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Law and Macroeconomics: The Global Evolution of Macroprudential Regulation

Remarks by

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Good morning. I would like to thank Georgetown University Law Center and the conference organizers, Anna Gelpern and Adam Levitin, for the opportunity to speak to you.

I was particularly delighted to be asked to speak at today's conference because the topic is law and macroeconomics, a field that my experience has persuaded me is of the first importance, but ill understood, and surprisingly understudied. Now, this may at first blush sound like a beloved former president, venturing into a grocery store—"Golly, can you believe these scanners!?"—because the field of law and economics was already sturdily established when I was in law school back in the Coolidge Administration, and is now well over half a century old. It has been the source of some of the most innovative and influential legal scholarship over the lifetimes of everyone here, and in many ways the insights of the law and economics movement have become the default framework that policy makers and practitioners alike use when we think about the law conceptually, and often even at the level of granular application.

Yet, while we have called this law and economics, it would be more precise to call it law and *microeconomics*. Both law and microeconomics are centrally concerned with *incentives*—how are they constructed, how do they operate, how do legal or economic actors respond to them—and the interplay between these different ways to think about incentives has been a natural and fruitful focus of investigation in a broad range of legal studies: tort law, property law, criminal law, contract law, corporate law.

But both law and economics are also centrally concerned with *systems*, the performance and relationships of broad aggregates of laws or economic activity. Not merely how do individual actors react to changes in incentives, but how do large-scale

combinations of actors respond to changes in systems: how are legal or economic systems constructed, how do they operate, how do those systems constrain wide areas of human activity. The interplay between those two ways of thinking about systems would seem to be as natural and fruitful a focus of investigation as is law and microeconomics, but it is only just beginning to be thought of as a field in itself.

For a concrete example, think about the often observed fact that corporate profit margins have been increasing steadily over the last few decades. Law is likely to have been a significant element in this evolution, but not any individual law. Rather an entire system of laws—laws relating to corporate governance, corporate combinations, taxation, litigation, labor—have evolved over an extended period of time. And, under this theory, one outcome of this system—higher corporate profit margins—would likely give firms greater scope to increase wages without increasing prices, thus offering a potential explanation for the flattening of the Phillips curve, the traditional macroeconomic relationship between the unemployment rate and inflation. For a policymaker who accepted this theory, his comfort in maintaining a very low rate of unemployment could depend significantly on his understanding of that underlying legal system and his estimation of how its evolution would likely proceed in the future.

Thus, the formal union of law and macroeconomics should seek to examine the interplay between a legal system and macroeconomic outcomes, above and beyond the connections a particular law may have with its impact on human behavior. Scholars and policymakers have spent our time primarily thinking about the impact of single laws, but it is appropriate to focus more broadly, especially since we have in fact repeatedly sought over the past century to revamp our system of laws to improve macroeconomic outcomes.

Consider the roaring debate in the half-dozen years after the 1929 market crash that led to the establishment of the foundations of federal financial regulation in the United States. Laws creating the Federal Deposit Insurance Corporation and a federal deposit insurance and receivership framework, establishing the Securities and Exchange Commission, and greatly expanding the responsibilities and capabilities of the Federal Reserve System were very purposefully intended to help restore confidence in the U.S. financial system as a necessary condition to foster a recovery from the devastation of the Great Depression. In essence, we designed and implemented a new system of financial regulatory laws to alter macroeconomic outcomes, not only to affect individual behavior. The debate around those laws, in the 1930s, was not an academic one, because the pain and suffering of that era was evident—at the time Congress was debating the Banking Act of 1935, which established the modern framework for the federal bank regulation and supervision, the unemployment rate in the United States was still 20 percent.¹

I will leave to others the question of whether every detail of the laws passed in this period was equally effective, in the short or long term, in promoting macroeconomic stability. But we should recognize that rules to promote financial stability and a healthy economy have deep roots in the American legal tradition.

The Post-Crisis International Consensus

¹ Arguably, the history of law and macroeconomics has even deeper roots. Prior to the Banking Act of 1935, Congress had passed the National Bank Act of 1863 in response to the financial crisis that emerged during the early days of the American Civil War. Its purpose was to create a national banking system and establish a national currency. The following year, Congress passed the National Bank Act of 1864, which established the Office of the Comptroller of the Currency and gave the federal government the authority to supervise commercial banks. Some might even characterize the First and Second Banks of the United States as early efforts at law and macroeconomics.

Building upon that strong tradition, I would like to focus this morning's remarks on the role that law and macroeconomics has played since the financial crisis in promoting a more stable economy. I am, of course, referring to macroprudential financial regulation.

Let's rewind the tape. After many decades of remarkable financial stability in the United States since the 1930s, the focus of financial oversight had moved away from systemic risks. Prior to the financial crisis, the better part of our regulatory framework was *microprudential* in nature—individual laws geared toward mitigating the fallout from idiosyncratic shocks to firms. This framework was designed to protect investors and depositors, viewed negative shocks as not originating from the financial system, and did not take into account risks that might be shared by financial firms.² This is not to say that regulators did not understand the consequences of an interconnected system and the potential of contagion. For instance, the U.S. government, under the able leadership of Treasury Secretary Nicholas Brady, recognized and responded to the financial stability risks of the Latin American debt crisis of the 1980s. The United States had interests in stabilizing allies in Latin America, but a central part of the motivation was to contain potential risks to the U.S. economy.

The events of 2008–09 redefined our mission by more explicitly connecting macroeconomic and financial stability, as in the 1930s. Congress and the executive branch embraced a sweeping response, designing a system of laws to reflect a recognition that the cumulative, interconnected behavior of financial institutions had implications for

² See Claudio Borio, *Towards a Macroprudential Framework for Financial Supervision and Regulation?* Bank of International Settlements Working Papers No. 128 (Basel, Switzerland: BIS, February 2003), <https://www.bis.org/publ/work128.pdf>.

financial stability and that even the behavior of a single large and complex institution could have implications for financial stability. This new system was also adopted at the international level. Starting with the G20 summit in Washington, D.C., in November 2008, the global community established the runway for a structural change. The subsequent G20 summit in London led to the establishment of the Financial Stability Board (FSB), with a strengthened mandate as a successor to the Financial Stability Forum. Subsequently, including at the following summit in Pittsburgh, world leaders agreed that the supervision of individual financial institutions had to account for the financial system as a whole, and it was recognized that shocks could originate from within the system and could spread to institutions with common exposures. In other words, the supervisory framework had to be *macroprudential*—focusing on mitigating systemic risk and accounting for macroeconomic consequences.³ This reorientation was a defining part of the 2010 Dodd-Frank Act, and internationally, in the Basel III Accord.

Section 165 of the Dodd-Frank Act, in particular, requires the Board to implement heightened capital and liquidity standards, concentration limits, and stress testing—all to further the macroprudential purpose of preventing or mitigating risks to the financial stability of the United States. As I will discuss later, the Board has followed through with rules such as the G-SIB surcharge, the liquidity coverage ratio, and single-counterparty credit limits, just to name a few; and, importantly, we have used macroeconomic considerations in calibrating some of these rules.

An Evolving Regulatory Perspective

³ See Busch and van Rijn (2018), *supra*.

Now, let's fast forward to the present. Over a decade has passed since the migration began toward a renewed focus on macroprudential regulation. Our evolution did not stop with the Pittsburgh G20 summit in 2009. Indeed, global financial standard-setters have continued to adapt and learn as they implemented and updated regulations in line with the global consensus that was reflected in Basel III. I would like to highlight three important regulatory paradigm shifts that follow from this renewed focus on macroprudential regulation.

Taking Stock of the Entire Banking Sector

First, in line with the pivot away from microprudential regulation, we have a renewed focus not only on the health of individual financial firms but on the amount of capital in the entire banking sector. Note that the idea of improving the stability of the financial system by regulating *individual* bank capital has been around for decades. Global policymakers began construction of the modern risk-based, bank capital framework in the 1980s, when the aforementioned Latin American debt crisis increased concerns that the capital held by large international banks was deteriorating. Since then, regulators, such as the Board, have continued to have one eye focused on the capital held at individual firms. Now, over a decade after the crisis, exercises such as stress testing have caused us to have the other eye focused on and assessing the amount of capital in the entire banking system.

Considering Macroeconomic Outcomes in Calibrations and Impact Analyses

The second paradigm shift is that regulators have improved their methods of conducting quantitative analysis of regulations. Such analysis, including conventional – cost-benefit analysis, traditionally did not take macroeconomic variables like gross

domestic product (GDP) growth or the unemployment rate. That is no longer the case. Since regulators are given the task of maintaining the stability of the system as a whole, they must concern themselves with externalities and spillover effects to the broader economy. At the Federal Reserve, several regulatory initiatives have exemplified this change in quantitative analysis.

At the height of the financial crisis, the Federal Reserve created the first stress test, the Supervisory Capital Assessment Program (SCAP), to estimate potential losses at those banks, if economic and financial conditions worsened. Building on SCAP, the Federal Reserve moved to the current stress testing assessment—the Comprehensive Capital Analysis and Review (CCAR)—to evaluate whether the largest firms have sufficient capital to absorb potential losses and continue to lend under stressful conditions. In the CCAR process, the Federal Reserve simulates macroeconomic scenarios like a recession in which GDP falls and the unemployment rate rises significantly. In the 2019 stress test cycle, for example, we tested banks against a hypothetical global recession in which the unemployment rate in the United States rose to 10 percent.⁴ The stressed banks were required to show that they could continue to meet minimum capital requirements in the face of those hypothetical macroeconomic shocks.

Aside from CCAR, the FSB compiles an annual list of global systemically important banks (G-SIBs), which are subject to stricter capital requirements in the form of a capital surcharge. These banks must meet this higher capital standard based on the judgement that their potential failure would have a larger, systemwide impact on the

⁴ Board of Governors of the Federal Reserve System, *2019 Supervisory Scenarios for Annual Stress Tests Required under the Dodd-Frank Act Stress Testing Rules and the Capital Plan Rule* (Washington: Board of Governors, February 2019), <https://www.federalreserve.gov/newsevents/pressreleases/files/bcreg20190213a1.pdf>.

economy. The goal, therefore, is to reduce a G-SIB's probability of failure so that its expected impact on the economy would be the same as that of a non-G-SIB.

Similarly, to reduce the risks of interconnectedness and contagion, the United States and other jurisdictions have implemented rules that limit the exposure that one bank may have to a single counterparty.

Finally, research on optimal bank capital levels by staff at regulatory and supervisory bodies around the world have factored in macroeconomic costs and benefits. Specifically, these models assume that higher capital requirements would reduce the probability of a financial crisis occurring but would increase the cost of bank lending, thereby lowering GDP growth. Not surprisingly, these models have produced a wide range of capital estimates given the wide range of underlying assumptions.

Combating Pro-cyclicality

The third paradigm shift at the Fed is combatting pro-cyclicality. To be sure, none of the regulatory developments that I have discussed so far screams macroeconomics quite as loudly as a time-varying, discretionary regulatory regime the express goal of which is to fight pro-cyclicality. Cyclicity—in this case, fluctuations in the economy based on the business cycle—is a concept that is near and dear to every macroeconomist's heart. In fact, theoretical studies of economic cycles go back to the early 1800s, and the National Bureau of Economic Research's tracker of the U.S. business cycle dates economic contractions and expansions back to the 1850s. Quite impressive. There's also more than just a handful of volumes of articles and book chapters written on the business cycle and countercyclical fiscal policy.

In the context of macroprudential regulation, pro-cyclicality represents a problem because banks tend to build up excessive credit during an economic expansion. Limiting pro-cyclicality means limiting both the highs and lows of a credit cycle.

Along with many other jurisdictions, the United States adopted a countercyclical capital buffer (CCyB) to address the issue. The U.S. CCyB is a capital buffer that ranges from zero percent to 2.5 percent of covered institutions' risk-weighted assets. Domestic regulators have discretion to switch the CCyB on or off anywhere within that range in order to prevent or mitigate the overheating of credit markets under their jurisdiction. In setting the buffer, the Federal Reserve takes into account, among other things, leverage in the financial sector, leverage in the nonfinancial sector, maturity and liquidity transformation in the financial sector, and asset valuation pressures. Notably, the CCyB is not calibrated bank-by-bank and is not calibrated asset-class-by-asset-class. Rather, regulators set the buffer based on their perception of the aggregate domestic credit cycle, whether it's too hot, too cold, or just right. Under the Board's current policy, we would activate the CCyB based on "when systemic vulnerabilities are meaningfully above normal."

Based on this policy, the CCyB is currently set at zero percent in the United States but has been turned on in France, Hong Kong, Sweden, the United Kingdom, and Norway. It is worth noting that, in the United Kingdom, the CCyB is set equal to a positive level—1 percent—in *normal* times. As a result, their buffer can be adjusted upward or downward based on the perceived risks of the time-varying credit cycle. As I have recently said, I see real merit in exploring the U.K. approach as a tool to promote financial stability.

Conclusion

Let me conclude by offering a few thoughts on three research topics that fall squarely in the intersection of law and macroeconomics.

Central Bank Mandates

First, while international agreements such as Basel III demonstrate that the international regulatory community has agreed on the high-level systematic changes and developed similar perspectives following the crisis, national governments gave different regulatory powers—in both degree and scope—to their central banks in pursuit of the new post-crisis consensus.⁵ In the United States, Congress did not change the Federal Reserve’s dual mandate but did provide new responsibilities to promote financial stability. There was no change to the European Central Bank’s monetary policy mandate, but it received direct supervisory authority over some of the Eurozone’s largest banks through the Single Supervisory Mechanism and also continues to monitor financial sector risks. The Bank of Japan does not control Japan’s macroprudential toolkit but does play an active role in monitoring systemic risk. The Bank of England, on the other hand, was explicitly tasked with a new financial stability mandate, and it oversees macroprudential regulation.

In line with the debates over central bank independence and macroeconomic outcomes, legal scholars who engage in cutting-edge research on institutional design may have thoughts on which model leads to the best outcomes for financial stability.

Financial Stability Monitoring

⁵ See Ed Balls, James Howat, and Anna Stansbury, *Central Bank Independence Revisited: After the Financial Crisis, What Should a Model Central Bank Look Like?* Harvard Kennedy School M-RCBG Associate Working Paper No. 87 (Cambridge, MA: Harvard Kennedy School, 2018), https://www.hks.harvard.edu/sites/default/files/centers/mrcbg/files/67_central.bank.v.2.pdf.

Second, in addition to giving varying degrees of power to their central banks, national governments also created new bodies that promote financial stability, such as the FSB and the Financial Stability Oversight Council (FSOC), to monitor systemic risk and identify systemically important institutions and activities. For example, the main issues on the FSB agenda for this year were developments in financial technology, nonbank financial intermediation, and evaluation of too-big-to-fail reforms.⁶ In the same vein, the FSOC produces annual reports that highlight such threats and vulnerabilities, including news ones such as cybersecurity.⁷

Given today's audience, I very much look forward to hearing your thoughts on these issues, particularly suggestions on ways in which our legal framework can be used to mitigate these risks and the extent to which additional macroeconomic tools should be developed to monitor or address evolving risks.

Due Process

Third and finally, since I have spent a good part of this speech talking about issues that are near and dear to every economist, I feel like it is only fair for me to wrap up by discussing an issue of equal, if not greater, emotional import to lawyers: due process. Specifically, I'd like to close by talking about the due process considerations associated with the aforementioned macroprudential policies. There is nothing improper about mitigating negative externalities through regulation, and that is an important purpose of much post-crisis financial regulation. However, it is also well-accepted that

⁶ Randal K. Quarles, "The Financial Stability Board in 2019" (speech at the Joint Conference of the European Central Bank and the *Journal of Money, Credit, and Banking*, Frankfurt, Germany, March 2019), <https://www.federalreserve.gov/newsevents/speech/quarles20190328a.htm>.

⁷ See U.S Department of the Treasury, *Financial Stability Oversight Council Annual Report 2018* (Washington: U.S. Treasury, 2018), <https://home.treasury.gov/news/press-releases/sm578>.

due process requires the fair, evenhanded application of laws so that individuals are not at the mercy of the arbitrary exercise of government power.⁸ As I have alluded to throughout my remarks, we are currently placing a much greater regulatory burden on a select group of banks—the largest and most complex firms—because we believe their failures would bring down the entire financial system.

Some might argue that, during the financial crisis, we dispensed with due process considerations while conducting version 1.0 of the stress tests. This is why I have strongly pushed for the recent shift toward greater transparency around the structure of the stress tests and the models themselves. It affords greater due process to the affected participants.

In the same vein, I would welcome greater legal scholarship on the due process considerations associated with bank supervision as a process distinct from bank regulation. By bank supervision, I refer to the processes and activities identified with examining banks, including checking compliance with laws and regulations, assessing bank capital and liquidity levels, assigning supervisory ratings to banks, and taking formal and informal enforcement actions. While it is important for bank supervision to be up to the task of assessing the world's largest banks, especially in light of the financial stability risks that I have been describing today, an equally important task is making sure that supervisors are acting fairly. Although questions of fairness are routine in law and economics, there is ample room to explore these issues as they relate to bank supervision.

⁸ See Paul Tucker, *Unelected Power: The Quest for Legitimacy in Central Banking and the Regulatory State* (Princeton, NJ: Princeton University Press, 2018), <https://press.princeton.edu/titles/11240.html>.

While transparency and fairness are pillars of due process, I appreciate that there are other approaches worth considering on this matter. With this growing field of law and macroeconomics, I hope to see and implement many interdisciplinary solutions on the path forward.