TWO FINANCIAL CRISES AND THE ROLES OF DEREGULATION, INNOVATION, AND INFORMATION: SWEDEN 1992 AND THE UNITED STATES 2007-2008

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Abstract

The worst of the US Financial Crisis of 2007-8 lies in the past, but the after-effects continue, and the recovery is incomplete. The causes of that crisis and the adequacy of the policy response are still a source of debate. The Swedish Financial Crisis of 1992, however, is now a contained piece of history, and retrospective assessments of the policy responses are overwhelmingly positive. Sweden's crisis is therefore an interesting case study against which to compare a crisis that is still in the process of being understood.

The first section of this paper is a historical summary, briefly describing the respective macroeconomic environments, causes of both crises, and key events as the crises unfolded. The second section discusses the policy responses. The third section identifies some general lessons by drawing parallels between the two crises in terms of regulation and deregulation, financial innovation, and the dangers of inadequate information.

Part 1: Historical Background

Macroeconomic Environments

Sweden

Prior to Sweden's crisis, monetary policy was primarily occupied with pegging its currency, the Swedish krona, to a basket of currencies. Inflation and expectations of inflation had been allowed to run higher than international averages for several years. Interest rates were consistently above international averages, but due to inflation and tax policy, rates for domestic borrowers were exceptionally low, often negative, in real after-tax terms (Englund, 1999). Unemployment was low and the labour market was overheated. With monetary policy focused exclusively on the currency peg, all other aspects of economic stabilisation became the responsibility of fiscal policy. Rising European interest rates forced equivalent rises in Sweden. By 1990, monetary policy was straining to maintain the currency peg and fiscal policy too was marshalled, in the form of austerity, to support the value of the krona (Jonung *et al.*, 2008).

US

After recovering from the bursting of the Dot-Com Bubble in late 2001, the US enjoyed sustained economic growth until 2007, though at a lower growth rate than the preceding expansion of the 1990's. Unemployment and inflation had both been low and stable for a few years prior to the financial crisis in 2007. Interest rates had been especially low during 2002 and 2003, but then increased substantially from 2004 to 2006. Public and household debt rose. The US fiscal deficit and weak economic activity globally resulted in large capital inflows and easy credit for consumers.

Deregulation

Sweden

There was financial deregulation in Sweden in 1983 and 1985 which relaxed liquidity requirements for banks and increased competition among lenders. Banks were allowed to encroach on the territory of the finance houses which were forced to engage in riskier behaviour (Englund, 1999). This new competition combined with low interest rates to create an environment of easy credit, fuelling consumption and indebtedness. Domestic consumption crowded out exports. The private savings ratio declined (Jonung *et al.*, 2008).

US

Competitive boundaries within the US financial sector had been eroding over a forty-year period (Kling, 2009). There were a number of deregulatory changes in the years leading up to the crisis, but there is debate as to which were significant. One noteworthy example was the 1999 repeal of the Glass-Steagall Act of 1933, introduced after the Great Depression to reduce contagion risk. Glass-Steagall separated the activities of investment banks, commercial banks, and insurance companies. Its repeal permitted increased competition among lenders (Pop, 2009). This opened up numerous conduits for turning abundant foreign capital into US mortgage debt, many of which would avoid any impact on banks' balance sheets.

Banks adopted the strategy of turning their own shares into growth stocks rather than focusing on the fundamentals of banking, seeking additional profits through securitisation and trading fees (Blundell-Wignall *et al.*, 2008). Banks made extensive use of the 'originate and distribute' model by writing loans, repackaging them, and then moving them off their balance sheets (Brunnermeier *et al.*, 2008).

Asset Prices Rise and Fall

Sweden

Rapid credit expansion resulted in a sustained increase in asset prices detached from underlying fundamentals (Englund, 1999). From 1985 to 1990, real aggregate asset prices more than doubled (Bäckström, 1997). Eventually, the credit-fuelled rise in commercial real estate prices exceeded the ability of owners to attract tenants. By the autumn of 1989, the commercial property market had peaked, and by the end of 1990, the real estate index had fallen 52% (Englund, 1999).

Inflation dropped markedly, briefly dipping into deflation, thereby further increasing real interest rates which rose from -1% in 1989 to +5% in 1991 (Englund, 1999). This led to decreasing asset values, loss of wealth, and even higher indebtedness. Bankruptcies increased, households reduced consumption and increased savings, and construction froze.

US

Monetary policy that was intended to stabilise employment levels kept interest rates low from 2002 to 2004 which contributed to the housing boom. From 2000 to 2005, the total value of residential real estate in the US rose by 81% (Kling, 2009). Share prices were not much different; the Dow Jones Industrial Average index (the 'Dow') rose from a low of 7,300 in late 2002 to a high of 14,000 in early 2007 (FRED®).

In October 2007, share prices peaked. Within a year and a half, the Dow had lost more than half its value. Housing prices peaked a year before shares did, but by late 2008, had lost 20% of their value. Starting in 2007, lenders began to foreclose on substantially more properties than in preceding years. By September 2009, 14.4% of all U.S. mortgages were either delinquent or in foreclosure (MBA, 2009).

The Crises Unfold

Sweden

Off-balance sheet liabilities - The trigger for a crisis came in the form of a specific instrument, '*marknadsbevis*', a type of commercial paper. Commercial paper is an unsecured, short-term promissory note issued by a firm to support its own operations. These notes are typically issued and reissued as part of a rolling programme. In 1980, an exchange for commercial paper was formed facilitating rapid growth of the market. Tightly regulated banking had given rise to lightly regulated finance houses (Davis, 1995). Finance houses, however, were not allowed to issue their own commercial paper. The result was that banks issued commercial paper on behalf of the finance houses, exploiting a new profit channel while keeping the associated liabilities off their balance sheets. This paper was known as '*marknadsbevis*' (Moody's, 1994).

The first signs of trouble - Nyckeln Holdings, a finance house, posted losses due to customer defaults on commercial real estate loans. Banks then refused to roll over Nyckeln's *marknadsbevis* programme causing Nyckeln to default. A similar situation followed shortly thereafter at another finance house, Beijer Capital. Both Nyckeln and Beijer had extraordinary returns on equity in the year prior to their defaults, 37.5% and 50.7% respectively (Moody's, 1994), indicating high leveraging and risk.

The 'run' on commercial paper - By the end of 1990, five finance houses had defaulted on their *marknadsbevis* programmes. A lack of confidence spread and it became challenging for corporations of all types to raise funds using traditional commercial paper even though they were not *marknadsbevis* (Moody's, 1994). As it was customary to roll over these short-term securities, refusal to do so was similar to a demand on a deposit account. Widespread refusal was effectively a 'run'. Banks made a run on the finance houses for the *marknadsbevis* programmes, and investors in general made a run on corporations. In 1994, Moody's declared this event "as close as any [commercial paper] market has come to a total meltdown".

US

Shadow banking - This term refers to less-regulated, more highly-leveraged, financial activities that happen off the banks' balance sheets or without the involvement of the banks altogether. These include hedge funds, money market funds, 'structured investment vehicles', and an array of creative instruments and institutions, many of which are now synonymous with the US crisis. As regulated, government-sponsored enterprises reduced their participation in the mortgage market, other investors stepped in. It was during these years, 2004 to 2007, that the worst-performing loans were originated (Simkovic, 2011). Typically these loans were 'subprime' mortgages to less creditworthy borrowers.

Early trouble - It is difficult to pinpoint the beginning of the US crisis, or to decide when it became critical, but a few events set the scene. In February 2007, HSBC announced losses on its US subprime mortgages. In June, two hedge funds run by Bear Stearns were forced to dump assets and freeze redemptions. In August, BNP Paribas, a French bank, froze redemptions from two of its funds because they could not value their assets due to a "complete evaporation of liquidity" in the market. In August and September, two German institutions faced losses based on their investments in US subprime mortgages. In September, Northern Rock, a UK bank, suffered an old-fashioned bank run, the UK's first in over a hundred years. The list of banks and finance houses struggling with their subprime mortgage holdings continued to grow throughout 2008 (Guillén, 2009).

Part 2: Policy Response

Sweden

Recognising the problem - In the autumn of 1991, two of Sweden's six major banks became unable to fulfil their capital requirements and both received targeted assistance from the state. In September 1992, a third bank, Gotabanken, defaulted. Only then did the state conclude that it had a systemic crisis (Englund, 1999). The government response was swift and effective. Prior to the crisis, Sweden had no deposit insurance policy. In September 1992, to prevent a cascade of bank failures, the state issued a temporary blanket guarantee, not just on deposits, but on all forms of bank debt. Political cooperation was critical as the bank guarantee was only a bill; it was another three months before it became law. Opposing parties stood united in public (Dougherty, 2008) and provided the confidence that the banks on their own could not.

Bank restructuring - The state's guarantee served to stem contagion, but the banks remained individually precarious. Each bank that required capital received it, but at a cost. The state extracted a share of ownership in exchange for capital. The strategy was to rescue banks not owners (Englund, 1999). In the case of Foreningsbanken, the owners had begun negotiations for a government rescue, but chose instead to use external capital within their control to rescue the bank privately (Jonung, 2009). Ultimately, two major banks were restructured. Their non-performing assets were transferred to a newly-created 'bad bank' whose role it was to dispose of these assets in the most profitable way and to collect whatever it could from bankrupt debtors. The remaining assets were reconstituted back into new, solvent 'good banks' which were re-privatised over time (Englund, 1999).

Monetary policy overhaul - The Riksbank, Sweden's central bank, finally surrendered its efforts to maintain the currency peg and the krona was allowed to float. This enabled monetary policy to focus on managing inflation and interest rates for domestic economic purposes. This new approach to monetary policy freed the government to direct fiscal policy to other matters, initially to tackling the fiscal deficit and shoring up the krona.

Further adjustments - In 1995, the Riksbank was granted explicit independence. Inflation targeting was adopted and the rate of inflation and expectation of inflation rapidly declined to the announced target. Government debt was reduced and a target fiscal surplus of 2% was adopted. Deposit insurance and improved financial supervision were instituted. The financial system was further opened to the outside world reducing the risk of certain unsustainable imbalances (Jonung *et al.*, 2008).

In retrospect, the response to Sweden's crisis is considered highly successful (Jonung, 2009).

US

Crisis management - There was no single moment in the US crisis to mirror the Swedish government's switch to a systemic response. Instead, the timeline of the crisis reads as a series of last-minute reactions to unexpected events (see Guillén, 2009). Some actions were performed by the Treasury, some by the Federal Reserve (the US central bank), and some as a coordinated effort between the two. Actions by those two entities did not follow a clean separation of duties between fiscal/regulatory and monetary policy.

From December 2007 to February 2009, the government engaged in a large number of banking interventions but there was no single template. There were loan packages, orchestrated bank mergers, seizures that wiped out shareholders, rescue capital in exchange for equity, and so on. In one case, regulators permitted the largest American bankruptcy ever, that of Lehman Brothers, a financial services firm. That decision had negative repercussions in markets around the world (Brunnermeier *et al.*, 2008). Shortly thereafter, to prevent a run on money market funds, the Treasury guaranteed deposits in money market funds while the Fed created the Commercial Paper Funding Facility to provide emergency liquidity to issuers of commercial paper. Two government-sponsored enterprises, Fannie Mae and Freddie Mac, were seized, thus handing the liability of $5 trillion of mortgage debt over to the government (Guillén, 2009).

Political division - Actions that required legislative approval were dominated by partisan division. One bailout package put forward by the Treasury was defeated in Congress, only to be resurrected and passed after equity markets rebelled, the Dow posting its largest one-day point decline in history (Guillén, 2009). It is likely that the lack of political cooperation significantly worsened matters by unnerving investors.

Unconventional monetary policy - Early in the crisis, the Federal Reserve began pursuing expansionary policies, lowering interest rates and purchasing bonds. However, these conventional measures were failing to bring liquidity to the institutions most in need. The Federal Reserve began pursuing less conventional policies, purchasing a wider variety of assets and opening up a number of targeted lending facilities, focusing on the composition of its balance sheet as opposed to just its size (Cecchetti, 2008).

The final chapter of the US crisis has not been written. The worst was over by 2009, but the economy has not healed. Demand, growth, and employment have been disappointing. This leads many to conclude that the response was inadequate. The Federal Reserve continues an expansionary monetary policy today in 2014.

Part 3: General Lessons

Regulation and Deregulation

A key ingredient leading up to both crises was deregulation of a particular nature, the unwinding of rules that separated the activities of different types of financial institutions. In Sweden, tight regulation of banking had given rise to less-regulated finance houses (Davis, 1995), but it was deregulation of the banks that then prompted the finance houses to engage in more risky behaviour. In the US, various types of financial institutions saw their boundaries blurred, feeding the growth of a complex, under-regulated shadow banking system. In both cases, a battle for market share and new profit sources superseded prudent management of banks' balance sheets and reduced the effective reserve ratios of the countries' financial systems.

Regardless of whether deregulation was to blame for the problems that followed in the US, regulation was not keeping pace with the efforts to evade it. Reinhart and Rogoff (2008) argued that lightly regulated and unregulated entities and instruments played an ever greater role in finance, resulting in a relative reduction in regulation that was more significant than any "*de jure* liberalization".

It is easy to assign disproportionate blame to the original deregulation, the consequences of which cannot always be predicted. The problems appear when regulators fail to respond to the resulting negative consequences. This brings us to the role of innovation.

Innovation

In both crises, competition among lenders increased, but so did cooperation. It was this new cooperation that comprised financial innovations overlooked by regulators.

In Sweden, the *marknadsbevis* programmes read like a blatant attempt to circumvent the letter of the law, but they ran for years. In the US, the financial instruments that expanded in the wake of the Glass-Steagall repeal were too complex for investors to comprehend and audit adequately. The less regulated portions of the financial system became critical to the functioning of the overall system (Kling, 2009).

Post-crisis, Swedish policy makers appeared to understand that it was not deregulation *per se* that was to blame, but rather an incompatible mix of regulation and lack of regulation that combined to encourage problematic innovations. One might expect *marknadsbevis* to have simply been banned, but instead finance houses were permitted to issue their own commercial paper (Moody's, 1994), eliminating the need for bank involvement. This move presumably made the liabilities of both banks and finance houses more explicit and therefore more sustainable.

Lack of Information

Silver (2001) cited as central to the crisis the failure of Swedish banks to assess adequately the credit risks of firms. The resulting deficit of information was revealed when Nyckeln defaulted only three months after posting positive forecasts. A near complete loss of confidence in *all* commercial paper quickly followed. This broad-based unravelling of confidence occurred in the context of spreading rumours and resulted in an extreme flight to safety (Moody's, 1994), evidence of the inadequate information that had preceded it.

Likewise, highly-rated US mortgage securities went from trusted to 'toxic' in very short order. It was understood that subprime mortgages had been shocked by the decline in housing prices, but the exact location of these liabilities was not known (Gorton, 2009). As problems came to light, few investors were willing or able to extract the necessary information to produce a new risk assessment (Kling, 2009). What Sweden did not know about its commercial paper, the US did not know about its mortgages.

The lack of information in both crises was not a problem while assets were appreciating. Investors were lending based on the expected future value of collateral, not the creditworthiness of borrowers (Pop, 2009). When collateral lost value, suddenly creditworthiness became very relevant, but the information was not readily available. As it became evident there were rotten apples in the system, financial players could not assess the stability of their counterparts, nor even the quality of their own holdings. As a result, parts of the financial system made a run on other parts, asset prices entered a downward spiral, trust and liquidity evaporated, and institutions failed.

It fell to governments to restore confidence and liquidity by making guarantees that, at least temporarily, made the information deficit less relevant. This was done in a single action in the Swedish case with a blanket guarantee of all bank debt, with good results. It was done as a piecemeal series of actions in the US case as specific institutions and instruments were rescued or underwritten, or permitted to fail, with mixed results.

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