

Essay

Historical Perspectives on the Financial Crisis: Ivar Kreuger, the Credit-Rating Agencies, and Two Theories about the Function, and Dysfunction, of Markets

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This Essay discusses two historical parallels between the current financial crisis and the financial crisis of the late 1920s and 1930s. First, financial innovation was at the core of both crises. In particular, the machinations of Ivar Kreuger illuminate how financial innovation tends to outstrip the ability, and perhaps the willingness, of investors and intermediaries to process information. Second, reliance on credit ratings began as a response to the 1929 crash and became a primary cause of the recent crisis. During the 1930s, regulators developed rules based on credit ratings; those rules are the ancestors of today's widespread regulatory reliance on ratings. Without financial innovation and overreliance on credit ratings, the recent crisis likely would not have occurred, and certainly would not have been as deep.

Introduction

This Essay sketches some historical parallels between the current financial crisis and the mania, panic, crash, and aftermath of the 1920s and 1930s, with a particular focus on two phenomena: the rise and fall of Ivar Kreuger, and the introduction of legal rules depending substantively on credit ratings. These parallels cast light on the financial crisis of 2008, and illustrate two theoretical points about the function, and dysfunction, of financial markets.

First, Ivar Kreuger's machinations illuminate the importance of financial innovation and its tendency to outstrip the ability, and perhaps the willingness, of investors and intermediaries to process information. Merton Miller applauded the use of financial innovation, even for regulatory arbitrage, but did not recognize that the proliferation of financial innovation often has a dark side.¹ Informational asymmetry in financial markets tends toward cyclicity: as

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¹ See MERTON H. MILLER, MERTON MILLER ON DERIVATIVES 3 (1997); see also *id.* at ix (arguing that derivatives "have made the world a safer place").

financial innovation builds, so do disclosure gaps and misunderstandings.² Investors rely on progressively more cursory disclosures to justify decisions involving progressively more complex financial instruments. This inverse relationship between financial innovation and understanding is not new. As I show in Part II, it was as relevant eight decades ago as it is today.

Second, the early 1930s regulatory response to that era's financial crisis of substantively relying on credit ratings highlights a key theoretical flaw in the view of financial gatekeepers as reputational intermediaries. Many scholars have argued that such intermediaries, including credit-rating agencies, survive and prosper because they produce reliable high-quality information.³ As this argument goes, credit-rating agencies will not recklessly or negligently issue unreliable ratings, because if they do so they will incur reputational costs. However, the historical evidence supports a different view of gatekeepers as frequently providing not information, but "regulatory licenses"—the right to be in compliance with regulation.⁴ In the past, as regulation based on ratings grew, credit-rating agencies effectively began to sell not information, but keys that unlocked the financial markets. In simple terms, issuers bought licenses to sell to regulated investors that could purchase only bonds rated in particular categories, such as "investment grade."⁵

Both of these historical topics—Ivar Kreuger and the cyclicity of financial complexity on one hand, and credit ratings and regulatory licenses on the other—are directly relevant to more recent events. Kreuger was, in many ways, both the inventor of off-balance-sheet financing techniques and the original Bernard L. Madoff,⁶ and his success was due in part to a raft of innovative financial products that were precursors to instruments still widely used today. Likewise, the early credit raters were ancestors to modern agencies, and would not have prospered without the regulatory dependence that began following the 1929 crash. Regulatory licenses, and the behavioral overdependence on ratings that followed them, ultimately led to the creation and growth of the financial instruments at the core of the recent crisis.

2 See FRANK PARTNOY, *INFECTIOUS GREED: HOW DECEIT AND RISK CORRUPTED THE FINANCIAL MARKETS* 9-35 (2003).

3 See, e.g., Stephen Choi, *Market Lessons for Gatekeepers*, 92 NW. U. L. REV. 916, 934 (1998) ("In many markets, intermediaries play a certification role without any regulatory intervention. Standard and Poor's (S&P) and Moody's, for example, certify the credit risk of company debt."); Susan M. Phillips & Alan N. Rechtschaffen, *International Banking Activities: The Role of the Federal Reserve Bank in Domestic Capital Markets*, 21 FORDHAM INT'L L.J. 1754, 1762-63 (1998) ("Finally, credit rating agencies enhance the capital markets infrastructure by distilling a great deal of information into a single credit rating for a security. That rating reflects the informed judgment of the agency regarding the issuer's ability to meet the terms of the obligation. Such information is frequently critical to potential investors and could not be acquired otherwise, except at substantial cost.")

4 Frank Partnoy, *The Siskel and Ebert of Financial Markets?: Two Thumbs Down for the Credit Rating Agencies*, 77 WASH. U. L.Q. 619, 623 (1999).

5 See, e.g., Investment Company Act, 17 C.F.R. § 270.2a-7 (2008) (Rule 2a-7).

6 Madoff, the chair of Bernard L. Madoff Investment Securities LLC, was arrested in December 2008, and admitted to a \$50 billion dollar financial pyramid scheme. See Diana B. Henriques & Zachery Kouwe, *U.S. Arrests a Top Trader in Vast Fraud*, N.Y. TIMES, Dec. 12, 2008, at A1.

Without financial innovation and overreliance on credit ratings, the recent crisis likely would not have occurred, and certainly would not have been as deep. Without financial innovation, the decline in the values of subprime mortgage loans would not have had ripple effects throughout the banking system, as largely undisclosed derivatives backed by those loans plummeted in value. Likewise, without overdependence on ratings, the tranches of synthetic collateralized debt obligations (CDOs) and structured investment vehicles (SIVs) at the core of the crisis could not, and would not, have been sold. In short, if regulators and market participants had remembered these two lessons from history, the crisis likely could have been averted, or at least muted.

I. Ivar Kreuger and the Dark Side of Financial Innovation

From the Panic of 1907 through World War I, large U.S. corporate entities financed their operations primarily by borrowing from creditors. During this era, these financing transactions, like most corporate and financial contracts, were typically simple and straightforward.⁷ For good and ill, there was little financial innovation during this time. Market participants recalled the October 1907 suicide of Charles T. Barney, founder of the famed, and then failed, Knickerbocker Trust Company, as well as subsequent bank runs and pandemic fear.⁸ There was little interest in creating novel financial products or taking on substantial new risks.

Then, beginning in 1922, market sentiment began to change. Corporations shifted to securities issuance as a major source of capital.⁹ In 1922, one of Europe's most innovative business figures, Ivar Kreuger, proposed a major securities issue to Lee Higginson, then a leading investment bank.¹⁰ Kreuger created a new company, International Match, with ties to his industrial holding companies in Sweden. On October 26, 1923, Lee Higginson placed \$15 million of International Match gold debentures, one of the largest securities issues of the year and the most widely publicized initial public offering. The *Wall Street Journal* reported that “[m]uch commendation [was] expressed among bond houses” concerning the new issues and that it was one of the “finest pieces of bond salesmanship seen perhaps in years.”¹¹

This initial International Match issue was an early part of the 1920s shift from banks to capital markets, and it also marked a transition to new methods of raising capital. During the decade, Ivar Kreuger led the new push of

7 As Lawrence Mitchell has demonstrated, the foundation of the shift to individual holding and trading of common shares was established during this early pre-1920s period, and the instruments typically used were simply common shares. See LAWRENCE E. MITCHELL, *THE SPECULATION ECONOMY: HOW FINANCE TRIUMPHED OVER INDUSTRY* 169, 192-208 (2007).

8 See ROBERT F. BRUNER & SEAN D. CARR, *THE PANIC OF 1907: LESSONS LEARNED FROM THE MARKET'S PERFECT STORM* ix-xiii (2007).

9 J.R. Taylor, *Some Antecedents of the Securities and Exchange Commission*, 16 ACCT. REV. 188, 189 (1941).

10 FRANK PARTNOY, *THE MATCH KING* 15-29 (2009).

11 *New Issues Being Carefully Priced*, WALL ST. J., Oct. 26, 1923, at 5.

financial innovation by creating new financial products and structures. Kreuger created new forms of financial instruments, including B Shares, with 1/1000th of a vote, and participating debentures whose returns were derived from the returns on other investments.¹² The progressively complex securities issuances from International Match began to resemble modern derivatives, including “structured notes,” complex fixed income instruments with guaranteed principal repayment but coupons that vary based on changes in certain variables, including gold, foreign exchange, and dividend or interest payments by other companies.

International Match, followed by many other companies, also began using off-shore subsidiaries and off-balance-sheet transactions to shift assets, liabilities, income, and expenses. For example, when the funds raised from the initial International Match gold debenture deal were finally available, Kreuger immediately wired that money to the account of Continental Investment Corporation, a Liechtenstein corporation he owned.¹³ International Match’s primary asset became the expected cash flows from a private off-balance-sheet contract with Continental. This early deal resembled a modern swap transaction with a related entity.

Kreuger also shifted assets to Garanta Corporation, a Holland entity that was related to some of his other companies. Garanta acted as a kind of financial intermediary, resembling a modern SIV. Like an SIV, Garanta held primarily financial assets, which it purchased by issuing tranches of securities. Also like an SIV, Garanta’s assets and liabilities were not consolidated, or even reported, in its related entities’ financial statements. Until 1928, Kreuger’s accountants at Ernst & Ernst were not even aware of Garanta’s existence, and Garanta’s risk exposure was never disclosed to holders of International Match securities.¹⁴ The relationship between Garanta and International Match was similar to the modern relationship between financial-institution parent companies and their subsidiaries and related entities.

As these financial methods became more complex, accountants and auditors were pressed to play a more substantive and prominent role. Accountants typically performed only cursory examinations of U.S. corporations’ financial statements. At the same time, legal rules did not subject accountants to any heightened responsibility. The accounting profession recognized the benefit they would gain if investors placed greater weight on their examination of financial statements. This was particularly true as financial innovation led to increasingly complex issuances of new securities.

Financial innovation made the auditors’ job much more difficult, but also potentially more profitable. It appeared at several points during the 1920s that accountants might be subject to increased liability. In 1925, the New York legislature considered, but did not adopt, a heightened liability standard for

12 PARTNOY, *supra* note 10, at 76-77.

13 *Id.* at 49-50.

14 *Id.* at 80-83.

accountants.¹⁵ In 1927, William Z. Ripley published *Wall Street and Main Street*, an influential book arguing that the separation of ownership and control had led corporations to engage in troubling accounting and financial practices. Ripley argued that investment decisions had become disconnected from reality because corporations frequently did not issue financial statements at all, and those companies such as International Match that did issue statements included only cursory information.¹⁶

Although some scholars point to the 1929 crash as the crucial factor in finally motivating securities-regulation reform, historical evidence suggests that the stock market crash did not have a transformative impact on the regulatory agenda (with the exception of credit-rating-related regulation, as described in Part III). Indeed, even though some accountants embraced Ripley's proposals and attempted to pressure the New York Stock Exchange, a private corporation that did not require audits, to implement new requirements, no action was taken.

Part of the reason for this lack of response was that the Hoover Administration was not inclined to implement sweeping securities regulation, but there also was no political consensus about the causes and effects of the stock market decline. Moreover, it appeared initially that the New York Stock Exchange would respond adequately to the market decline. One scholar observed that the crash "must not be overstressed as a causal factor," citing a 1930 statement from the Exchange that the economic decline was temporary and recovery was "just around the corner."¹⁷

Nearly four years passed between the 1929 crash and the passage of the Securities Act of 1933. The congressional stock exchange practices hearings, which immediately preceded the 1933 Act, were not dominated by stories about the crash; those memories had faded. Instead, the hearings focused on testimony from Ivar Kreuger's accountants and bankers, and on a report from Price Waterhouse & Co., which had investigated Kreuger's firms after his widely reported death in March 1932.¹⁸ This testimony centered on revelations of the scope and nature of Kreuger's financial innovations.

These hearings also included detailed questions about the oversight of International Match and its complex relationship with various off-shore subsidiaries and related entities.¹⁹ The congressional and public expressions of shock that Kreuger could have disclosed so little about his financial innovations were a primary factor that led to the adoption of the Securities Act of 1933. As J.R. Taylor observed, "Probably the strongest activating force was the Kreuger

15 The *Ultramares* case, *Ultramares Corp. v. Touche, Niven & Co.*, 174 N.E. 441 (N.Y. 1931), also suggested that accountant liability might be extended beyond outright fraud to include legal responsibility for negligent actions. See Taylor, *supra* note 9, at 190-91.

16 WILLIAM Z. RIPLEY, *WALL STREET AND MAIN STREET* 181-88 (1927).

17 Taylor, *supra* note 9, at 194.

18 *Hearings Before a Subcomm. of the S. Comm. on Banking and Currency*, 72d Cong. 1249-74 (1932) (testimony of George O. May) [hereinafter *Stock Exchange Practices*].

19 See *id.* at 1267-70.

and Toll crash. Here was the dynamic incident that focused attention upon the evils possible under the holding-subsiary form of corporate enterprise, in spite of frequent audits by competent public accountants.²⁰

This focus on Ivar Kreuger during the legislative process should not be a surprise, given the size of investor holdings in his companies and the revelations about his innovative practices. According to some reports, his securities were the most widely held in the world. Even within the U.S. markets, they were among the most widely held and actively traded issues. For example, there were \$335,694,386 of foreign corporate issues floated in the United States in 1929; of that amount, \$76,148,339 was issued by Kreuger and Toll.²¹ In March 1932, after Kreuger's death was announced, the New York Stock Exchange ticker could not keep pace with the number of trades of shares in his companies, even on a delay.²²

The congressional investigation into Kreuger revealed that his manipulations would not have been possible if accountants had focused more on International Match's related off-shore companies. For example, A.D. Berning, the lead audit partner from Ernst & Ernst, never engaged in an audit of Kreuger & Toll, International Match's parent company.²³ Instead, Berning relied on audits conducted by Swedish accountants.²⁴ The Swedish accountants did not communicate the underlying details of Kreuger's SIV-like subsidiaries and related entities. International Match did not have sufficiently high ownership stakes in these entities to require consolidation on its balance sheet; instead, its interests were indirect. Thus, International Match used "special purpose entities" much as Enron did a decade ago, or financial institutions did more recently.

Three keys to Kreuger's techniques were that he retained a sufficient amount of managerial control over subsidiaries and related entities, moved crucial economic activity to those corporations, and then restricted audits and disclosure to U.S. entities. Again, there are parallels to today. The major banks' SIV and super-senior CDO exposures did not appear in their financial statements before 2008. The banks' risk exposure was housed in subsidiaries and related entities, whose risks were not disclosed and apparently not understood. For example, AIG did not disclose its subprime-related credit default swap exposure until August 2007, and then it did so only in cursory fashion.²⁵ Major financial institutions, such as Citigroup, disclosed only

20 Taylor, *supra* note 9, at 194.

21 George A. Eddy, *Security Issues and Real Investment in 1929*, 19 REV. ECON. STAT. 79, 82 (1937).

22 When the ticker finally caught up, it recorded the largest single trade in the history of the markets: a sale of 673,800 American Certificates of Kreuger & Toll, Kreuger's Swedish holding company. By the end of that day, those securities were worth just pennies. See *Market Sags Here on Kreuger Selling*, N.Y. TIMES, Mar. 15, 1932, at 15.

23 *Stock Exchange Practices*, *supra* note 18, at 1249-50.

24 *Id.* at 1250.

25 Compare AIG Quarterly Report (Form 10-Q) (May 10, 2007) (not detailing its credit default swap exposure), with AIG Quarterly Report (Form 10-Q), at 65 (Aug. 8, 2007) ("At June 30,

minimal information about their credit default swap exposures or the risk profiles of their super-senior synthetic CDO tranches related to subprime mortgage loans.²⁶ Like Kreuger's disclosures, financial institution disclosures did not give investors a sufficiently broad picture of aggregate risk.

Although many scholars assume the 2000s were a period of unprecedented financial innovation, the 1920s also were an innovative time, perhaps even more so than in recent years relative to available technology. It is worth recalling that Adolf A. Berle, Jr., wrote his major study of corporate finance innovation during the mid to late 1920s, when new forms of securities were proliferating, including non-voting stock, numerous kinds of participating preferred stock with dividends and conversion rights that varied over time, and a variety of convertible obligations.²⁷ Berle's remarks on the complexity of financial products echo more recent financial innovation.

In addition, Berle reached similar conclusions to those of many leading financial and legal academics today. Given the financial complexity of the time, Berle suggested reconstructing corporate law to redirect management to the goal of serving the balanced interest of all investors, not just shareholders. Several scholars, revisiting Berle more recently, have cited his conclusion that the corporate objective should focus on groups of security holders other than equity.²⁸ Indeed, Michael Jensen has recognized that the primary corporate objective should be to maximize firm value, not shareholder value, as he and others previously had propounded.²⁹ This lesson also can be traced back to Ivar Kreuger, whose outside investors were predominantly holders of hybrid securities. Likewise, the most problematic subprime-related tranches of SIVs and CDOs, as well as many of the banks' issued securities themselves, were hybrid claims.

2007, the notional amount of this credit derivative portfolio was \$465 billion, including \$64 billion from transactions with mixed collateral that include U.S. subprime mortgages.”)

26 Compare Citigroup Annual Report (Form 10-K) (Feb. 23, 2007) (not mentioning “super senior” exposures), with Citigroup Annual Report (Form 10-K) (Feb. 22, 2008) (reporting extensively about “super senior” exposures). Specifically, Citigroup reported in its annual filing in early 2008 that as of December 31, 2007 it had “approximately \$29.3 billion of net exposures to the super senior tranches of CDOs which are collateralized by asset-backed securities, derivatives on asset-backed securities, or both.” *Id.* at 30. Citigroup's total subprime net exposures as of September 30, 2007, were reported as \$54.6 billion. *Id.* at 48.

27 See, e.g., ADOLF A. BERLE, JR., *STUDIES IN THE LAW OF CORPORATION FINANCE* 111-13, 131-33 (1928) (describing novel types of hybrid securities issued during the 1920s).

28 See *id.* at 192-94; see also Albert H. Barkey, *The Financial Articulation of a Fiduciary Duty to Bondholders with Fiduciary Duties to Stockholders of the Corporation*, 20 CREIGHTON L. REV. 47, 68 (1986); William W. Bratton, Jr., *The Economics and Jurisprudence of Convertible Bonds*, 1984 WIS. L. REV. 667; Alon Chaver & Jesse Fried, *Managers' Fiduciary Duty upon the Firm's Insolvency: Accounting for Performance Creditors*, 55 VAND. L. REV. 1813 (2002); Jonathan R. Macey, *An Economic Analysis of the Various Rationales for Making Shareholders the Exclusive Beneficiaries of Corporate Fiduciary Duties*, 21 STETSON L. REV. 23 (1991); Lawrence E. Mitchell, *The Fairness Rights of Bondholders*, 65 N.Y.U. L. REV. 1165 (1990).

29 Michael C. Jensen, *Value Maximization, Stakeholder Theory, and the Corporate Objective Function*, J. APPLIED CORP. FIN., Fall 2001.

II. 1930s Credit-Rating Agency Regulation and Early Regulatory Licenses

A second important reaction to both the 1929 crash and the collapse of Ivar Kreuger and his related companies was the implementation of legal rules that depended on credit ratings. Until recently, the widely shared academic view of credit-rating agencies was that they were examples of classic reputational intermediaries.³⁰ According to this view, credit-rating agencies were information providers whose certification designations generated income only to the extent the information was credible and valuable to market participants; the credit-rating agencies were constrained from engaging in fraud, or reckless or negligent behavior, by the fact that their reputations would suffer if they did, and then they would lose business as a result.

In 1999, I introduced a different view of the credit-rating agencies as providing, not information, but “regulatory licenses,” a term I used to describe the valuable property rights associated with the ability of a private entity, rather than the regulator, to determine the substantive effect of legal rules.³¹ I documented how the value associated with credit ratings grew, beginning in the mid-1970s, as regulations came increasingly to depend substantively on ratings. Over time, some scholars have shifted from the “reputational capital” view to the “regulatory license” view,³² as have some legislators and regulators.³³

In the aftermath of the recent crisis, it has become apparent that the overreliance on credit ratings was even deeper than one might assumed, based on the effects of the grants of recent regulatory licenses. Overdependence on credit ratings has a behavioral element, which is highly path-dependent and has become deeply embedded in investor culture. It is expressed not only in regulation, but also in privately created investment guidelines and policies and the extensive use of credit ratings in financial contracts.³⁴ This additional increased private reliance is related to, but not necessarily required by, the regulatory dependence on ratings.

30 For example, Jonathan Macey has stated, “Indeed, the only reason that rating agencies are able to charge fees at all is because the public has enough confidence in the integrity of these ratings to find them of value in evaluating the riskiness of investments.” Jonathan R. Macey, *Wall Street Versus Main Street: How Ignorance, Hyperbole, and Fear Lead to Regulation*, 65 U. CHI. L. REV. 1487, 1500 (1998); see also Partnoy, *supra* note 4, at 633 n.62 (citing other examples).

31 Partnoy, *supra* note 4, at 623.

32 For example, Jonathan Macey testified that “[m]ost Americans think that the large, well-known credit rating organizations like Moody’s and Standard & Poor’s are purely private enterprises: they are unaware of the fact that these organizations are, in fact, more properly viewed as quasi-governmental entities.” *Rating the Raters: Enron and the Credit Rating Agencies: Hearing Before the S. Comm. on Governmental Affairs*, 107th Cong. 43–45 (2002) (statement of Jonathan R. Macey, J. Dupratt White Professor of Law, Cornell Law School); see also *Turmoil in the U.S. Credit Markets: The Role of the Credit Rating Agencies: Hearing Before the S. Comm. on Banking, Housing, and Urban Affairs*, 110th Cong. 2 (2008) (statement of John C. Coffee, Jr., Adolf A. Berle Professor of Law, Columbia University Law School) (using the term “regulatory licenses”).

33 See Neil Irwin, *SEC Aims To Limit Credit Ratings’ Influence*, WASH. POST, Jun. 26, 2008, at D03 (citing comments from SEC Commissioner Paul Atkins).

34 See, e.g., ISDA COLLATERAL SURVEY 2000, at 43, 47–48 (on file with the *Yale Journal on Regulation*) (discussing use of credit ratings by private parties).

How did such private reliance grow? One answer is that it grew as a function of the increasing regulatory reliance in recent years. For example, SEC Commissioner Paul Atkins has referred to “three decades” of embedding the use of credit ratings in rules.³⁵ That quote was a reference to the proliferation of legal rules since 1975, when the SEC began relying on credit ratings in its net capital requirements for broker-dealers.³⁶

But private reliance on ratings actually predates the 1975 broker-dealer rules. Indeed, regulatory reliance on ratings did not begin in 1975, but rather during the 1930s, and private reliance soon followed. The evidence of such private-following-public reliance is widespread today, but there also is similar evidence of this private-following-public reliance from the 1930s.

For example, following the 1929 Crash, Gustav Osterhus, an examiner at the Federal Reserve Bank of New York, proposed a system for weighting the value of a bank’s entire portfolio based on credit ratings. According to Osterhus, regulators needed to be able to express a portfolio’s “safety” or “desirability” in a single number or letter.³⁷

During the early 1930s, this notion of the need for “desirability weightings” quickly spread throughout the markets.³⁸ The Federal Reserve used credit ratings in its inspection of banks. States passed rules distinguishing between “legal” and “illegal” investments based on credit ratings. High ratings became effective conditions for state-chartered banks to be members of the Federal Reserve System.³⁹ In 1931, the U.S. Treasury Department and Comptroller of the Currency jointly adopted credit ratings as a measure of the quality of banks’ bond accounts: bonds rated BBB or higher could be carried at cost, whereas lower-rated bonds had to be written off.⁴⁰

During the 1930s, ratings became progressively more important and valuable. Regulators obviously appreciated being able to delegate responsibility to credit-rating agencies, and the agencies likewise appreciated how much more profitable their rating businesses became, particularly during the Great Depression. Then, on February 15, 1936, the Comptroller made his most radical proposal, to define “investment securities” based explicitly on the ratings of “not less than two rating manuals.”⁴¹

35 Paul S. Atkins, Comm’r, SEC, Remarks to 7th German Corporate Governance Code Conference: Corporate Governance in USA Against Background of Recent Developments (June 27, 2008).

36 See Partnoy, *supra* note 4, at 690-91.

37 See Gustav Osterhus, *Flaw-Tester for Bond Lists*, AM. BANKERS ASSN. J., Aug. 1931, at 67; see also GILBERT HAROLD, BOND RATINGS AS AN INVESTMENT GUIDE: AN APPRAISAL OF THEIR EFFECTIVENESS 160-72 (1938) (describing the application of these desirability weights to 1931 investment portfolios).

38 See HAROLD, *supra* note 37, at 18-26.

39 See *id.* at 26 (citing Conditions of Membership in the Federal Reserve System, at 1 (mimeographed bulletin, Fed. Reserve Bd., Washington, 1933)).

40 This ruling received wide attention at the time, including a front-page article in the *Wall Street Journal*. See *75% of Bank Bond Valuations Safe*, WALL ST. J., Sept. 12, 1931, at 1.

41 Specifically, the Comptroller’s ruled that:

This ruling had a dramatic effect. More than half of the roughly two thousand publicly-traded bond issues suddenly failed the Comptroller's new definition of "investment securities," and therefore could no longer be held by banks.⁴² Market participants protested that the ruling was a mistake. It was unfair to smaller corporations, whose bonds had lower ratings. It lured banks into a false sense of security that they could hold a highly rated bond. The Missouri Bankers Association warned: "We further believe that the delegation to these private rating agencies of the judgment as to what constitutes a sound investment is unprecedented in our history and wholly unwarranted by their records in the past."⁴³

Even the Comptroller seemed to recognize the potentially perverse effects of the ruling. On May 22, 1936, he made the following remarks in a speech before the California Bankers Association:

The responsibility for proper investment of bank funds, now, as in the past, rests with the Directors of the institution, and there has been and is no intention on the part of this office to delegate this responsibility to the rating services, or in any way to intimate that this responsibility may be considered as having been fully performed by the mere ascertaining that a particular security falls within a particular rating classification.⁴⁴

Unfortunately, the Comptroller's intentions rapidly became irrelevant. What mattered was not what the Comptroller had thought, but what the rating agencies said. One short-term effect of the ruling was to make the banks' investments safer, because they no longer could hold bonds rated lower than BBB. However, the longer-term effects were more perverse. In the future, bond prices and yields would not necessarily match ratings quality. Non-member banks could profit from buying underpriced non-investment-grade bonds.⁴⁵ Conversely, member banks could now seek the riskiest BBB-rated bonds, with the highest yields. Ironically, the lowest-quality BBB-rated bonds had the highest relative value. Ratings became not only a crutch, but an opportunity.

Not surprisingly, ratings became much more common during the following years. Within a few years after the Comptroller's ruling, Gilbert

By virtue of the authority vested in the Comptroller of the Currency by . . . Paragraph Seventh of Section 5136 of the Revised Statutes, the following regulation is promulgated as to further limitations and restrictions on the purchase and sale of investment securities for the bank's own account, supplemental to the specific limitations and restrictions of the statute. . . . (3) The purchase of "investment securities" in which the investment characteristics are distinctly and predominantly speculative, or "investment securities" of a lower designated standard than those which are distinctly and predominantly speculative is prohibited. . . . The terms employed herein may be found in recognized rating manuals, and where there is doubt as to the eligibility of a security for purchase, such eligibility must be supported by not less than two rating manuals.

HAROLD, *supra* note 37, at 30.

42 *Id.* at 31.

43 *See id.* at 32 (citing Resolution of the Missouri Bankers Association at its 46th Annual Convention, May 5, 1936).

44 *Id.* at 32 (citing J.F.T. O'Connor, Comptroller of the Currency, Address at a Convention of the California Bankers Association, May 22, 1936).

45 *Id.* at 33.

Harold wrote, “It is unanimously asserted by the rating agencies that the use of bond ratings today is greater than ever before and that the use of and reliance on the ratings is growing year by year.”⁴⁶ Meanwhile, the increased reliance on ratings reduced the reputational constraints on credit-rating agencies. Rating agencies became more important and more profitable, not necessarily because they generated more valuable information, but because they began selling more valuable regulatory licenses.

Over time, as the reliance on ratings took hold, ratings became part of investing culture. “AAA” and “BBB” became enmeshed in financial vocabulary, so much so that it quickly seemed impossible for many market participants to perform basic functions without referring to credit ratings. Yet those labels have been, and are, merely mnemonic devices, with no inherent meaning. They are a short-hand for credit quality, and truly represent implicit estimates of three key variables: probability of default, expected payoff in the event of default, and (for structured finance and more complex assets) the correlation of defaults. The 1930s rules suggested to institutional investors and banks that they did not need to make careful judgments about these variables, but instead could rely on letter ratings. As private reliance on ratings grew, private actors focused more on letter ratings than on the underlying credit analysis, such as the expected probability of default.

Harold predicted the dysfunctional behavior that would arise in response. Indeed, his comments eerily foretold the development of subprime related CDOs and SIVs. He predicted that institutional investors who were restricted to the highest-grade bonds would be encouraged to look for other types of investments with higher potential returns, and that “[t]his may stimulate still further developments in such fields as real estate mortgages, etc.”⁴⁷ At first, the search frequently ended with corporate bonds and loans, which were repackaged into CDOs. But during the early 1990s, and then most notably during the mid-2000s, these other types of investments stretched to include “such fields as real estate mortgages.”⁴⁸

Behavioral and regulatory overdependence on ratings created incentives for bond issuers to obtain ratings before bonds were issued. Issuers were forced to look to rating agencies as authoritative, even if they did not generate valuable information. Moreover, they looked to the rating agencies to create new instruments that captured particular ratings. General Electric needed to maintain its AAA rating. Banks needed to remain in the single-A category. The incentives for ratings-driven transactions were accelerated by the agencies’ shift from investor-pay to issuer-pay. Still, even without the obvious conflicts of interest associated with issuer-pay, pressures to generate and maintain high ratings would remain.

46 *Id.* at 35.

47 *Id.* at 33.

48 *Id.*

Over time, private use of credit ratings grew to mimic regulatory use. Swap agreements contained provisions triggering payment or posting of collateral in the event of downgrades. Lending documents included provisions related to credit ratings. Institutional investment guidelines incorporated credit ratings. Instead of using judgment to assess credit risk or even looking to key measures of credit risk—especially probability of default—private actors simply relied on ratings.

The subprime crisis can be seen, as Harold warned, as an effort by investors, banks, and the credit-rating agencies to create highly rated securities that were significantly riskier than warranted by the ratings. The key mechanisms for creating these instruments were mathematical models and assumptions, particularly about the correlation of defaults. Financial innovation dovetailed with overdependence on ratings to generate trillions of dollars of highly-rated tranches of CDOs and SIVs that appeared safe, but were not. One key message for regulators, as they assess the crisis, must be to eliminate regulatory dependence on credit ratings, and to undertake efforts, perhaps even some forms of “shock therapy,” to discourage private actors from relying exclusively on credit ratings.

Fortunately, a simple substitute for credit ratings is available: market measures of credit risk. Credit spreads and credit default swap prices provide reliable and robust estimates of credit risk. These market measures are far more accurate and prescient as estimates of default. Moreover, prices impound market estimates of expected recovery and default correlations. Indeed, credit-rating agencies could improve their accuracy by relying more on market measures, and they are beginning to do precisely that. For regulators or private actors that are concerned about volatility, there are straightforward ways to use market measures for investment decisions in more stable ways, based on rolling averages of market prices.

Of course, requiring the use of a particular market measure might also create perverse regulatory licenses. One way to encourage the use of market measures would be to indicate that reliance on credit ratings would not be enforceable, and to substitute something like “judgment” in the decision process.⁴⁹ Then, regulated entities would need to examine credit risk and decide which bonds to buy and hold based on their own choices about which measures of information are most reliable, market-based or otherwise. Simply deferring to credit ratings would be the weakest of available alternatives.

The above historical evidence supplements, but does not fundamentally change, the emerging “regulatory license” view of credit ratings. Regulators and private actors should acknowledge that the overdependence on credit ratings is entrenched, in large part because of regulatory reliance, but also

49 The SEC’s proposed rules removing regulatory reliance on NRSRO ratings would do just that, substituting reliance on judgment for reliance on ratings. *See* References to Ratings of Nationally Recognized Statistical Ratings Organizations, Investment Company Act Release No. 28,327, 73 Fed. Reg. 70,124 (proposed July 1, 2008). Unfortunately, as of June 10, 2009, the SEC had not implemented this proposed rule.

because of the path-dependent behavior of private parties who have come to depend on ratings. These parties should resist the use of credit ratings and adopt market-based substitutes instead. Moreover, in responding to the financial crisis, regulators should heed the lessons of history and avoid implementing legal rules that create new “regulatory licenses” for credit-rating agencies or other gatekeepers.⁵⁰

III. Conclusion

Unlike science or the arts, financial history does not seem to build incrementally. Financial knowledge often requires a real-life experience or connection, and is not necessarily motivated by historical lessons. Instead of amassing knowledge over time, market participants learn about the cycles of informational asymmetry and regulatory licenses anew, generation by generation.

During the 1930s, market actors became well aware of the dangers of financial innovation and related informational gaps. A primary source of their knowledge was Ivar Kreuger. Likewise, investors and even some regulators warned during the 1930s about regulatory reliance on credit ratings. Yet several decades later, that awareness was gone, and regulatory reliance remained. Over time, Ivar Kreuger became an unknown, and the deleterious consequences of regulatory licenses were wiped from the memories of investors and regulators. The point of this Essay is to remind scholars that not all bad ideas are new, and that, at least with respect to narrow issues addressed here, some of the core causes of the recent crisis have deep historical roots.

⁵⁰ For example, the Treasury Department has implemented bank “stress testing.” See Treasury Department, Financial Stability Plan Fact Sheet, <http://www.financialstability.gov/docs/fact-sheet.pdf> (last visited Apr. 26, 2009). Appointing one or two private entities to perform such testing based on some specified scale might generate some of the same perverse consequences as legal rules that delegated the assessment of credit quality to rating agencies.

