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What Can We Learn from Credit Markets?

Good morning. Thank you Justice Liu for your kind introduction. Thank you to everyone at the American Law Institute. I'm very grateful for this honor.

In 1897, Oliver Wendell Holmes said in *The Path of the Law* that "For the rational study of the law, the blackletter man may be the man of the present, but the man of the future is the man of statistics and the master of economics."ⁱ As Holmes predicted, economic analysis and quantitative methods are reshaping legal scholarship today.

My research uses economic analysis to explore how laws affect financial markets and how courts and regulators can use financial information to make legal and policy decisions.

Ideally, financial markets help solve a fundamental problem: namely how to coordinate billions of people's activities to increase the world's collective standard of living. Isolated individuals can barely feed, clothe and shelter themselves. On the other hand, a system that enables individuals to specialize can support a modern, sophisticated civilization.

Credit markets help coordinate activities by expanding the concept of reciprocity—"I will do something for you now if you do something for me in return later"—to vast numbers of unrelated people. Resources can be moved through time and space, collected and distributed seamlessly and efficiently.

Many of us came to this conference using transportation networks that were financed and built decades ago by people we have never met. I like to think of credit as "time travel for reciprocity."

Financial markets also serve another vitally important function—they allocate resources by enabling investors with different views and different pieces of information to vote on the likelihood that an investment will be profitable by putting their own resources at risk. Credit markets are three times as large as equity markets.ⁱⁱ

From the perspective of creditors, equity exists to absorb unpredictable risks so that credit functions predictably and smoothly. Like the hood of modern automobiles,

equity is there to crumple on impact so that creditors sitting in the passenger compartment remain safe.

Credit markets usually work well. However, there is a fundamental tension between credit markets' resource allocation function and market participants' goals.

What economists see as information asymmetries, business people view as proprietary information and a source of competitive advantage. What economists see as efficient competition, corporate strategists view as obstacles to profitability. I have spent much of my academic career exploring such tensions.

In the mid-2000s, bankruptcy reform advocates promised Congress that restricting Chapter 7 discharge of consumer debts would reduce the cost of credit to consumers. I found that the 2005 bankruptcy reforms reduced credit card companies' losses but did not lead to lower credit card prices for consumers.ⁱⁱⁱ Rather, credit card lenders earned higher profits. The credit card industry consolidated and used complicated contracts that made it difficult for consumers to shop for better prices and terms.

If the consumer credit market were perfectly competitive and efficient, one would expect legal changes that reduce losses to lenders to benefit consumers with lower prices or greater access to credit. But my research and the research of other scholars suggest that consumer credit markets may be less than perfectly competitive and efficient.^{iv}

In 2009, Congress responded by enacting the Card Act to simplify and make credit card pricing easier for consumers to understand.^v In 2010, Congress created the Consumer Financial Protection Bureau.

When the credit system does not work well, the ramifications are widely felt. Studying periodic financial crises can generate new insights and strengthen the credit system.

For instance, why did the mortgage system malfunction in the mid-2000s, financing massive quantities of housing that borrowers could not afford? I will limit my discussion to one aspect of the mortgage lending process.^{vi}

Most mortgages were originated by a different entity from the entity that held those mortgages as investments. Originators generally faced little risk if loans ultimately defaulted. Originators were also often thinly capitalized. Originators therefore had incentives to maximize volume while minimizing quality control costs.

Originators sold whole mortgages to securitizers, and securitizers then structured mortgages into vehicles for investors. Many securitizers had incentives to be cautious. Private label securitizers such as investment banks often retained the equity or first-loss tranche of securitizations. Another group of securitizers, the Government Sponsored Enterprises (or GSEs including Fannie Mae and Freddie Mac), guaranteed the mortgage pools, selling interest rate risk but retaining default risk.

Initially, the GSEs were virtually the only game in town. The GSEs restrained originators. If an originator provided too many faulty mortgages, the GSEs stopped buying from that originator.

But then the market structure changed. Originators consolidated. Private securitizers expanded their operations, competing with the GSEs for the supply of whole mortgages. Power shifted from the securitizers to the originators and riskier mortgages proliferated. The loans with the worst initial characteristics and worst ex-post performance were originated when securitizer power was at its lowest ebb relative to originators.

Yet throughout the mid-2000s, the largest and most powerful securitizers, the GSEs, continued to securitize safer, better performing loans than their smaller private competitors.

Many people find this surprising because the GSEs famously required large injections of capital during the government rescue of the financial services industry. GSEs required government capital infusions because they guaranteed such a huge volume of loans that even very low loss rates exhausted their equity.

An important implication of this analysis is that market structure influences the power of gatekeepers to regulate risk. We have all heard about “too big to fail.” But a system in which gatekeepers like securitizers are small and weak could pose greater dangers.

Another important question raised by the mortgage crisis is why mortgage losses wreaked so much havoc on financial institutions. Why didn't financial institutions have enough equity to absorb potential losses? In an efficient and transparent market, financial institutions' creditors should have realized how thinly capitalized financial institutions were relative to the risks they were taking, and insisted that the financial institutions either raise more equity or pay much higher interest rates to compensate creditors for the risk of loss.

In *Secret Liens and the Financial Crisis of 2008*, I explored financial institutions' use of opaque credit instruments to hide leverage and risk from investors and

regulators.^{vii} Financial Institutions thereby disabled the credit markets' self-regulatory mechanism and borrowed more for less.

For hundreds of years, creditors have been required to disclose their security interests so that other creditors do not over-estimate debtors' remaining borrowing capacity.

This centuries-old bargain has been undermined in recent decades by changes to bankruptcy and commercial law to accommodate new financial instruments such as bankruptcy safe harbors for derivatives. The new laws privileged non-transparent credit instruments. Greater transparency and disclosure could strengthen the self-regulatory capacity of credit markets, and help prevent future financial crises.

However, notwithstanding some high profile problems in the last decade, credit markets usually function extremely well. Studies have found that corporate credit markets generally do a better job than credit rating agencies or accounting-based financial ratios of assessing risks of default and credit losses.

The ability of credit markets to anticipate risk better than most bellwethers makes credit market data extremely useful for analyzing whether a corporate debtor was insolvent or adequately capitalized at a particular point in time.^{viii} Credit market data can be useful for solvency opinions in anticipation of leveraged buyouts and other leveraging transactions. Credit market data is also useful for litigation in areas such as constructive fraudulent transfer and fiduciary duties to creditors in the zone of insolvency.

Fraudulent transfer litigation has traditionally focused on discounted cash flow and comparable companies financial analyses. However, these metrics are easily manipulated and subjective. A measurement based on credit market data such as bond spreads and credit default swap spreads would be more objective, consistent, and predictable.

I developed an objective measure of capital adequacy based on bond and credit default swap spreads. Spreads, or the difference in yield between a corporate bond—which **carries** default risk—and a treasury bond—which does **not** carry default risk—largely reflect the corporate bond issuer's default risk. Bond yields cannot reflect hindsight bias because fixed income traders price bonds contemporaneously. In liquidly traded and well-informed credit markets, credit-spread-based measures can provide a contemporaneous assessment of credit risk that is updated on a daily basis.

Recent case law in the Third Circuit and the Southern District of New York including the *VFB* and *Iridium* cases support the use of market-based measures. However,

those cases used equity and bond prices relative to par—measures that can lead to incorrect results. Bond **prices** can reflect changes in interest rates rather than credit risk. Equity prices could reflect option value rather than risks to creditors. My credit-spread approach avoids these problems. I'm hopeful that courts will move in the direction I have suggested.

If credit market prices reflect useful information about risk and inform investors' choices, could a market-like mechanism be incorporated into public lending programs to help guide related private investment? My next project, *Risk-Based Student Loans* proposed using loan performance data such as default rates and loss severity to inform federal student loan pricing.^{ix} I proposed risk-adjusting interest rates according to field of study to encourage students and universities to prioritize fields that are most in demand in the labor market.

After I presented *Risk-Based Student Loans*, some readers asked whether law student loan interest rates should be increased because of poor employment prospects for law school graduates. However, I noticed that default rates for law school borrowers, even from low-ranked institutions, were much **lower** than overall student loan default rates. This suggested that law graduates were likely doing relatively well financially.

I investigated law degree earnings premiums in *The Economic Value of a Law Degree* with labor economist Frank McIntyre.^x Our findings suggested that a law degree boosts lifetime earnings far more than the costs of the degree for most students under most conditions. Our findings challenged popular narratives. But our findings were consistent with labor economics studies that find that education generally increases lifetime earnings.

The consistently high returns to education raised another important question. How can education be such a good investment? In an efficient market, unusually high returns attract a flood of investment that pushes down returns to ordinary levels.

One possible explanation is our tax system. My article *The Knowledge Tax* argued that our federal tax system disproportionately taxes labor income more than it taxes income from capital.^{xi} This places investments in education at a serious disadvantage and leads to inefficient under-investment in education.

Law depends on predictions about human behavior and how laws alter that behavior. These predictions will inevitably be imperfect. Therefore laws will have unexpected consequences. I believe that improvements in law require an iterative process that tests hypotheses using data. The results of these empirical studies refine our intuitions and enable us to refine our laws. Just as medicine advances by

studying the impact of treatments, we can use empirical methods to improve the law. We make mistakes, and we learn from those mistakes.

Today, Holmes' vision of a legal system informed by economic and statistical analysis continues to inspire a new generation of legal scholars.

Thank you very much. I look forward to your thoughts and questions.

ⁱ Justice Holmes, *Path of the Law*, 1 BOSTON L. SCHOOL MAG. 1, 11 (1896).

ⁱⁱ Susan Lund et al., McKinsey Global Institute, *Financial Globalization: Retreat or Reset?* Mar. 13, 2013 at 2.

ⁱⁱⁱ Michael Simkovic, *The Effect of BAPCPA on Credit Card Industry Profits and Prices*, 83 AM. BANKR. L.J. 1 (2009).

^{iv} Lawrence M. Ausubel, *The Failure of Competition in the Credit Card Market*, 81 AM. ECON. REV. 50 (1991); Susan Block-Lieb & Edward J. Janger, *The Myth of the Rational Borrower: Rationality, Behaviorism, and the Misguided 'Reform' of Bankruptcy Law*, 84 TEX. L. REV. 1481 (2006); Oren Bar-Gill, *Seduction by Plastic*, 98 NW. U. L. REV. 1373 (2003); Andra C. Ghent & Marianna Kudlyak, *Recourse and Residential Mortgage Default: Evidence from U.S. States*, 24 REV. FIN. STUD. 3139 (2011); RAJEEV DAROLIA & DUBRAVKA RITTER, *DO STUDENT LOAN BORROWERS OPPORTUNISTICALLY DEFAULT? EVIDENCE FROM BANKRUPTCY REFORM* (2015), <https://ideas.repec.org/p/fip/fedpwp/15-17.html>.

^v CAROLYN B. MOLONEY & CHARLES E. SCHUMER, *VICIOUS CYCLE: HOW UNFAIR CREDIT CARD PRACTICES ARE SQUEEZING CONSUMERS AND UNDERMINING THE RECOVERY* (2009).

^{vi} Michael Simkovic, *Competition and Crisis in Mortgage Securitization*, 88 IND. L.J. 213 (2013).

^{vii} Michael Simkovic, *Secret Liens and the Financial Crisis of 2008*, 83 AM. BANKR. L.J. 253 (2009).

^{viii} Michael Simkovic, *Making Fraudulent Transfer Law More Predictable*, in HANDBOOK ON BANKRUPTCY (Barry E. Adler ed., 2016).

^{ix} Michael Simkovic, *Risk-Based Student Loans*, 70 WASH. & LEE L. REV. 527 (2013).

^x Michael Simkovic & Frank McIntyre, *The Economic Value of a Law Degree*, 43 J. LEGAL STUD. 249 (2014).

^{xi} Michael Simkovic, *The Knowledge Tax*, 82 U. CHI. L. REV. 1981 (2015); Shu-Yi Oei, *Supply, Demand, and the Taxation of Knowledge: A Response to Professor Simkovic*, 83 U. CHI. L. REV. DIALOGUE 268 (2015); Michael Simkovic, *Taxes, Subsidies & Knowledge: A Reply to Professor Oei*, 83 U. CHI. L. REV. DIALOGUE (2016).