

**Back to the Future:
Present-day Lessons from the Financial Panic of 1890**

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1. Introduction

The “man from the future.” My former colleague, Keith T. Poole gave me the moniker in the fall of 2008 as the global financial crisis unfolded: as a native of Argentina, I had a particular vantage point of the events that were taking place. Growing up in one of the most unstable economies in the world I have had the chance to experience financial booms and busts firsthand. So, when Lehman fell, I shared with Keith my sense of *deja vu*. I even ventured to make some predictions. This is how I became the “man from the future”.

When I was invited to write an essay on the Great Recession for this volume, I originally intended to draw on my personal experience as the “man from the future.” However, as I reflected more on the events that transpired in the past few years, I came to the conclusion that the 1890 financial panic, rather than Argentina circa 1990, was the most appropriate point of comparison. The idea of going back in time to understand the origins of the current financial crisis is not an original one. Indeed, Reinhart’s and Rogoff’s *This Time is Different* is a seminal contribution to the recent scholarship. The book covers virtually every financial crisis in every country in recorded history. Nonetheless, save a few references here and there, the 1890 financial panic is scantily covered. Hence, I found inspiration elsewhere: in an article by Felix (1987) and another by Eichengreen (1999).

To be clear, the aim of this paper is not to provide an explanation, or even a full account, of the Great Recession, but instead to debunk a series of myths regarding its proximate causes. Specifically, I draw on the historical experience of 1890 to examine whether some of the proposed explanations of the recent financial crisis are valid. This is a rather modest goal. Nonetheless, getting a few facts right can go a long way in providing some cautionary lessons for the future.

The historical analysis reveals that the factors behind the crisis were remarkably similar to those surrounding the Great Recession. These included low interest rates; mortgage-backed securities; collateralized debt obligations; counter-party risk; and government guarantees. In both cases, market responses to governmental regulations resulted in an unsustainable pattern of finance. Fanned by the flames of monetary easing,

lending (which was initially based on sound fundamentals) degenerated into a speculative boom. And, as the pace of financial innovation accelerated, a deterioration of credit standards took place. The end result was a financial marketplace fraught by asymmetric information. Under those conditions, the existence of two groups of market participants with systematically different beliefs ultimately led to a large-scale Ponzi scheme.

The similarities between these two historical experiences notwithstanding, it is also important to note some differences as well. For example, while the Argentine government encouraged gold inflows to finance its fiscal deficits (which further increased the borrowing spree), the United States was able to benefit from the Dollar's stand as a reserve currency. In fact, at height of the crisis, the "flight to quality" allowed the United States to borrow at a negligible cost.

In addition to the differences between these crises, there are two other caveats that the reader should keep in mind. First, historical analogies can be useful checks on other modes of analysis, such as econometric or theoretical models. Yet, as Felix (1987) notes, they are still imprecise modes of analysis. Second, the article has a decidedly cheeky tone. I apologize in advance to those readers who may find my writing style impudent or offensive; and I hope that my arguments entail a triumph of substance over style.

The remainder of this paper is organized as follows. Section 2 summarizes the events surrounding the *Great Recession*. In Section 3, I present a brief historical narrative of the 1890 panic. Section 4 discusses three commonly held views regarding the 2008 financial crisis. In Section 5, I focus on the main lessons from these two crises. A final section concludes.

2. The Great Recession

Pets dot com. The short-lived online business that sold pet supplies to retail customers epitomizes the *irrational exuberance* that characterized the dot-com bubble of the early 2000s. The company began operations in February 1999, and went from an IPO on the Nasdaq Composite to liquidation in 268 days. With its failure, US\$300 million of investment capital vanished.

In fact, the dot-com crash translated into a \$5 trillion loss in companies' market value. To combat the recession that followed the crash, the U. S. Federal Reserve slashed

the federal funds rate from a peak of 6.5 percent in 2000 to 1.25 percent in November 2002. Cheap money, together with the Bush administration's tax cuts and a revival of business and consumer confidence produced a quick turnaround in the economy. This strategy, however, was not without consequences. Between the end of 2001 and the end of 2005, interest rates fell to record lows. Not surprisingly, a borrowing binge on the part of homeowners, consumers, businesses and speculators followed (Cassidy 2009).

The sector that benefited the most from this credit bonanza was the financial industry. Its indebtedness grew from about \$ 10.1 trillion in 2002 to some \$ 16 trillion five years later (Cassidy 2009). The financial sector's expansion, in turn, fueled a real state frenzy. Housing prices started to appreciate at an unprecedented rate in the United States in the mid-1990s. Between 1997 and 2007, average house prices rose by 175 percent. By 2002, they had already moved beyond their historical ranges relative to incomes and rents. Yet, they truly accelerated between 2003 and 2006, at about the same time that the Fed was cutting interest rates to historic lows (Cassidy 2009). The financial sector provided the link between monetary policy and home prices: by leveraging up, banks increased both their returns and the amount of credit that they made available for speculation.

The entanglement between Wall Street and housing finance is masterfully depicted in Michael Lewis' *Liar's Poker*. It began in the late 1970's with the establishment of a mortgage bond department at Salomon Brothers. Indeed, as hair bands and Italian fashion displaced disco balls and polyester suits, securitization, became one of the most popular financial innovations. Lenders would bundle various types of contractual debt such as residential mortgages, commercial mortgages, and other individual loans into a single instrument. These bonds, or collateralized debt obligations, would be then carved into "tranches" and sold to investors.

When a buoyant housing market turned into a boom in the mid-2000s, the pace of financial innovation in the mortgage securitization market accelerated. New types of mortgages proliferated. These included interest-only loans, stated-income loans ("liar loans"), and option ARMs. The need to accommodate an ever-expanding market for mortgages, led to a significant deterioration in credit standards. Through dubious practices, mortgage originators encouraged borrowers to overextend themselves on their

mortgages. In addition, record keeping became an afterthought (McLean and Nocera 2010). As a result, over time, these securities as well as their underlying contractual debts became more intricate and riskier. To make things even worse, the extent to which well-known firms were overexposed to these risky assets was hardly known. When these companies borrowed money, the additional liabilities they took were parked in special investment vehicles, and thus they seldom appeared on their books. Instead, they were held by entities that were not subject to the same regulatory controls as depository banks (Cassidy 2009). In other words, these liabilities were hidden in the so-called *shadow* banking system. Still, as McLean and Nocera (2010) note, because the ownership of these bonds kept changing hands, no one worried much about their risks.

Things changed drastically when overextended borrowers stopped making payments on their mortgages. As delinquency rates on “subprime” and adjustable rate mortgages started to increase in mid-2006, pricing the exotic securities became crucial. Yet, no one knew exactly how to do it. In a climate dominated by uncertainty about the quality of securitized collateral, mortgage-backed securities lost most of their value. Entities that operated in the shadow banking system were particularly vulnerable. Most of them relied on repurchasing agreements to borrow short-term in liquid markets; these funds were then used to purchase mortgage-backed securities, which were long-term, illiquid and risky assets. In the summer of 2007, a run among panicky overnight “repo” lenders brought the system to its knees: subject to rapid deleveraging, non-depository banks suddenly had to sell their long-term assets at depressed prices.

The crisis hit its most critical stage a year later, when Lehman Brothers failed in September 2008. Stock markets plunged, and credit markets froze. Soon it became apparent that trouble in Wall Street meant hardship for *Main Street*. As a total collapse of the global financial system loomed large in the fall of 2008, the Treasury Department and the Federal Reserve came to the rescue. For example, through the Troubled Asset Relief Program (TARP), Treasury supplied capital infusions to numerous banks and insurance companies, as well as General Motors and Chrysler. The TARP money was primarily directed toward stabilizing firms with uninsured wholesale liabilities. The government’s main goal, however, was to halt the spreading panic by short-term creditors of shadow banking firms. Besides giving AIG \$90 billion to meet its near-term

contractual obligations, the Fed provided secured lending and collateral substitution to non-bank, repo-funded securities dealers. It also financed dealer purchases of unsecured and asset-backed commercial paper and gave indirect discount window access to money market. In addition, the FDIC guaranteed senior debt issued by financial firms including diversified financial groups with distressed operations, and it issued a \$700 billion unlimited guarantee of uninsured transaction account deposits.

Evidently, some firms were considered “too big to fail”. As such, the government intervention definitively created winners and losers. The question, though, is the extent to which the shadow banking system’s rescue was intended to protect it for its own sake. After all, in saving AIG, the Fed and the Treasury ended up protecting the interests of Goldman Sachs, Treasury secretary Hank Paulson’s former firm...

The purported motivation of Paulson and other U.S. officials notwithstanding, the stated purpose of the policy interventions was to avoid the externalities of a global financial meltdown. Indeed, all things considered, swift government action did stabilize the economy. Still, the scale of the intervention lent credence to the view that the United States, “a bastion of capitalism” devolved into a *Bailout Nation*. Or, as Senator Jim Bunning put it on July 15, 2008: “When I picked up my newspaper yesterday I thought I woke up in France, but no it turned out it was socialism here in the United States of America.”

3. The Panic of 1890

3.1 “John Bull hates two percent”¹

During the seven years preceding the panic of 1890, the economic and financial situation in Great Britain, although differing in detail, was practically identical in its broader aspects with the developments in the United States during the Great Recession.

As discussed above, cheap money, and a revival of business and consumer confidence produced a quick turnaround in the US economy in the mid-2000s. In the case

¹An old English saying, the expression captures the fact that when British *Consols* as well as other home securities offered very low yields, the investing public would turn to speculative investments (cf. Shepherd 1933)

of Great Britain, following a two-year recession in business and industry between 1884 and 1886, the entire 1887-90 period was marked by a healthy growth in wealth and prosperity. Under these conditions, there was a quick return to confidence: "...the over-cautious spirit displayed by the investing public during the two years 1884-85 entirely disappeared after the year 1886, and was superseded by almost the opposite extreme..." (Lauck 1907: 38).

Money was plentiful and obtainable from the banks on easy terms. In addition, the successful conversion of Great Britain's national debt in 1888, produced a considerable decline in the interest rate of all first-class securities (Lauck 1907). Hence, the public's appetite for new investments soon developed into a widespread speculative movement. Between 1886 and 1890, 12,068 new joint-stock companies were registered in Great Britain. Some of these new companies were industrial undertakings. Other companies were floated for speculative purposes. These included joint-stock ventures organized to promote, underwrite and invest in foreign securities. Indeed, an important flow of financial speculation was directed toward newly established countries, where the risks of investment, as well as the expected profits, were substantially high (Lauck 1907).

Argentina was among the countries that benefited the most from British capital flows. The nation was not a newcomer to the European investment field. Yet, the election of Julio A. Roca as president in 1880 signaled the country's definite consolidation. Moreover, in Roca's view the country could not borrow too much, because its resources were so abundant that they could be drawn without fear of exhaustion (Gerchunoff, Rocchi, and Rossi 2008). The succeeding president, Miguel Juárez Célman (1886-1890), carried this idea to the extreme. Between 1886 and 1900, Argentina experienced a boom in railways, private companies, and mortgage banks. And despite suspension of the gold standard in 1885, investment in government bonds almost doubled in volume (Shepherd 1933).

Speculative trade in a peculiar type of Argentine security known as *cédulas* was particularly popular during those years. These securities were issued by two banks, the Mortgage Bank of the Province of Buenos Aires and the National Mortgage Bank. These banks acted as intermediaries or agents between landowners wishing to mortgage their property and people who were willing to lend their money on landed security.

Landowners desiring loans would apply to one of the mortgage banks and assume the obligation to repay them by means of annual payments including interest and amortization. The banks did not make the loans in cash; instead, they gave the borrower a negotiable bond or *cédula*, which the borrower then sold in the market for cash. The *cédulas* bore a fixed rate of interest payable by coupon, which the issuing bank bound itself to pay to the bearer, even if the original landowner had not kept up his annual payments to the bank (Williams 1920; Hodge 1970).

Cédulas were by all appearances sound securities. However, the system had many serious defects. *Cédula* issues stimulated a bout of land speculation. Investors who could muster enough cash to pay the first installment on a land purchase, would secure their title, and then pledge to the mortgage banks for as large an amount as they could obtain. With these funds, investors would cover further installments on the land as they fell due, until the land could be sold at a higher price. The original purchaser would then move onward and repeat the same operation. As a result, land prices trebled after 1887 (Adelman 1990). In addition, the price at which *cédulas* circulated bore no resemblance to the actual value of the mortgaged land as compared with the original loan or even with the repayment of the loan (Hodge 1970). Instead, it depended entirely on public confidence in the ability of the issuing bank to maintain payments on the coupons.²

Until 1887, the issues of *cédulas* were comparatively moderate. At the end of 1885, there were in circulation some 50,000,000 paper pesos of *Cédulas* issued by the Mortgage Bank of the Province of Buenos Aires, and thus guaranteed by the province. The National Mortgage Bank, whose *cédulas* were guaranteed by the national government, opened for business late in 1886. Between 1887 and 1890, under the combined influence of private speculators, government officials, and politicians, the two banks entered on a wild career of *cédula* issues.

At the same time, clever financiers found a market for the sale of *cédulas* in Europe. The securities were introduced in Europe by one or two respectable London houses without any regular prospectus, and were bought by investors who trusted the

²To make things worse, in many cases, as Wirth (1893) notes, the value of land was estimated by the trustees of the banks far too high; sometimes so unreasonably high that there were debtors who, having received the capital of the loan and paid interest for half a year, abandoned their property and left it to the bank, settling in another place or emigrating.

firms in question. Encouraged by the bonds' high interest rates and the glowing reports of Argentina's future, foreign investors seemed to be seized with a mania for this form of security (Lauck 1907).

The risks associated with these peculiar types of securities were stressed by the London Economist as early as 1888:

“ The nature of these bonds is now well known in this country, and it is perhaps scarcely necessary to warn investors to be careful in dealing with them... Just at present all real estate at the River Plate commands inflated prices, but the occurrence of financial difficulties might easily render them unsalable...”³

Yet, series after series, were quickly absorbed by gullible Europeans who view the Cédulas as a better investment than government bonds because in addition to the government's guarantee, they were backed by real estate (Williams 1920; Gerchunoff, Rocchi, and Rossi 2008). Of course, as Lauck (1907) points out, in the event of a forced liquidation, it was extremely doubtful whether the real values which underlay the speculative movement would sustain the fabric of credit which had been reared upon them.

3.2 The Music Stops⁴

During the 1880s it appeared that Argentina's credit was inexhaustible. However, excessive borrowing had given rise to heavy debt-service charges and inflated imports. The situation changed for the worse after the Argentine national government enacted the Guaranteed Banks Act in November of 1887 (della Paolera and Taylor 2001). The act provided that any bank having a capital of at least 250,000 pesos could issue notes up to 90 percent of the capital, provided it purchased national 4.5 per cent National Gold Bonds to the full amount of the notes to be issued. Payment for the bonds had to be made in gold, and the gold and the bonds were to be deposited in the Bureau of Bank Inspection. If the banks remained solvent, they were entitled to the interest payments on the bonds; in the case of bankruptcy, the government would sell the bonds to meet outstanding notes

³The London Economist, cited in Shepherd (1933: p. 9).

⁴In an interview with the Financial Times in July of 2007, Citigroup's Charles Prince made the following statement about his company's financial position: "...When the music stops, in terms of liquidity, things will be complicated. But as long as the music is playing, you've got to get up and dance. We're still

(Shepherd 1933; della Paolera and Taylor 2001).

By the end of 1888, sixteen banks, mostly provincial, had issued 39 million pesos in guaranteed notes. More importantly, in order to purchase the guaranteed bonds, the banks contracted foreign loans. The scheme essentially worked as a highly-leveraged arbitrage operation: the Argentine provinces would issue external debt by which they would obtain gold to buy the national government gold-denominated bonds, using as collateral the national bonds themselves. The bank notes were not redeemable in gold, and because the gold bonds were new issues, they constituted a new government liability (della Paolera and Taylor 2001).

The experiment seemed very ingenious. As Cortés Conde (1999) notes, each bank would receive interest on its bonds and then would have to pay the interest on its external debt, a little above that of the bonds (around one percent). The difference was obtained by the interest paid by commercial loans or by subsequent borrowing (Cortés Conde 1999). However, the scheme's limits were soon apparent: the financial *alchemy* worked as long as foreign investors agreed to purchase the Argentine bonds and as long as additional note issuances were backed one hundred percent by specie (Mitchener and Weidenmier 2008). However, from early 1889 foreign investors became reluctant to absorb additional Argentine government debt and, in addition, many of them were actually selling Argentine bonds in the London market. By 1890 the country was burdened by an immense circulation of inconvertible and depreciated paper currency, an excessive issue of cédulas, and a large public indebtedness (Lauck 1907).

On March 4, 1890, the Buenos Aires Standard reported:

“ Some of the heaviest capitalists are overburdened with stocks, not to mention some new banks and companies that made their business out of contango and backwardation differences on these stocks -- a rotten business, that now leaves them with millions in unsalable stocks, daily falling more and more in value ... Land speculation has completely fizzled since the stoppage of the issue of cédulas. Properties are now offering in the market at what would have been considered ridiculously low rates three months ago ... There is a general liquidation going on at present, in which landowners and stockholders are most affected. The losses of both are simply colossal at the present market prices...”⁵

Nonetheless, as late as April 1890, the *Economist* still remarked that Argentina's natural wealth and fertility would keep the government from default (cf. Peters 1934: 45).

Despite the remaining optimism of a few foreign observers, popular sentiment against the government was running high. In late July, a political upheaval (known as the “*revolución del parque*”) broke out in Buenos Aires. President Celman was turned out of office, and was replaced on August 6, 1890 by Vice-President Carlos Pellegrini.

The change in government weakened what little confidence was left in Great Britain regarding the stability of Argentine finances. Investors refused to place any more funds in the country, and the price of Argentine securities steadily declined. As Lauck (1907), in a description reminiscent of Wall Street circa 2007, recounts “... the English financial houses that had been floating Argentine loans found themselves in a position of great difficulty. Large masses of securities which they had underwritten, and which they had hoped to sell to the public at profit, remained in their hands. Given the fall in value of these securities, it was impossible to sell them except at a ruinous loss. For the same reason it was impossible to use them as a collateral for loans ...” (Lauck 1907: 64).⁶

In this climate, rumors regarding the solvency of various financial houses with interests in Argentina soared. The climax was reached on November 15, 1890. The *New York Times* reported:

“ For a long time the Stock Exchange district has been flooded with tales of dire distress in high financial quarters. Not one house, but many, rumor has declared to be in difficulties threatening disaster. For a long time these suggestions were confined to hint and insinuation and innuendo, but feeble makeshifts of this sort have lately been thrown aside to make way for open declarations impugning the financial integrity of men and firms that have been preeminently influential in the financial world...”

Moreover:

“ ... Baring Brothers & Co. have held foremost rank among the world’s banker. Wherever civilization is, there the name of Baring has stood as the representative of financial pre-eminence. To question the stability of this house would have been taken at any time, for a hundred years back, as evidence of a weak or dissolute mind...”

However, as the *New York Times* finally acknowledged, Baring Brothers & Co, “the greatest banking house of all the world,” was in peril.

⁵The Buenos Aires Standard, cited in Shepherd (1933: p. 27).

⁶This is Charles Gasparino’s account of the situation in Wall Street by mid-August 2007: “... Nearly every firm on the Street had warehoused now-illiquid mortgage securities, and that included the big banks that had dived into the mortgage underwriting business ... and that were also Bear’s biggest repo lenders ...” (Gasparino 2009: 277). Ironically, roughly at the same time, Lehman Brothers’ CEO Dick Fuld had declared referring to mortgage-based securities, “We don’t warehouse this stuff, we sell; we don’t keep this stuff in our books.” (Gasparino 2009: 323). Tragically, that statement proved later to be just another

3.3 The Rescue

The great public learned that Baring was in serious trouble on November 16, 1890; but very few people in London were aware of the firm's situation a few weeks earlier. Within the house, T.C. Baring had been predicting disaster in Argentina for several years (Ziegler 1988). However, as the *New York Times* article illustrates, no one really believed that Baring Brothers could be in danger. Even Baron Revelstoke (Edward "Ned" Baring), the senior partner of firm, deluded himself that all would be well. He finally changed his outlook in the middle of October 1890, when it became clear that the market for the firm's securities was depressed and illiquid.

Over the years, Baring Brothers locked up a huge amount of capital in Argentine securities. Ned Baring was well aware of the risks involved in doing business with Argentina. Still, he also knew that the very fact that the risks existed meant that the profits would be greater than those secured in less risky areas.⁷ Hence, as late as 1889 Baring Brothers decided to extend a new loan to overhaul the waterworks and drainage system of Buenos Aires. The loan was underwritten for 21,000,000 pesos to be paid to the Argentine government in three annual installments of 7,000,000 pesos each (roughly 1,500,000 pounds).

When the first tranche of the issue was offered to the public, the problems that lay ahead started to become clearer: the securities were not taken up by the public to any great extent; and Barings, who had underwritten the loan, was forced to find the money for the loan's first installment by selling other securities. Prospects for the second and third tranches seemed even more precarious, leading Barings to warehouse most of the deal on its balance sheet (Ziegler 1988). Things became worse when the Argentine government refused to release Baring Brothers from its obligation to remit the third installment of the Drainage loan. The firm's inability to cover this liability exposed its liquidity problems (Hodge 1970).

Argentina was not Barings' only worry, though. At the end of June 1890, the

example of Fuld's bravado.

⁷As the *Economic Journal*, commenting on Baring Brothers, put it "...the chief of the firm appears to have thought that their command of money was so great that there was no need for the ordinary calculations and precautions..." (*Economic Journal*, 1891: 192).

Russian government recalled 2,000,000 pounds of the large deposits they had placed with the firm a year before. This followed withdrawals of another 3,000,000 pounds in the previous ten months. Barings were already anticipating the blow that could fall on 11 November if Russia were to withdraw another 1,500,000 (Ziegler 1988).

Barings made the extent of its problems known to the Bank of England on the weekend of November 8-9, 1890. Given the size and international distribution of the firm's liabilities, a run on its deposits and acceptances could quickly exhaust Britain's gold reserves and ignite a global financial panic (Felix 1987). The Governor of the Bank of England, William Lidderdale, estimated that the firm needed 4,000,000 pounds to meet its immediate obligations and offered to contribute 1,000,000 if the government did the same. However, George Goschen, the Chancellor of the Exchequer, favored a plan that did not involve the government directly. By November 11, 1890, the prospects of saving Barings seemed slight. Lord Rothschild, the City's great financier, was skeptical about cobbling together a private syndicate to assume the obligations of Baring Brothers.⁸ Nonetheless, he helped Lidderdale secure a loan of 3,000,000 pounds in gold to build up the Bank's reserves (Ziegler 1988; Eichengreen 1999).

Lidderdale finally decided to assemble a rescue fund once the government agreed to share any losses the Bank incurred for a 24-hour period commencing at 2 p.m. on Friday November 14. With the government's backstop, Lidderdale met with eleven private banks with the hopes of convincing them to contribute to a fund that would guarantee Barings' liabilities. He also persuaded the State Bank of Russia to keep its 2,400,000 pounds deposit at Barings. To constitute the fund, Lidderdale announced that the Bank would contribute 1,000,000 pounds provided that at least 3,000,000 pounds were guaranteed by others. Several banking houses subscribed to this fund, amounting to 6,000,000 pounds. News of this action calmed the market and arrested the panic (Ziegler 1988; Shepherd 1933).

⁸According to Ziegler (1988), in Rothschild's view, any attempt to raise money by a syndicate would reveal that more than 15,000,00 pounds of Barings' bills scattered over the commercial world were jeopardized and lead to a general panic. Moreover, Rothschild spoke with the utmost certainty that the house of Barings must disappear because "no one would trust them with large operations again" (Ziegler 1988: 247). Note the parallel with the assessment of Blackstone's CEO Larry Fink regarding Bear Sterns in March of 2008: "Okay, Bear is finished; they are done", adding "no one is going to do business with Bear" (Gasparino 2009: 375).

While the house of Baring was saved, it came at a great cost. On November 25, 1890, a new firm called Baring Bros. (Ltd.) was registered as a joint-stock company, and the old partnership was liquidated. The task of winding up the affairs of the old house was particularly laborious. To free itself from its liabilities, the firm had to be able to sell its enormous holdings of Argentine securities. However, the news of Barings' troubles had provoked a catastrophic drop in this market. Argentine government bonds worth an average 100 in March 1889 had experienced a 40 percent decline on their value by March 1891 and 60 percent by July 1891 (Ziegler 1988). If Argentina defaulted on its debts, all hope of meeting Barings' liabilities would have to be abandoned.

3.4 Too Big To Fail

After the collapse of Baring Brothers, president Carlos Pellegrini announced that he would put his country's reputation in European financial circles above the solvency of his own government. However, two features of the country's financial situation made debt relief measures imperative. First, the Argentine government needed to meet its obligations abroad in foreign currency or in gold, but its revenues were collected, for the most part, in depreciated paper pesos. Second, the Barings guarantee fund still held several millions sterling of the Buenos Aires drainage loan as well as other unfloated Argentine bonds. It was clear that to accomplish the liquidation of Barings, Argentine finances needed to be rehabilitated first (Gerchunoff, Rocchi, and Rossi 2008).

On November 27, 1890 a committee headed by Baron Nathan Rothschild and appointed under the auspices of the Bank of England met to examine and report on the condition of Argentina's national debt. The committee proposed that interest payments on Argentina's external debt due between January 1891 and January 1894 were to be exchanged for bonds of a 6 percent Funding Loan. In turn, Argentina pledged its import duties as a collateral for the service of the bond.

The committee's action was undoubtedly motivated by the desire of the houses represented on the committee to protect themselves from default on securities of which they had considerable quantities. Rothschild himself stated this purpose openly in a letter he sent to the Lidderdale on December 3 1890:

“ ... The liquidation of Messrs. Barings' affairs ... is dependent to a very great measure upon

the future value of Argentine securities and obligations, besides which a much larger amount of English capital is engaged in the Argentine Republic, the value of which depends greatly on the rehabilitation of the exchange....”⁹

As a precondition to the agreement, though, the committee demanded that the government of Argentina transfer funds to meet the country’s short-term debts (many of which were acceptances due Barings). The committee’s proposal was also recommended “...on the understanding that the agreement of the Government with the Buenos Ayres Water Supply and Drainage Company be duly satisfied”¹⁰ As Ziegler notes, only when this “incubus had been erased from the balance sheet of Baring Brothers would the liquidators be able to see their way toward a final settlement” (Ziegler 1988: 258).

On January 24, 1891, the Argentine Congress approved a law detailing the terms of the agreement. The funding loan accomplished its immediate purpose by temporarily relieving the Argentine government of the main burden upon its revenues (Williams 1920). However, the agreement was abandoned before the end of period provided. On June 19, 1893, a definite arrangement on the debt, known as the “Arreglo Romero” (after Argentine Minister of Finance, Juan José Romero) was concluded in London. It stipulated that the Argentine government would remit annually to the Bank of England a lump sum of 1,565,000 pounds for distribution to creditors over the next five years. Full payment of interest would resume in 1898 through the original issuing houses. In addition, the Argentine government agreed to finalize the waterworks’ purchase for 6,325,000 pounds with 5 per cent bonds. The arrangement was a success: interest payments were resumed in full a year before the stipulated time, and Argentine bonds rose to high quotations almost immediately. The last obstacle in the path of Barings’ liquidators had been removed (Ziegler 1988).

4 Three Myths About the Great Recession

So, who did it? Who is responsible for the historic breakdown of 2008? Every drama needs its villain; and the recent financial crisis is no exception. Within days of Lehman’s failure, journalists, pundits and even academics were already pointing their fingers at

⁹Baron Rothschild’s letter to the Bank of England, cited in Shepherd (1933: 30).

Wall Street's quantitative analysts (a.k.a the "quants").

4.1 The Quants Did It

But, really, who let the "quants" out? Some inquisitors aimed their guns at the use of mathematical formalism in economics. Paul Krugman's provocative article "How Did Economists Get It So Wrong?" exemplifies this belief. According to Krugman (2009),

"Few economists saw our current crisis coming, but this predictive failure was the least of the field's problems. ... The economics profession went astray because economists, as a group, mistook beauty, clad in impressive-looking mathematics, for truth."

This view was echoed by other economists, including the likes of Brad DeLong and Alan Greenspan, and rapidly gained acceptance in the popular press. As David Brooks asserts:

"Economists and financiers spent decades building ever more sophisticated models to anticipate market behavior, yet these models did not predict the financial crisis as it approached. In fact, cutting-edge financial models contributed to it by getting behavior so wrong helping to wipe out \$50 trillion in global wealth and causing untold human suffering"

While blaming the whole economics profession, MBA programs and value-at-risk (VAR) models seemed to bring comfort to some, it failed to do so for others: "Names, we need names," they insisted, like cops sitting in an interrogation room. And, thus individual names were produced.

The list included Eugene Fama, Harry Markowitz, Fisher Black, and Myron Scholes. Still, these were just the crime's *intellectual* authors. Who pulled the trigger, then? It had to be David X. Li, said Felix Salmon of *Wired* magazine. A math wizard, Li came up with the "Gaussian copula function," a highly abstruse mathematical formula, that allowed Wall Streeters to model the complex risks of mortgage derivatives (Salmon 2009). Of course, lone gunman theories are seldom popular, so other names were soon added to the list of *material* authors: Ken Griffin, who founded a hedge fund at the age of 21; the chess master Boaz Weinstein of Deutsche Bank; Morgan Stanley's Peter Muller; and Ed Thorp, the author of *Beat the Dealer* (Patterson 2010).

How comforting, we found the culprits! But just "one more thing," as detective

¹⁰*Economist*, December 6, 1890 (cited in Ziegler (1988: 258)

Columbo would say. As the previous section demonstrates, the events that led to the panic of 1890 were practically identical to the Great Recession except for the use of fancy mathematical formulas and complicated risk models. Yet, a proposed answer to the “whodunit” question when it comes to the recent financial crisis is that the quants did it.

Aha! Then, they must have had computerized math models in the 1880s, too. Well, not really... The sheer anachronism of the latter proposition illustrates the logical weakness of the “quants did it” argument.

4.2 Greed is New

The Great Recession spawned a number of new theories regarding the organization and functioning of financial markets. In particular, a truism that became quite popular in recent months is that financial markets are not governed by rational forces, but rather by emotional responses.

In this context, a number of scholars have recently argued that a link exists between physiological factors and securities traders’ willingness to take risks. As Coates et. al. (2009) put it:

“successful trading in the financial markets requires more than correct beliefs about the value of securities. Traders must also possess confidence enough to place their bets, risk preferences high enough to place bets of meaningful size, and the ability to process information quickly enough to keep one step ahead of competitors ... The physiological demands made on traders raise the possibility that success in the markets depends as much on traders’ biological traits as it does on the truth of their beliefs.”

According to these authors, higher prenatal testosterone exposure would improve a trader’s performance. Specifically, they claim that traders with a lower second-to-fourth digit length ratio are likely to make greater long-term profits and to remain in the business for a longer period of time (Coates et. al. 2009).

So, we are also told that the recent financial crisis had biological roots: the global economy was led astray by a bunch of hormonally imbalanced decision makers (Keim 2009). The absurdity of this interpretation of Coates et. al.’s study exempts me from further discussion. As Coates himself noted, biology does not explain the current financial crisis; adding “... its roots lie in misguided executive compensation schemes, wrongheaded economic policy and regulatory failure...” (cited in Keim 2009).

The view that perverse incentives, rather than hormonal excess, account for the

recent financial crisis has been shared by a number of observers. Among them, is Alan Greenspan who, after recovering from his state of shocked disbelief, wrote the following:

“An interesting speculation is whether the crisis ... almost surely would not have occurred had these firms remained the partnerships they were up to a quarter century ago ... as partnerships, Lehman Brothers and Bear Stearns, would not have departed from their historic low leverage. Prior to incorporation, those entities fearful of the joint and several liability of general partnerships shied away from virtually any risk they could avoid. Their core underwriting of new issues rarely exposed them for more than a few days.” (Greenspan 2010: 33).

Replicating the incentive structure of partnerships, Greenspan concluded, should be a goal whenever feasible in future reform: under such regime, “moral hazard surely would not exist” (Greenspan 2010: 33).

But, is it really true that this alternative corporate governance structure would have deterred financial firms from taking extraordinary leverage? If history is any guide the answer seems to be a resounding no. As Ziegler (1988) recounts, during Barings’ liquidation, the partners went through what Revelstoke described as “the Agonies of the Damned.” As partners, they were personally responsible for all the debts of Baring Brothers. This was reflected in a letter that Revelstoke’s wrote to Lidderdale in the midst of the Barings crisis:

“I beg to assure you on my own behalf and that of my partners that we shall hold all our property of every kind at your disposal and be guided in every way by your advice and guidance.”¹¹

And, surely, following Lidderdale’s advice everything did go: land, houses, pictures, horses, and anything that could contribute to liquidate the partnership’s debts (Ziegler 1988). The point is that neither the prospect of having to strip themselves of their beloved possessions nor the possibility of being humiliated in the eyes of the world deterred the members of the Barings house from taking excessive risks.¹²

We do not have enough information about the second-to-fourth digit length ratio of Barings’ partners, so we cannot uncover the proximate causes of their behavior. Yet, the fact that Revelstoke and his partners took excessive amounts of risk, despite their

¹¹Revelstoke to Lidderdale, 15 November 1890. Cited in Ziegler (1988: 260).

¹²Another suggestive piece of evidence is given by a contemporary observer’s reaction to the Barings crisis. In June of 1891, Arthur Crump blamed “unfettered one-man power” for the financial house’s fall. In his view, “unless there is well-ordered co-operation and properly divided command and responsibility in a large mercantile firm like that of Baring Brothers ... sooner or later there will be a crash.” Interestingly, he added, “this evil is being slowly remedied by the joint-stock company principle...” (Crump 1891: 389).

personal liability, suggests that under such regime moral hazard can still exist.

4.3 Driving Under the Influence¹³

On December 17, 2008, president-elect Barack Obama held a news conference to announce his nominations to the SEC, CFTC and Fed. During his allocution, he made a now-famous remark about how Washington had been “asleep at the wheel” in the run-up to the financial crisis:

“We have been asleep at the switch, not just the regulatory agencies but some of the Congressional committees that might have been taking a look at this time ...”¹⁴

He then added, in reference to his nominees, that regulatory agencies should be “led by individuals who are ready and willing to enforce the law.”

Speaking only a few months after Lehman’s fall, and with Bernie Madoff’s scandal as a backdrop, Obama’s words reflected a commonly held belief among pundits and policy-makers: lax regulation induced financial irresponsibility leading up to the crisis. Christopher Cox, the head of the SEC under Bush, epitomized this regulatory approach: a free-market zealot, Cox seemed to be “almost intentionally ineffectual”, as if that were the proper role of government regulators (Sorkin 2010).

Case closed: lax regulation is to blame for the Great Recession.

Really? A bunch of idiots did it? Can it be that simple? Surely not. First of all, *lax regulation* is a *lax* concept. We can think of it as a deviation from the way in which an omniscient, selfless, social guardian government should behave. Yet, as Ann Krueger reminded her fellow economists almost twenty years ago, governments are not omniscient, selfless, social guardians. In other words, political actors have objective functions and constraints that need not mirror the common good, or even the preferences of the large majority of the public (Krueger 1990).

Therefore, it seems more appropriate to think of “bad regulation” rather than “lax regulation” as a plausible explanation for the regulatory failures of the past few years. As

¹³“There’s no question about it. Wall Street got drunk,” president George W. Bush said on July 18, 2008, providing a summarily explanation of the housing market meltdown that threw the global economy into turmoil.

¹⁴Cited in USA Today, December 18, 2008.

a political economist, I certainly feel more comfortable with this approach.¹⁵

5 Lessons Learned

The analysis of the 1890 financial panic and its similarities with the Great Recession indicates that some of the prevailing accounts regarding the latter's proximate causes are unfounded. The main lesson, instead, seems to be that in both cases market responses to governmental regulations degenerated into speculative booms. Simply put, regulatory "badness" paved the way.

Why would the government, however, stand to gain from bad regulation? The panic of 1890 once again, provides us with some insight. As Williams (1920) notes, the Argentine *cédulas* were *paper* mortgage bonds: their interest was payable in paper, but the Europeans who bought them paid gold. The Argentine government needed gold to bolster up its feeble finances (Williams 1920). Hence, the authorities actually encouraged financial speculation in land-mortgage operations to stimulate an influx of gold. Likewise, the Argentine government's attempt to force the private banks into the Guaranteed Banks' regime was aimed at control over their gold (Cortés Conde 1999).

In exchange for gold, the Argentine government held a pileup of liabilities. One source was interest payments on over 200,000,000 pesos worth of *cédulas* issued by the National Mortgage Bank, for which the national government was responsible. The 197,000,000 pesos worth of gold bonds that were sold to banks across the country under the provisions of the 1887 Banking Law was another. Interestingly, as Hodge (1970) notes, government accountants excluded the latter obligations from all tables itemizing the domestic national debt. Indeed, president Juárez Celman explained to Congress in his 1889 State of the Union message that the gold bonds were not part of the bonded indebtedness of the Nation because they did not circulate (Hodge 1970). Therefore, by keeping these obligations as off-balance-sheet items, the government was able to paint a brighter financial picture.

Fast-Forward to the Great Recession. Most of the leverage built by financial firms

¹⁵Quoting the Dude in *The Big Lebowski*: "It's like what Lenin said... you look for the person who will benefit, and, uh, uh..."

between 2004 and 2007 was done through off-balance-sheet financing. Regulators allowed it. After the SEC lifted their “net capitalization rule” in 2004, investment banks ramped up their exposure to sub-prime mortgages. Moreover, regulators allowed Fannie and Freddie to bet in sub-prime assets. Created by Congress, Fannie and Freddie -- called G.S.E.s, for government-sponsored entities -- bought trillions of dollars worth of mortgages to hold or sell to investors as guaranteed securities. Fannie and Freddie’s debt was understood by all to be government-backed, so their sub-prime bets were a pure gambling option for the shareholders.

In sum, regulators legitimized the shadow banking world and allowed bankers to avoid capital requirements through off-balance sheet transactions. Washington also fostered the creation of 25 million subprime and other low-quality mortgages, and offered virtually free government guarantees to the private sector. It was bad regulation, not leniency, that allowed all this to happen.

6 Conclusions

The analysis of the 1890 panic presented in this paper underscores the inadequacy of some of the proposed explanations of the recent financial crisis. In addition, the comparison between 1890 and 2008-2009 indicates that some of the factors that led to the outbreak of the crisis in 1890 resurfaced in the current crisis. Namely, a liquidity crisis followed a prolonged acceleration of lending. In the Barings crisis, new Argentine issues, which were heavily favored by the London capital market in the 1880s, had become unmarketable by 1890. The turnaround caught Barings with a massive inventory of Argentine securities that it could unload only at distressed prices. Knowledge of Baring’s financial embarrassment led, in turn, to the run on the bank (Felix 1987).¹⁶

The \$64,000 (or, more appropriately \$64 billion) question is, why did borrowers and lenders carry matters this far? A plausible answer is that lending was based initially on favorable fundamentals, but degenerated into a speculative boom. On the Argentine side, the borrowing spree was set off by favorable fundamentals, such as the rich

¹⁶As the *Economic Journal* adeptly put it in 1891, the crisis demonstrated that “a good security and a good asset are not necessarily convertible terms, as many a trader has discovered with pain and surprise, and no ingenious legerdemain will make them convertible.”

agricultural potential of the Pampas. In fact, as Ford (1956) points out, if more of the foreign investment in the country had been in the form of equities and less of debentures and bonds, the situation could have turned out very differently. In the case of lenders, the low yield on the Consols encouraged British investors to purchase Argentine securities.

So much for opportunity; how about *motive*? Here we have to dwell on political economy considerations. As Felix (1987) notes, the political clout of Argentine agricultural exporters kept taxes low and forced a rapid expansion of peso emissions by the government banks to help finance the fiscal deficits. On the other hand, the consumption boom required rising imports, forcing the government to augment foreign borrowing to finance the growing import surplus. The situation required stabilizing the gold premium to maintain the salability of Argentine securities abroad. The loans, in turn, became necessary for sustaining the inflow of gold needed to stabilize the premium. By selling cédulas and underwriting Argentine gold-backed securities, the British financial houses would reinforce the cycle (Felix 1987).

The Argentine plan implied, at best, the creation of a new public debt to support an ambitious financial development strategy. At worst, it established a highly leveraged government-backed Ponzi scheme. Or, if one admits multiple equilibria, it could have implied both (della Pollera and Taylor 2001). The anatomy of these situations has been studied by Hyman Minsky, Charles Kindleberger and Robert Shiller. They emphasize that a non-sustainable pattern of finance must rest on the existence of two groups of market participants whose beliefs are systematically different.

In this respect, Ricardo Salvatore's depiction of *public imagination* in Argentina during the 1880s is quite telling. As he notes, the optimistic advice of Eduardo Mansilla to president Juárez Celman in 1886 says it all: "Happiness, squandering (*despilfarro*), and peace of spirits ... and everything will work!" (cited in Salvatore 2001: 20). This belief was shared by many among the progressive elite at that time. For the poor, though, this period represented lavish expenditures, ill-obtained money, and sheer irresponsibility.

Indeed, Argentine novelists viewed the crisis of 1890 as the result of a process of moral degradation. As Salvatore (2001) points out, Martel's *La Bolsa*, Ocantos' *Quilito*, and Villafañe's *Horas de fiebre*, all published in 1891, sought to expose the demoralizing effects of the diffusion of the speculative fever of the stock exchange on the lives of

ordinary people.

To some extent, the fall of Barings can also be seen as the result of unscrupulous dealings by those who profited from their association with government. A matter of public immorality rather than a question of economics, if I may. OK, sorry. I got a bit carried away when discussing this last point. Perhaps the Baring crisis can be seen as a classic moral hazard problem: British bankers did not take the need for piling up a reserve to meet dangers very seriously because they expected to be rescued in troubled times. In fact, this was the Chancellor of the Exchequer's view:

“ No fertile imagination could exaggerate the gravity of the crisis. I doubt whether the public has thoroughly realised the extent of the danger to which the so-called Baring crisis exposed us. You risked the deposition of London as the banking centre of the universe. You risked the supremacy of English credit. The situation would have been brought home to you, if banks who held your deposits, banks on whom you depended for your discounts, had been crippled. . . .”¹⁷

Yet, as the *Economic Journal* had noted in 1891:

“ The banks have got thoroughly into the habit of regarding the amount of the reserve of the Bank of England as of no importance, although it is the sole fund in existence to enable them to meet their liabilities if called upon. They fully believe that, if the worst comes to the worst, the Bank will not be allowed to fail, as an ordinary bank would fail if the whole of its cash were gone, and the experience of more than one commercial crisis has shown that this calculation is a safe one, and has consequently encouraged the banks to adhere to their present dangerous practice.”

So, what was true then is true now: financial institutions tend to be too interconnected to fail. Thus, they will always be implicitly backed by the government. The key question, paraphrasing Krugman, is whether bankers can be appropriately regulated so that they do not abuse the privilege of government backing.

¹⁷Cited in Pownall (1892: 533).

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