

The Financial Crisis in S, M and L

Three Very Different Countries Respond Similarly

By Rajeev Bhaskar and Yadav Gopalan

Last September and October were critical for the United States in the ongoing financial crisis. Almost daily, there were announcements of mergers—and failures—of major financial institutions, and huge corporations across many industries pleaded for government help. In response, federal lending and other assistance programs popped up like mushrooms after a downpour, offering hundreds of billions of dollars in aid.

While many Americans were shaken by the problems in the private sector, they were just as anxious about the response from the federal government. Although the response was unprecedented in many ways, it's important to know that the U.S. wasn't taking such action in a vacuum. At the same time that the crisis was snowballing in the United States, it was spreading around the world. And government leaders in other countries were responding with similarly bold and unprecedented actions.

This article examines the crisis and response last fall in a sampling of countries—a small one (Iceland,) a medium one (the United Kingdom) and a large one (the United States). While each country had somewhat different problems and different institutions to deal with those problems, all responded with forceful action and major intervention to keep their financial systems from a complete collapse.

THE U.S. SITUATION

The U.S. economy is the largest in the world. In 2007, GDP was \$13.8 trillion, approximately five times larger than that of the U.K. and 708 times larger than that of Iceland. The U.S. financial sector represented 8.9 percent of the total economy in 2007.

The turbulent financial market conditions in the fall of 2008, along with the ongoing financial crisis, have their roots in the subprime crisis dating back to mid-2007. When financial institutions suffered significant losses to their subprime mortgage portfolios, investor confidence in the credit markets was shaken. The ensuing year-long credit and liquidity crisis overflowed onto the global arena in September 2008. This period can be characterized by severe liquidity contraction in the credit markets, mounting losses and failures of financial institutions, as well as the threat of insolvency to many other financial institutions.

Fannie Mae and Freddie Mac, the two housing government-sponsored enterprises (GSEs), were among the first of the large troubled institutions that the government aided. Falling house prices and rising foreclosures led to significant losses. The two GSEs saw their stock prices plummet more than 90 percent over the year. More bad news came when Lehman Brothers filed for bankruptcy protection Sept. 15, rattling the markets across the globe. AIG (American International Group) was the next large financial services company in trouble. On Sept. 16, credit rating agencies downgraded AIG, requiring it to post collateral on its credit default swaps. This led to a liquidity crisis for AIG; it was unable to generate the billions of dollars in cash required to meet its obligations. Next was the failure on Sept. 26 of the largest thrift in the U.S., Washington Mutual, which had assets of more than \$300 billion.

The U.S. has a complex and diverse financial regulatory structure, consisting of numerous federal and state agencies with



different roles, jurisdictions and objectives. Though many government agencies have played some role in the response to the financial crisis, there have been four major players: the Federal Housing Finance Agency (FHFA), the Federal Deposit Insurance Corp. (FDIC), the Federal Reserve and the Treasury.

The Response

FHFA

The FHFA was created July 30, 2008, by the merger of the Federal Housing Finance Board (FHFB) and the Office of Federal Housing Enterprise Oversight (OFHEO). The new agency oversees the secondary mortgage markets. Soon after its formation, the FHFA nationalized the two housing giants Fannie Mae and Freddie Mac. The government, in effect, invested in them, took control of their boards and managements, and restricted their activities. These actions reassured market participants that Fannie and Freddie still had the necessary funds to buy mortgage loans and would continue to play an important role in providing liquidity to the U.S. mortgage market.

The FDIC

The FDIC is an independent agency of the federal government that has a mandate to maintain financial stability by insuring deposits, examining and supervising financial institutions, and managing receiverships. Through legislative action, the FDIC's deposit insurance limit was raised to \$250,000 from \$100,000 through December 2009 in order to provide security

A Timeline of the Events of Fall 2008 for U.S., U.K. and Iceland

Sept. 7

Fannie Mae and Freddie Mac nationalized.



(AP PHOTO/SUSAN WALSH)

Treasury Secretary Henry Paulson Jr. speaks during a news conference in Washington on Sept. 7 on the nationalization of mortgage giants Fannie Mae and Freddie Mac.

Sept. 14

Bank of America buys Merrill Lynch for \$50 billion.

Bank of America



Merrill Lynch

Bank of America bought Merrill Lynch in a \$50 billion deal that created a bank offering everything from fixed-income trading to credit-card lending.

Sept. 15

Lehman Brothers files for bankruptcy protection.



(AP PHOTO/MARY ALTAFFER)

Robin Radaetz holds a sign in front of the Lehman Brothers headquarters Sept. 15 in New York. Lehman Brothers, a 158-year-old investment bank choked by the credit crisis and falling real estate values, filed for Chapter 11 protection in the biggest bankruptcy filing ever and said it was trying to sell off key business units.

Sept. 16

Federal Reserve aids AIG with \$85 billion loan.



In a bid to save financial markets and economy from further turmoil, the Federal Reserve said Sept. 16 it would provide up to \$85 billion in an emergency, two-year loan to rescue the New York-based insurance corporation.

to depositors and small businesses during the financial crisis. The FDIC, through its rule-making powers, initiated a temporary liquidity guarantee program that guarantees newly issued senior unsecured debt of banks, thrifts and certain holding companies and that provides insurance coverage of noninterest bearing deposit transaction accounts.

The Fed

The Federal Reserve, the central bank of the United States, is independent from the fiscal authority (the Treasury). The role of the central bank is to foster a sound banking system and a healthy economy. The Fed is different from the central banks of Iceland and the U.K. in that the U.S. central bank is the only one that is also a regulator and supervisor of banks.

As early as August 2007, when the markets began showing financial strain, the Fed lowered its discount rate by 50 basis points. This was followed by a rapid easing of monetary policy. The target fed funds rate was lowered from 5.25 percent in September 2007 to a range of 0-0.25 percent in December 2008. The easing helped in lowering short-term lending rates, yet activity in the credit and securitization markets remained clogged.

The Fed has also provided an enormous amount of liquidity (close to \$1 trillion) to private institutions to restore the normal functioning of credit. The Fed's actions have included direct lending to banks and primary security dealers, and have provided liquidity directly to borrowers and investors in key credit markets. At the height of the crisis, the Fed provided an initial loan of up to \$85 billion to the beleaguered AIG to meet its short-term needs. To help maintain liquidity in worldwide financial markets—which are largely denominated in dollars—the Fed has initiated swap lines with several central banks around the world.

The Treasury

The Treasury Department is the executive agency of the government responsible for promoting economic prosperity and ensuring the financial security of the United States. Through its bureaus (the Office of the Comptroller of the Currency and the Office of Thrift Supervision), the Treasury regulates and supervises depository institutions.

Among the most far-reaching actions taken by the government last fall was the Treasury's \$700 billion financial services stabilization package, formally known as TARP (Troubled Asset Relief Program).

Sept. 17

Britain's biggest mortgage lender, HBOS, is taken over by Lloyds TSB in a £12 billion deal.



(AP PHOTO / JOHN STILLWELL, POOL)

Halifax Bank of Scotland Chief Executive Andy Hornby, left, shakes hands with Lloyds TSB Chief Executive Eric Daniels, right, while Lloyds Chairman Victor Blank looks on after the merger was agreed to Sept. 17 in London. Blank said that the prime minister had told him the day before that competition rules would be set aside to make way for the merger.

Sept. 19

U.S. Treasury secretary announces \$700 stabilization plan.

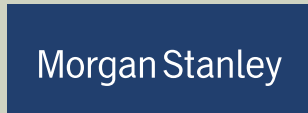
Senate Majority Leader Harry Reid, D-Nev., speaks to reporters after members of Congress met with SEC Chairman Chris Cox, second from left, and Treasury Secretary Henry Paulson, third from left, House Speaker Nancy Pelosi, and Federal Reserve Board Chairman Ben Bernanke, right, on Sept. 18 in Washington. Democrats began the week by blaming President Bush for the financial crisis and said it was his job to fix it. But as the disarray became a meltdown and the entire U.S. economy was at stake, they pledged to work with Republicans on a rescue that could cost taxpayers hundreds of billions of dollars.

(AP PHOTO/LAUREN VICTORIA BURKE)



Sept. 21

Morgan Stanley and Goldman Sachs become bank holding companies.



Late Sunday, Sept. 21, the Federal Reserve granted Goldman Sachs and Morgan Stanley, the country's last two major investment banks, approval to change their status to bank holding companies.

This package was designed to buy troubled assets, especially mortgage backed securities (MBS), and to provide capital to banks that had severe liquidity needs. Between the creation of TARP and its implementation, however, the thrust of the program morphed into one of recapitalizing financial institutions. As of Jan. 6, 2009, the Treasury had invested a total of \$187.5 billion in senior preferred shares in 214 financial institutions; \$40 billion to AIG under the Significant Failing Institutions Program; \$19.4 billion to the auto industry; \$20 billion to Citigroup as part of the Targeted Investment Program; and \$20 billion for a Federal Reserve consumer-finance program. The grand total was \$282.9 billion.

THE SITUATION IN ICELAND

Until fairly recently, Iceland's two major industries had been fishing and tourism. The government had tight control over many sectors, including banking. Earlier this decade, Iceland's government privatized many sectors of the economy by selling off state assets, including its banking institutions.

Following privatization between 2001 and 2003, Iceland's commercial banks grew tremendously. In addition, some banks used debt, primarily denominated in euros,

to finance aggressive expansion overseas. Figure 1 (on the next page) shows the speed at which Iceland's banks issued credit and marketable securities; it also shows the growth in their deposits.

The sector was dominated by three main banks: Glitnir, Landsbanki and Kaupthing. All three institutions expanded internationally and had become savings havens for Europeans who wanted to take advantage of Iceland's high interest rates.

Right before the crisis, the sector's collective assets had ballooned to roughly eight times the country's overall GDP.¹ Furthermore, the banks' stocks had risen to comprise roughly 75 percent of Iceland's stock market value.²

Glitnir, the third largest financial institution in Iceland, had borrowed heavily for aggressive expansion abroad. On Oct. 15, the bank had roughly A600 million in maturing debt; in addition, it needed to pay out A150 million as part of a loan it arranged with Bayerische Landesbank, a German bank. Due to a precipitous drop in the value of the currency, as well as the central bank's insufficient foreign reserves, Glitnir did not have the cash necessary to pay down its debt, as well as to pay its loan to Bayerische Landesbank. (The German government eventually

structured a rescue package for Bayerische Landesbank.)

Landsbanki, the second largest bank, was a particular magnet for foreign savers, especially for British savers. In the wake of Glitnir's collapse, British depositors withdrew roughly \$272 million in deposits from Landsbanki over one weekend, causing severe liquidity problems for the bank.

For Kaupthing, Iceland's largest bank, problems arose when the Icelandic government guaranteed a higher level of deposits for Icelanders but not for foreigners. As a result, the U.K. government invoked anti-terror laws to freeze Kaupthing's foreign assets.

Institutional Structure and Policy Responses

The main organizations that orchestrated Iceland's response to its crisis were its central bank (Sedlabanki Islands), its fiscal authority (the Finance Ministry) and its financial regulatory body (the Financial Supervisory Authority, also known as FME, a derivation from its Icelandic name). Unlike in the United States, Iceland's banks, as well as its financial markets as a whole, are regulated by a single authority, the FME. Its authorities and responsibilities are

Sept. 26

Washington Mutual, with \$307 billion in assets, becomes largest thrift failure.



(AP PHOTO/DOUGLAS C. PIZAC, FILE)

In this April 8, 2008, photo, a closure notice hangs in the window of a Washington Mutual home loan center in Salt Lake City. On Sept. 26, Washington Mutual, one of the nation's largest banks, was seized by the Federal Deposit Insurance Corp. and then sold to JPMorgan Chase & Co.

Sept. 29

Iceland takes control of Glitnir, the country's third largest bank.



U.K. nationalizes mortgage lender Bradford & Bingley.



Oct. 1

Financial crisis spreads widely across Europe.



(AP PHOTO/VIRGINIA MAYO)

French President Nicolas Sarkozy, center, gestures while speaking during a media conference at an emergency financial summit at the Elysee Palace in Paris on Oct. 4. The global financial crisis is forcing the leaders of France, Britain, Germany and Italy to come together for an emergency summit in Paris. Seated at left is German Chancellor Angela Merkel, and at right is British Prime Minister Gordon Brown.

Oct. 3

Congress passes stabilization package, called the Troubled Assets Relief Program (TARP).

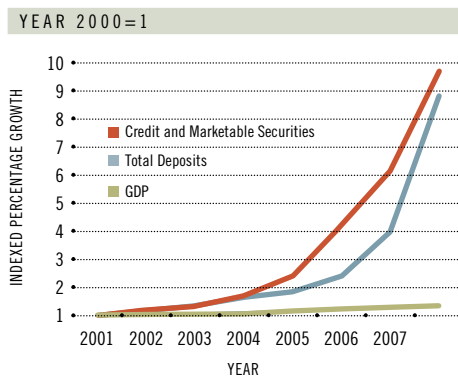
In this video image from APTN, the final vote tally is displayed after the Senate passed the Economic Stabilization Act by a vote of 74-25 on Oct. 1. The House passed it on Oct. 3 and President Bush signed it within hours.

(AP PHOTO/APTN)



FIGURE 1

Icelandic Banking and GDP Growth, 2000-2007



much broader than any single agency in the United States.³

Iceland's central bank is primarily charged with price stability. It achieves this by controlling its interbank policy interest rate to affect the cost of borrowing. The central bank also promotes financial stability, maintains Iceland's foreign reserves, manages public debt, and serves as public repository of economic data and statistics.⁴ Because of its small size and its isolated location, Iceland's central bank kept interest rates high in an effort to support the exchange value of its currency.

The Icelandic Finance Ministry is a department within the national government. The finance minister is usually an elected Member of Parliament. The ministry's objectives are to promote a stable economy, collect revenue on behalf of the government, administer the public debt and manage national finances. Unlike its analogous department in the United States, the Treasury, the Icelandic Finance Ministry is not involved with any supervisory tasks.

The central bank, the FME and the Finance Ministry were all central to stabilizing Iceland's banks. Iceland's currency lost tremendous value over the course of two months. From September through October,

the krona lost 20 percent versus the U.S. dollar and 17 percent versus the euro. Thus, Glitnir's krona-denominated assets made it difficult for the institution to pay off its debt. To compound the issue, the central bank could not properly function as the lender of last resort because of insufficient foreign currency reserves. On Sept. 29, the FME helped resolve the issue with Glitnir Bank by acquiring a 75 percent stake in the bank, a stake valued at roughly \$782 million.⁵

One week later, on Oct. 6, the government passed emergency laws enabling the FME to take over banks. Through this legislation, Icelandic officials formally nationalized Landsbanki and Glitnir.

In the midst of the Landsbanki takeover, U.K. and Icelandic officials debated the fate of the British deposits at Icelandic banks. As a result of Iceland not being able to guarantee foreign deposits beyond set European limits, the U.K. invoked anti-terror legislation to freeze assets associated with Icelandic banks and transfer them to ING, a Dutch bank. Due to the exodus of these deposits, Kaupthing was forced to submit to government takeover as well.

The FME then created three "new banks" to continue regular banking operation, while the "old banks" were kept in existence

Oct. 7

Icelandic bank Landsbanki nationalized.



Landsbanki

Oct. 8

U.S., U.K. and other countries cut interest rates.



(AP PHOTO/LEFTERIS PITARAKIS)

A journalist in London reporting on the financial crisis holds up a newspaper with the headline "Too little, too late and too much faffing, say the traders." ("Faffing" is slang in the U.K. for "wasting time.") On Oct. 8, six major central banks cut interest rates in a coordinated move to try to ease the effects of the global economic crisis. The banks were those of the U.K., U.S., European Union, Canada, Switzerland and Sweden.

Oct. 8

U.K. government announces £500 billion bank rescue package.

Demonstrators gather outside the Bank of England in London on Oct. 10 to protest against the government's bank rescue plan. Earlier in the week, the government announced it would provide debt guarantees of £250 billion, short-term loans of £200 billion and a Treasury injection of £50 billion.



(AP PHOTO/SANG TAN)

Oct. 10

Icelandic bank Kaupthing is nationalized.



(AP PHOTO/ARNI TORFASON)

A protester speaks to the crowd outside the Central Bank of Iceland in Reykjavik on Oct. 10 during a demonstration demanding the resignation of the chairman, David Oddsson. Iceland suspended trading on its stock exchange for two days and took control of the country's largest bank—the third to be placed under its protective custody as Iceland struggles to bring its economy back from the brink.

as a mechanism to handle foreign deposits and assets, as well as any complex securities. This marked the beginning of a period of recovery for Iceland's banking system. Iceland also secured \$2.07 billion in loans from Denmark, Norway, the Faroe Islands and Poland. In addition, Iceland and the International Monetary Fund structured a \$2.1 billion economic stabilization program, centered upon preventing further depreciation of the Icelandic krona, developing a plan to restructure its banks as well as putting the country back on sound fiscal footing in the medium term.

THE U.K. SITUATION

Like the quick rise of Iceland's banking sector, the United Kingdom had also experienced an unprecedented growth in its financial sector, to the point at which it rivaled New York and Tokyo as a major center for finance. By the time the U.K. economy started showing signs of weakness, in the summer of 2007, the financial services sector contributed roughly 32 percent toward the U.K. GDP.⁶

The U.K.'s financial institutions began to show signs of strain much earlier than such institutions in Iceland or even in the United States. In the fall of 2007, the U.K.

experienced its first bank run in 141 years, with the flight of deposits from lender Northern Rock. Compounding the issue, U.K. authorities resolved to take care of another institution, Bradford & Bingley. The nationalization of Northern Rock in early 2008 and of Bradford & Bingley's mortgages in the fall of 2008 shook British markets. This was compounded by the weak market reaction to the takeover by U.K. bank Lloyds TSB of another bank, HBOS.

In addition, spillovers from the turmoil in the U.S. markets affected the financial sector in London. Many U.S. banks, brokerages and investment firms, including Bear Stearns and Lehman Brothers, had large operations in London.

Institutional Structure and Policy Responses

The United Kingdom's efforts to promote financial stability are anchored by three important institutions: the Bank of England, the Treasury and the Financial Services Authority (FSA). The U.K.'s institutional structure is similar to Iceland's. The Bank of England sets monetary policy by controlling its main interbank policy interest rate. In addition, it has a mandate to promote financial stability. The Bank of England

also serves as a lender of last resort to the nation's financial institutions. The U.K. Treasury coordinates fiscal and economic policy on behalf of the government as a whole. It carries out its fiscal policy objectives by collecting tax revenue and managing government debt. Through its goal of coordinating economic policy, the Treasury helps support broad economic growth. Unlike in the United States, the U.K.'s Treasury is not involved in bank supervision.

Despite their differing functions within the financial sector, the U.K. Treasury and the Bank of England worked closely together in forging a policy response. On Oct. 8, the British government and the Bank of England unveiled a three-part plan estimated to cost £500 billion to help stabilize the financial system.⁷ The first part of the plan called for a £50 billion recapitalization of Tier 1 capital in the country's financial institutions. An aggregated £25 billion would first be injected into the eight largest institutions, and an additional £25 billion would be used to recapitalize all other institutions. The government would buy preferred stock or preferred interest bearing shares (PIBS) in these entities. As a part of this package, the Treasury would assist in equity offerings by these institutions. Institutions, on

their part, have to submit to the government proposals on executive compensation and dividend payouts, as well as safeguards to ensure that the government investments would go toward lending.

The second part of this plan committed £250 billion to guarantee short- to medium-term debt issuance by financial institutions. For those institutions that do raise a sufficient amount of Tier 1 capital, the government would use this guarantee program to help refinance any prior debt or financing obligations that may be maturing. The aim of this part of the plan is to make funding costs cheaper to banks.


The third part of this plan involved the Bank of England's increase in funds available through its Special Liquidity Scheme (SLS) to £200 billion. Designed by the Bank of England, the SLS enables British financial institutions to swap illiquid assets in return for Treasury bills, which are generally more-liquid assets. Through the amended SLS program, the Bank of England would swap British pounds for three months and U.S. dollars for one week against the collateral that financial institutions put forward.

An additional element in the U.K.'s regulatory structure is the Financial Supervisory Authority (FSA). Set up in the late 1990s, the FSA is an independent agency in charge of regulating all financial services firms. Like Iceland's FME, the FSA has a mandate to supervise all financial services firms and financial markets as a whole. The Financial Services Compensation Scheme (FSCS) is an independent body set up by the British government in 2000 to cover deposits of an insolvent financial institution. Similar to the FDIC in the U.S., it guarantees consumers up to 100 percent of the first £50,000, as well as guarantees for some investments and insurance.

Despite handling claims from lost deposits in Icelandic banks, the FSCS did not create broad guarantees or funding instruments as did its American counterpart, the FDIC. Nor did legislators expand the scope of deposit guarantees, as was the case in the U.S.

Conclusion

In terms of size, scope and regulatory structure, the three countries described in this article are very different. Yet one common factor is the decentralized nature of

financial regulation. A number of separate institutions exist to carry out specific functions. Yet in the face of crisis, these organizations were able to work together to form cohesive national responses. The financial crisis in each country, though disproportionate in size relatively speaking, was national in scope for all three. This required, and got, all significant government entities to work together to produce a swift and strong response. As policymakers around the world consider financial market reforms, these experiences should be kept in mind. 

Rajeev Bhaskar and Yadav Gopalan are research associates at the Federal Reserve Bank of St. Louis.

ENDNOTES

- ¹ See *Iceland Review Magazine*.
- ² See Forelle.
- ³ The FME oversees operations of banks, investment banks, securities companies, securities brokerages, insurance companies, insurance brokers, the stock exchange (and more broadly, capital markets), central securities depositories, as well as depository activities of any cooperative institution. See Financial Supervisory Authority—Iceland at www.fme.is/?PageID=157.
- ⁴ See Central Bank of Iceland.
- ⁵ See Federal Reserve Bank of St. Louis timeline for complete perspective on the chain of events.
- ⁶ OECD (Organization for Economic Cooperation and Development) country data. See <http://stats.oecd.org/WBOS/index.aspx>.
- ⁷ U.K. Treasury's rescue plan can be found at www.hm-treasury.gov.uk/press_100_08.htm. See, too, www.hm-treasury.gov.uk/fin_support_lending.htm.

REFERENCES

- Bank of England information and that on the U.K.'s financial regulatory agency can be found at www.bankofengland.co.uk/index.htm and www.fsa.gov.uk/Pages/About/Aims/index.shtml.
- Bernanke, Ben. "The Crisis and the Policy Response." Presented at the Stamp Lecture, London School of Economics, London, England, Jan. 13, 2009. See www.federalreserve.gov/newsevents/speech/bernanke20090113a.htm.
- Central Bank of Iceland. Objectives and Roles. See www.sedlabanki.is/?PageID=188.
- Central Bank of Iceland information and that on Iceland's Financial Regulatory Agency can be found at www.sedlabanki.is/?PageID=188, at www.fme.is/?PageID=157 and at www.fme.is/?PageID=867.
- Federal Deposit Insurance Corp.'s information on "Temporary Liquidity Guarantee Program" can be found at www.fdic.gov/regulations/resources/tlgp/index.html.
- Federal Reserve Bank of St. Louis' "The Financial Crisis: A Timeline of Events and Policy Actions." See www.stlouisfed.org/timeline.
- Forelle, Charles. "The Isle That Rattled the World." *The Wall Street Journal*, Dec. 27, 2008, Page 1. See <http://online.wsj.com/article/SB123032660060735767.html?mod=testMod#CX>.
- Iceland Review Magazine*. Vol. 46, No. 1. March 2008. Interview with Prime Minister Geir Haarde. See www.icelandreview.com/icelandreview/search/news/Default.asp?ew_0_a_id=303247.
- Treasury Department's "Emergency Economic Stabilization Act" can be found at www.treas.gov/initiatives/eesa/.
- World Bank. Gross Domestic Product 2007. See <http://siteresources.worldbank.org/DATASTATISTICS/Resources/GDP.pdf>.