# Do banks learn from crises?

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*Crises are a regular event in financial markets. But do banks that have been hit particularly hard in one crisis learn from the experience and suffer less in future crises? This column suggests not. It shows that banks particularly hard hit by the 1998 financial crisis were also badly affected by the recent financial crisis. It blames the high-risk business models on which these banks rely.*

On 17 August 1998, Russia defaulted on its debt. This event started a dramatic chain reaction. As one observer put it, “the entire global economic system as we know it almost went into meltdown, beginning with Russia's default” (Friedman 1999). As Russia defaulted, a number of investors, including banks, made large losses. For example, the market capitalisation of both CitiGroup and Chase Manhattan fell by approximately 50% in the two months following the Russian default.

Initially, the impact of the Russian default was limited because there was hope that the International Monetary Fund (IMF) would step in to bail out Russia. When it became clear that this would not happen, prices of emerging-market securities fell sharply, and stocks across the developed world soon followed suit. As security prices fell, the capital of investors and financial firms eroded, liquidity withdrew from markets, and volatility increased. These developments led investors and financial institutions to reduce their risk, and caused a flight to safety. The president of the Federal Reserve Bank of New York testified before Congress that “the abrupt and simultaneous widening of credit spreads globally, for both corporate and emerging-market sovereign debt, was an extraordinary event beyond the expectations of investors and financial intermediaries”.[1](http://www.voxeu.org/index.php?q=node/6579#fn1)

The financial crisis that started in 2007 would eventually be described as the biggest financial crisis of the last 50 years, supplanting the crisis of 1998 for that designation. The comments regarding the 1998 crisis are not different, however, from comments made about the recent financial crisis. In particular, during the recent financial crisis investors made large losses in securities that had been determined to have a minimal amount of risk, and the unexpected losses in these securities led to fire sales, a withdrawal of liquidity from financial markets, and a flight to quality.

# A strong return correlation across crises

The similarity between the crisis of 1998 and the recent financial crisis raises the question of how a bank’s experience in one crisis is related to its experience in other crises. In our recent paper (Fahlenbrach et al. 2011), we examine this question.

If an organisation and its executives perform poorly in a crisis, they might learn to do things differently and consequently cope better with the next crisis. Further – and perhaps more importantly – an unexpected adverse event could lead an institution to assess payoff probabilities differently, as has been argued by Gennaioli et al. (2011), or to reduce its risk appetite. Therefore, one hypothesis, the learning hypothesis, is that a bad experience in a crisis leads a bank to change its risk culture, to modify its business model, or to decrease its risk appetite so that it is less likely to face such an experience again. There is anecdotal evidence that executives claim they learned from the 1998 crisis. A recent book on AIG describes one Goldman Sachs executive as having “never silenced that desire to do something about the next 1998, about never being dependent on short-term funding again” (Boyd 2011, p.192.) The book goes on describing how that executive obtained authorisation in 2004 for Goldman to lengthen the maturity of its funding. Credit Suisse performed relatively well during the recent crisis and one senior executive told one of the authors that the explanation is that they learned a lot from their difficulties in 1998.

Another hypothesis, the business-model hypothesis, is that the bank’s susceptibility to crises is the result of its business model and that it does not change its business model as a result of a crisis experience, either because it would not be profitable to do so or for other reasons. For instance, recent work by Adrian and Shin (2009) shows that broker-dealers increase their leverage in good times. Such an outcome may be the result of them having the best business opportunities during credit booms, but it also makes them more vulnerable if a credit boom is followed by a crisis. Under this hypothesis, crisis exposure exhibits persistence, so that a bank’s experience in one crisis is a good predictor of its experience in a subsequent crisis.

Our paper empirically tests these two hypotheses against the null hypothesis that every crisis is unique, so that a bank’s past crisis experience does not offer information about its fate in a future crisis. We find evidence that is strongly supportive of the business-model hypothesis. We show that the stock market performance of banks in the recent crisis is positively correlated with their performance in the 1998 crisis. This result holds whether we include investment banks in the sample or not. Our key result is that for each percentage point of loss in the value of its equity in 1998, a bank lost an annualised 66 basis points during the financial crisis from July 2007 to December 2008. This result is highly significant, both statistically and economically. The economic significance of the return of banks in 1998 in explaining the return of banks during the financial crisis is of the same order of magnitude as the economic significance of a bank’s leverage at the start of the crisis!

# Is it executives?

A natural question to ask is whether the correlation we document is affected by cases where the executive in charge during the financial crisis was also involved with the bank in 1998. It could be that personality traits of the executive, rather than the bank’s business model, are responsible for the bank being positioned similarly for both crises. We investigate this possibility and find it does not explain our results. Another possible explanation for our results is that banks remember a different aspect of the 1998 crisis. Banks recovered rapidly from the 1998 crisis. Investors who took positions in more risky fixed-income securities at the bottom of the crisis made large profits. It is possible that banks that recovered strongly from the crisis remembered that experience subsequently and found it unnecessary to change their business model as a result of their strong rebound. We do not find evidence supportive of this explanation.

# Towards an explanation of the return correlation

What could then explain such a systematic crisis exposure? We analyse characteristics of banks that performed poorly in both 1998 and 2007/2008, then compare them to characteristics of other banks that performed better. The results of this exercise suggest that the correlation between returns during the 1998 financial crisis and the recent financial crisis is at least partly due to a business model that relies on higher leverage, more short-term funding, a larger proprietary trading desk, and stronger asset growth during the boom preceding a crisis.

Given our main result, some of the events subsequent to 1998 that have been argued to have played a key role in the performance of banks during the financial crisis have to be put in perspective. The Gramm-Leach-Bliley Act (GLBA) was signed into law in November 1999. GLBA repealed central provisions of the Glass-Steagall Act that restricted bank holding companies from affiliating with securities firms and insurance companies. The strong return predictability of 1998 crisis returns for the financial crisis of 2007/2008 suggests that part of the performance of banks during the recent crisis can be attributed to factors that already existed before the enactment of GLBA or other regulatory decisions such as the Commodities Futures Modernisation Act or the SEC’s amendments to the broker-dealer net capital rule.

Overall, our results show that financial institutions that are negatively affected in a crisis do not appear to subsequently alter the business model or to become more cautious regarding their risk culture. Consequently, the performance in one crisis has strong predictive power for a crisis which starts almost a decade later.

# References

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1 Testimony of William J McDonough, President of Federal Reserve Bank of New York, before the US House of Representatives Committee on Banking and Financial Services, “Risks of Hedge Fund Operations”, 1 October 1998.