of banking instability. But Indonesia fell 10 percent on worries about its huge trade deficit.

Germany, France, Ireland

European markets ended down 5 to 10 percent, after leaders failed to reach a unified policy. German officials insist on control of any money contributed by taxpayers to a bailout fund.

Canada, Brazil

Source: Bloomberg

A Day (Gasp) Like Any Other

Global Fears

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The Current Financial Crisis:

WHAT SHOULD WE LEARN FROM THE GREAT DEPRESSIONS OF THE 20TH CENTURY?

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Could the world economy enter a great depression?

A retired member of the United Auto Workers attends a monthly benefits meeting in Detroit.

*If so,
what can
government do
to avoid it?*

G. Richard Wagoner Jr., then chairman of General Motors, wipes his eyes as he awaits the start of a Senate hearing on the auto industry.

WHAT SHOULD WE LEARN FROM
THE GREAT DEPRESSIONS OF THE 20TH CENTURY?

OBSERVATION:

Bad government policies

are responsible for causing great depressions.

While different sorts of shocks can lead

to ordinary business cycle downturns,

overreaction by the government

can prolong and deepen the downturn,

turning it into a depression.

THE CURRENT FINANCIAL CRISIS HAS PROMPTED THESE QUESTIONS:

Could the world economy enter a great depression like that of the 1930s? If so, what can governments do to avoid it?

Looking at historical experience can help us answer these questions. Since 2000, Timothy Kehoe and Edward Prescott have been running a project at the Federal Reserve Bank of Minneapolis to study the great depressions that occurred during the 20th century. Kehoe and Prescott define a great depression to be a very large and sustained drop in output per working-age person below trend growth.

To get an idea of how different a great depression is from an ordinary business cycle downturn, we can look at a graph (on page 15) of real gross domestic product (GDP) per person aged 15–64 in the United States over the period 1900–2007. On a logarithmic scale, we see that the business cycle fluctuations around a trend growth line of 2 percent per year are very small. In contrast, the Great Depression of 1929–39 and the subsequent World War II buildup are huge deviations from trend growth.

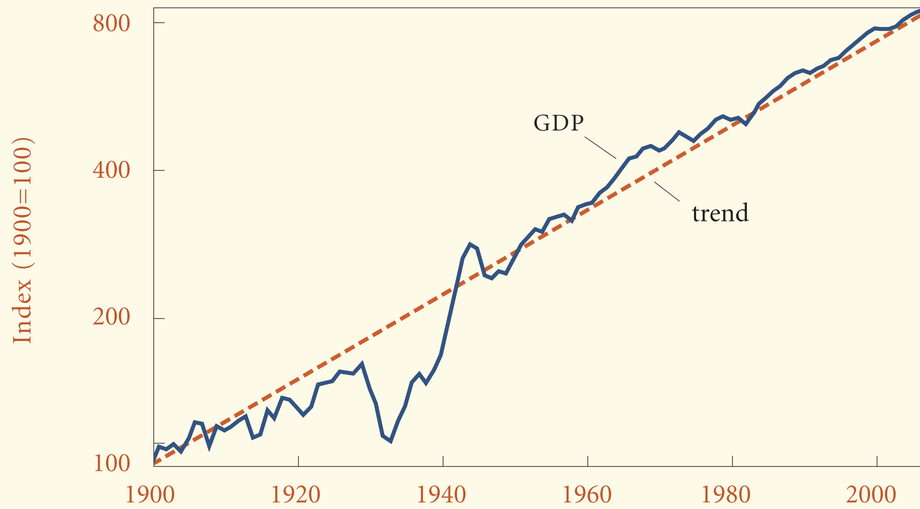
WHAT SHOULD WE LEARN FROM
THE GREAT DEPRESSIONS OF THE 20TH CENTURY?

OBSERVATION:

The Chilean government

liquidated the insolvent banks and reprivatized the solvent banks, and set up a new regulatory scheme to avoid mismanagement. These new regulations allowed the market to determine interest rates and the allocation of credit to firms.

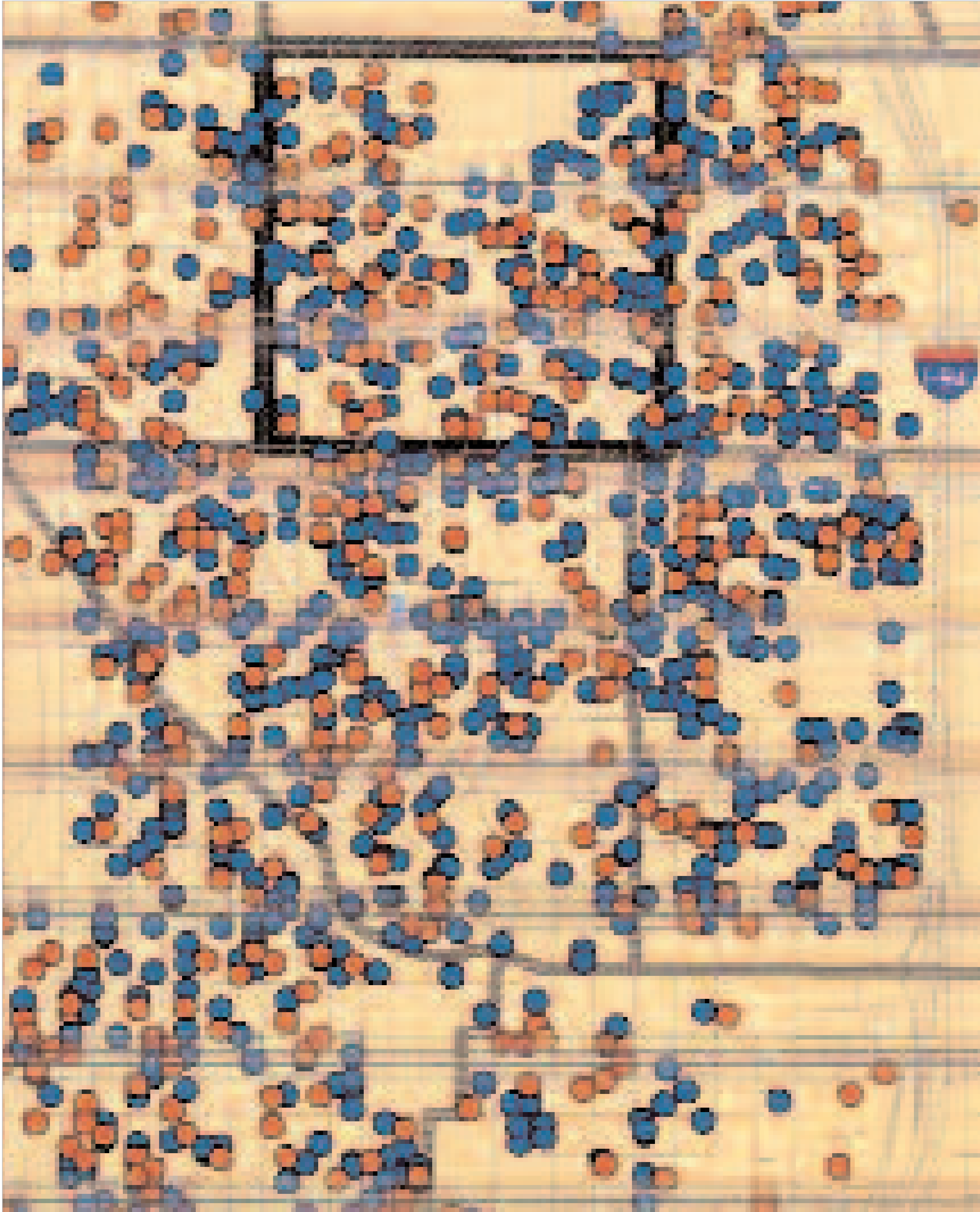
Real GDP per working-age person in the United States



In *Great Depressions of the Twentieth Century,* Kehoe and Prescott (2007), together with a team of 24 economists from all over the world, study the great depressions that occurred in North America and Western Europe in the 1930s, those that occurred in Latin America in the 1980s, and isolated experiences in other places and times. What lessons can be learned from comparing and contrasting these historical experiences? The authors of each of the studies in the book start by decomposing the decline in output during the depression into declines in inputs of labor and capital and a decline in the efficiency with which these factors are employed, measured as productivity. They find that a large drop in productivity always plays a large role in accounting for the depression. In some depressions, such as the U.S. depression of the 1930s, large drops in labor inputs also play important roles. In others, such as the Mexican depression of the 1980s, the drop in productivity accounts for almost the entire drop in output.

Photograph by Paula Woessner

A foreclosed home in North Minneapolis.



Map by Charlie Edelman, Macalester College geography student, April 2009. Based on 2007 data from MetroGIS and the Hennepin County Sheriff's Office.

A map showing the density of foreclosed properties in 2007 in a 27 × 18 block area (approximate) of North Minneapolis. Red represents owner-occupied properties; blue represents renter-occupied properties.

WHAT SHOULD WE LEARN FROM
THE GREAT DEPRESSIONS OF THE 20TH CENTURY?

OBSERVATION:

Finland also suffered

a financial crisis in the early 1990s and followed similar sorts of policies as Chile, paying the costs of reform and letting the market dictate the allocation of credit to the private sector. The Finnish economy has grown spectacularly since then.

Looking at the historical evidence, Kehoe and Prescott conclude that bad government policies are responsible for causing great depressions. In particular, they hypothesize that, while different sorts of shocks can lead to ordinary business cycle downturns, overreaction by the government can prolong and deepen the downturn, turning it into a depression.

An instructive exercise is to compare the experiences of Chile and Mexico in the 1980s studied in *Great Depressions of the Twentieth Century* by Raphael Bergoeing et al. (2007). In 1981–82, both countries were hit by the shocks of rising world interest rates and falling international prices of the commodities they exported—copper for Chile and petroleum for Mexico. These shocks exposed weakness in the banking systems in both countries and produced financial crises.

In 1982 in Chile, banks that held half of the deposits were suffering severe liquidity crises. The government took control of these banks. Within three years, the Chilean government had liquidated the insolvent banks and reprivatized the solvent banks. The government set up a new regulatory scheme to avoid mismanagement. These new regulations allowed the market to determine interest rates and the allocation of credit to firms. The short-term costs of the crisis and the reform in Chile were severe, and real GDP fell sharply in 1982 and 1983. By 1984, however, the Chilean economy started to grow, and Chile has been the fastest-growing economy in Latin America since then.

In 1982 in Mexico, the government nationalized the entire banking system, and banks were only reprivatized in the early 1990s. Throughout the 1980s, in an effort to maintain employment and investment, the government-controlled banks provided credit at below-market interest rates to some large firms and no credit to others. Even the privatization of banks in the early 1990s and the reforms following the 1995 crisis have not been effective in producing a banking system that

WHAT SHOULD WE LEARN FROM
THE GREAT DEPRESSIONS OF THE 20TH CENTURY?

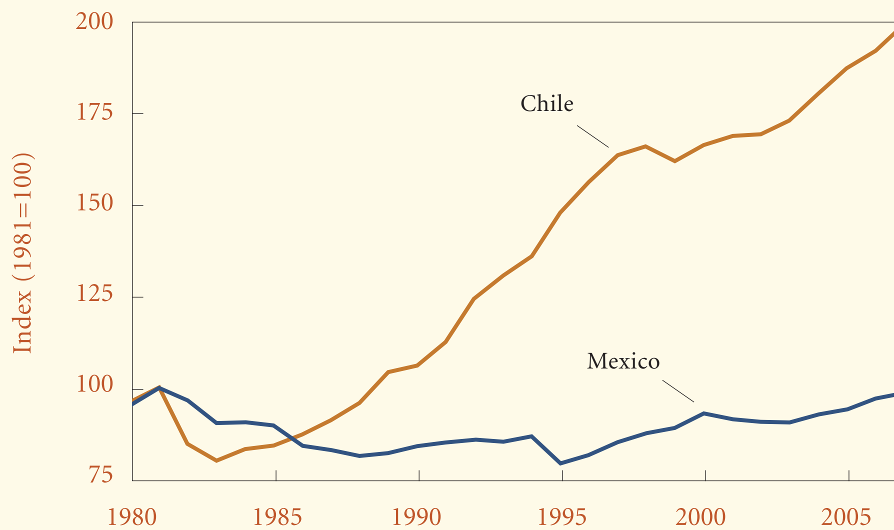
OBSERVATION:

Unproductive firms

need to die. ... Bailouts and other financial efforts to keep unproductive firms in operation depress productivity. These firms absorb labor and capital that are better used by productive firms. The market makes better decisions than the government.

provides substantial credit at market interest rates to firms in Mexico. The result has been an economic disaster for Mexico: Between 1982 and 1995, Mexico experienced no economic growth and has grown only modestly since then.

Real GDP per working-age person in Chile and Mexico



The differences in economic performance in Chile and Mexico since the early 1980s have not been in employment and investment, but in productivity. In Chile, unproductive firms have died and new firms have been born and grown. Workers and capital have been channeled from unproductive to productive firms. In Mexico, a poorly functioning financial system has impeded this process.

Some features of the situations in Chile and Mexico in the 1980s should make us cautious in generalizing the lessons learned from studying their crises to the current crisis in North America and Western Europe: Chile and Mexico were poorer and were in a financial crisis that

Last day at Lehman Brothers offices in New York City.

Bear Stearns corporate headquarters in New York City.

WHAT SHOULD WE LEARN FROM
THE GREAT DEPRESSIONS OF THE 20TH CENTURY?

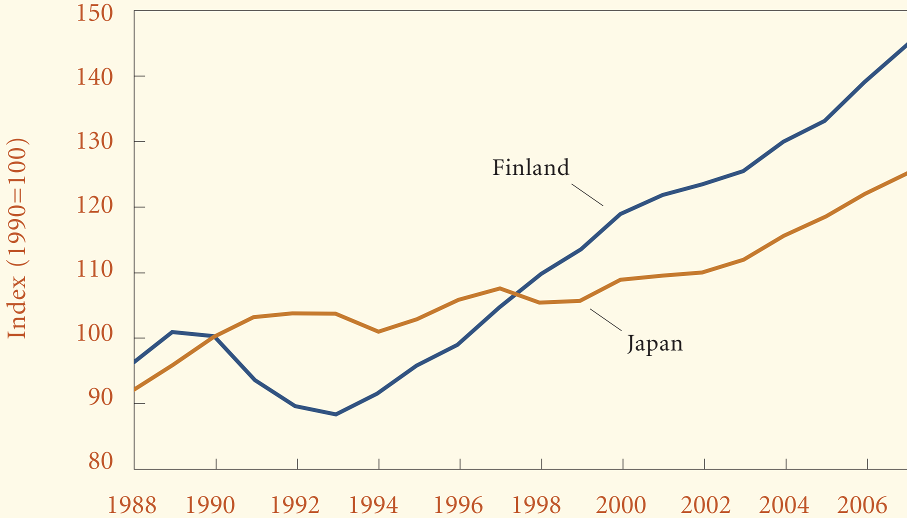
OBSERVATION:

Different sorts of shocks

can start financial crises. However, the analysis of great depressions shows that the type of shock that starts the depression is less important than reaction to the shock by the economy and, in particular, the government.

was largely restricted to Latin America. Furthermore, Chile undertook its massive and costly reforms when its government was a military dictatorship, which eliminated the need to obtain difficult political consensus.

Real GDP per working-age person in Finland and Japan



Nevertheless, the central lessons from studying Chile and Mexico can be generalized. Consider the crises in Finland and Japan, also studied in *Great Depressions of the Twentieth Century*—Finland by Juan Carlos Conesa et al. (2007) and Japan by Fumio Hayashi and Edward Prescott (2007). Japan suffered a financial crisis in the early 1990s and followed similar sorts of policies as Mexico, keeping otherwise insolvent banks running, providing credit to some firms and not others, and using massive fiscal stimulus programs to maintain employment and investment. Japan has stagnated since then. Finland also suffered a financial crisis in

WHAT SHOULD WE LEARN FROM
THE GREAT DEPRESSIONS OF THE 20TH CENTURY?

OBSERVATION:

The lack of understanding

of systemic risk on the part of banks, regulators, and bond ratings agencies calls for reform and, perhaps, new regulations.

the early 1990s and followed similar sorts of policies as Chile, paying the costs of reform and letting the market dictate the allocation of credit to the private sector. The Finnish economy has grown spectacularly since then.

Now the countries of North America and Western Europe find themselves in a financial crisis. To emerge from the crisis as did Chile and Finland, and not become trapped in stagnation as did Mexico and Japan, these countries need to avoid implementing policies that stifle productivity by providing bad incentives to the private sector. With banks and other financial institutions in crisis, these governments need to focus on providing liquidity so that banks can provide credit at market interest rates and, using the market mechanism, to productive firms. Unproductive firms need to die. This is as true for the automobile industry as it is for the banking system. Bailouts and other financial efforts to keep unproductive firms in operation depress productivity. These firms absorb labor and capital that are better used by productive firms. The market makes better decisions than does the government about which firms should survive and which should die.

Different sorts of shocks can start financial crises. Some shocks are external to the economy. In the cases of Chile and Mexico, the shock was the increase in world interest rates and the decrease in international commodity prices, and in the case of Finland, it was collapse in trade with the former Soviet Union. Some shocks are internal. In the case of Japan, the shock was the fall in the prices of commercial real estate, and, currently in North America and Western Europe, it is the fall in the prices of residential real estate. The analysis of great depressions shows that the type of shock that starts the depression is less important than reaction to the shock by the economy and, in particular, the government.

Over the past decade, lending by China and other countries in East Asia, fueled by massive

Circuit City, the nation's second-largest electronics retailer, shut its doors for good, liquidating the last of its merchandise.

Unsold automobiles sit in the Marine Terminal at the Port of Baltimore.

WHAT SHOULD WE LEARN FROM
THE GREAT DEPRESSIONS OF THE 20TH CENTURY?

OBSERVATION:

Indiscriminate bailouts

in the financial sector will reward

many of those who made bad decisions

and make it even more difficult

to assess risks in the future.

trade surpluses, has kept world interest rates low. Consumers in North America and Western Europe have benefited from these low interest rates and have consumed and invested more. Much of the increased investment has been in residential real estate. In the United States, much of this investment has been concentrated in certain cities and regions. In Europe, much of it has been concentrated in Spain. In a more integrated Europe, Spain has the same natural role as Florida and Arizona have in the United States. There is nothing wrong with investment in real estate or with the investment being concentrated as long as investors understand the risks.

The specific problem with the real estate boom of the early 2000s was that it generated an aggregate risk when most investors were betting that housing prices could go in no other direction than up. The systemic risk created by the possibility of housing prices falling was a problem precisely because banks, regulators, and bond ratings agencies either did not understand that this risk existed or did not understand its implications. When housing prices fell, many mortgage-backed bonds that were rated AAA by ratings agencies turned out to be riskier than Argentinean government bonds in the late 1990s. If the risk of a fall in housing prices had been understood and priced correctly, higher interest rates on lending for construction projects and mortgages would have corrected the problem. The lack of understanding of systemic risk on the part of banks, regulators, and bond ratings agencies calls for reform and, perhaps, new regulations.

The fall in housing prices has exposed an even more fundamental problem in the financial system. Some investors and policymakers have come to regard some financial institutions, and even some manufacturing firms, as being too big to fail. In the banking system, a tension exists between the government insuring depositors in banks and regulating the banks. The fundamental principle involved in efficiently allocating risk is that any insurance should be accompanied by

WHAT SHOULD WE LEARN FROM
THE GREAT DEPRESSIONS OF THE 20TH CENTURY?

OBSERVATION:

Central banks

in the countries that are in crisis

should lend to banks to maintain liquidity.

Any bailouts of nonbank financial institutions

should be accompanied, at least temporarily,

by strict regulations.

regulation. Any institution that is too big to fail needs to be regulated.

Governments are now spending huge sums of public money to bail out financial institutions that had not been previously regulated. Even aside from the costs of generating the need for more taxes, these bailouts will create difficulties for the future. Risky investments will pay returns in spite of bad outcomes. Labor and capital will stay employed in unproductive uses. Incentives for future investment will be distorted by moral hazard problems. The North American and Western European countries in crises now got there because of poor assessments of risk. Indiscriminate bailouts in the financial sector will reward many of those who made bad decisions and make it even more difficult to assess risks in the future. Understanding the moral hazard problems created by bailouts, many citizens and politicians will call for massive regulation of all financial institutions. Directly and indirectly, massive and indiscriminate bailouts of the financial system will create inefficiency and low productivity.

What do they need to do now? The central banks in the countries that are in crisis should lend to banks to maintain liquidity. Any bailouts of nonbank financial institutions should be accompanied, at least temporarily, by strict regulations. The bailout should not be used to maintain high returns either to the equity holders or to the bond holders in these institutions. Investors who made risky investments should not be rewarded when these investments have gone bad. Any public spending on investment in infrastructure should be justified on its own merits, especially in terms of its potential for increasing productivity. Otherwise, governments should let the market work in letting unproductive firms go bankrupt and reallocating what remains of their resources to more productive firms. Reforming bankruptcy laws in some countries could make this process more efficient.

A trader watches news of the latest Fed plan to boost liquidity in the credit markets.

Photograph by Paula Woessner

An all-too-common sign in North Minneapolis, and across the nation.

WHAT SHOULD WE LEARN FROM
THE GREAT DEPRESSIONS OF THE 20TH CENTURY?

OBSERVATION:

There are costs

to be paid for past mistakes, but, if this opportunity is used to make reforms and reallocate resources to more productive uses, the economies of North America and Western Europe can emerge quickly from the current crisis as Chile and Finland did from theirs, and stronger than ever.

The people and the governments of some countries may decide that there should be some sort of social insurance for workers who lose their jobs, for households who lose their homes, and even for firms in some sectors or regions. If so, this insurance should be provided directly and not indirectly through massive and indiscriminate bailouts of firms.

There are costs to be paid for past mistakes, but, if this opportunity is used to make reforms and reallocate resources to more productive uses, the economies of North America and Western Europe can emerge quickly from the current crisis as Chile and Finland did from theirs, and stronger than ever. Bear in mind, however, that as bad as the current situation is, it could get worse. If the financial crisis has the effect of stopping the flow of savings from China and other countries in East Asia to the rest of the world, interest rates will rise, making the adjustment more difficult.

Studying the experience of countries that have experienced great depressions during the 20th century teaches us that massive public interventions in the economy to maintain employment and investment during a financial crisis can, if they distort incentives enough, lead to a great depression. Those who try to justify the sorts of Keynesian policies implemented by the Mexican government in the 1980s and the Japanese government in the 1990s often quote Keynes' (1924) dictum from *A Tract on Monetary Reform:* "The long run is a misleading guide to current affairs. In the long run we are all dead." Studying past great depressions turns this dictum on its head: "If we do not consider the consequences of policy for productivity, in the long run we could all be in a great depression."

A large, vacant, newly constructed home in a northern Twin Cities exurb.

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