

GO WITH THE FLOW

Financial crises are caused by cross-border investment flows, not misbehavior, says economist Robert Aliber

By Nathan Jaye, CFA

Financial crises are widely believed to be caused by greed, corruption, or lack of regulation. But what if the cause is simply the variability of cross-border investment inflows? That's the model developed by Robert Aliber, professor emeritus of international economics and finance at the University of Chicago Booth School of Business. Aliber, editor and co-author with Charles P. Kindleberger of the 1978 classic *Manias, Panics, and Crashes: A History of Financial Crises*, predicted the Icelandic banking crisis 18 months before it happened. In an interview with *CFA Institute Magazine*, Aliber offers a different view on the cause of financial crises, discusses why banking crises almost always coincide with currency crises, and explains why cross-border investment flows should be moderated.

What's the main storyline of your research?

We've seen four waves of banking crises in the past 30 years, all very similar. The first wave was in Mexico, Brazil, Argentina, and 10 other developing countries in the early 1980s. Japan and several of the Nordic countries were involved in the second wave in the early 1990s. The third wave was the Asian financial crisis in July 1997, and the fourth is what I call the "Anglo-Saxon real estate crisis," which became apparent in September 2008.

Each country that experienced a banking crisis previously had an economic boom and an increase in cross-border investment inflows, which led to increases in the prices of its securities and to an increase in the price of its currency—unless the increase was forestalled by central bank intervention.

These cross-border investment inflows are too rapid to be sustained. Eventually, one or several of the lenders recognize that borrowers' indebtedness is increasing too rapidly or that the borrowers' indebtedness is too large relative to their incomes. When that happens, lenders become more cautious. Borrowers will not have enough cash to pay the interest. They become distress sellers of real estate and securities. The prices of real estate and securities decline, loan losses surge, and the country experiences a banking crisis. It's also a currency crisis in that many of the borrowers default on their liabilities denominated in the foreign currency.

How did you become aware of this pattern?

Gradually, over more than 10 years. I was visiting a classroom at London Business School in April 2006. A young man from Iceland was there—he spoke about his country's economy and the soaring stock prices—and I had a bizarre experience. I could complete all of his sentences, even though I knew nothing about Iceland. He had a set of facts, and I had a model. The two fit together quite nicely.

I went to Iceland in June 2007 and spoke with 10 or 12 economists at the central bank, in the private banks, at the University of Iceland. I was convinced there was a massive asset price problem. A few months later, I wrote a paper on Iceland, and I gave a lecture in Reykjavik in May 2008. I said they were sitting on a volcano of credit and it would soon implode. The price of the currency would fall, and the price of securities would fall sharply. Four months later, in September 2008, Iceland imploded.

How does your model explain the 2008 crisis in the United States?

Beginning in 2003, cross-border investment flows to the United States increased sharply. Foreigners were buying more US dollar-denominated securities; the Chinese trade surplus had surged. China's reserve managers bought several hundred billion dollars of IOUs in Fannie Mae and Freddie Mac, which enabled these institutions to buy more mortgages and more mortgage-backed securities.

At the same time, Fed Chairman [Alan] Greenspan followed an extremely expansive monetary policy. Thus, the rapid increase in the domestic supply of credit complemented the increase in the supply of credit to American borrowers from the investment inflows. The United States had a massive housing boom. If Chairman Greenspan had been less expansive, the United States still would have had a housing boom and a subsequent crisis, but it would have occurred later and might not have been as severe.

Iceland, Ireland, Britain, and Spain had banking crises at the same time as the United States. Every banking crisis is preceded by an excess supply of credit; the crisis occurs when credit market conditions suddenly tighten.

How does your model differ from the dominant interpretation of the 2008 crisis?

The dominant interpretation (the Washington-policy-establishment consensus, including nearly everyone connected with the Federal Reserve) is that the US banking crisis was the fault of lenders, such as Countrywide Financial, Lehman Brothers, Bear Stearns, Washington Mutual, and several hundred others, because they acquired too many "risky loans." The public officials have been successful in creating the impression that the crisis would not have occurred if the private lenders had behaved responsibly.

But these crises are not caused by the misbehavior of the private sector lenders. If the credit is there, it has to go someplace. Why does subprime become important? Because there aren't enough prime borrowers. The only reason Countrywide and Washington Mutual went scrounging for borrowers was because the credit was there. They

calculated that the spreads between the interest rates they could earn when they bought mortgages and the interest rates they had to pay when they sold their own IOUs were sufficiently large so that the loans would be very profitable. In my model, these firms are channels for the distribution of credit. They compete fiercely for market share, but they do not *determine* the supply of credit.

The Washington policy establishment interpretation cannot explain why the US banking crisis occurred in 2008 rather than in 1988 or in 1998. The character of Lehman et al. did not change between 1988 and 2005; instead, the change was in the credit market conditions. The Washington policy establishment is unwilling to connect the dots that link their own policies with the subsequent banking crisis. They want to ignore the relationship between the monetary policy in 2003 and 2004, the surge in property prices, and the subsequent bust. And they ignore the similarity of events in the United States with those in many other countries.

The monetary instability of the last 30 years is unprecedented. The title of Chairman Greenspan's book is *The Age of Turbulence*. The book is in its second edition, but Greenspan still has not been able to identify the source of turbulence.

What are the sources of credit flows?

If we look at the 1982 crises, the credit inflows came from the major international banks that bought the US dollar-denominated loans of the governments and government-owned firms in Mexico, Brazil, and Argentina. The investment inflows that preceded the banking crises in Norway, Sweden, and Finland involved the sale of IOUs of the Nordic banks to banks in London and other foreign centers; the Nordic banks repatriated the money that they lent to commercial borrowers and real estate developers, who acquired the currency risk.

What factors determine supply of credit?

Often, the increase in the cross-border investment inflows is stimulated by a boom in the economy of the country that experiences the investment inflow. At other times, the increase is a response to a relaxation of regulations that previously had limited cross-border investment flows, which was the Nordic experience.

In the 1990s, Mexico was being prepared for adherence to the North American Free Trade Agreement, and the liberalization of economic regulations in Mexico was extensive. Moreover, macroeconomic initiatives to reduce inflation (after several years when inflation was higher than 100%) led to extraordinarily high real interest rates on peso-denominated securities, which attracted money market mutual funds. American, Japanese, and European firms were investing in Mexico as a low-cost source of supply for the American market.



Does the boom cause the credit inflow, or vice versa?

Cross-border investment inflows contribute to the booms by elevating securities prices in the countries experiencing the inflows; as household wealth increases, consumption spending increases. Higher levels of spending lead to increases in GDP growth rates and higher anticipated returns on the securities available in these countries, which attracts even larger investment inflows. Some countries have had booms without increases in investment inflows, but investment inflows have almost always led to booms when currencies have not been anchored to parities.

How do you distinguish between structural and monetary causes of shocks?

One of the major arguments advanced in support of a move toward a floating exchange rate system in the 1950s and 1960s was that economies would be better able to adjust to structural shocks. Structural shocks are oil price shocks, bad harvest shocks, new discoveries of North Sea gas, etc.

Monetary shocks are largely (not exclusively) changes in investor demand for securities dominated in the foreign currency, which immediately leads to a change in the price of the country's currency. The shocks in my narrative are virtually all monetary shocks.

Are banking crises always associated with currency crises?

When I started looking at this, what struck me was that banking crises and currency crises were twinned. There was a very strong overlap. I began to wonder, what was the relationship between them? Did one cause the other? Did a banking crisis cause the currency crisis?

Ninety percent of banking crises have been associated with a currency crisis, and every currency crisis has been associated with a banking crisis. But I now realize these are not different crises. These are different manifestations in different markets of reductions in investment inflows.

Are you saying a banking crisis is predictable?

Yes. Banking crises are predictable—with uncertain dates. Are earthquakes predictable? If you live along the San Andreas Fault or the Hayward Fault, earthquakes are predictable, but you can't really predict the exact date when one will occur. But I've predicted some of these crises, including those in Iceland, Mexico in 1994, Thailand and Malaysia in 1997, and Argentina in 2001.

Is there a tipping point when a banking crisis is inevitable?

I fly small airplanes, and in one of my Walter Mitty moments, I imagine that I'm at Roosevelt Field in 1927 advising Charles Lindbergh. I say, "Charlie, when you cross the 19th meridian, you can't turn back. The winds will be against you, and you won't have enough fuel." That's the concept of "the point of no return," which can be modified to "the date of no return." What is the date after which a crisis is inevitable?

In the Icelandic case, Iceland had a massive capital account surplus after 2005. It had a very high level of debt relative

to its GDP, both domestically and externally. It was predictable that when the lender stopped providing money in the form of the loans to the borrowers, some of the borrowers would default and the currency would collapse.

When the krona collapsed, many of the IOUs of the Icelandic borrowers were denominated in foreign currencies. For example, the Icelandic banks were helpful in enabling Icelandic households to borrow, to finance the purchase of cars and homes with loans denominated in the Japanese yen, the Swiss franc, the euro. When the price of Icelandic krona fell very sharply, the krona equivalent of the liabilities denominated in the foreign currency increased in proportion to the decline in the price of the krona and many of these borrowers were then bankrupt. In this way, the currency crisis intensifies the banking crisis.

If the borrowers' expenditures (exclusive of interest payments) are larger than revenues, then it must follow that the increase of indebtedness is larger than interest payments. That's an explosive relationship; it cannot continue. This logic can be applied to a family, to a firm, and to a government. Indebtedness cannot grow more rapidly than interest payments. It may for one, two, or several years, but indebtedness cannot grow more rapidly than interest payments for an extended period of time.

Do you use an actual model?

I count the cranes [for construction] in the urban landscape and whether they are moving or stationary. I look at the relation between rental rates of return and mortgage interest rates. If rental rates are less than mortgage interest rates, property prices are in bubble territory. Moreover, I look at the pattern of cash flows and the relationship between the increase in the indebtedness of the borrowers and their incomes and also the increase in the borrowers' indebtedness and the interest rates on their indebtedness. If some of the borrowers have primary deficits and are dependent on the increase in their indebtedness for some of the cash to pay interest on their loans, then I know that the borrowers are on a non-sustainable trajectory and that they will be obliged to reduce their consumption when the lenders become more cautious.

One question is when the lenders will realize that the borrowers are on a non-sustainable trajectory. Another question is whether the borrowers can adjust to the decline in their ability to increase their indebtedness and adhere to their debt-servicing commitments.

What are the implications of your research?

One set of implications is for investors: when to buy foreign stocks and bonds and when to sell domestic stocks and bonds. Investment practitioners should follow the money and momentum strategies; increases in prices of securities are correlated with increases in the prices of currencies. And they should always ask, "How long can the borrowers continue to have a primary deficit?"

The second set of implications is for domestic financial regulations: whether bank capital requirements should be high or low, whether banks need living wills, and whether

large banks are too big to fail. The current stance of bank regulation increases the costs that banks (and hence both borrowers and depositors) incur.

The third set of implications is for central banks and the management of monetary policy. Many central banks, including the Federal Reserve, operate as if they were in a windowless silo. They ignore the impacts of changes in cross-border investment inflows on the prices of securities, household wealth, and consumption spending.

The fourth set of implications involves the design of the international financial arrangement for resolving imbalances in payments among countries. Why do we have so many banking crises? The International Monetary Fund (IMF) presides over a dysfunctional financial arrangement; the IMF is like the three monkeys—deaf, dumb, and blind. Every banking crisis has resulted from highly variable cross-border investment flows, and investment flows are much more accelerated when currencies are floating than when they are pegged. When money begins to flow into a country, whether it's to Iceland or to the United States, the country has a boom, rates of return increase, and the inflow of money brings even more money.

Should credit flows be moderated or regulated?

At the minimum, we need to do something to moderate cross-border investment flows. We could go back to a modified Bretton Woods arrangement with a much larger range of movement of currencies around a central parity. We could rely on exchange controls—or on some combination of the two.

What are the chances of this happening?

Every now and then, the IMF makes a noise as if it will allow some sort of margin control or prudential requirement—that's the term they use; it sounds less offensive than "control"—some form of ad hoc control. But I want to minimize the ad hoc controls. I want to return to a system. We don't have a system now. We now live in a world in which anything is feasible and many of the measures adopted by foreign countries have had very high cost to the United States, to the US export industry. Asian countries in particular have kept the prices of their currencies extraordinarily low. That's cost millions of manufacturing jobs in the United States. That's because we do not have a rule-based system.

Haven't we always had changes in credit flows?

In the 19th century, cross-border investments often financed large infrastructure investments. The United States benefited greatly from the investment inflows from Britain and a few other countries that financed much of the US railroad system. In the last few decades, investment inflows have stimulated consumption booms and real estate booms.

I'll give you a personal anecdote. In August 2004, I received an announcement from my credit card company MBNA, and the announcement was that I had been preapproved for a balance transfer for one year at zero interest rate. When I called MBNA, I asked, "What is my credit line?" They said US\$100,000. I said, "Fine, please wire \$100,000

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to my account at LaSalle Bank in Chicago." I had to pay a \$75 fee. I sold my 1998 Cessna and went to the factory and bought a new Cessna.

MBNA essentially was going to make me a zero interest rate loan because the supply of credit available through MBNA was extremely large and very cheap. And MBNA had calculated for every 100 people who take advantage of this offer, 95 would be on the hook at the end of the first year and would then pay an annual interest rate of 15% or 20%. This anecdote demonstrates that the supply of cheap credit was super-abundant.

Why does credit funnel into consumption whereas in the past it financed infrastructure?

I don't have a good answer. But if there is a large flow of money, it's going to go into the housing market and to consumers; housing loans offer the lenders the security of collateral. One difference is that in the 19th century, the cross-border investment flows were long term. More recently, these investment inflows are short term or term loans with interest rates that change when a base interest rate changes. In the 19th century, infrastructure investments were financed in the private sector, but now, they're in the public sector for a variety of reasons. The public sector is reluctant to increase borrowing to finance infrastructure investments.

How does your model contradict monetarist economic theories?

The "constitution" for the international financial arrangement that we have today is founded on a set of articles by my colleagues at Chicago (Milton Friedman and Harry Johnson) and by other scholars, such as Fritz Machlup at Princeton and Gottfried Haberler at Harvard. Their description of the adjustment process when currencies are floating is the counterpart of the "rules of the game" of the gold standard.

The proponents said that if currencies were allowed to float, the changes in the prices of currencies would be gradual and that the deviations of the market prices of currencies from long-run equilibrium prices would be much smaller than when currencies were pegged. They told us that there would be fewer currency crises and that the demand for international reserves would be smaller. They claimed that countries would be better insulated from foreign shocks. Every one of their claims is now challenged by the data.

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