

**CENTRAL BANK RESPONSES TO  
FINANCIAL CRISES: LENDERS OF LAST  
RESORT IN INTERESTING TIMES**

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WP 2009-08



International Economic  
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# CENTRAL BANK RESPONSES TO FINANCIAL CRISES: LENDERS OF LAST RESORT IN INTERESTING TIMES

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“The present signs indicate that the bankers of the world are bent on suicide. At every stage they have been unwilling to adopt a sufficiently drastic remedy. And by now matters have been allowed to go so far that it has become extraordinarily difficult to find any way out. It is necessarily part of the business of a banker to maintain appearances and to confess a conventional respectability which is more than human. Lifelong practices of this kind make them the most romantic and the least realistic of men” – John Maynard Keynes (1931b, p. 178).

“The central bankers have all learned the lesson of the 1930s,” said Robert Barbera, the chief economist of ITG, a Wall Street firm. That lesson was that if the choice is between allowing the system to collapse and writing a lot of checks, you write the checks and forget about ideology. Unfortunately, none of them learned the lesson of the 1920s, which is that when asset prices soar, it is not a good idea to sit around doing nothing, as the Fed did for most of the housing boom. Cheerleading, which it sometimes did, is even worse” – Norris (2008, p. B8).

## **INTRODUCTION: THE DIVERSITY OF CENTRAL BANK RESPONSES TO CRISIS**

The daunting challenges facing central bankers in the financial crisis that began in August 2007 are reflected in the shocked tone of the minutes of the Federal Open Market Committee meeting of December 15 and 16, 2008 (Andrews 2009). Normally, such minutes are staid and circumspect – and normally FOMC meetings require only one day. At the December 2008 meeting of the FOMC (the Federal Reserve Board of Governors plus presidents of Federal Reserve Banks), some participants wished to abandon any explicit target for overnight interbank interest rates (the federal funds rate) while others feared such an admission that the Fed had lost control of financial markets. The target for the federal funds rate was lowered yet once more, from one percent to a range from zero to one quarter of one percent; yet though the Fed’s own “Taylor rule” formula, weighting inflation and the output gap, would have indicated a target interest rate of negative five percent, were such a negative rate feasible<sup>1</sup>. Dismayed by their inability to go further with

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<sup>1</sup> Furthermore, central banks have experienced difficulty in reducing the effective, as distinct from the official, nominal overnight rate to near-zero, because of the rise in risk premiums. Thus the Toronto-Dominion Bank’s TD Effective Measure of Monetary Policy showed an effective rate of 2.30% in March 2009 compared to the Bank of Canada’s official rate of 0.50%, because reductions totally 400 basis points

their accustomed methods, the FOMC members looked to supplement the reduction of the target overnight rate by buying mortgage-backed securities and perhaps long-term Treasury bonds and seeking ways to induce banks to borrow more from the Fed to lend to the public. The distress of the FOMC, although more transparently documented, was undoubtedly shared by central bankers throughout the world, yet the Federal Reserve System, the Bank of England, the European Central Bank, and the Bank of Canada have reacted very differently to the crisis and taken different views of their responsibility. These differing reactions reflect the differing structures and mandates of these central banks, but also the central banking traumas of the past: the German hyperinflation of the early 1920s, the collapse of the US banking system during the debt-deflation of the early 1930s, the aftermath of “the Norman conquest of \$4.86,” and, in Canada, the “Coyne affair” upheaval over central bank independence. Ben Bernanke, Mervyn King, Mark Carney, and Jean-Claude Trichet are painfully conscious of the misfortunes of Eugene Meyer, Montagu Norman, James Coyne, and Rudolf Havenstein. The Federal Reserve remembers the failure of nine thousand banks and the 1933 Bank Holiday that shut down the entire US banking system. The Bank of England remembers Winston Churchill reflecting that, while he did not claim to know much about economics or finance, he did know that it would be a good idea to shoot Montagu Norman. The Bank of Canada has not forgotten the days when Scott Gordon entitled a book *The Economists versus the Bank of Canada* (1961) and the Government of Canada introduced a bill in Parliament to declare the governorship vacant, only to have the bill rejected by the Senate. The European Central Bank, like the Bundesbank, obsessively recalls the German price level rising to one trillion times its previous level while the Reichsbank president promised that, with thirty-eight new high-speed printing presses, the central bank would print enough currency to catch up with the soaring prices. Each of these central banks has been shaped by a particular historical trauma, which is reflected in how each central bank has responded to the present crisis.

This consciousness is more than just a matter of oral tradition or a general cultural inheritance within central banks: Bernanke (1981, 1983, 1995, 2000) built his academic career on analysis of the debt-deflation of the early 1930s, which King (1994) also examined (with very different emphasis) in his European Economic Association presidential address (see Dimand and Koehn 2008) – but it happens that neither of them gave comparable attention to the preceding US financial boom of the middle and late 1920s, fuelled by expansionary monetary policy in a weak regulatory environment. In the case of the European Central Bank, although its first two presidents (dividing a single term) have been Dutch and French, the relevant historical trauma is the Bundesbank view of Germany in the early 1920s, as held by Otmar Issing, the first chief economist of the ECB and previously chief economist of the Bundesbank. For Canada, lectures by the recently-retired governor David Dodge (2008a, 2008b) provide insight into the prevailing viewpoint at the top of the Bank of Canada.

Even when central bankers or other persons draw lessons from history or otherwise gain insight into the role of greed, self-delusion, limited knowledge, and fundamental

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in the Bank of Canada’s target overnight rate had been offset by a 212 basis point rise in credit spreads (Lascelles and Pollick 2009).

uncertainty in financial markets, it is still difficult to avoid pitfalls. The University of Colorado at Boulder psychology professor Stephen Greenspan analyzed how people fall for Ponzi schemes in *The Annals of Gullibility* (2008), yet lost more than half his retirement savings to Bernard Madoff's Ponzi scheme. Robert Rubin, reflecting on his experience at Goldman Sachs and as Treasury Secretary, warned that "Entranced by the model, a trader could easily forget that assumptions are involved and treat it as definitive" (with specific reference to the Black-Scholes assumption that "future volatility in stock prices will resemble past volatility"), and remarked on "a seeming tendency in human nature not to give appropriate weight to what might occur in remote, but potentially very damaging conditions" (Rubin and Weisberg 2003, pp. 81, 99)—the "black swans" of Taleb (2007). Unfortunately, while he was expressing these insights, Rubin was chairman of the executive committee of Citigroup, which subsequently wrote off \$88.3 billion of toxic assets, having relied on quantitative models that assumed that past observations predicted future risk and that ignored the low-frequency, high-impact possibility of a systemic financial crisis.

### **THE PERFECT STORM: THE SITUATION FACING THE CENTRAL BANKS**

Several striking features of the current financial crisis are unprecedented only if "unprecedented" is redefined (as indeed seems often seems to be the case in the financial sector) to mean "it hasn't happened since last time, and that was *several* years ago, and anyway the CFO has personally assumed that nothing so inconvenient will happen so that we can scoop up the higher expected return without there really being any risk." As Eduardo Porter (2008) points out, the Ponzi schemes of Bernard Madoff and Allan Stanford are in a long tradition of such scams (including of course the eponymous Charles Ponzi). During the present crisis, the difficulty of valuing mortgage-based securities made them illiquid once confidence was shaken. Large markets, seemingly with deep reserves of liquidity, suddenly dried up entirely for \$330 billion of auction-rate notes in the US (see Morgenson 2008) and C\$33 billion of asset-based commercial paper (ABCP) in Canada, in both cases securities that were sold to investors (Quebec's Caisse de Depots, investing for the Quebec Pension Plan, held more than C\$12 billion of ABCP when the market froze) as being as safe and liquid as Treasury bills but offering a higher interest rate (which apparently did not cause purchasers to question the supposed safety and liquidity). But such mishaps have occurred before. Many remembered that in 1994 Kidder Peabody, then the investment banking arm of General Electric, had revealed that a rogue trader, Joe Jett, had created \$350 million of fictitious profits to earn himself a bonus of \$9 million. But that contretemps provided cover for a more serious problem: Kidder Peabody owned \$16 billion of illiquid mortgage-backed bonds<sup>2</sup>. "The mortgage-bond market was in paralysis, and Kidder, as the biggest owner of inventory on Wall Street, found it couldn't even get a fix on the value of its holdings because there were no buyers... Even though the number was lower than it had been, Kidder was dangerously leveraged: every \$1 of its equity was supporting \$93 of assets, compared with average leverage for the industry of \$1 to \$27" (O'Boyle 1998, pp. 353, 348). With such leverage,

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<sup>2</sup> Even as sharp-eyed a critic of investment bankers as Philip Augar (2005, pp. 44-45) discusses Kidder Peabody's downfall solely in terms of Joe Jett, without mention of the much larger problem of illiquid mortgage-backed bonds.

even a slightly bad year brings disaster. Nonetheless, ten years after Kidder Peabody's debacle, the investment bankers succeeded in 2004 in lobbying the Securities and Exchange Commission to eliminate the leverage limits on the five biggest US investment banks (Merrill Lynch, Morgan Stanley, Goldman Sachs, Lehman Brothers, and Bear Stearns), so that they could invest aggressively in mortgage-backed collateralized debt obligations (CDOs) and other sophisticated financial instruments (Labaton 2008). Of the five, only Goldman Sachs chose to keep its leverage ratio below \$1 of capital to \$30 of equity, and so it is the only remaining free-standing institution among the five (with the partial exception of Morgan Stanley, now an affiliate of Mitsubishi UFJ but not a subsidiary). The current Union Bank of Switzerland (UBS) was created a few years ago when UBS lost a billion dollars on derivatives and was taken over by the Swiss Bank Corporation, as Switzerland's Big Three became Big Two. Apparently learning nothing from that experience, or from the experience of Kidder Peabody, which, incorporated into Paine Webber, is now part of UBS's American investment banking arm, UBS has now written off \$50.6 billion dollars on mortgage-backed securities and other derivatives, even more than Citigroup or Merrill Lynch or HSBC managed to lose. Swiss attitudes to banks have been so changed by these events that when one of us visited Switzerland in February 2009, mainstream pro-business newspapers in Geneva and Lausanne were calmly reporting, without comment or dissent, that the CEO of SWATCH was moving all the company's accounts to the postal savings bank and the cantonal bank of Aargau because the Big Two Swiss banks were run by cretins and bandits.

The Savings and Loan crisis of the 1980s, which required \$500 billion of public money in bailouts (for a final cost of \$150 billion after selling off troubled assets), might have served as a warning against partially deregulating a financial sector while leaving explicit or implicit public guarantees in place. Investment banking and mortgage lending became steadily less regulated from the late 1990s onward, just as the borrowing and investing of S & Ls had been deregulated. The language became enriched by such terms as exploding ARMs (adjustable rate mortgages, on which payments would rise sharply after an initial period, unless the mortgage was refinanced), no-docs loans, liar loans, and NINJA loans (no income, no job or assets), designed to be swiftly repackaged by the original lenders and sold off as collateralized debt obligations (CDOs) to other financial institutions that knew little about the debtors, but cared only about the rating given the CDO by a rating agency. Because the deregulation was only partial, the role of the handful of rating agencies is enshrined in law, with the agencies competing for clients by cultivating reputations for giving more generous ratings (Lowenstein 2008, Rosenkranz 2009, *The Economist* 2009b). In many US states, unlike Canada, mortgages are non-recourse loans, so that if a borrower takes a mortgage for 125% of the market value of a house and then walks away, the owner of the mortgage (presumably no longer the original issuer) cannot pursue the debtor, beyond seizing the house itself (Fitzgerald 2008, Schwartz 2009). There was heavy reliance on fancy mathematical models that were suited to independent risks with stable probability distributions rather than systemic risk and non-ergodic uncertainty (Overbye 2009, Davidson 1991), although it is also the case that large, supposedly sophisticated financial institutions not only fell prey to fundamental uncertainty but also failed to use mathematical models properly to handle even calculable risks (Nocera 2009). In retrospect, the combination of partial deregulation, a belief that

finally how to outsmart the market had been figured, and an asset price boom fuelled by accommodative monetary policy (whether the boom was in “New Economy” stocks in the 1920s, dot.com stocks in the late 1990s, or house prices in the 2000s) was a recipe for disaster comparable to giving a bunch of insolvent S & Ls deposit guarantees and turning them loose to try to win enough in high-risk real estate speculation to have a positive net worth. Such behaviour fits Robert Shiller’s concept of “irrational exuberance” (Shiller 2000, 2009) better than it matches the neoclassical conception of forward-looking rational investors and policy-makers. Even Judge Richard Posner (2009), founder of Chicago “law and economics,” acknowledges the failure of unregulated financial capitalism. But as David Dodge (2008a, 2008b) points out, once an asset bubble has started, it is very tempting for a central bank to put off intervening to halt the bubble, since such intervention precipitates the credit crunch that the central bank hopes to avoid. Central bankers such as Bernanke have drawn lessons from the 1930s about how to respond to debt-deflation, but not lessons from the 1920s about avoiding the preceding asset price bubble (see e.g. Ferguson 2009). Much of mainstream economic theory is unhelpful in learning such lessons, because many formal models of supposedly monetary economies impose the “transversality condition” that all debts are paid, in which case, as Charles Goodhart (2008) acridly observes, all private liabilities are as safe and liquid as money, so there is no role for money.

#### **THE SHADOW OF THE BANK HOLIDAY: BERNANKE AND THE FED**

Ben Bernanke (1981, 1983) began his academic career with a dissertation on how the debt-deflation of the early 1930s led not just to a contraction of the money supply, as the public withdrew cash from uninsured bank deposits and banks scrambled to shift from loans to reserves, but to a breakdown of the US payments system, a failure of bank money as a medium exchange in the Bank Holiday of 1933. US bank failures increased from 659 in 1929 to 1,352 in 1930 and 2,294 in 1931, although dipping to 1,456 in 1932, but these bank closings were only the prelude to collapse: “By 4 March 1933, all banks in 38 states had suspended business. Two days later, Roosevelt finished the job by declaring a nationwide bank holiday. When the banks reopened under federal supervision, some 4,000 more were found to be insolvent and were liquidated. Ben Bernanke concluded that the effects of the banking crisis in the early 1930s (especially in 1931) were so severe that the banking system was simply unable to resume as a competent mechanism of intermediation for the rest of the 1930s”, according to Hughes and Cain (2007, pp. 504-505). After the Bank Holiday, the surviving banks held exceptionally high level of excess reserves until the United States entered World War II, instead of expanding lending, and other financial institutions displayed comparable risk aversion.

In 2002, soon after joining the Board of Governors of the Federal Reserve System, Ben Bernanke spoke at Milton Friedman’s 90<sup>th</sup> birthday party. Referring to Friedman and Schwartz’s *Monetary History of the United States* (1963), Bernanke delighted the assembled monetarists by concluding, “Let me end my talk by abusing slightly my status as an official representative of the Federal Reserve System. I would like to say to Milton and Anna: Regarding the Great Depression. You’re right, we did it. We’re very sorry. But thanks to you, we won’t do it again” (quoted by Bragues 2009, p. FP19). At the time, this

was just a jaunty witticism. In 2002, depressions, financial crises, and banking meltdowns were things that might happen in less favoured parts of the world, from Mexico in 1994 (and in 1992 the Swedish banking crisis and the unravelling of Europe's Exchange Rate Mechanism) through Brazil, Russia, Thailand, South Korea, and Indonesia in 1997-98 to Argentina and Mexico in 2002 (see Spotton Visano 2006 for an overview of crises and their causes and consequences), but seemed inconceivable in the United States<sup>3</sup>. After all, the United States had vast financial markets with deep liquidity and highly-sophisticated, recently-deregulated investment bankers, and where only a year before monetary economists had learnedly debated how to conduct monetary policy once the national debt had been reduced to zero (a problem that has since ceased to cause worry). Bernanke's remarks did not seem quite as amusing after he returned to the Board of Governors as chairman in 2006, and was responsible for seeing that the Fed did not "do it again."

Beyond being constrained by the gold exchange standard, the leadership of the Fed in the early 1930s was clueless about what was going on. In a letter to Clark Warburton in 1946 (published by Cargill 1992, pp. 1275-76), Irving Fisher recalled: "In the summer of 1931 I called on Eugene Meyer, the chairman of the Federal Reserve Board. I said: "I am getting alarmed to see demand deposits diminish. It seems to me this may cause great trouble." He said: "What do you call the figure?" Amazed, I said: "The full name is individual deposits subject to check without notice." He rang a bell and asked his assistant to bring in the last controller's report open to the page where the figures were given for individual deposits subject to check without notice. In a few minutes the report came in and I pointed and said: "You see that during the last several call dates there has been a continuous reduction." He said, "Yes, I see it." Of course his main object should have been to see it all along and long before his attention was called to it." Meyer's failure to grasp what was happening to the financial system and that he had a responsibility as head of the Fed to do something about it can be seen in David Halberstam's *The Powers That Be* (1979, pp. 252-61), in which Meyer figured because of his later career as publisher of the *Washington Post* (eventually inherited from him by his daughter Katharine Graham). Halberstam (1979, p. 254) noted that Meyer had held various government positions ("All his jobs were important. Many of them had to do with the financing of World War I and the reconstruction of Europe after the war") and reported that Meyer "had been bothered by the inaction of Hoover. His old friend had seemed to draw in, and had been unwilling to face the reality of the national crisis." Faithfully recording Meyer-Graham family tradition about the founding father, Halberstam did not realize, or did not think it worth mentioning, that Meyer had headed the Federal Reserve in the Depression or that perhaps Meyer, not just Hoover, might have done more to face up to the crisis. Bernanke, who has studied the monetary turmoil of the early 1930s, does not wish to share Eugene Meyer's well-earned reputation for befuddled inertia in the midst of a financial meltdown.

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<sup>3</sup> In 1995, a budget deadlock between President Clinton and House Speaker Gingrich forced the US Treasury to reassure a delegation from the Brazilian Finance Ministry that the US was not about to default on its national debt, a conversation said to have been greatly enjoyed by the Brazilian visitors, but this was seen just as an incident of US politics, not as a crisis of the US economy. See Alan Greenspan (2007) to savour the view of financial crises as something afflicting the rest of the world, which the US would sort out.

From August 2007, when two hedge funds run by BNP Paribas suspended withdrawals (the funds specialized in US mortgage-backed securities), the Federal Reserve repeatedly reduced its target federal funds rate and injected liquidity into credit markets, faltering only when it allowed Lehman Brothers to fail (after which the confidence shocks to Lehman's counterparties forced the Fed to prevent any further liquidations). In contrast, the Bank of England resisted pressure to provide comparable support to the British financial system until its policy stance was overwhelmed by the collapse of Northern Rock in September 2007, a policy reversal that damaged Governor King's reputation (*Economist* 2007). While the Fed and then the Bank of England reduced short-term interest rates (Shaikh and Jones 2009), the European Central Bank held its interest rate target unchanged for after onset of the crisis, basing its interest rate decisions solely on fear of inflation. From August 2007 to June 2008, while the Fed reduced its overnight interest rate target by 325 basis points from 5.25% to 2.0%, the ECB kept its comparable rate unchanged at 4.0% -- and then in July 2008, the ECB raised its rate by 25 basis points, keeping to the "Bagehot principle" of lending freely at penalty rates to illiquid but supposedly solvent banks (the ECB later cut rates). This was not because Europe's banking system was unscathed by the US subprime and Alt-A mortgage crisis. Spanish, Irish, and British housing price bubbles burst. Five of Germany's seven Landesbanken (the banks of the state governments) had their credit ratings reduced and German banks were estimated to hold over a trillion dollars of troubled assets, so that the German government intervened to guarantee all bank deposits. Other European countries had similar problems (although the worst-hit, Iceland, whose government took over foreign currency debts of Icelandic banks equal to seven times GDP, is outside the euro zone). But the ECB based its monetary policy primarily on targeting inflation rather than on its role as lender of last resort, leaving national fiscal policies to stabilize the banking system by guaranteeing deposits (Carmichael and Scofield 2008, Carmichael 2008).

Much of Ben Bernanke's academic research in the late 1990s concerned the benefits of setting an explicit target for inflation (Bernanke et al. 1999). The Bank of England, the Bank of Canada, and other central banks have such inflation targets – in New Zealand, the central bank governor's salary is pegged to success in meeting the inflation target. The ECB does not quite have inflation-only targeting, but is so inflation-obsessed that it might as well have. In contrast, the Federal Reserve sets no explicit target for inflation, and implicitly sets interest rates by a Taylor rule, according to a formula that weights both inflation and the output gap. Given his research on inflation targets, Bernanke might have been expected to push the Fed towards adopting an explicit inflation target, but he has not done so. Instead, he has emphasized the lender of last resort function of the Fed, and has been quicker than Mervyn King at the Bank of England to accept the moral hazard problem of keeping large institutions from failure. Why? Bernanke's academic writings suggest an answer. Bernanke (1981, 1983, 1995, 2000) repeatedly stressed the devastating effect on economic activity of the collapse of the US system of financial intermediation brought about by debt-deflation in the 1930s. Beyond these historical studies, several of his contributions to macroeconomic theory, such as Bernanke and Blinder (1988) and Bernanke and Gertler (1989), concern the ways in which a decline in the capital of lenders or the collateral of borrowers can reduce lending and real economic

activity. In addition to Fisher (1933), Bernanke cited Hyman Minsky (1975, 1982) and the MIT economic historian Charles Kindleberger (1978), one of Bernanke's teachers at MIT, but he distanced himself from their willingness to acknowledge deviations from rational behaviour: "I do not deny the possible importance of irrationality in economic life; however it seems that the best research strategy is to push the rationality principle as far as it will go" (Bernanke 2000, p. 43) – after all, he was submitting his work on the Depression as an MIT dissertation. The lesson that Bernanke drew from these studies is that, faced by such a debt-deflation crisis, the paramount concern of a central banker must be to sustain the functioning of the system of financial intermediation, leaving to some later, quieter time worries about exchange rates, future inflation, or the moral hazard of rescuing improvident institutions (see e.g. Norris 2008).

#### **ANOTHER VIEW OF DEBT-DEFLATION: KING OF THE THREADNEEDLE STREET**

Mervyn King, the "King of Threadneedle Street," has also studied the debt-deflation of the early 1930s (King 1994), citing Keynes (1931b), Fisher (1933), Minsky, and Tobin (1980) as sources of the debt-deflation analysis (in addition to sources cited by Bernanke or King, see also Keynes 1931a, and Keynes 1936, pp. 264, 268, 271). But, although he examined the same historical episode of debt-deflation and read much of the same literature as Bernanke, King drew a different lesson, and, especially in August and September 2007, he responded differently to the crisis, resisting as long as possible aggressive expansionary policies. His 1994 presidential address to the European Economic Association, on the subject of debt-deflation, indicates why. Both Bernanke and King recognize two channels through which an unanticipated fall in the price level, raising the real value of inside debts fixed in nominal terms, and a collapse of asset prices, can reduce the level of economic activity. First, the scramble for liquidity disrupts the system of financial intermediation, causes bankruptcies, raises risk premiums, and reduces the availability of credit. Second, the rise in the real value of inside debts transfers wealth from borrowers to lenders. Since borrowers presumably became borrowers because they have higher propensities to spend than lenders do, such a transfer reduces aggregate expenditure (and, because there is so much more inside debt than outside money, this destabilizing effect of a price decline can overwhelm the stabilizing Pigou real balance effect of a lower price level). Bernanke emphasized the first channel, and argued that the disruption of financial intermediation caused much of the harm of the Great Depression in the US. King's focus was on the second channel, and he concluded that the plausible differences in spending propensities between borrowers and lenders were not large enough for this channel of debt-deflation to be of critical importance. A possible reason why King's attention was not more drawn to the disruption of financial intermediation is a difference in the historical experiences of the countries in which Bernanke and King were writing. Britain, unlike Austria, Germany, Italy, or the United States, did not experience a banking crisis in the early 1930s. The historical sin of the Fed, for which Bernanke apologized at Milton Friedman's 90<sup>th</sup> birthday party, was permitting the disintegration of the banking system, with more than nine thousand banks failing and the whole system temporarily closed in the Bank Holiday. The historical sin of Montagu Norman and the Bank of England was the return to the gold standard in 1925 at the prewar parity, necessitating deflation of wages and prices and prolonged

unemployment, the “Norman conquest of \$4.86” (Keynes 1925, Moggridge 1972). Letting the exchange rate of the pound sterling float (or, rather, sink) in August 1931 provided escape from that mistake, without forcing attention on the fragility of the banking system. The lesson Ben Bernanke drew from the Great Depression was the paramount importance of maintaining the liquidity of the financial system, while the lesson Mervyn King drew (at least until the collapse of Northern King, followed by the near-failures of HBOS and the Royal Bank of Scotland) was the need to pursue a stable aggregate demand policy, unconstrained by the fixed exchange rates of 1925-1931 (or of the Exchange Rate Mechanism of 1992).

### **REMEMBERING HAVENSTEIN IN FRANKFURT**

While Bernanke is haunted by the Fed’s failure to prevent the collapse of the US system of financial intermediation and the bankruptcy of nine thousand uninsured banks from 1929 to 1933, Otmar Issing and his successors at the European Central Bank, like the Bundesbank, are haunted by a different spectre (Carmichael and Scofield 2008, Carmichael 2008). In 1914, one US dollar exchanged for 4.2 Reichsmarks. In 1923, one US dollar exchanged for 4.2 trillion Reichsmarks, and the German price level was one trillion times (a one followed by twelve zeros) as high as it had been in 1914, as the postwar German government, its fiscal base devastated, printed money to pay its expenses (see Bresciani-Turroni 1937). Trust funds, pension funds, and the assets of insurance companies, all of which by law had to be invested entirely in bonds and other claims to fixed amounts of money, were worthless. John Maynard Keynes (1923), then a young, orthodox Marshallian quantity theorist, calculated that the real quantity of money in Germany,  $M/P$ , had fallen by 92 per cent, as the opportunity cost of holding real money balances soared. However, Rudolf Havenstein, Reichsbank president since the turn of the century, held that since the price level  $P$  had risen so much faster than the quantity of currency, the rise in prices could not have been caused by the increased quantity of money. Accordingly, he promised the German people that, with thirty-eight new high-speed printing presses, the Reichsbank would be able to print enough money for the quantity of money to catch up with the price level. As a headline in *The Economist* (2008a) puts it, “The lessons of German history haunt the single currency.”

The mindset of the Bundesbank and the ECB is illustrated by a machine in the Bundesbank’s Money Museum, where “museum-goers are ... invited to grab a lever, and choose how much money to supply to a slowing economy ... The machine shows prices running out of control, warning lights come on and the game ends. ‘Sorry, but you’ve failed,’ reads an illuminated rebuke. ‘Go back and review the basics of money again.’ The real-life costs are spelled out, a few metres away, by sombre displays and newsreels describing the miseries of currency instability. They show Germany’s hyperinflation in 1923, when it became cheaper to burn banknotes than to buy fuel. Then came deflation and mass unemployment in the early 1930s, triggering despair that – the museum commentary suggests – helped the Nazis to power. Other sections explain how post-war Germany was saved by the strict policies of the Bundesbank. A display marked ‘conflicts’ describes how politicians from Konrad Adenauer to Helmut Schmidt all failed

to browbeat the bank into bending the rules on inflation. Each time, visitors are told, the bank was ultimately proved right” (*The Economist* 2008a).

### **THE BANK OF CANADA’S GOOD LUCK**

On May 16, 2009, *The Economist* (2009c) offered a salute in its special report on international banking, entitled “Don’t blame Canada: A country that got things right.” The following day, in the *Sunday New York Times Magazine*, financial historian Niall Ferguson (2009, p. 20) notes that, while Citigroup’s ratio of on- and off-balance-sheet assets to common equity reached 56 to 1 in 2008, “The good health of Canada’s banks is due to *better* regulation. Simply by capping leverage at 20 to 1, the Office of the Superintendent of Financial Institutions spared Canada the need for bank bailouts.” The Bank of Canada has lowered its overnight rate to 0.25% and made a conditional “near-guarantee” of keeping the rate there for a year, barring new major developments, in the hope that the boost to confidence from such a commitment (or near-commitment) would make it unnecessary for the Bank of Canada to engage in anti-depression credit expansion as vigorously as the Fed (Scofield 2009). The Canadian economy is in a nasty recession, especially the oil and automobile sectors, the asset-based commercial paper (ABCP) market collapsed, and, although less severe than the US (in part because of different laws no non-recourse mortgage loans, no income tax deductions for mortgage interest), Canada has its own problems in subprime lending (MacArthur and McNish 2009), but the banking system did not collapse, or even totter very much, attracting praise from outside the Canada. In particular, *The Economist* (2009c) offers a graph showing how much slowly the assets of the Royal Bank of Canada (RBC) have grown since 1997 than the now-troubled Royal Bank of Scotland. While praise is always welcome, it is worth remembering that the Canadian banks very much wanted to grow more rapidly and to imitate their American counterparts. In 1998, they begged the government to let them merge and to roll back restrictions on their activities, so that they could compete in the global marketplace like Citigroup or UBS. Paul Martin, then Minister of Finance, turned the banks down, for which he is now hailed as “Man of the Year” (Marche 2008) – but at the time, political opposition to bank mergers centred as much or more on losses of banking jobs, closing of duplicate bank branches, and increased oligopoly power to raise service charges than on systemic fragility. Some academic critics, notably at a Laurentian University conference organized by Brian MacLean, worried about systemic fragility, but it was not their concern that overcame the political power of the big banks. Canada’s bankers were bitterly unhappy at the time, but in retrospect that they were fortunate that Canada’s politicians could not face branch closures and higher ATM fees and so blocked the lemming-like urge of Canada’s big banks to merge and to move aggressively into the US market, including the mortgage and derivatives markets. Mind you, in the absence of wisdom, sheer dumb luck has its uses.

The Bank of Canada did not always bask in such praise. In 1960 and 1961, most of Canada’s leading economists signed a petition called for the ouster of Bank Governor James Coyne (see Gordon 1961) for his tight-money policy, and his outspoken, idiosyncratic views about high interest rates to encourage Canadians to save more and so own more of the Canadian economy instead of leaving it so open to foreign investment

(he did not give sufficient consideration to the effect of high Canadian interest rates on the capital inflow). The Governor's isolation enabled the Government of the day to use him as a scapegoat for an unpopular mix of fiscal and monetary policy (Babad and Mulroney 1995). It introduced a bill in Parliament to declare his office vacant, a bill that passed the House of Commons but was defeated in the Senate (whereupon Coyne resigned, claiming vindication from the Government's aspersions on his personal integrity). Since then, the Bank of Canada has avoided such vulnerability and isolation by keeping to the conventional orthodoxies of the mainstream of the economic profession and the business community, adopting monetary aggregate targets when those became mainstream, and then inflation targets when that became the standard for conventional central bankers.

### **CONCLUSION: LEARNING FROM THE PAST**

The past affects different central bankers in different ways. Ben Bernanke does not wish to be the next Eugene Meyer: the lesson Bernanke took from the debt-deflation of the 1930s is that the entire system of credit and financial intermediation can freeze unless the Federal Reserve (supported by the Treasury) intervenes strongly in a crisis to maintain liquidity and confidence, even if such action as lender of last resort (with the Treasury as capital supplier of last resort) conflicts with inflation-targeting and involves a moral hazard risk for financial institutions that consider themselves too big to fail. Mervyn King does not wish to be the next Montagu Norman: the lesson that King took from studying the Great Depression is that the fixed exchange rates of the gold standard obstructed a monetary policy geared to stabilization of domestic aggregate demand. Duisenberg, Trichet, Issing, and their ECB colleagues have nightmares of being the next Rudolf Havenstein: they take their lesson from the early 1920s rather than the early 1930s, and fear that any inflation may become uncontrollable (see *The Economist* 2008a, 2008c, 2009a, Carmichael 2008, Carmichael and Scofield 2008). Dodge, Carney, and their colleagues at the Bank of Canada do not wish to be the next James Coyne, vulnerable as a lightning rod for dissatisfaction with the performance of the economy, because out of step with the mainstream of the most conventional economic orthodoxy (see Gordon 1961, Babad and Mulroney 1995). The historical traumas that haunt central bankers are those that ruined the reputations of past central bankers.

But other lessons from the past have not been taken to heart by these central bankers to the same extent. Bernanke and King focused their studies on the debt-deflation of the early 1930s, rather than on the preceding boom in a weakly-regulated economy. In the middle and late 1920s, as in the dot.com bubble of the late 1990s or the subprime mortgage-CDO-CDS housing price bubble leading to the present crisis, speculators easily persuaded themselves that "this time is different" in the "New Economy." Central bankers, financial regulators, and policy-makers forget (and were encouraged by lobbyists to forget) that stabilizing the US economy and financial system in the 1930s was not just a matter of monetary expansion, budget deficits, and a floating exchange rate, but of structural reforms such as the Securities and Exchange Commission, the Glass-Steagall Act separating commercial and investment banking, Social Security, and the Federal Deposit Insurance Corporation. They forgot that the Savings and Loan fiasco

of the 1980s resulted from easing regulation of borrowing and investment by thrift institutions while continuing to guarantee their liabilities, a parallel to the more recent consequences of easing regulation of mortgage lending and removing limits on the leverage of the five largest investment banks. Investors, regulators, and central bankers all forgot that the experience of Kidder Peabody showed that mortgage-backed securities could abruptly become illiquid, or that the misfortunes of the Lloyd's insurance exchange (Raphael 1994), where four years of losses wiped out twenty years of profits, demonstrated yet again that risks need not be independent or normally distributed or subject to being tamed by mathematical models – in short, that markets are subject to fundamental uncertainty in the sense of Keynes and Knight (Davidson 1991, Taleb 2007). It is not the case that nothing is learned from experience. Indeed, *The Economist* (2008b), perhaps a bit prematurely, headlined one story, “Fuld of experience: By learning from past mistakes, Dick Fuld has brought Lehman Brothers back from the brink.” But learning from experience has been selective and incomplete. In particular, leading central bankers have drawn very different lessons from history, each haunted by a past trauma of his own institution, and this has shaped how they have responded to the present crisis.

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