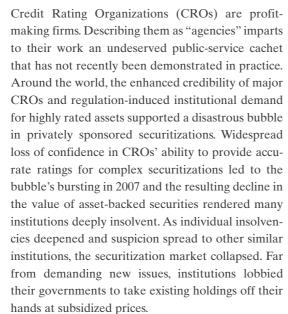


# REGULATION MIGHT HELP

RATING "AGENCIES": HOW

RICHARD HERRING\* AND EDWARD J. KANE\*\*

#### Introduction



The CRO business model is rife with incentive conflict. CROs produce benefits for four distinct customer groups: issuers, regulated investors, unregulated investors and regulators. Issuers want the highest rating they can obtain and to conceal or sugarcoat adverse information to keep their borrowing costs low. Unregulated investors and regulators want the most accurate possible estimates of risk so that they can safely substitute CRO analysis for their own due diligence. Regulated investors want the issues they buy to be as highly rated as possible to conserve regulatory capital and to maximize the return on the regulatory capital they hold. Unfortunately, most investors cannot assess the quality of the analysis

they receive until long after their investment decisions have been made. Regulators can in principle look carefully into the models and data CROs employ, but their incentives to do this have not been strong.

When advances in copying technology persuaded the CROs to shift from investor-pays to issuer-pays compensation, these incentive conflicts became more intense. As the revenue from complex structured securitizations grew and became concentrated among a few high-volume issuers, these issuers gained considerable market power. This power deepened the incentive conflict that CRO managers face. At the same time, the volume and complexity of new instruments increased the benefits that investors could gain from substituting the judgment of trusted expert analysts for their own due diligence and increased the ability of regulators to excuse and hide acts of forbearance. Complexity also increased the kinds of information an issuer might seek to withhold. For years, investor trust in the reputations of major CROs (Moody's, Standard & Poors, and Fitch) was sustained by their reasonably good track record in rating corporate debt. Government reliance on ratings in writing financial regulations encouraged fiduciary institutions to allocate billions of dollars based on a CROs' assessments.

CROs add value only to the extent that the information they produce improves investors' ability to assess and price risk. When CRO ratings of complicated securitizations revealed themselves to be wildly inaccurate, asset-backed debt became unattractive. To prevent this channel of housing finance from drying up completely, authorities in the US have been supporting the debt of the government-sponsored enterprises (GSEs) that engage in housing finance. But the massive fiscal deficits this requires cannot continue indefinitely.

Rebuilding the CRO industry's lost reputation is by no means a straightforward task, but it is a problem that must be solved if markets for securitized assets are to revive. The volume of securitizations and the flow of real investment around the world will remain depressed unless and until CRO firms and authori-



<sup>\*</sup> The Wharton School, University of Pennsylvania, Philadelphia.

<sup>\*\*</sup> Boston College.

ties in financial-center countries work out and adopt a viable plan for restoring confidence in CROs' ability to rate securitizations accurately.

This article reviews the functions of CROs and explains the details of reforms that are currently unfolding in the US and Europe. These plans focus on developing rules and ethical codes that promise to reduce conflicts of interest, promote transparency and strengthen disclosure for CROs that operate in specific nations. While prescriptive legislation and detailed codes are useful, they inevitably contain loopholes that generate unexpected and unwanted consequences. We argue that, to be successful, new regulatory structures need to be global and focus on improving CRO incentives to produce accurate ratings.

A good starting point would be for CROs and authorities to identify and implement institutionally a distinction between the fiduciary activity of developing credit ratings and the profit-making business of supplying them to customers (Froeba 2009). These two functions require different forms of regulation and supervision. Inasmuch as CRO personnel perform a certification function much like that of actuaries and accountants, they should as a group define themselves as professionals and go on to develop and foster a dynamic process for setting ethical and operating standards whose explicit mission is to serve the public interest. Government regulation can play a twofold role in this. First, it can assess how well, when applied to the securitization process, the standards align the interests of CROs and issuers with those of different kinds of investors. Second, officials can see that the standards adapt to changing circumstances and are adequately enforced.

### The evolution and the usefulness of credit ratings

In response to the collapse of the securitization market and the resulting global credit crunch, private groups and policymakers around the world have explored a variety of reforms, including even the possible abandonment of credit ratings. To analyze proposed reforms effectively, it is critical to understand the answers to three fundamental questions: (1) What functions have CROs served? (2) How did they achieve credibility historically? (3) How can they regain their usefulness in markets for asset-

backed securities? The next few paragraphs address these questions and lay out the context within which reforms must unfold.

What functions have credit ratings served?

Capital markets do not require CROs. The world had active bond markets for at least 300 years before the first CRO came on the scene. But early capital markets, based largely in Europe, restricted themselves predominantly to trading sovereign debt issued in the sovereign's own currency. For this limited capital market, credit risk was easy to analyze. CROs could add little value.

The first CROs were established in the United States where a robust corporate bond market first emerged in the mid-nineteenth century. The US financed much of its growth in canals, railways and other infrastructure projects through bonds issued by private corporations. The big three CROs emerged in response to early twentieth century breakdowns in these markets. Once a number of bonds issued by private corporations had defaulted or fallen sharply in value, investors saw the wisdom of employing expert help in assessing credit risk.

CROs facilitated investment by non-specialist lenders, diminished asymmetries in information between borrowers and lenders, reduced overlaps in effort and facilitated comparisons across securities. Their activities broadened access to capital markets for borrowers and lenders alike. Over time, CROs evolved a successful methodology for evaluating credit risk, building their reputations and methods on the statistical performance of hundreds of classifiable securities and the survival rates of the corporations that issued them.

For bonds issued by well-established corporations, the value that CROs can add today is reduced by the wide availability of data on credit spreads and credit default swaps. But CRO value-added remains high in assessing the creditworthiness of innovative instruments, illiquid securities and initial public offerings.

How did CROs achieve credibility?

Investors came to trust the judgment of CROs only after they established a track record for accuracy and a reputation for independence from both issuers and firms that distributed rated securities. Initially, CRO incentives aligned perfectly with those of investors because their principal source of revenue

<sup>&</sup>lt;sup>1</sup> IOSCO (2008), Code of Conduct Fundamentals for Credit Rating Agencies, The Technical Committee of the International Organization of Securities Commissions, Madrid.

was the sale of bond manuals to investors. A CRO was profitable only to the extent that the value it added to investors' assessment of risk made it worthwhile for investors to purchase the manuals.

Over time, the success of incumbent CROs became a natural barrier to new entrants. Because credibility came from being successful over time, the lack of a track record put new firms at a disadvantage. Long before the Securities and Exchange Commission (SEC) began to certify CRO reliability, the market was dominated by the three firms that started the industry.

When and why did the concerns for accuracy by CROs and investors diverge?

Two events unraveled the congruence between the interests of investors and CROs. The first was a direct consequence of regulatory efforts to outsource to the CROs a good part of the job of evaluating the creditworthiness of the institutions they oversaw. The second emerged indirectly as a consequence of technological change.

In the US during and after the Great Depression, national banks, state insurance regulators, overseers of pension funds and the SEC believed that they could use ratings issued by the CROs to control the credit risk exposure of the institutions that they supervised. This drove a wedge between the interests of household and institutional investors. As Partnoy (1999) has observed, this allowed CROs to add regulatory dispensations to their product line. These dispensations gave institutions a perverse appetite for over-rated securities. By purchasing a security whose rating it knew to be inflated, a firm could reduce the effective burden of capital requirements without attracting the disapprobation of government supervisors.

The insistence of various regulators that their regulatees hold large amounts of highly-rated assets boosted the growth of the securitization market. Inevitably, the demand of regulated institutions for highly-rated assets far exceeded the supply offered by highly-rated corporations. Indeed, the number of non-financial corporations in the United States receiving this top rating fell from 50 in 1980 to only 2 in 2009. The shortfall could be filled by securitizations that created synthetic securities if and only to the extent that CROs would certify that particular synthetics were equivalent to bonds issued by AAA and AA-rated corporations.

In recent years, the demand for over-rated debt was intensified by two further outsourcings of supervisory authority: (1) Supervisors of major US GSEs (i.e., Fannie Mae and Freddie Mac) allowed them to fulfill congressional mandates for supporting lowincome housing by purchasing AAA-rated tranches of subprime-related securitizations. GSE demand for AAA-rated subprime securitization was not very discriminating and was met by a shoddy supply. When the bubble burst in 2007, the GSEs held roughly half of outstanding AAA-rated securitizations. (2) Basel II's standardized minimum capital standard for internationally active banks was framed to rely heavily on CRO ratings. Basel II increased the benefits to CROs of inflating ratings on synthetics because it allowed banks to reduce the burden of capital requirements. Using ratings for regulatory purposes tends to align the interests of regulated institutional investors with those of issuers in that they can both benefit from allowing CROs to overstate credit quality.

Technological change further misaligned the interests of investors and CROs in ratings accuracy. Widespread use of copying machines and eventually faxes and e-mails made it increasingly difficult for CROs to get users of ratings to pay them for their work. Revenue from selling bond rating manuals to investors could not cover costs. For this reason, early in the 1970s the CROs shifted from asking investors to buy manuals to requiring issuers to pay to be rated. Despite the worrisome alignment of issuer and CRO benefits from inflated ratings that this created, CROs convinced investors and regulators that the value of maintaining their reputation for accuracy would obviate the temptation to favor individual issuers over what had become free-riding investors. The rise of subprime securitizations steadily undercut this claim. At the height of the subprime bubble, a handful of securitizers could direct billions of dollars a year in revenue to cooperative CROs. 2

In effect, regulators allowed CROs to set capital requirements for insurance companies, depository institutions and investment banks and also to determine what securities were eligible for investment by public pension funds, mutual funds and money market funds. Ratings could even determine whether particular institutions (e.g., life and bond insurance

<sup>&</sup>lt;sup>2</sup> The steady flow of securitizations created different incentives from the custom of a single corporation that issues bonds from time to time for fees that are a small fraction of the flow of CRO revenues. Moody's, the only free-standing CRO for which such information could be obtained, received nearly half of its revenue from subprime securitizations in 2006.

companies) could effectively do business at all. Life insurers rated below the A category cannot easily write new business, and guarantees from bond insurers that are not highly rated cannot improve a borrower's cost of capital enough to earn a breakeven premium.

Ratings issued by the CROs also became increasingly important in private contracts as well. A ratings downgrade may accelerate repayments of loans, increase collateral requirements in credit default swaps, force liquidation of collateral in Collateralized Debt Obligations and accelerate payment under guaranteed insurance contracts (GICs). Especially during difficult times, a downgrade could trigger a downward spiral for the corporation in question, possibly ending in bankruptcy.

# How CROs became NRSROs

Despite the fact that CRO ratings had been used for regulatory purposes since the 1930s, the SEC did not specify whose ratings it would rely upon until 1975 when it devised a category of Nationally Recognized Statistical Rating Organization (NRSRO). Initially, applications for this status were processed in an opaque manner through the issuance of no-action letters and very few NRSROs were designated. This system was changed by the Credit Agency Reform Act of 2006, which attempted to make NRSRO status easier to obtain. Still, two years later, only 10 NRSROs had been designated. Even now, the big three CROs dominate the field, with Moody's and Standard & Poors far more important that Fitch.

It is hard to be sure that enhancing competition would improve the quality of ratings because the data used in the rating process are not readily available to outside experts. Competition might increase innovation, lower fees and improve the accuracy of credit ratings. Alternatively, it could re-

sult in a race to the bottom if new CROs competed for market share by offering inflated ratings to issuers that sought only to borrow more cheaply and to regulated institutions that wished to hold over-rated securities as a way to extract safety-net subsidies.

#### What undermined confidence in CROs?

In 2007–08, an unprecedented wave of downgrades revealed how badly CROs had rated subprime-related securities, collateralized debt obligations, and other complex securitizations. The worst year for multinotch downgrades of corporate securities was 2001, which recorded the collapse of Enron, World Com and the largest sovereign default in history, that of Argentina. Figure 1 compares the downgrades seen in 2007 with the downgrades observed for subprime residential mortgage-backed securities from 2007 to 2008. Even in the year of maximal corporate de-

Figure 1

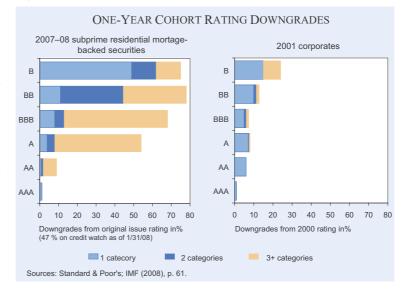
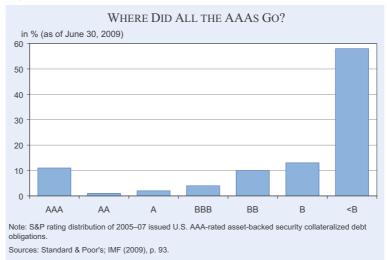


Figure 2



faults, triple-notch downgrades of corporate debt prove extremely rare. Moreover, such downgrades were concentrated in the speculative class. In 2007–08, triple-notch downgrades affected nearly 68 percent of BBB-rated subprime securitizations. This is distressing because BBB is the lower bound that defines the investment-grade securities that regulated institutions are generally allowed to hold.

It would be wrong to infer from these data that CROs did a better job of rating AAA tranches. Because most subprime securitizations are tranched, it is necessary to re-rate the lowest-rated tranches before higher-rated securities can even be analyzed. Eventually, nearly 60 per cent of the AAA-rated securities were downgraded by at least three notches (Figure 2).

Whether booked or not, losses occasioned by these downgrades affected institutions and markets around the world. Investors lost faith in the ability of firms and governments to manage risk. It became clear that monoline insurers no longer had the reserves to back up their credit guarantees, which lessened the value of insured municipal bonds. The weaknesses revealed in the models and samples used by CROs and other experts to forecast and price risk called into question the competence of regulators and senior executives responsible for supervising these functions. Uncertainty about what institutions

might fail crippled interbank markets and securitized debt hardly traded at all. Figure 3 shows that for almost a year new issues of privately sponsored securitizations nearly vanished.

# Past and future regulation of CROs

Past experience in the US

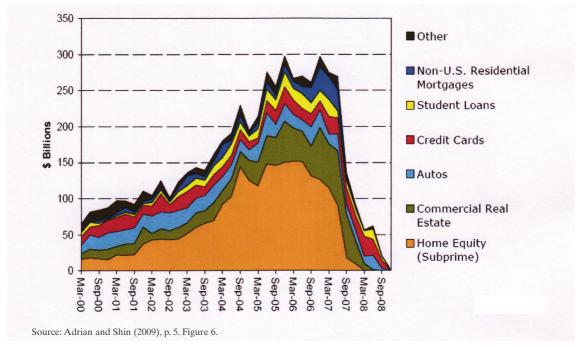
Before the Credit Rating Agency Reform Act of 2006, the US industry was largely self-regulated. Subsequent events have shown that the authority and incentives this legislation assigned to the SEC were too little, too late and focused on subsidiary issues.<sup>3</sup>

# The IOSCO code of conduct

During 2004, the International Organization of Securities Commissions (IOSCO) developed a "Code of Conduct Fundamentals for Credit Rating Agencies." This code was revised in 2008 to address some of the problems encountered in structured securitizations. The code focuses on: (1) the quality and integrity of the rating process; (2) CRO independence and the avoidance of conflicts of interest; and (3) CRO responsibilities to the investing public

<sup>&</sup>lt;sup>3</sup> See Herring and Kane (2009).





and issuers.<sup>4</sup> The code presumes self-regulation will continue to prevail. An IOSCO committee would merely review codes of conduct adopted in national CROs to determine how closely they adhere to IOSCO's Code. IOSCO lacks the resources and legal authority to implement committee findings and enforce the code. Such toothless oversight cannot improve incentives enough either to avoid crises or to resolve them promptly.

#### The G-20

The G-20 summits in Washington and London committed these leading countries to more rigorous regulation of the CROs. The G-20 pledged "We will exercise strong oversight over credit rating agencies, consistent with the agreed and strengthened international code of conduct" (G-20, 2008). The London summit set an implementation deadline requiring that all G-20 states were to establish a system for supervising and registering CROs by the end of 2009 (G-20, 2009). The main objective of G-20 regulation as with the IOSCO code of conduct was the prevention of conflicts of interest.

# The EU plan

Ratings firms had been subject to light-touch oversight by the Securities and Exchange Commission in the United States. The European Union was first to take action to remedy the collapse of confidence in the work of CROs. More than 40 percent of structured securities had been placed in Europe and it was dangerous for EU regulators to suppose that the historically ineffective US SEC would quickly fix things. The preamble to the EU regulation on credit rating agencies (Official Journal of the European Union 2009, L 302/1) expresses an additional concern: that, despite the importance of credit rating activity, "most credit rating agencies have their headquarters outside the Community. Most Member States do not regulate the activities of credit rating agencies or the conditions for the issuing of credit ratings."

On 6 May 2009, the European Parliament legislated that, beginning in 2010, CROs operating in the EU have to register with the Committee of European Securities Regulators (CESR) and with the member nation in which they are based. Provisions are also

made to accept "third country ratings" through an endorsement system in which an EU-based CRO must guarantee that the third country ratings are equivalent to EU standards. Although (EU 2009, 55) "In order to maintain a high level of investor and consumer confidence and enable the ongoing supervision of credit ratings issued in the Community, credit rating agencies whose headquarters are located outside the Community should be required to set up a subsidiary in the Community in order to allow for the efficient supervision of their activities in the Community and the effective use of the endorsement regime." Day-to-day oversight of the CRO will be conducted by the home country supervisor and, if the CRO has branches in several other EU countries, by a "college" of national supervisors from each of the countries in which the CRO has major operations. National regulators will be required to impose strict rules ranging from disclosure of their models (although not in such detail that a rival could replicate them) and methodologies to corporate governance standards. CROs in the EU may not provide advisory services and they must differentiate the ratings of complex products with a specific symbol. CROs must also maintain a data repository of outcomes with CESR that can be accessed by the public in addition to publishing an annual transparency report. EU-based CROs must have at least two directors on their boards whose salary does not depend on the profits of the CRO and they must create an internal function that will review the quality of their ratings.

Although CESR is supposed to play a coordinating role regarding standards, some experts have expressed concern that national enforcement of EU rules may lead to differences in the meaning of ratings even within the EU. It is interesting to note that the EU perceives an opportunity to gain competitive advantage by taking charge of the registration process noting that (EU 2009, 73) "The Commission should also submit a report to the European Parliament and the Council assessing incentives for issuers to use credit ratings agencies established in the Community for a portion of their ratings." 5

 $<sup>^4</sup>$  IOSCO (2008), Code of Conduct Fundamentals for Credit Rating Agencies, Madrid.

Utzig (2010) notes that "Contrary to policymakers' intentions, the creation of a European CRA could result in investors considering the ratings of European companies and structured finance products to be of lower quality than the ratings of companies in other regions. This would have an adverse effect on the funding opportunities and costs of European firms and would weaken the EU financial market. An inappropriate attempt of this kind to boost competition in the ratings market could thus damage the reputation of credit ratings as a whole and fly in the face of the actual objective of state regulation."

The US plan

The US response has been much slower and more tentative. The SEC has adopted amendments for NRSROs to make additional public disclosures about their methodologies for determining structured finance ratings and the histories of their ratings. They will also be required to maintain internal records to help strengthen examinations by the SEC. Like the EU, the SEC has prohibited NRSROs from advising a client on how to obtain a particular rating and then rating the security.

In September 2009 the SEC adopted additional amendments regarding broader disclosures of ratings histories such as the initial rating and any actions subsequently taken including downgrades, upgrades, affirmations and placements on watch lists. They also created a mechanism for NRSROs that were not hired to rate structured finance products to nonetheless determine and monitor credit ratings for these issues. This would help investors by providing a greater diversity of views and could help foster new entrants in the rating industry.

At the end of January 2010, the SEC has a number of proposals outstanding for comment that ultimately may or may not be adopted. Several proposals are designed to help investors understand which issuers generate the most revenue for the CRO, presumably to limit the scope for conflicts of interest. Another proposal would require disclosure of preliminary credit ratings in certain circumstances so that investors have enhanced information about whether "ratings shopping" has occurred that might bear on the quality or reliability of the ratings.

Perhaps the most potentially powerful proposal is designed to enhance the accountability of the rating firms by lifting their current exemption from "experts" liability under the Securities Act for ratings used by issuers and other offering participants to market securities. This could make them accountable for their ratings under these conditions, which would be an enormous increase in accountability. But there is no way of telling which, if any of these, proposed amendments will be adopted and enforced.

On the legislative front, the House of Representatives has completed a bill, while the Senate has not. The House bill seeks to strengthen the regulation of ratings agencies, but there is no way to tell what parts of the bill will ever become law. Nonetheless, its pro-

visions indicate how the House of Representatives and, to a considerable extent, the Obama administration is thinking about CRO regulation.

The House bill would require that all NRSROs be registered. This would subject them to fines and other penalties for violating applicable laws. The SEC would be required to conduct an annual review of each NRSRO to verify that each maintains, adheres to and discloses: internal controls, due diligence and sound methodologies for determining credit ratings.

Disclosure requirements would be increased in several dimensions. First, with regard to information disclosed by the sponsor, issuer and underwriter, the collateral underlying the structured securities is to be completely disclosed. Second, with respect to information disclosed by the CRO to the public, the CRO must collect and disclose information about how the sponsor, issuer and underwriter of structured securities assess the accuracy and integrity of their data. CROs must maintain a public web site to disclose historical default rates for all classes of rated financial products. CROs must publicly and for free disclose performance information in initial ratings and subsequent changes to enable investors to compare performance across credit rating firms. Furthermore, an attestation must accompany each credit rating issued affirming that no influence was exerted on the rating process through the CRO's other business activities. Each NRSRO must disclose its ratings history to the SEC in EDGAR-consistent format so that it can easily be understood by the public, and CROs must include an extensive disclosure with each credit rating it publishes.

The bill would also require disclosures by the issuer to the public. These would include disclosure of any preliminary ratings received from a credit rating organization. In addition, inside information that an issuer discloses to the CRO is no longer exempt from Regulation Fair Disclosure, effectively eliminating the informational advantages that CROs have often claimed to enjoy in the past.

The bill would enhance accountability by subjecting NRSROs to enforcement actions and legal liability. Penalties, including fines, are specified for misconduct. And NRSROs can be sued under private rights of action for gross negligence. A private party would receive the right to recover damages if it can establish that a rating was both grossly negligent and a substantial fact in the investor's decision to buy the security.

The bill would reduce conflicts of interest by requiring each NRSRO to establish, maintain and enforce written policies and procedures reasonably designed to address, manage and disclose any conflicts of interest that can arise from its business. The SEC is required in turn to review such policies.

The bill also requires credit rating firms to establish, maintain and enforce written procedures for their methodologies and an internal control system designed to ensure they are enforced. It permits the SEC to require CROs to establish rating symbols that distinguish structured products ratings from other ratings. It requires the SEC to issue rules that would make credit rating firms establish, maintain and enforce written policies and procedures to ensure that ratings are clear and consistent, and requires a written certification for any third-party provider of due diligence services used in establishing a rating.

Perhaps the single most daring feature of the House bill is to require the removal of numerous statutory references to credit ratings and to require agencies to modify regulations to remove references to or reliance upon credit ratings and substitute an alternative standard of creditworthiness.

The bill also establishes corporate governance requirements for NRSROs. Independent directors must comprise 1/3 of their board of directors and exercise specified oversight responsibility. Each NRSRO must designate a compliance officer that reports to the board and submits an annual report to the SEC that the officer certifies to be accurate and complete. To carry out its new duties, the SEC must establish an SEC Credit Ratings Office of sufficient size to administer SEC rules and the SEC must establish a 7-member Credit Ratings Agency Advisory Board to advise the SEC concerning its rules and to ensure the SEC carries out its oversight responsibilities.

None of the proposals addresses a glaring gap in the usefulness of ratings information. By and large, CROs focus only on point estimates and on too few variables. Two of the three dominant CROs claim only to estimate the probability of default, while the third goes on to estimate the value of loss given default. But statistics has always stressed interval estimation, and portfolio theory shows that a security-by-security rating of credit risk analysis is inadequate. In large portfolios, an individual issuer's probability of default matters less than the probability

that many securities will default at the same time. So long as ratings neglect standard deviations and correlations in default probabilities across asset classes, ratings would remain of limited value even if CRO conflicts of interest were well managed and all proposed reforms were enacted.

# **Self-regulation: ethical standards versus business practices**

Recognizing credit rating as a profession

To the extent that CROs act in a fiduciary capacity, top managers and ratings personnel owe clients duties of loyalty, competence and care. Experts make probabilistic assessments of the likelihood and consequences of default on individual securities and on different tranches of structured securitizations. Both within and across firms, expert assessments can differ widely in quality. Conscientious professional employees should want to subject themselves to an incentive structure that encourages each expert to provide his or her best assessment of default probabilities, loss given default, correlations and standard errors of estimate and to do this not only when a security is issued but also to update these assessments promptly when and as conditions change. As in other professions that combine art with science, the most effective way to achieve that goal is through heightened transparency that permits experts to review and critique one another's methods and assessments. Property rights to work product can be established through the patent process.

Over time, peer interaction can judge which experts are especially creative and what methods are pricing market outcomes most accurately. If incentive compatibility were established at the enterprise level, accurate work will be worth more to employers because it will reduce uncertainty to final investors and enable issuers to borrow on more favorable terms.

Establishing standards of best business practice

Singly or in concert, governments could convene a board of leading participants in securitization markets and give them a mandate to improve the transparency of the securitization process and set standards of practice that would realign the incentives of loan originators, securitizers and CROs with those of final investors. Herring and Levinson (2009) propose that this be done by a Securitization Transaction Ap-

proval Review (STAR) board. Board membership would be tilted toward leading institutional investors: pension funds, mutual funds, insurance companies, banks and endowments. However, it would also include various service providers – underwriting investment banks, originating lenders, lawyers, accountants, rating firms and monoline insurers – on the grounds that such enterprises share an interest in revitalizing and properly incentivizing the securitization process.

Not every tranche of every securitization can be rated adequately using existing data or models and investors need to know when a rating is and is not particularly dicey. Investors would be assured that securitizations awarded the STAR standard meet industry-wide best practices for transparency, diligence, documentation, statistical modeling and information communication. It would also certify that the financial incentives of all service providers line up with the interests of final investors. By reducing agency costs engendered by the securitization process itself, the STAR label can allow investors to price the fundamental risks inherent in each deal without having to worry about pricing substantial amounts of unresolved incentive conflict.

STAR evaluation requires for all service providers the establishment and regular reassessment of explicit best practices. STAR committees would adjust and refine the standards over time. For example, CROs would be expected to opine on the credit quality of the securities based on criteria that STAR would specify. We would expect STAR to enforce rigorous transparency requirements such as: (1) full disclosure of the assumptions a CRO uses in assigning a given rating; (2) full disclosure of all information received from the sponsor of a securitization; and (3) disclosure of statistical or stress tests designed to estimate the stability of the rating to changes in circumstances and assumptions. CROs would not be required to disclose the parameters or forms of their models but only to the extent that this is proprietary information. CRO personnel ought to be given incentives to report upon and improve the accuracy of their models. Rating personnel need to be closely scrutinized concerning assumptions they make about correlations in the underlying collateral.

Lawyers and underwriting investment bankers would be required to assume an affirmative obligation to look for and report undisclosed information about correlations in the underlying collateral or anomalies in the securitization structure that might adversely affect performance. Most importantly, they would be required to align incentives between service providers and investors. Fees paid to each party in the securitization process should be subject to claw backs and deferred compensation, where appropriate. And the CROs would be subject to the same kind of liability as other professionals. In this way providers of securitization services would be exposed to loss if the loans held as collateral were to default and they would share the economic risks of the transaction as partners with the investors.

#### Conclusion

Aligning the interests of agents and final investors has been a problem because conflicts exist between the goals of maximizing the value of CRO profits and protecting the wealth of other parties. The fiduciary responsibilities of CROs must be defined and enforced because history shows that they cannot simply be presumed. Widespread dissatisfaction with the performance of the CRO industry before and during the securitization crisis has not been accompanied by a consensus about how its activities should be reformed. By moving in uncoordinated directions, legislation in the US and EU threatens to undermine the efficiency of world credit markets. Authorities have yet to deal effectively with the root problems of improving the transparency of the ratings process and realigning the incentives of the CROs, issuers, regulators and investors. To diminish pressure for grade inflation, governments should remove ratings from all rules and regulations. This would encourage experts of all kinds to advise investors on the credit quality of securities and institutional portfolios. To the contrary, regulators in most countries have signaled a continued willingness to rely on CRO ratings in overseeing the institutions they supervise. Regulatory reliance on CRO ratings tempts CROs to inflate ratings and reduces incentives for regulators and regulated investors to conduct their own independent analyses.

Participants in the securitization process realize the need to restore confidence in the process. Trust can only be increased by establishing ground rules that improve transparency and establish better incentives. It is appropriate to allow the details of plans for doing this to be proposed by insiders who fully understand the ins and outs of the securitization process, but it is equally appropriate to insist that governments and other outsiders formally test insider plans

so as to identify and eliminate burdens they might impose on taxpayers and other unrepresented groups.

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