Introduction

The Great Recession cost untold trillions in lost output. It roiled long-settled political orders in the United States and Europe and put tens of millions of people out of work. In many countries, anemic growth rates and high unemployment continue. And even in those countries where growth is more robust, macroeconomic policymakers worry about what will happen when the next recession strikes, because, although there is much agreement over the causes of the Great Recession, officials still lack the tools to reverse such a downturn when it next occurs.

The cause of the Great Recession, as macroeconomic policy institutions from the International Monetary Fund (IMF) to the Federal Reserve have concluded, was inadequate "aggregate demand." Private-sector spending collapsed in the wake of the financial crisis of 2008 and took nearly a decade to recover. With too much saving and too little spending, firms were unable to sell all the goods and services that they could produce, grinding the economy to a halt.

To stimulate aggregate demand, policymakers had at their disposal conventional macroeconomic instruments: monetary and fiscal policy. Despite good reasons to think that monetary policy would be ineffective, it became the primary response to the Great Recession. Central banks implemented aggressively expansionary monetary policy during the Great Recession, growing the money supply by previously unthinkable amounts in order to lower interest rates (Figure I.i). These policies likely prevented the Great Recession, triggered by the "the worst financial crisis in global history, including the Great Depression,"[1] from causing even more pain than it did.

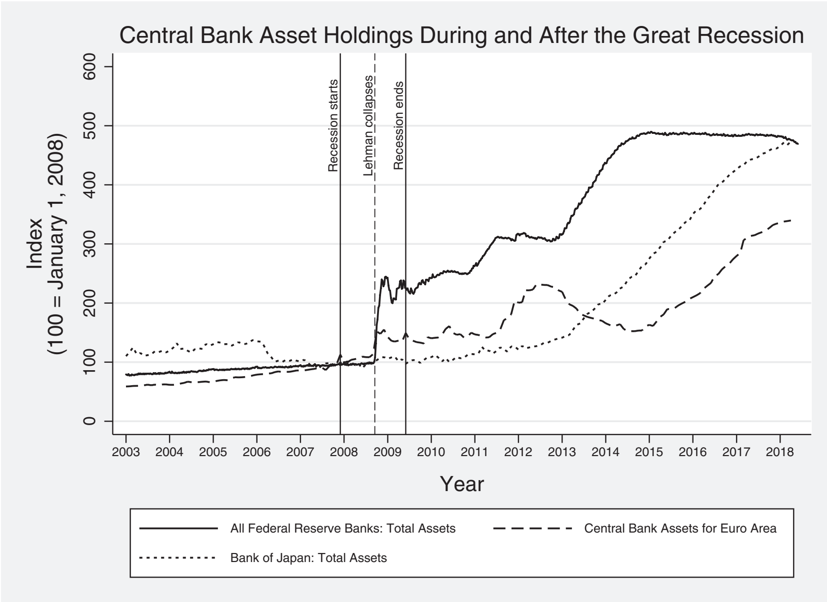

Figure I.1 After an extended period of remarkable stability before 2008, central bank assets exploded in response to the Great Recession.

Data Source: Board of Governors of the Federal Reserve System, "All Federal Reserve Banks: Total Assets" [WALCL], retrieved from FRED, Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/WALCL; European Central Bank, "Central Bank Assets for Euro Area (11–19 Countries)" [ECBASSETS], retrieved from FRED, Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/ECBASSETS; Bank of Japan, "Bank of Japan: Total Assets for Japan" [JPNASSETS], retrieved from FRED, Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/JPNASSETS; Bank of England, "Bank of England Balance Sheet—Total Assets in the United Kingdom" [BOEBSTAUKA], retrieved from FRED, Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/BOEBSTAUKA.

But the unprecedented monetary expansion raised continuing fears of financial market bubbles. And even this monetary "shock and awe" campaign failed to provide the needed stimulus to prevent the incalculable harms of the Great Recession. For many, this failure was no surprise. The "zero lower bound" on interest rates constrained the effectiveness of even the most aggressive monetary policy. Because interest rates can't go much below zero, only so much stimulus was available. As the *Economist* observed in late 2016, "Central banks have been doing their best to pep up demand. Now they need help."[2]

While monetary policy was vigorous, discretionary fiscal stimulus—passing new laws to increase government spending and decreasing taxes to stimulate aggregate demand—was, after an initial burst, left largely untested. Political gridlock at the federal level in the United States, constitutional debt restrictions in U.S. states and the European Union, and concerns about excessive government debt in many countries meant that discretionary fiscal stimulus never came close to compensating for the decreased demand prompted by the 2008 financial crisis. Indeed, many governments reduced public spending during the Great Recession, as unexpectedly low tax revenues led to belt tightening.

With monetary policy impotent and fiscal policy dormant, many of the world's economies face a pressing question: "Are we ready for the next recession?"[3] Grave uncertainty about the answer to this question is demonstrated by the previously implausible policy measures that are now under serious discussion. Policymakers such as Ben Bernanke, former chair of the U.S. Federal Reserve, and Mario Draghi, chair of the European Central Bank, have considered distributing "helicopter money," in which the central bank prints money and sends it directly to citizens, if economic conditions deteriorate in the future.[4] And in the Eurozone, the IMF has pushed for the creation of a "centralized" fiscal institution to "cushion economic shocks," advocating a fundamental expansion of the European Union's mandate for the sake of better macroeconomic policy.[5]

Law and the Great Recession

In this book, I propose a different macroeconomic policy tool: law. True, law is already implicated in fiscal and monetary policy. But too little attention is paid to the effects of law on macroeconomic policy's success and failure when short-term interest rates are constrained by the zero lower bound. I also will argue for the benefits of novel legal instruments—and novel uses of existing legal instruments—for stimulating aggregate demand when monetary policy is ineffective. I group these under the umbrella of "expansionary legal policy." And I bring law's focus on designing institutions, known as "institutional design," to bear on the preexisting macroeconomic tools of monetary and fiscal policy.

The Great Recession made law's effects on fiscal policy vivid. Recall, for instance, the tens of billions of dollars the U.S. Congress earmarked in 2009 for "shovel-ready" infrastructure projects. The goal was to quickly replace faltering private demand with government spending by enacting a new law. But laws, regulations, and bureaucracies stymied these efforts to spend quickly. Commenting on the U.S. government's failure to rapidly spend infrastructure appropriations, President Obama concluded, "There is no such thing as a shovel-ready project." Law—which, from now on, I will use as a shorthand for law, regulation, and administration—spurred investment directly via the passage of a fiscal stimulus package and then got in its way.

In addition to facilitating better fiscal or monetary policy, law also shifts demand without calling upon fiscal or monetary policy. For example, when a construction project is approved, construction spending increases, at least in the short term. A legal decision thus changes spending without any change in fiscal or monetary policy. On a much larger scale (almost $400 billion in 2015 in the United States), electric-utility regulation also affects aggregate demand.[6] If utility regulators approve a utility's rate increase, then utility consumers have fewer dollars to spend and utility investors have more. If utility consumers spend more of their money than investors do (almost certainly the case), then the utility regulator's decisions affect aggregate demand. Approving higher rates lowers spending, while keeping rates low raises spending. And just as utility regulation affects aggregate demand, so too will many other legal decisions.

I argue that, in limited circumstances, law should promote spending. If expansionary monetary policy is constrained by the zero lower bound on short-term interest rates and expansionary fiscal policy is constrained by constitutional limitations, political gridlock or fear of excessive government debt, then expansionary legal policy, such as utility regulation that keeps rates low in recessions and private debt forgiveness (via bankruptcy law), offers a third way for stimulating aggregate demand. I will discuss both of these options, and others, in detail.

Although law is not currently part of the U.S. macro toolkit, there is no reason it couldn't be. During the Great Depression, policymakers relied on legal instruments such as the National Recovery Administration, which regulated industry, and the Federal Housing Administration, which regulated the housing finance market, to stabilize the economy. Likewise, the post–World War II Bretton Woods regime of international macroeconomics was premised on legal controls restricting the movement of capital across borders. And during the inflation of the 1970s, the U.S. government responded with price controls. Although these legal interventions were not always successful, it is striking that we now assume they can never work and so never even consider legal policy options. We have abandoned what used to be integral tools of macro policy.[7]

In other policy areas, law and regulation often substitute for government spending and taxation; they aren't just tools to prevent malfeasance. Like fiscal policy, law mitigates harmful "externalities." For instance, carbon emissions can be abated using a carbon tax (fiscal policy) or by environmental regulation (law). When the Obama administration failed to pass a comprehensive statutory plan to limit emissions of carbon dioxide, it turned to aggressive regulatory action under the Clean Power Plan. And (again like fiscal policy) law provides public goods. The government can inspire economic growth by funding scientific research (fiscal policy) or by fostering profit potential through patent and copyright (law). If the goals of taxing and spending include stimulus at the zero lower bound, then so too should the goals of law, which is often a substitute for fiscal policy.

Just because law can promote or hinder spending and affect the business cycle does not mean it should always be used to do so. To evaluate expansionary or contractionary legal policy, we need to compare the pros and cons of using law for macroeconomic ends with those of alternative macro instruments, primarily monetary and fiscal policy. I find that law offers an unwieldy instrument of macroeconomic policy. As a result, we should consider expansionary legal policy only when monetary and fiscal stimuli are unavailable. Even then, regulators, judges, and administrators should stimulate aggregate demand only when they have the discretionary power to do so. They can't change the law to promote spending—they can only use the discretion the law already gives them to do so. Legislatures, by contrast, enjoy greater scope to pursue expansionary legal policy.

Unfortunately, limitations on effective monetary and fiscal policy may become all too common in the future. With interest rates languishing near historically low rates even after a prolonged period of expansion, recent papers estimate that the zero lower bound may constrain future attempts at monetary stimulus as often as 40 percent of the time.[8] In addition, constitutional debt restrictions, political gridlock, and fears about growing government debt burdens make expectations of decisive discretionary fiscal stimulus ever more unrealistic.

In comparing expansionary legal policy with monetary and fiscal policy, I bring together law and macroeconomics, augmenting the microeconomic perspective that has dominated my academic field of "law and economics" over the past half century. Law and economics has argued that law should be used to maximize the size of the microeconomic pie. But law and economics has ignored the effects of law on aggregate demand, leaving the prevention of recessions to monetary and fiscal policy. The desperate search for new macroeconomic policy tools indicates that this implicit assumption is not a reasonable one.

Law and Macroeconomics is intended for economic policymakers, economists, lawyers, and anyone interested in public policy. Economists and policymakers seeking new tools for stimulating slumping economies will hopefully find in law a promising macroeconomic policy instrument. Economists should also find new ways of examining the virtues and drawbacks of monetary and fiscal policy from an institutional design perspective. Lawyers may discover here a new baseline for evaluating laws and regulations: in addition to asking whether a law is just, fair, administrable, or microeconomically efficient, we should consider that law's effects on the macroeconomic environment. A legal decision that is right when the economy is healthy may well be wrong at the zero lower bound on interest rates. I will argue that the decision should come out differently because the macroeconomic context is different. Law and macroeconomics thus extend law to a pressing social problem that has recently been outside its scope—namely, the constraint imposed on stagnant economies by inadequate aggregate demand.

My discussion does not exhaust every link between law and macroeconomics. I do not discuss "law and finance" or "property rights and economic growth," which consider the effects of legal traditions and institutions on long-run macroeconomic outcomes such as gross domestic product (GDP) and stock-market valuations. These literatures are of fundamental importance. Like most of law and economics, however, these literatures focus on law's role in expanding an economy's productive capacity (its supply side) rather than spending (the demand side). In this book, by contrast, I focus on the demand side—specifically, how law can stimulate demand to mitigate recessions when monetary policy does not suffice.

I also do not emphasize financial regulation. No doubt, better regulations reduce the probability of financial crises, with long-lasting macroeconomic effects. But such regulation has been explored amply by lawyers and economists. In addition, even the best financial regulation is doomed to periodic failure. Carmen Reinhart and Kenneth Rogoff identified eight separate episodes of global banking crises between 1900 and 2008, suggesting that there may be no way to regulate our way out of such events.[9] In light of this history, law must offer responses once crises have struck in addition to trying to prevent crises through prophylactic regulation.

Indeed, there is no better time to ask more of law. The Great Recession's shadow falls over the global economy still, in the form of slower growth even in countries that have ostensibly recovered and exceptionally low interest rates across the industrialized world. With rates so low, there will be little space for monetary policy when the next downturn inevitably strikes. And the lack of a decisive fiscal response to the Great Recession demonstrated that fiscal policy is unreliable as a substitute for monetary policy. It is therefore crucial that we understand how law can be a more effective tool for easing downturns.

Plan of the Book

Part I examines monetary and fiscal policy from a legal perspective.

In Chapter 1, I provide an overview of Keynesian and new Keynesian macroeconomics for readers unfamiliar with this literature. In brief, I explain that temporary increases or decreases in spending alter output briefly but also induce changes in interest rates and, ultimately, prices. These changes in interest rates and prices gradually return the economy to its "natural" output level, determined by supply factors. (Readers interested in a simple formal economic treatment—the "IS-LM" model—of the topics discussed in this chapter and all future chapters should consult the Appendix.)

Chapter 2 examines fiscal policy when interest rates are well above zero. I explain why fiscal stimulus, obtained through lower taxes and higher spending, raises aggregate demand while fiscal contraction lowers it. "Discretionary" fiscal policy is enacted by legislatures and is generally viewed as an ineffective stabilization tool. In particular, the requirement for legislative action means that the government will move too slowly to offset most fluctuations in aggregate demand. I discuss the desirability of using "automatic" fiscal policy, in contrast with discretionary fiscal policy, to stabilize an economy in recession. With automatic fiscal policy, deficits increase quickly when incomes fall and shrink quickly when incomes rise, without need for legislative action and the political challenges that poses.

To conventional macroeconomic accounts of automatic fiscal policy, which focus only on government spending and income taxation, I add a third instrument of fiscal policy—"tax expenditures." These are government subsidies delivered through the tax code. An example of a tax expenditure is the charitable deduction in the U.S. income tax code, which reduces taxable income for each dollar a taxpayer gives to charity. The government has decided to subsidize charitable giving, so the giver faces a lower tax payment after giving to charity, even though the giver's income hasn't decreased. In 2016, U.S. tax expenditures were worth approximately $1.5 trillion, or 7.9 percent of GDP (more than nondefense discretionary spending).

Unlike the conventional tax and spending programs emphasized by macroeconomists, tax expenditures tend to be automatically destabilizing. A good example of the automatic destabilizing effects of tax expenditures is the (now limited) deductibility of U.S. state income taxes from federal taxable income for the purposes of calculating federal income tax liability. This tax expenditure provides an effective federal government subsidy to taxpayers for paying state income taxes and (indirectly) to the government spending funded by state income taxes. An extra dollar of state spending financed by state income tax requires state residents to give up less than one dollar of after-tax income because the dollar paid in state taxes is deductible from federal income.

State income tax liabilities go up when income rises in booms (lowering deficits) and go down in recessions (increasing deficits). The state income tax therefore automatically stabilizes the economy, as observed by macroeconomists. But the tax expenditure for state income taxes—the federal subsidy for making tax payments to states—destabilizes the economy. If state income tax payments rise in booms and falls in recessions, then the effective federal subsidy through the tax expenditure also rises in booms and falls in recessions. This destabilizes the economy by reducing a government subsidy in a recession and increasing the subsidy when incomes are high.

The destabilizing effect of the deductibility of state income tax payments from federal taxes and other similar tax expenditures is quantitatively important. Recent empirical estimates suggest that tax expenditures reduce the stabilizing properties of the U.S. income tax code dramatically.[10] But these destabilizing effects of tax expenditures have gone unexamined by macroeconomists, who do not study alternative forms of fiscal policy like tax expenditures. Given the destabilizing properties of tax expenditures, we need to either reduce our reliance on them or pass laws limiting their destabilizing properties. I conclude Chapter 2 by describing the destabilizing properties of other important but neglected instruments of fiscal policy, such as matching grants and some government insurance programs.

Chapter 3 examines monetary policy when interest rates are well above zero. Expansionary monetary policy stimulates spending by making money abundant and lowering interest rates, while contractionary policy inhibits spending by raising interest rates. All Western democracies delegate authority over monetary policy to independent and expert central banks.

Monetary policy offers a powerful tool for mitigating the economic effects of shifts in aggregate demand. But Chapter 3 observes that many jurisdictions do not retain control over monetary policy. Individual U.S. states and member nations of the Eurozone forgo the benefits of monetary policy to facilitate trade and political integration. In Chapter 3, I ask why any jurisdiction would give up such a powerful macroeconomic tool, described as the "only [macroeconomic] game in town" in the title of one recent book on macroeconomics.[11] I explain that the "impossible trinity" of international macroeconomics offers governments a stark choice. They can either promote trade through shared or fixed currencies, or they can promote macroeconomic stability by retaining control over monetary policy, but not both.

This remains true unless the jurisdiction chooses to enact capital controls—the third prong of the impossible trinity. With capital controls, jurisdictions pass laws to impede the movement of capital across borders, going so far as to deny the enforcement of an otherwise valid contract when enforcement would enable a violation of another country's capital control regime. Capital controls complicate law but allow jurisdictions to get the trade-promoting benefits of fixed exchange rates without relinquishing control over monetary policy. Using capital controls to enable stable exchange rates and monetary flexibility is a perfect example of the possibilities opened by law and macroeconomics—by asking more of law, regimes with capital controls, such as the Bretton Woods regime of 1944–1971, enable better macroeconomic outcomes.

In Chapter 3, I also compare monetary and fiscal policy as tools for macroeconomic policy. I explain why economists favor monetary policy over discretionary fiscal policy for stimulating and inhibiting economies when interest rates are well above zero. According to this conventional wisdom, monetary policy is effective because it is implemented by an expert and nimble central bank that is able to respond effectively to fluctuations in demand. Fiscal policy, by contrast, requires a slow-making legislative body populated by politicians to respond to rapid aggregate demand fluctuations. When monetary policy is not an option, however, fiscal policy remains the primary macroeconomic policy tool.

Chapter 4 emphasizes the onerous costs of liquidity traps, in which short-term interest rates are constrained by the zero lower bound. In a liquidity trap, spending falls short of the economy's capacity to produce. But a fall in interest rates cannot quickly return the economy to its natural level of output because interest rates cannot go (much) below zero. Without a fall in interest rates to induce borrowers to spend excess savings, output falls below capacity and unemployment rises.

Because output is not constrained by capacity at the zero lower bound, economic policies that increase capacity do not raise output. Instead, a lack of demand constrains output. Policies that increase aggregate demand therefore increase output in a liquidity trap.

The Great Recession was itself a liquidity trap, with short-term interest rates stuck at zero for more than five years. The costs of the Great Recession exceeded almost all predictions. Not only was there a pronounced plunge in short-run output, but long-term growth rates, too, appear to be down. This problem is known as *hysteresis,* whereby a short-term slump leads to a long-term decline in the economy's growth rate. The simplest example of hysteresis comes from the labor market. Long-term unemployment causes skills to deteriorate; after people have been unemployed for a year or longer, the chance they will ever work again drops dramatically. Thus, a short-term deterioration in the economy can have long-term negative effects.

What is more, the effects of liquidity traps are not confined to the labor market. Because the costs are shared unevenly—the unemployed suffer grievously, but most workers lose relatively little—liquidity traps can foster political upheaval. Sluggish economies offer fertile ground for politicians seeking to overturn established political and economic orders, even if these are more productive than their proposed replacements.[12] In the United Kingdom, angry voters chose Brexit, rejecting Britain's long-standing (and mutually beneficial) economic integration with the European Union. In the United States, angry voters elected Donald Trump to the presidency, even though Trump promoted economic and social policies, such as trade protectionism, that rejected both bipartisan orthodoxies and conventional economic wisdom. Although the Great Recession is not the only cause of these political upheavals, it almost certainly made them more likely. Given the possible losses from such popular surges of anger, the politically driven costs of liquidity traps can dwarf even their direct multitrillion-dollar effects.

The liquidity trap is not the only plausible account of the Great Recession and other prolonged recessions and depressions. Chapter 5 also presents two other accounts. Like the liquidity trap, the "secular stagnation" view emphasizes the problem of the zero lower bound on interest rates. But the secular stagnation view emphasizes the possibility of inadequate aggregate demand persisting for a generation—longer than most macroeconomists think liquidity traps should last. The "debt supercycle" account of the Great Recession emphasizes the role of insolvent borrowers and an insolvent financial sector in perpetuating, as well as triggering, a slump in aggregate demand. I argue that the correct account of the Great Recession has relatively small implications for expansionary legal policy because, under each account, the problem is inadequate aggregate demand that can be addressed by legal intervention, among other policies. As a result, I use the term "zero lower bound" or "liquidity trap" as a synonym for prolonged recessions even though some macroeconomists prefer to emphasize other causes of the worst recessions.

Because liquidity traps are so dangerous, macroeconomic policymakers try hard to avoid them—and to exit them quickly once they begin. In Chapter 5, I examine how well monetary and fiscal policy mitigate liquidity traps. I find both deeply flawed.

Monetary policy's primary stimulus instrument—lowering interest rates to stimulate borrowing for investment and consumption—becomes impotent in a liquidity trap. Interest rates cannot go (much) below zero because negative interest rates would cause people to dump financial assets for cash, which yields a zero interest rate. As a result, macroeconomic policy options at the zero lower bound are limited to "unconventional monetary policy" and expansionary fiscal policy. Unconventional monetary policies were widely and aggressively deployed during the Great Recession, but they proved insufficient in stimulating aggregate demand. Such policies also give unprecedented power to central banks, as emphasized by Paul Tucker in an important 2018 work.[13] Indeed, the unconventional monetary policies of the European Central Bank violated the simplest interpretation of the Maastricht Treaty that created the Eurozone. (The European Court of Justice ultimately permitted the policies, using a strained interpretation of the law that I critique but ultimately support.) If unconventional monetary policy backfires—and the risks will always be great—then the closely guarded and invaluable independence and power of central banks will be at risk. To avoid turning to such controversial policies in the future, policymakers should look for alternatives.

As for expansionary fiscal stimulus—both automatic and discretionary—many empirical and theoretical papers have demonstrated its effectiveness in response to the Great Recession. But the mere fact that expansionary fiscal policy can be effective in a liquidity trap does not remedy fiscal policy's inherent institutional flaws. Automatic fiscal policy boosts demand—government deficits reached unprecedented heights in many nations from 2009 to 2015 but not enough to counter a slump the size of the Great Recession. Discretionary fiscal expansion can be more aggressive and tailored to the size of the slump, but discretionary fiscal policy is subject to constitutional restrictions, the whims of legislators, and fears that government debt will undermine economic growth and social stability. Indeed, after an initial round of discretionary fiscal stimulus in the immediate aftermath of the financial crisis, most industrialized nations turned toward austerity to reduce deficits and debt burdens, in spite of considerable evidence that fiscal stimulus was effective at stimulating the economy.

Macroeconomic policy failed to mitigate the Great Recession. In this context, it is not surprising that some advocate the use of radical policies such as helicopter money in future liquidity traps. With this policy vacuum in the background, Chapter 6 considers institutional reforms to improve fiscal policymaking. I argue that simply teaching lawyers—the professional class from which politicians typically emerge—some macroeconomics will help to ensure that states enact appropriate fiscal policy. We cannot be surprised if, having never learned about the urgency of fiscal stimulus at the zero lower bound, legislators do not spring into action when interest rates are zero.

I also support the abolition of constitutional deficit restrictions. Instead of requiring that budgets be balanced each year, I argue that jurisdictions should consider cyclically adjusted deficit restrictions. These require zero deficits when economies are operating at capacity. But when unemployment and output plunge, deficit spending should be allowed. These deficits should be balanced by surpluses run in boom years. I also advocate rule-based instruments of fiscal stabilization. Governments should pass laws mandating that if interest rates are zero and unemployment rates high, tax rates should be lower and government spending higher. Finally, I consider the creation of an independent agency for fiscal stabilization policy—the fiscal equivalent of a central bank. Although I am open to the idea in principle, I am skeptical that such an agency will ever attain democratic legitimacy because fiscal policy is viewed as more integral to government than monetary policy. More plausibly, I propose a fiscal policy–coordinating office within government. This office would ensure that consistent and sensible attention gets paid to macroeconomics at times when the macroeconomic implications of decisions loom large. In many countries, analogous offices like the Office of Information and Regulatory Affairs (OIRA) in the United States ensure that diverse government actors apply consistent standards to questions of microeconomic policy. A similar office for macroeconomic affairs would facilitate fiscal stimulus without threatening democratic legitimacy.

Concluding Part I, Chapter 7 identifies overlooked opportunities for regulatory fiscal stimulus. Tax collection agencies, such as the Internal Revenue Service (IRS) in the United States, implicitly make fiscal policy. When the IRS interprets the income tax code in a way that lowers tax revenues, it stimulates aggregate demand. At the zero lower bound, the IRS should exercise its policy discretion in favor of rulings that stimulate the economy by lowering tax collections. Other government agencies also play an important role in public spending. If an agency implements a spending program with unconstrained funding (such as Medicaid or Medicare) more aggressively, then demand will be stimulated. Because fiscal stimulus is extraordinarily valuable at the zero lower bound, agencies should favor more aggressive spending than they do in ordinary times.

Chapter 7 also discusses limiting principles for stimulus attempts by regulatory agencies. First, agencies should stimulate the economy only within the bounds of their preexisting discretion. They cannot violate laws in pursuing stimulus, only use their preexisting discretion. Second, regulatory fiscal stimulus needs coordination. By establishing an office of fiscal policy oversight, government ensures that agencies use sensible and consistent standards as they attempt to stimulate the economy.

Fiscal stimulus at the zero lower bound enjoys broad support from economists, even though using fiscal policy for macroeconomic purposes complicates fiscal policy's other ends—provision of "public goods" like education and redistribution from rich to poor in pursuit of a more just society. The consensus in favor of expansionary fiscal policy at the zero lower bound indicates that we should tolerate policies that may not be ideal from a microeconomic public finance perspective in order to mitigate macroeconomic inefficiencies.

If this consensus applies to fiscal policy, then we should consider something similar with respect to law. Like fiscal policy, law concerns the allocation and redistribution of goods and services in pursuit of a more just society. If we are willing to sacrifice some fiscal policy goals in order to improve macroeconomic policy, then we should at least consider sacrificing some traditional legal goals to achieve the same end.

Whereas Part I offers a legal and institutional analysis of the traditional tools of macroeconomic policy, Part II examines the macroeconomic effects of law. I focus on several examples, including the debate over the approval of the Keystone oil pipeline, the regulatory agencies of the early New Deal, and the price controls imposed by Congress and President Nixon in 1971.

Chapter 8 concerns the long-running regulatory debate over Keystone. I show how different the debate would have been had politicians and regulators accounted for macroeconomic conditions. Proposed in 2009, construction on the Keystone pipeline was prohibited by the Obama State Department on the grounds that it was not in the "national interest." Republican politicians claimed that approval for Keystone would create jobs—one element of the national-interest standard—but President Obama responded, "There is no evidence that that's true."[14] Neither party was correct. Both claims depended on the state of the business cycle, yet they were stated as immutable truths.

The construction process would have directly employed over 42,000 workers. In an economy producing at its capacity (as it was when Keystone received approval from the Trump administration in 2017), these jobs would have mattered little for unemployment, because Keystone's construction workers would probably be working in other jobs. However, when the State Department delayed the project in 2010–2011 and rejected it in 2013, the economy was producing below capacity. Demand constrained output, and monetary policy could not stimulate aggregate demand because of the zero lower bound. Increased aggregate demand would have increased employment. If Keystone had been approved in 2011, then its construction would have put underemployed labor and capital to work without requiring government spending. Law—in the form of regulatory approval for Keystone—would not merely have shuffled spending from one source to another: it would have expanded output. U.S. unemployment would have decreased in the short run and, if hysteresis effects were avoided, in the long run as well. Keystone may not have been in the national interest for other reasons, even in 2011, but the State Department was remiss in not considering macroeconomic effects in its evaluation.

While a macroeconomic perspective of law may have been economically beneficial had it been applied to Keystone, there also may have been drawbacks. I explore costs and complications in Chapter 9. Keystone is a case where prioritizing the macroeconomic goals of law entails sacrificing other such goals, specifically environmental protection. Adding factors to legal decisions also makes law more complicated: it is hard to know how the State Department should balance the promise of more aggregate demand at the zero lower bound with other considerations of national interest.

However, these costs and complications, though considerable, should not be exaggerated. In the case of Keystone, expansionary legal policy should not be equated with lower environmental standards. Approval for the pipeline could have been conditioned on attaining a more stringent pipeline safety level, the additional costs of which would also have boosted spending. Furthermore, the incremental costs of more complicated decision-making look marginal when the regulator is already applying an open-ended standard such as the "national interest." It is not as though adding macro to the policy mix complicates what would otherwise be straightforward regulatory analysis.

Still, other institutional weaknesses make law a clunky instrument of macro policy. As noted, regulators, administrators, and politicians lack macroeconomic expertise. They may therefore misjudge the state of the business cycle, favoring job creation even when stimulus is not indicated, as when Keystone was approved by the Trump administration in 2017. In addition, many projects requiring legal approval are implemented after long time lags, complicating law's utility for macro policy. Finally, if law is to vary with the business cycle, opportunistic judges and litigants may be able to justify wrongheaded policies on macroeconomic grounds.

These are valid concerns, but they counsel restraint in the use of law for macro ends—not maintenance of the monetary- and fiscal-policy status quo. We should turn to law only when other options are constrained.

The case for legal stimulus is strongest when short-term interest rates are at or very near zero, for four reasons. First, monetary policy is ineffective at the zero lower bound. Second, historically, zero interest rates provide a strong signal of inadequate aggregate demand. Third, periods of inadequate demand associated with zero interest rates tend to be long-lasting, reducing concern about the slow implementation of many legal policies. Finally, zero short-term interest rates are easily observed even by nonexperts. Legislatures, regulators, and judges should therefore strongly consider expansionary legal policy at the zero lower bound.

It is essential that we plan for the zero lower bound. The latest research predicts that U.S. monetary policy will be constrained by the zero lower bound as often as 40 percent of the time in the future.[15] Interest rates in the United States are also higher than they are in most other industrialized countries, suggesting that the zero lower bound will frequently constrain monetary policy in most developed countries, as it has in Japan for most of the last thirty years.

The zero lower bound is not the only appropriate context for expansionary legal policy. Under the "debt supercycle" theory of deep recessions, expansionary legal policy can substitute for a broken credit system in bringing economies with broken financial sectors back to health. Expansionary legal policy offers a remedy for the deep recessions that follow financial crises and the bursting of asset bubbles—even if short-term interest rates exceed zero. In addition, expansionary legal policy offers options to depressed jurisdictions that lack control over monetary policy in a currency union. If, reflecting healthy economies in other parts of the currency union, monetary policy in a depressed jurisdiction is inappropriately tight, then expansionary legal policy offers an alternative stimulus instrument.

In any of these three contexts, expansionary legal policy should be considered. But macroeconomic considerations should dictate legal decisions only when the decision will clearly increase spending and when the macroeconomically desirable legal ruling entails less sacrifice of other legal goals, such as equity. Expansionary legal policy is thus best suited to legal decisions where the merits would be in equipoise, excluding macroeconomic factors and when one outcome clearly raises spending relative to the other outcome.

Even judicious use of expansionary legal policy will incur significant costs, but they are worth paying because the damage of sustained downturns is so great. It is worth making a sacrifice in order to mitigate liquidity traps and the deep recessions that follow financial crises. Indeed, policymakers make much the same choice when they apply fiscal stimulus in these contexts—overspending, by typical standards, in hopes of jump-starting a moribund economy. We need to think of law as another flawed macro policy tool with different institutional strengths and weaknesses than monetary and fiscal policy. At times, law may be the best tool we have for stimulating the economy, even if we wish there were better alternatives.

In Chapter 10, I turn to prominent historical examples of the use of law for macroeconomic ends. The early New Deal response to the Great Depression in the United States relied heavily on law, rather than fiscal policy, to stimulate a depressed economy. (Monetary policy, in the form of ending the gold standard, was also a factor.) Indeed, Keynes himself criticized the laws passed during President Franklin Delano Roosevelt's first hundred days for their emphasis on regulation over fiscal stimulus. The signature policy of FDR's famed "hundred days" was the National Industrial Recovery Act (NIRA)—and not the end of the gold standard. The NIRA created a regulatory agency charged with increasing spending by eliminating expectations of deflation by allowing business and workers to collude to increase prices. (With deflation, a zero nominal interest rate associated with holding cash translates into positive "real" returns, as cash buys more goods in a year from now than it does now. Ending deflation thus lowers the real return—measured in goods—from holding cash, encouraging spending.) Although NIRA was ultimately ruled unconstitutional by the U.S. Supreme Court, an end to deflation followed NIRA's passage and initial implementation.

Although it was not guided by sophisticated macroeconomic theory, the early New Deal experiment in using law for macro ends was a qualified success. The U.S. economy performed very well from 1933 to 1937.The recession of 1937–1938, which brought an end to this period of growth and prolonged the Great Depression, was caused by fiscal contraction and tight monetary policy, not a failure of expansionary legal policy. If expansionary legal policy focused more explicitly on stimulating private spending directly rather than working through the price channel, then we should expect it to be even more effective in the future.

The United States again turned to law during its next bout of macroeconomic instability—the Great Inflation of the 1970s. To curb inflation, Congress authorized and President Nixon imposed price controls implemented by an administrative agency. The plan worked in the short run but ultimately failed, leading to queues at gas stations and grocery stores without controlling inflation. I argue that, in this case, the unique institutional costs of legal policy loomed large. Price controls imposed extreme, rather than marginal, microeconomic harms on the economy. Mitigating these costs demanded impossible levels of economic expertise and information. It is also important to keep in mind that price controls were imposed for political as much as economic reasons, at a time when other macro policy options, such as contractionary monetary policy, were available.

Like other macro tools, though, even price controls have their place. Here my example is Greece. I argue that, in the course of a disastrous recession ongoing since 2010, Greece should have imposed a uniform mandatory deflation of 10 percent on all prices and most debt contracts.[16] The best option for mitigating Greece's depression would have been to devalue its currency. Doing so would have made Greek labor more internationally competitive by making Greek goods and services cheaper relative to the costs of similar products produced in nearby countries. As a member of the Eurozone, however, Greece was unable to devalue its currency, so, instead, Greek wages and other prices needed to fall in absolute terms. As Milton Friedman predicted, this internal price adjustment imposes much higher costs in terms of unemployment and lost output than a currency devaluation. I argue that to mitigate these costs, Greece should have designed a package of price controls and other legal measures to mimic a currency devaluation.

In Chapter 12, I offer specific examples of expansionary legal policy. Each example meaningfully stimulates spending, lies within the domains of regulators or judges, and can be implemented without unreasonable time lags.

I first explore public-utility regulation as an instrument of expansionary legal policy. Many utilities are natural monopolies, and government administrators regulate their prices. At present, public-utility rate regulation ignores the business cycle. Instead, regulators are directed to keep prices as low as possible, consistent with ensuring utilities a market rate of return on capital. But the guaranteed-return standard has a perverse effect, leading to higher prices in downturns and lower prices in booms. This is because many of a utility's costs—such as those of building and maintaining power plants and distribution networks—are fixed. When demand drops in a downturn, the utility sells less output to offset its high fixed costs and therefore needs to raise prices to earn its required return on capital. In a boom, by contrast, the utility offsets fixed costs over more output, allowing it to charge lower prices and still earn a market rate of return.

Not only does this sort of regulation end up straining consumers in hard times, but it also has deleterious effects on aggregate demand. At the zero lower bound, consumers struggle with shrunken incomes. Meanwhile, utilities hold onto capital rather than spend it on investments in production for which there is less demand. Thus, when regulators approve higher prices to offset lost demand in downturns, aggregate demand goes down because consumers reduce their spending by more than the utility company and its shareholders increase their spending.

I argue that utility regulators therefore should reject rate increases at the zero lower bound and instead push for lower utility rates. Utility regulators should also evaluate the utility's capital investment plans. The more the utility plans to invest, the more receptive regulators should be to rate increases. Either declining utility rates or increases in utility investment will raise aggregate demand—just what is needed to raise output and employment at the zero lower bound.

Utility regulators cannot simply insist on lower rates in downturns. To provide an adequate return on capital and ensure continued investment in regulated utilities, regulators need to allow higher prices and returns when interest and unemployment rates are normal. Indeed, the average return on utility stocks would need to increase because it will be more correlated with the rest of the market. In effect, countercyclical utility regulation moves business-cycle risks from utility consumers to utility investors.

Next, I turn to a legal policy tool that goes back at least to the time of Hammurabi: the use of debt modification during economic contractions. Debt forgiveness or modification stimulates aggregate demand because debtors and creditors have different propensities to spend. Debtors spend—that's why they are debtors—and creditors save. If the economy is suffering from a spending shortage, then a transfer from debtors to creditors raises spending and stimulates the economy. Some, such as Atif Mian and Amir Sufi, have argued that, in the wake of the Great Recession, the United States and other countries needed a range of new debt forgiveness statutes.[17] I focus on debt forgiveness policies that do not require additional legislative action, arguing that existing bankruptcy laws provide considerable scope for the type of debt restructuring that is needed.

Bankruptcy attempts to balance debtors' needs for a fresh start with creditors' claims to repayment. The balance is difficult to define and therefore involves a fair amount of discretion. For example, federal student loans are not typically eligible for discharge but may be if the borrower can demonstrate that repayment will cause "undue hardship." I argue that, at the zero lower bound, judges should exercise the discretion granted them to offer more debt forgiveness than they would in ordinary times. A time-varying standard of undue hardship is realistic—it is harder for debtors to repay when unemployment is high and incomes are low. Macroeconomic conditions also tell us when the social goals of a fresh start are especially important. At the zero lower bound, the spending triggered by relief of student debt would benefit the debtor and the surrounding community. Debt forgiveness can harm private credit markets, but this is of less concern when the government is the lender or the guarantor. In such cases, a bankruptcy discharge operates as fiscal policy channeled through the legal system.

But judges need not limit themselves to discharging government-owned debt. Bankruptcy procedures for discharging private debts offer further opportunities for expansionary legal policy. Judges exercise considerable discretion in all aspects of bankruptcy. Indeed, research shows that the amount of debt relief granted in any given case varies considerably depending on the identity of the judge hearing the case.[18] If bankruptcy judges exercised their discretion by discharging more debt at the zero lower bound than at other points of the business cycle, then they could stimulate aggregate demand without dramatically disrupting the market for credit.

Finally, I emphasize the importance of judicial remedies for stimulating aggregate demand. Judges don't simply vindicate legal rights—deciding who wins and who loses a case. They also fashion remedies—how the winner's interest is protected. These remedial choices have important implications for aggregate demand. Consider a case in which residents challenge a proposed construction project in their neighborhood, arguing under tort law that the development interferes with their right to "quiet enjoyment" of their property. Let us assume that the neighbors are right under the law. What remedy should the court apply? Should the court issue an injunction, preventing the developer from building until the neighbors agree to a revised proposal, or should the court allow the development to go forward and then require the developer to compensate the neighbors with damages for the harm caused?

I argue that, at the zero lower bound, courts should favor the damages remedy. In that case, the builder still builds, spending on workers and capital, some of which would otherwise lie idle. Under the injunction, by contrast, the builder needs to secure permission from all of the neighbors to go ahead. At the very least, securing permission delays the project at a time when alternative opportunities for labor and capital are scarce. And unless the builder is a skilled negotiator, there is a good chance the injunction will prevent construction indefinitely.

The damages remedy thus increases aggregate demand relative to the injunction. At any given time, many proposed spending projects are subject to litigation. In these cases, favoring damage remedies over injunctions at the zero lower bound would promote aggregate demand, while ensuring that plaintiffs' rights remain protected.

Utility regulation, bankruptcy law, and the law of remedies are hardly the only examples of expansionary legal policy. Other areas of law have important implications for macroeconomics. Unfortunately, I am unable to cover all of them in one book. By providing a few salient examples of expansionary legal policy, I hope to trigger the development of other legal tools to mitigate downturns.

Even if the reader doesn't think expansionary legal policy is worth the candle, then I at least hope that law and macroeconomics offers a different and fruitful perspective on law, monetary policy, and fiscal policy. In short, I hope that when the next Great Recession strikes, law will be ready.