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“Law and Macroeconomics”

by

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Note: It is expected that you will have reviewed the speaker’s paper before the Seminar.

Law and Macroeconomics

Abstract:

Law and economics is mislabeled. We should call it law and microeconomics. Scholars have aimed the tools of microeconomics-- price theory, game theory, and applied microeconometrics-- at practically every area of law. But macroeconomics—the study of fluctuations in aggregate economic activity-- has played no part in the economic analysis of law.

The Great Recession-- with an (unequally shared) cumulative loss of output of \$6 trillion to \$30 trillion in the United States (and multi-trillion dollar effects elsewhere, such as the Euro Zone)-- means that blissful ignorance between law and macroeconomics is no longer tenable. Lawyers and economists need to recognize that law has macroeconomic as well as microeconomic effects.

In this book, I explore the intersection of law and macroeconomics. In the Keynesian perspective that I adopt here, recessions and depressions are caused by inadequate “aggregate demand” (ie. Desire to buy things). Booms are caused by excess aggregate demand. Laws of all types affect aggregate demand. When the law, directly or indirectly, encourages consumption or investment, then it increases aggregate demand. When the law restricts consumption or investment, it hinders aggregate demand.

Both lawyers and economists will gain from law and macroeconomics. Lawyers gain a new perspective for evaluating our collective undertaking. If a particular law or policy is lightly favored on traditional metrics of microeconomic efficiency, equity, morality, and any other relevant considerations, but is a disaster from a macroeconomic perspective, then we might decide that, on balance, the law is not worth having because of its pernicious macroeconomic effects. As I’ve argued elsewhere, for example, tax expenditures exacerbate business cycles, making them much less attractive policy instruments when we consider macroeconomics. Or we might decide that a policy is worthwhile in some states of the business cycle but not in others. In recessions, for example, legal rules that favor parties with a high marginal propensity to consume are preferred to rules that favor parties with a greater tendency to save. And even if we decide that the macroeconomic effects of law should not be part of the policy calculus, this choice should be based on understanding rather than ignorance.

I. Introduction

Law and economics is mislabeled. We should call it law and microeconomics. Scholars have aimed the tools of microeconomics-- price theory, game theory, and applied microeconometrics-- at practically every area of law. But macroeconomics—the study of fluctuations in aggregate economic activity-- has played no part in the economic analysis of law.¹

¹ For a discussion of why there has not been much (or any) macroeconomic analysis of law, see Mark Kelman, *Could Lawyers Stop Recessions? Speculations on Law and Macroeconomics*, 45 *STANFORD LAW REVIEW* 1215 (1994).

Just as the law has ignored macroeconomics, macroeconomics has ignored law. Macroeconomists focus on output fluctuations caused by changes in monetary policy, fiscal policy, and financial frictions. But other laws, regulations, and judicial decisions also have macroeconomic effects. For example, the state Department's decision to approve or reject an oil pipeline such as the Keystone XL project can stimulate or inhibit aggregate demand and output. The pipeline will not be built if the project is not approved, and this will have macroeconomic effects. Ignoring these effects of regulation, as macroeconomists have traditionally done, does not make them go away.

This state of mutual ignorance was tolerable when the business cycle was a sideshow. Lawyers and economists could allow one legally privileged institution—the Central Bank—to tend to the economy's small aggregate fluctuations using monetary policy while macroeconomists tried to perfect the Central Bank's policy apparatus and lawyers concentrated on making law as microeconomically efficient as possible. However, the Great Recession-- with an (unequally shared) cumulative loss of output of \$6 trillion to \$30 trillion in the United States² (and multi-trillion dollar effects elsewhere, such as the Euro Zone)-- means that blissful ignorance between law and macroeconomics is no longer tenable. Lawyers and economists need to recognize that law has macroeconomic as well as microeconomic effects.

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Both lawyers and economists will gain from law and macroeconomics. Lawyers gain a new perspective for evaluating our collective undertaking. If a particular law or policy is lightly favored on traditional metrics of microeconomic efficiency, equity, morality, and any other relevant considerations, but is a disaster from a macroeconomic perspective, then we might decide that, on balance, the law is not worth having because of its pernicious macroeconomic effects. As I've argued elsewhere, for example, tax expenditures exacerbate business cycles, making them much less attractive policy instruments when we consider macroeconomics. Or we might decide that a policy is worthwhile in some states of the business cycle but not in others. In recessions, for example, legal rules that favor parties with a high marginal propensity to consume are preferred to rules that favor parties with a greater tendency to save. The opposite is true when the economy is booming and prices are rising. And even if we decide that the macroeconomic effects of law should not be part of the policy calculus, this choice should be based on understanding rather than ignorance.

² This is a 2013 estimate from the Dallas Federal Reserve Bank's Research Department. The Worldwide costs are much greater. For example, the Euro zone's economy is smaller in real terms in mid 2014 than it was in 2007. Given a trend growth rate of 1.5% (much lower than the Euro area's growth rate from 1996-2005), this means that the Euro area's economy is 11% smaller than its potential. With a GDP of approximately \$13 trillion, this means that the 2014 cost of the Great Recession in the Euro is over \$1.4 trillion, with the prospect for even greater shortfalls in output in future years.

Economists stand to gain as much from law and macroeconomics as lawyers. Exploring the impacts of law and regulation on aggregate demand will provide us with a better understanding of the forces that cause aggregate fluctuations in output. Depending on their structure, laws and regulations, even those that have nothing to do with monetary policy or fiscal policy, can inhibit or stimulate economic activity. The structure of a regulation therefore has macroeconomic effects that may be more or less desirable depending on the state of the business cycle. In addition, law and macroeconomics may provide new tools, such as “expansionary regulatory policy” for mitigating recessions and depressions. The Great Recession demonstrated that the conventional tools of macroeconomic stabilization--- monetary and fiscal policy-- are not always up to the task, so new tools should be welcomed.

Finally, law and macroeconomics provides suggestions for mitigating the next economic crisis— suggestions that we miss when ignore law and macroeconomics. The Great Recession proved that monetary policy alone, even “radical” monetary policy such as quantitative easing, cannot mitigate all decreases in aggregate demand. In addition, the fiscal policy response to the Great Recession was inadequate. As a result, I suggest several mechanisms to improve fiscal policy’s response to acute shortages of aggregate demand. For example, a discretionary fiscal policy agency modeled on the Fed would enable fiscal policy stabilization without requiring Congress to surrender its authority over the structure of taxes and spending. And if that is not possible, agencies should be recession ready. For example, the Department of Transportation should have many shovel ready projects in case the economy suddenly shrinks and infrastructure spending becomes unusually attractive. I also suggest that policymakers consider regulatory policy, along with monetary and fiscal policy, as an instrument of macroeconomic policy. For example, the stimulatory effects of the construction of the Keystone XL oil pipeline may have justified its approval in 2009. In 2014, with aggregate demand less moribund, the pipeline may not be worth approving and building.

In order to implement these policies, we need the requisite macroeconomic expertise. I discuss several methods of improving macroeconomic expertise throughout government. These include expanding the role of the Central Bank to include non-monetary matters, creating a new institution charged with macroeconomic management of non-monetary matters that complements the central bank, and bringing individuals with macroeconomic expertise into the decision-making process of most elements of government.

The book is organized as follows. In the remainder of the introduction, I provide a chapter length summary of my argument. Section 1 builds the theoretical framework for my argument, arguing that undergraduate level Keynesian macroeconomic theory provides a compelling explanation for short and medium run economic fluctuations—an explanation that is inconsistent with the assumption of classical microeconomic theory. Section I also examines how the standard remedies for recessions— expansionary monetary and fiscal policy—stabilize the economy. Section I concludes by describing the almost nonexistent literature examining the macroeconomic effects of laws and regulations. For the reader familiar with undergraduate level macroeconomics, Section I can be skipped without hindering comprehension of the later Sections. Section II adds law and regulation—outside of the traditional areas of monetary and fiscal policy-- to the Keynesian economic framework. Examining all of law from a macroeconomic perspective would be impossible in one book—or one lifetime. As a result, Section II

focuses on the macroeconomic effects on three very broad areas of law, regulation, tax expenditures, and adjudication. I leave the exposition of other areas of law, which are equally important for law and macroeconomics, to future work. Section III asks whether law and regulation *should* take into account its macroeconomic effects, or if macroeconomic stabilization should be left to other institutions. In order to do this, I compare the institutional strengths and weaknesses of law and regulation with the strengths and weaknesses of those the traditional tools of economic stabilization-- monetary policy and fiscal policy. (Of course, monetary policy and fiscal policy are just as much areas of law as the areas studied in Section II, but they are areas that lawyers have traditionally left to economists, and macroeconomists have not chosen to venture out to other areas of “law”.) Section III also argues that, under certain circumstances, law can provide a useful alternative instrument for macroeconomic stabilization. Section IV applies the analysis of the previous sections to provide a list of recommendations for mitigating future economic crises in a more robust and comprehensive way than we handled the last crisis.

Before I continue, a word on the meaning of “macroeconomic” for readers who may not be familiar with the term. Macroeconomics is the field of economics that studies the behavior of the aggregate economy. Macroeconomics examines economy-wide phenomena such as changes in unemployment, national income, rate of growth, gross domestic product, inflation and price levels. By contrast, microeconomics, which should be more familiar to the legal academy, involves the study of individual decision making and resource allocation. The border between microeconomics and macroeconomics is fuzzy—if we accumulate enough individual microeconomic decisions, we will start to explore macroeconomic effects. Perhaps the simplest way to highlight the difference between microeconomics and macroeconomics, particularly Keynesian macroeconomics, is to realize that they make different assumptions about economic behavior, as explained below.

II. Outline of the Argument

A. “Short Run” Economics

How is aggregate economic output determined? Microeconomics, as well as “classical” macroeconomics, provides one answer, Keynesian macroeconomic theory another.

The “classical” answer assumes that “markets clear”;³ the amount of a good or an input supplied equals the demand for that good. Markets clear because prices for all goods and commodities, including inputs such as labor, are perfectly flexible. Each individual supplies labor and capital to the economy, helping to produce output. Each individual uses their claim on this output for consumption or investment, providing demand for output. (At times, the economic behavior occurs via agglomerations of individuals called firms). Prices, supply, and demand, for labor, capital, and goods instantly adjust to maintain equilibrium.

There are no unwanted recessions in the classical economy. If people suddenly decide to consume less, then prices for consumption become cheaper, and prices for alternatives to consumption,

³ N Gregory Mankiw, *Macroeconomics* (7th ed. 2010) at 12.

such as investment, become dearer. In response to the price change, labor and capital move from producing output for consumption to producing output for investment. The decrease in demand for consumption is instantly accommodated by these price changes and output changes, returning the economy to a new equilibrium with less consumption, more investment, and lower relative prices for consumption. The pattern of economic activity has shifted, but no inputs are wasted. The shift in activity reflects the change in preferences.

A frictionless economy with perfectly flexible prices and outputs also demonstrates the “classical dichotomy” of macroeconomics.⁴In the classical dichotomy, “real” variables, such as physical output, are independent of “nominal” quantities, such as the level of prices in the economy.

In the simplest Keynesian model of the economy, by contrast, prices are completely inflexible. Output, and not prices, adjusts to accommodate changes in demand.⁵ Firms use their existing technology to produce as much as people demand at the current price. An economy is in equilibrium if the desired amount of consumption, investment, and government spending (collectively, “desired expenditure”) equals the economy’s output. The Keynesian economy is characterized by the “circular flow” of income. One person’s consumption is another person’s income. If government spending, for example, suddenly goes down, then there is less desired expenditure, but the price level remains the same. Output exceeds desired expenditure (demand). Firms and individuals producing output find that they are producing more than is demanded. Inventories accumulate. In response, firms reduce their output, and therefore reduce their use of labor and capital, raising unemployment. There is now less output in the economy. (Some spending has been withdrawn from the circular flow.) In turn, the reduction in labor income reduces demand for consumption, reducing planned expenditures by more than the initial reduction.⁶ In the Keynesian economy, initial shocks to output can thus have “multiplier effects”. An initial decrease in demand leads to lower output, which (due to the circular flow) leads to an even further reduction in desired expenditures and further decreases in output. The economy shrinks until the multiplier effect runs out and demand—desired expenditure on consumption, investment, and government spending-- is again equal to the amount of output produced.⁷ An initial decrease in government spending of \$1 leads to an ultimate decrease in output of \$2 when the Keynesian multiplier is 2. In the classical economy, by contrast, the multiplier is zero. Production used for project A could have been used on project B or project C, so that new spending just crowds out alternatives.

⁴ N Gregory Mankiw, *Macroeconomics* (7th ed. 2010) at 112.

⁵ To keep the analysis as simple as possible, this introductory section, presents the “goods” side of the IS-LM model. Section I adds the “money” side of the model, and provides equations and graphs to make the analysis more precise.

⁶ The initial reduction in output does not reduce consumption one for one. Some of the foregone output would have been saved, and that part of the output would never have had a further impact on the economy.

⁷ One might ask why the economy doesn’t shrink all the way to zero. The answer is that the second order reduction in demand for consumption caused by lower labor income is less than the reduction in labor incomes. (More formally, the slope of the “planned expenditure” curve in the “Keynesian Cross” is less than the slope of the “actual expenditure” curve.) See Mankiw page 291-91, Figures 10-3 and 10-4.

When the economy is below its potential level of output, this loss of output as a result of lower government spending reflects lower utilization of resources.⁸ Some amount of labor and capital is idle and wasted. Prices cannot adjust to enable idle labor and capital to be productively used. The “multiplier effect” of reducing government expenditures when aggregate demand is too low is high, because private sector demand cannot replace the reduced government expenditure.⁹

When the economy is producing above its potential as a result of excess aggregate demand, then the loss of output caused by lower government spending implies no waste. The decrease in government spending frees up resources to satisfy demand coming from the private sector. As a result, the “multiplier” effect of a reduction in spending on output is likely to be low, or even zero. (A multiplier effect of zero means that the decreased government spending is fully offset by increased private sector spending, such that total output remains the same.)

Savings and taxation, which take output of the circular flow, depress short run output in the Keynesian model. Government spending and consumption, by contrast, increase output by increasing the amount of expenditure in the circular flow. Note that government spending and taxation are not related in the Keynesian economy. In the short run, the government can run deficits or surpluses.¹⁰

It is important to emphasize that the Keynesian model is a short run model. Over the long run, inadequate demand will lead to lower prices. In turn, lower prices will stimulate consumption and investment. Eventually, there is no more idle capital or labor—output has returned to its “natural” rate.

Conversely, if aggregate demand is excessive, then, over the long run, prices rise. As prices rise, consumption and investment go down. The economy no longer exhausts its limited supply of labor and capital. Again, output returns to its natural rate. But the increase in prices that brings about this equilibrium has direct social costs. Inflation can create inflationary expectations, which can distort the functioning of the economy.

Neither the microeconomic nor the Keynesian description of the economy is correct. It is ridiculous to assume, as microeconomics and “classical” macroeconomics does, that prices and quantities instantly adjust to changes in expenditure preferences. Instead, it takes time, and some dislocation, to accommodate changes in preferences through changes in prices and consequent reallocation of resources. Likewise, few believe that nominal variables, such as the supply of money in the economy, have no impact on real variables, such as output, which is an implication of the classical model.

⁸ Section XXX discusses the circumstances under which aggregate demand is “too high” or “too low”.

⁹ Section XXX discusses the business cycle varying size of the Keynesian multiplier. Briefly summarizing, recent estimates suggests that the Keynesian multiplier during periods of low aggregate demand may be as high as 2.5. See Auerbach, Alan, and Yuriy Gorodnichenko, 2012b, “Measuring the Output Responses to Fiscal Policy,” *American Economic Journal – Economic Policy*, Vol. 4, pp. 1–27. See also Blanchard and Leigh, IMF, available at <http://www.imf.org/external/pubs/ft/wp/2013/wp1301.pdf>.

¹⁰ This brief discussion does not examine the influence of the money supply. See Section XXX for details.

It is equally ridiculous, however, to assume that prices never change, as simple Keynesian macroeconomics does. With time, prices adjust and idle labor and capital get reallocated to sectors where they are more productive. Over the very long term, the level of output in the economy reflects the size and productivity of the workforce and the amount of capital used by the workforce. These are all elements of the “supply” side of the economy rather than the “demand” side.

The Keynesian view provides a better model of the economy over the very short run-- one day-- and the classical view offers a better description of the economy over the very long run, e.g. a century. . The uncertainty lies in the ground in between. Which model provides a better description of the economy over one year? 5 years? A decade? While no one is certain, the Great Recession suggests that demand shortfalls, a characteristic of the Keynesian model, can persist for many years. The Great Recession happened, and it was not because people forgot how to make things, or decided to take a big vacation. Instead, a pronounced shortfall in demand provides the most plausible explanation for the Great Recession. The Great Recession’s effects are still with us. In the United States, for example, labor force participation, a broad measure of the health of the labor market, persisted at around 66-67% of the working age population between 1988-2008.¹¹ This number began to drop sharply at the outset of the Great Recession in 2008.¹² The decline in labor force participation continued throughout 2008-2014. By 2014, labor force participation rates had reached 63% or slightly below. While some of the reduction in labor force participation rate is unrelated to the Great Recession, most observers believe that a considerable element of the decline has been caused by the Great Recession.¹³ The Euro area presents an even stronger case for inadequate demand leading to prolonged reductions in output.

B. Law and Economics From the Short Run Perspective: Law and Regulation From a Keynesian Perspective

The Great Recession provides evidence that the “short run”, however long it is, matters a great deal. Estimate of the US “Output Gap”—the difference between the potential amount of output that might have been produced without the Great Recession and the output actually produced-- range between approximately \$6-\$30 trillion.¹⁴ If law and economics ignores or disclaims any role for law and macroeconomics, it abdicates too much.

The scope of the Great Recession is also a “black eye” for modern macroeconomics. During the “Great Moderation”, the problem of short run fluctuations in output was considered solved. Events like the Great Depression, or the numerous panics that proceeded it, were preventable through expert

¹¹ See Labor Force Statistics from the Current Population Survey, available at <http://data.bls.gov/timeseries/LNS11300000>.

¹² See <http://data.bls.gov/timeseries/LNS11300000>

¹³ See Christopher Erceg & Andrew Levin, Labor Force Participation and Monetary Policy in the Wake of the Great Recession, IMF Working Paper, 13/245 (2013), available at <http://www.imf.org/external/pubs/ft/wp/2013/wp13245.pdf> (attributing almost all of the decline to weak labor market conditions associated with the Recession. Shigeru Fujita, Research Rap: On the Causes of the Decline in the Labor Force Participation Rate (2014), available at <http://www.philadelphiafed.org/research-and-data/publications/research-rap/2013/on-causes-of-declines-in-the-labor-force-participation-rate.pdf> (attributing 30% of the decline to weak job market conditions

¹⁴ See http://econbrowser.com/archives/2013/12/the_output_gap_1.

monetary policy. But the Great Recession in the United States and Europe, along with earlier prolonged slumps in Japan and the rest of Asia, prove that the problem of short run economic fluctuations has not been licked.

With this background in mind, I examine the impact of law and regulation on short run macroeconomic fluctuations. “Law and Regulation” encompasses a vast array of policies. Regulation of one sort or another impacts almost every aspect of economic activity. Indeed, regulation or private law (e.g. tort law) is often a substitute for taxation and or government spending as means of accomplishing social goals. We should therefore not be surprised that law and regulation impacts the macroeconomy.

Given the vast scope of law and regulation, we cannot make simple statements about its macroeconomic effects. Some laws and regulations inhibit aggregate demand; others stimulate. Two extreme cases illustrate the principle. First, imagine that government issues a law forbidding all economic activity. This rule directly reduces aggregate demand, and leads to a reduction in output. Second, imagine that the government forces people to spend all of their savings on consumption or investment. This rule stimulates aggregate demand and output rises.

While it cannot be said that all laws and regulations inhibit or stimulate aggregate demand, we can provide guidelines for when a law or regulation inhibits or promotes aggregate demand. Laws and regulations that attempt to restrict output, perhaps as a way of controlling negative externalities, inhibit aggregate demand. By contrast, laws and regulations that compel new spending, such as requiring power plants to buy pollution mitigation equipment, likely increase short run aggregate demand.

More precisely, a regulation inhibits aggregate demand if the regulation’s direct reduction of economic activity exceeds the investment necessary to comply with the regulation.

Although regulations that directly impinge on economic activity inhibit aggregate demand, an economy with a larger set of law and regulations that are constant over the business cycle will tend to be more stable than an economy with fewer laws and regulations. These general principles, as well as others, will be given more detail in the specific examples below, and in Section II.

Finally, laws and regulations do not have macroeconomic effects in a vacuum. Instead, a law or regulation has macroeconomic effects compared to some alternative policy. Most frequently, this alternative policy will be the world as it was without the law/ regulation under discussion.

Most laws and regulations have less obvious macroeconomic effects than spending or anti-spending commandments. To illustrate how law and macroeconomics interact, I focus on three areas of law and regulation. These are regulation, tax expenditures, and adjudication of common law and regulatory disputes.

1. Regulation

Regulation is defined as “the act or process of controlling by rule or restriction.” A regulation inhibits aggregate demand if it limits economic activity (subtracts spending from the circular flow of the

economy). A regulation promotes aggregate demand if it increases economic activity (adds spending to the circular flow of activity).

a) Keynesian Effects of Regulation: The Keystone Oil Pipeline

Consider a prominent debate over the last several years—the Keystone XL pipeline. If approved, the Keystone pipeline will transport oil from Canada through the Midwestern United States. The proposed builder of the pipeline, TransCanada, Inc has applied to the United States State Department for approval to construct the pipeline within the United States. The initial application for approval was submitted in 2008, but final approval has not been granted and construction has not begun (for the most controversial “phases”). The State Department will approve the pipeline if approval serves the “national interest.” The State Department has said that this includes consideration of many factors, “including energy security, health, environmental, cultural, economic, and foreign policy concerns.”¹⁵

Non-approval of Keystone XL reduced aggregate demand from 2008-2014 relative to approval. If the pipeline had been approved, TransCanada would have hired thousands of workers and purchased many intermediate goods in order to construct the pipeline. This addition to aggregate demand would have been magnified by the multiplier effect. The workers hired by TransCanada or by its suppliers would consume some of their income, and these expenditures would serve as income to other people. Because the pipeline was not constructed in 2008-2014, there was no such stimulus to aggregate demand. Aggregate demand and output was lower as a result, and unemployment higher.

This simple example does not mean that “restrictive regulation always inhibits aggregate demand.” Suppose, for example, that, as a condition for approval of Keystone, the State Department had required a longer and costlier route for the pipeline that avoided environmentally sensitive areas. With this condition accepted, TransCanada would have begun construction. In this scenario, the added costs imposed by the regulator would have enhanced aggregate demand by raising expenditures on the pipeline. With respect to the Keystone Pipeline, regulatory mandates would have added to aggregate demand and output so long as the pipeline was still built, but at greater cost. If the regulatory mandates imposed enough of a burden that the Pipeline was not built, then the mandates would have inhibited aggregate demand relative to simple approval.

This illustrates that regulation enhances aggregate demand when it leads to greater private expenditures and inhibits aggregate demand when it does not.

As our brief discussion of Keynesian macroeconomics indicated, the benefits of enhancing aggregate demand depend on the state of the economy. Enhancing aggregate demand is not always good policy. In boom times, for example, additions to aggregate demand may simply raise prices while using resources that could have been utilized elsewhere. (The “multiplier effect of additional spending is zero).

¹⁵ See <http://www.keystonepipeline-xl.state.gov/>.

Suppose, for example, that the direct environmental harm of the Keystone Pipeline is \$1 billion, while the direct economic benefit is \$800 million.¹⁶ Traditional costs benefit analysis would say reject the pipeline, whose direct costs exceed its direct benefits.

From a Keynesian perspective, however, this understanding is incomplete. The benefits of the pipeline to the environment accrue outside the circular flow of the economy. As a result, they do not have a multiplier effect. The expenditures associated with the pipeline, by contrast, add to the economy's circular flow. They are therefore subject to the multiplier effect. With a multiplier of 2 (well within the range of estimates for multipliers during periods of slack aggregate demand), the sum of the direct and indirect economic benefits of Keystone's construction would be \$1.6 billion, greater than the costs to the environment.

The Keystone example demonstrates that regulation has macroeconomic effects that may overturn microeconomically oriented policy conclusions. To probe the effects of regulation in greater detail, I now explore the macroeconomic impacts of the regulation of land use and the environment.

b) Land Use Law

Zoning and other land use restrictions aim to limit negative externalities from building construction and other uses of land. The value of these land use restrictions is the subject of a vast literature, but (to my knowledge) no one has examined the short run macroeconomic effects of zoning. Here, I outline how zoning law affects macroeconomic fluctuations.

In this section, I apply a highly stylized model of zoning. Before building, developers must submit construction projects to a zoning commission. The zoning commission randomly approves some construction proposals and rejects others. Stricter zoning means that proposals are rejected at a higher rate.¹⁷

Under these conditions, the introduction of a zoning rule shrinks aggregate demand and output. Rejecting a construction proposal shrinks output by removing the expenditure associated with the proposed construction. In turn, this rejection removes income from the circular flow of the economy—the construction would have employed workers, who would have used the income to invest or consume. Thus, zoning rules that reject proposed housing expenditures shrink the economy whenever the multiplier on expenditures is greater than zero.

Repeal of a zoning rule, by contrast, stimulates aggregate demand and output. Without a zoning rule, all proposed construction occurs. There is more construction than there was when the zoning rule applied. More construction means more output directly and indirectly (via the multiplier).

¹⁶ Section III discusses the likelihood that economic value added from a project differs from total expenditures on the project.

¹⁷ Over time, zoning may raise the cost of building and discourage investment. This microeconomic effect is not relevant in our fixed price macroeconomic environment. Over the long run, however, the impact of zoning on building prices is undoubtedly a fundamental consideration for policy evaluation of zoning.

As with the Keystone pipeline example, land use regulation does not inevitably inhibit aggregate demand. Suppose that, instead of rejecting construction proposals, new zoning laws require developers to build parks in exchange for the right to construct housing.¹⁸ If this “exaction” leads to more construction expenditures (on both housing and parks), then the exaction promotes aggregate demand. If there is less construction expenditure (the value of the construction that is rendered uneconomical by the park requirement is greater than the expenditure on parks that does happen), then the exaction inhibits aggregate demand relative to the absence of land use controls.

To this point, my discussion of regulation has focused on the introduction of new regulations. But after the initial effects of a regulation have been experienced, the continued existence of a regulation still has macroeconomic effects. Again, consider a zoning rule that rejects a fixed percentage of construction proposals. Assume that construction investment is directly proportional to income. If the size of the economy triples, then construction triples. If the economy shrinks by half, then construction shrinks by half.

Under these circumstances, the continued existence of a zoning rule mimics an income tax. Just as a flat income tax collects more revenue when output (and income) is higher, so too a zoning rule restricts construction more when the economy is booming than when the economy is struggling. In boom times, more construction is proposed, and so more construction is rejected by the zoning rule, which rejects construction at a constant rate.

The constant zoning rule therefore acts as an automatic stabilizer—zoning makes the economy less sensitive to a random perturbation to the economy. Suppose that government spending suddenly goes up. Output increases. Because construction activity is proportional to output, construction proposals go up. In the world with zoning, this indirect effect of the initial perturbation to the economy on construction activity is smaller than in the world without zoning. Zoning reduces the amount of construction increase that is stimulated by the initial positive shock to government spending. The “multiplier” effect of the initial shock to government spending is therefore smaller with zoning than without zoning.

We have just demonstrated that zoning regulation, hardly an obvious candidate for macroeconomic analysis, has important macroeconomic effects. As a general matter, introduction of zoning regulation depresses output. Repeal of zoning regulation increases output. Zoning regulation that stays constant throughout the business cycle makes the economy less sensitive to shocks than the economy would be without zoning regulation. Section III explores more the more complicated effects of more realistic zoning laws.

Knowing the macroeconomic effects of zoning does not mean that lawmakers should change zoning rules for macroeconomic reasons. Zoning may be a good or bad idea on many other dimensions. Zoning, typically decided at the municipality level, is unlikely to be decided optimally from a national macroeconomic perspective. But the macroeconomic analysis of zoning opens up policy possibilities. We can imagine “countercyclical zoning policy”, in which zoning restrictions are scaled back during

¹⁸ Note that such an exaction is probably unconstitutional. See *Dolan v. City of Tigard*, 512 U.S. 374 (1994).

recessions and depressions and toughened during construction booms. And at the very least, lawmakers should be aware that their actions regarding zoning have macroeconomic consequences and be sensitive to the state of the business cycle as they reform zoning law and regulation.

c) Environmental Law

According to Congress, the purpose of environmental law is to “encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man.”¹⁹ Most economic activity produces negative externalities that harm the environment. Prominent examples of negative environmental externalities include global warming from Carbon Dioxide and other greenhouse gases and particulate emissions from coal plants that harm public health.

Volumes have been written about the efficacy of environmental regulations from microeconomic and ecological perspectives, among others. But to this point, there has been little to no analysis of the macroeconomic effects of environmental law.²⁰ As I show here, environmental law has pervasive and important macroeconomic effects.

Environmental law uses many different instruments to mitigate negative externalities on the environment. These instruments include Pigouvian taxes, quantity regulations such as “cap and trade”, and regulations requiring certain standards, such as the EPA’s fuel economy requirements. Section III examines the relative macroeconomic effects of each policy instrument in turn.

Let us begin with the enactment of a regulatory mandate, such as an EPA requirement that coal plants install a “scrubber” to reduce emissions. The macroeconomic effects of this regulation on aggregate demand are ambiguous. If all power plants simply install a scrubber, then the regulation stimulates aggregate demand. If some power plants close as a result of the scrubber mandate, then the regulation enhances aggregate demand only if expenditures for new scrubbers exceed expenditures foregone at the power plants that close.

The advent of other regulatory mechanisms are even more likely to inhibit aggregate demand than regulatory mandates. Consider Pigouvian taxes. The imposition of a Pigouvian tax, like any other tax, reduces disposable income. Consumption thus goes down and aggregate demand follows. Unless the introduction of the Pigouvian tax induces an investment boom that raises expenditures by even more than the tax reduces consumption, then the introduction of a Pigouvian tax inhibits aggregate demand.

Note that Pigouvian taxes do not inhibit of aggregate demand by increasing the price of producing the negative externality. Keynesian macroeconomics assumes that prices are fixed, so that, in the short run, the same amount of the negative externality is produced. Instead, the Pigouvian tax inhibits aggregate demand in the same way as any tax increase, by reducing disposable income and hence consumption.

¹⁹ See 42 U.S.C. § 4321 (explaining purpose of the National Environmental Protection Act of 1970).

²⁰ A couple of partial exceptions will be discussed in Section II below.

Now assume that the Pigouvian tax was introduced long ago. Once the (likely negative) initial macroeconomic effects of the introduction of the tax have been realized, a Pigouvian tax that remains constant over the business cycle acts as an automatic stabilizer. The economy with the Pigouvian tax is less sensitive to unexpected shocks than the same economy without the Pigouvian tax. When the economy is booming, it produces more of everything, including negative externalities subject to Pigouvian taxes. As a result, the Keynesian multiplier is reduced. The cumulative macroeconomic effect of an increase in expenditure is dampened by the higher amounts of Pigouvian tax imposed. If expenditures go down, by contrast, the Pigouvian tax collects less revenue, dampening the macroeconomic impacts of the initial shock.

As shown in Section III, quantity restrictions, such as a cap on emissions, have similar but not identical macroeconomic effects to a Pigouvian tax. The differences between Pigouvian taxes and quantity caps stem from the complicated short run economic response to the introduction of a cap. In the short run, prices are fixed and output is determined by demand. If prices don't change, then the negative externality is produced at the same rate after the introduction of the cap as beforehand. If this occurs, then the cap on an externality functions as a short run output cap. At some point, the cap is reached and all production that produces the negative externality simply stops. So long as prices are fixed, the output cap element of an emissions cap cannot be avoided.

Section III also demonstrates that cap and trade with emissions rights auctioned by the government has different impacts than cap and trade with government endowment of emissions rights to individuals and firms. Cap and trade with auctions operates like a tax, with the auction revenue decreasing disposable income and inhibiting aggregate demand. When emissions rights are endowed, by contrast, emissions purchases simply move income from one source to another. No funds are taken out of the circular flow of the economy.

These variations in effects highlight the value of law and macroeconomics. To this point, the focus of law and economics has entirely been on the long term effects of regulations, Pigouvian taxes, and quantity caps. No one has investigated the short term effects of these alternative policies, even though the short term effects may dictate the wisdom of a regulation introduced in a recession.

2. Tax Expenditures

Fiscal policy is a traditional domain of macroeconomic analysis. For example, the automatic stabilizing macroeconomic properties of government spending and income taxation are well known to undergraduate economics students.²¹ Macroeconomically oriented analysis of tax policy, however, has been avoided by legal scholars. Indeed, leading income taxation coursebooks do not even mention macroeconomic perspectives.

But just because law and economics has ignored the macroeconomic effects of taxation does not mean that these effects do not exist. Take tax expenditures—a traditional focus of legal scholarship in tax law. Tax expenditures are defined as “revenue losses attributable to provisions of the Federal tax

²¹ Section xxx will provide an explanation of automatic stabilizers. For a textbook discussion, see Mankiw, at 292-294, 446-448.

laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability.”²² In 2012, the value of tax expenditures was \$1.1 trillion, more than non-defense direct Federal spending. Tax expenditures are frequently viewed as alternatives to direct government spending.

Tax expenditures have important, but mostly ignored, macroeconomic effects.²³ To illustrate, take a prominent tax expenditure-- the deductibility of state income taxes from Federal Income Tax. The deductibility of state income tax payments from Federal Taxes provides an effective government subsidy for state spending. An extra dollar of state spending financed by the state income tax requires state residents to give up less than one dollar of personal consumption because the dollar paid in state taxes lowers state residents’ federal income tax liability. An alternative policy would be for the government to subsidize the states directly. If the federal government gave each state an annual direct payment to assist state spending, then it is extremely unlikely that the federal government would choose to give a higher subsidy in good economic times and a lower subsidy in recessions. For example, the Federal Government sent additional money to states during the Great Recession in order to forestall cuts in state spending. And yet the deductibility of state income taxes from Federal Income Tax means that the government effectively gives the states a higher subsidy in boom times than in busts. State income tax payments go up in booms and down in recessions. Because each dollar paid in state income taxes benefits from a federal subsidy, the effective federal subsidy to states through the tax expenditure rises in booms and falls in recessions. The tax expenditure for state income taxes therefore implicitly undoes the government’s efforts to subsidize states in times of hardship.

With tax expenditures, we see the costs of applying law and microeconomics but not law and macroeconomics. Legal scholars know all about tax expenditures, but have almost exclusively analyzed tax expenditures from efficiency and equity perspectives. Macroeconomically oriented economists, by contrast, have less of a focus on institutional design and therefore have not examined tax expenditures. As a result, the macroeconomic effects of the rise of tax expenditures went unexamined for decades. This was unfortunate. Tax expenditures destabilize the economy, while the direct spending they substitute for stabilizes the economy. With no law and macroeconomics, a macroeconomically destabilizing element of fiscal policy—tax expenditures-- spread without discussion of its macroeconomic effects.

3. Legal Rulings When Litigants Have Different Marginal Propensities to Consume

Law and microeconomics argues that legal rulings should be efficient ex-ante. That is, legal decisions should engender efficient incentives for future parties. Some dissent from this view, arguing that rulings should account for ex-post distributional concerns as well as efficient incentives. Scholars from other perspectives emphasize other ex post considerations, such as fairness.

²² Congressional Budget and Impoundment Control Act of 1974 (Pub. L. No. 93-344), sec. 3(3).

²³ I began my exploration of the macroeconomic effects of tax policy in *Equity, Efficiency, and Stability: The Implications of Macroeconomics for Income Tax Policy*, *Yale Journal on Regulation*, XXX.

Law and macroeconomics highlights another ex post consideration for adjudicators such as judges and regulators to consider—the parties’ relative “marginal propensity to consume.” The marginal propensity to consume (MPC) refers to “the increase in consumption resulting from a one-dollar increase in disposable income.”²⁴ A party with a high marginal propensity to consume spends nearly all that they have. As a result, no spending leaves the “circular flow”, potentially raising output through the multiplier effect. A litigant with a low marginal propensity to consume, by contrast, saves most of additional dollar of income. This takes expenditure out of the circular flow.

Suppose that one party to a legal dispute has a high marginal propensity to consume while the other party has a low marginal propensity to consume. Under these circumstances, ruling for the litigant with the high MPC raises demand and output relative to ruling for the litigant with the low MPC. A victory for the litigant with high MPC raises that litigant’s net worth and income. Because the litigant has a high MPC, most of that income will be expended on consumption. Only a small amount of the income will be saved and leave the circular flow. In turn, the spending becomes someone else’s income, and further increases expenditures and output.

But this is not the whole story. The litigant with the low MPC has lost. This negative income reduces the losing litigant’s consumption, which in turn reduces other people’s income via the multiplier effect. So why does short run output go up? Because the loser has a lower MPC than the winner. Since the winner’s gain is the same as the loser’s loss, this means that the increase in the winning litigant’s consumption exceeds the decrease in the loser’s consumption. And overall output goes up by more than the net increase in consumption of the two litigants because of the multiplier effect.

As will be explained in Section XXX below, this increase in output is socially beneficial when aggregate demand is depressed and output is below its potential. If output is already at its potential, then the increase in output is less desirable, and if output is above potential then the increase in output is undesirable. Other things equal, decisionmakers should rule for the litigant with the high MPC when aggregate demand is too low, and rule for the litigant with the low MPC when aggregate demand is too high. The greater the difference between the two litigants’ marginal propensities to consume, the stronger the case for accounting for macroeconomic factors in making legal rulings.

Differential marginal propensities to consume or invest are not a trait limited to individuals. Consider a dispute over an unimproved parcel of property. One party intends to develop the property, while the other plans to keep the property unimproved. Under these circumstances, law and macroeconomics prescribes that the judge should favor the developer during an aggregate demand induced recession and the preservationist during inflationary boom times.

Even remedies can be adjusted for macroeconomic effects. Specific performance, for example, can compel spending that might not occur with monetary damages. Consider the celebrated case of *Peevyhouse v. Garland Co.* The court ruled for the defendant—meaning that no expenditures on land improvements took place. If the court awarded monetary damages to the plaintiff, then the land improvement expenditures would have been more likely because the plaintiff had the funds and a

²⁴ Mankiw, *supra* note xxx, at 580.

higher marginal propensity to spend. But if the court awarded specific performance, rather than monetary damages, to the plaintiff, then the likelihood of land improvement expenditures would have been even higher because a specific performance remedy precluded the possibility that the plaintiff would pocket the damages rather than improve the land. Because it directly induces expenditures in many cases, specific performance presents a better remedy in recessions than it does in booms.

This section demonstrated that law and macroeconomics prescribes different actions than the standard law and microeconomics account. This does not mean, of course, that these prescriptions should be followed. Indeed, Section XXX below discusses the circumstances under which macroeconomic factors should be given greater or lesser consideration.

4. Existing Areas of Law and Macroeconomics

Although they have not been identified as such, there are several areas of law that have benefited from macroeconomically oriented economic analysis. I will focus on two: the regulation of debtor and creditor law and financial regulation.

a) Debtors and Creditors

On the simplest level, debtor and creditor law provides a specific example of the relative marginal propensity to consume analysis presented above. Debtors likely have a higher marginal propensity to consume than creditors.²⁵ As a result, debtor-friendly decisions raise output, while creditor friendly decisions reduce output. In a recession, where output is “too low”, law and macroeconomics suggests that debtors should be favored over creditors. By contrast, creditors should be favored in boom times.

As a historical matter, law often favored debtors over creditors in times of economic crisis. . Atif Mian and Amir Sufi’s *House of Debt* describes many historical instances, going back to the time of Hammurabi, in which debt burdens were reduced after significant negative economic shocks. (Macroeconomic considerations were influencing law well before there was law and macroeconomics, or even law and microeconomics). Indeed, the Great Recession saw many attempts to reduce debt burdens in order to preserve firms that were about to liquidate, or to prevent foreclosures that harmed consumption. These included HAMP, government involvement and subsidies in the Chrysler and GM bankruptcies, and the attempt to seize mortgages via eminent domain.

Many of these policies were widely criticized on microeconomic grounds, but they are perfectly sensible from a Keynesian macroeconomic perspective. Mian and Sufi, for example, argue that these policies proved inadequate to the task of reducing the face value of debt for insolvent borrowers. As a result, the Great Recession proved worse than it might otherwise have. Along a related vein, Zach Liscow demonstrates that, in times of recession, a bias in favor of continuation in business bankruptcies may be a more effective way of stabilizing output than other alternatives. Genakoplous and Koniak argue that inefficiencies in mortgage securitization prevented loan renegotiations that would have

²⁵ The mere fact that creditors have savings to spare while debtors are borrowing to consume or invest provides strong evidence that the debtors have a higher marginal propensity to consume.

benefited the depressed economy and advocated legal changes that would have altered the loan renegotiation process.

b) Financial Regulation

Another area of law with long recognized macroeconomic effects is financial regulation. Section II discusses how the money supply affects output in the Keynesian economy, violating the classical dichotomy. The money supply is not simply determined by Federal Reserve actions to increase or decrease the circulation of money. Instead, financial institutions create “money” when they accept deposits and subsequently lend the deposited funds to borrowers. The more “money” the financial system creates, the greater output will be.

Financial regulation helps determine the amount of money “created” by the financial sector, and therefore the amount of economic output. Consider bank reserve requirements, which require banks to keep cash holdings greater or equal to a certain percentage of their deposits. Greater reserve requirements imply less “money” for a given amount of deposits. Suppose a bank receives a dollar of deposits. If the reserve requirement is 10%, the bank can make \$.90 of loans, which expands the money supply by that amount. If the reserve requirement is 20%, by contrast, the bank can make \$.80 in loans. Thus, greater reserve requirements—tighter financial regulation—reduce the money supply and reduce output. This element has of “law and macroeconomics” is a staple of introductory economics textbooks. Since the Great Recession, some legally oriented scholars have attempted to expand the analysis of financial regulation’s effect on the economy. Patricia McCoy, as well as a number of economists, for example, have called for Countercyclical Reserve Policy.

In total, financial regulation and the law of creditors and debtors are areas of law, unlike so many others, where academic commentary has examined the law from a macroeconomic perspective. Even here, however, Although this book seeks to expand the scope of law and macroeconomics beyond these important beginnings, no introduction to law and macroeconomics would be complete without discussing these policy and scholarly efforts.

C. Comparative Institutional Design Analysis of Macro-economically Oriented Institutions—Central Banks, Fiscal Policy, and Law and Regulation.

In section III, I show that laws and regulations have important macroeconomic effects. But even once these effects are identified, we should not jump to the conclusion that law should be changed accordingly. Accounting for macroeconomic effects may cause microeconomic inefficiencies. If legal disputes are decided based on marginal propensities to consume, then the disputes cannot be decided to maximize efficiency, equity, or anything else. Section IV discusses the relative institutional competence of Central Banks, fiscal policy organizations, and other policymakers for making macroeconomic decisions.

1. Central Banks

Traditionally, Central Banks apply monetary policy and financial regulation to respond to macroeconomic fluctuations. As a historical matter, then, most nations have long made policy decisions

from a macroeconomic perspective; Central Banks are legal institutions whose primary focus is macroeconomic stability.²⁶

Relying on a Central Bank to stabilize the economy undoubtedly causes some distortions. When the Fed (or any other Central Bank) uses monetary policy to promote or chill economic output, many markets, such as the credit market, are distorted. Indeed, these distortions provide the primary argument in favor of returning to a gold standard for money, which restricts the power of Central Banks. In spite of the presence of a vocal minority that calls for curbing Central Banks, the economics academic community has come to a consensus that Central Bank's have a comparative advantage in responding to macroeconomic fluctuations because of expertise, reaction time, and independence.

I do not mean to overturn this consensus. Indeed, I share the widely held opinion that Central Banks managed the Great Recession better than many other institutions. But I do wish to emphasize that the Central Banks' comparative advantages are not something inherent to monetary policy. If the government created an independent agency composed of macroeconomic experts that the government charged with using (and given the power to implement) fiscal policy or regulatory policy to promote macroeconomic stability, then many of the arguments in favor of Central Bank primacy would diminish. The argument for monetary policy as the primary lever of macroeconomic stability should not be conflated with the advantages of expertise, reaction time, or independence—which could be replicated in agencies outside the Central Bank.

There are also costs to creating an “agency” as powerful and independent as a Central Bank. The agency could be “captured”. Understandably, we want the people who work at a Central Bank to have macroeconomic expertise. But there is a chance that the people with macroeconomic expertise may not have the same preferences as the population as a whole. In some cases, this is good—the public's preferences may simply be mistaken and lead to harm without any benefit. But on other matters—for example, weighing the risks of high unemployment against the risks of inflation—there is no obvious reason why the preferences of those with macroeconomic expertise should be decisive. Section IV provides a longer discussion of the institutional and social mechanisms whereby fear of inflation may assume an outside role in academic macroeconomic discourse.

And even if Central Banks are never captured, there are two other reasons why monetary policy and financial regulation are insufficient tools for macroeconomic policy. First, the “zero lower bound” constrains the efficacy of monetary policy during severe downturns. Monetary policy affects interest rates, and interest rates can't go below zero. But there are times when the economy is so depressed that even interest rates of zero are not enough to bring the economy out of its slump. When the zero lower bound binds, Central Bank monetary policy, even “radical” Central Bank monetary policy such as quantitative easing, cannot stabilize the economy. The economy needs more, such as such as expansionary fiscal policy or, perhaps, expansionary regulatory and legal policy.

²⁶ As a theoretical matter, the formation of Central Banks was not and is not without controversy. For more discussion see Section XXX.

In addition to the zero lower bound constraint, monetary policy may not be targeted at the right level for macroeconomic stabilization. Central Banks control the money supply and short term interest rates for large and diverse regions. Economic conditions vary within these monetary unions. A single central bank can only set a single monetary policy, which may be too lax for some regions within the monetary union and too tight for other regions.

In Europe, for example, the European Central Bank controls interest rates for a diverse set of economies, including Germany, the Netherlands, Estonia, Portugal, and Greece. During the Great Recession, economic performance varied dramatically between countries. Greece suffered through a depression greater in magnitude than those suffered by many countries during the Great Depression of the 1930s. Germany, by contrast, experienced a short recession, followed by several years of moderate to strong economic growth. Because of these differences in economic conditions, the monetary policy and interest rates that are appropriate for Greece will be too loose for Germany, while the policies appropriate for Germany will be too tight for Greece. The European Central Bank, however, can only set one monetary policy. In fact, they set their policy at a level that was more or less appropriate for Germany, exacerbating the Greek depression. Because Greece was a member of the Eurozone, it could not use monetary policy as a tool to mitigate its macroeconomic slump.

This is not only a problem of the Eurozone. Any currency union will have regional variations in performance. In the United States, for example, North Dakota has been enjoying a shale oil and gas boom, while Rhode Island has suffered from persistently high unemployment. The Fed cannot set the right monetary policy for all states. Instead, the Fed steers a middle course.

The impetus for a shared currency zone may be political, as in the Eurozone. Or it may be economic—the benefits of a shared currency may outweigh the costs of variation in desired monetary policy. Whatever the reason, the fact remains that Central Bank monetary policy cannot be perfectly tailored to economic conditions in every region.

This brief discussion of monetary policy highlighted that, even if monetary policy could be conducted perfectly, it would still not be a panacea for macroeconomic fluctuations. Governments may reasonably choose other policy instruments, such as fiscal policy, to tailor macroeconomic policy to the state of the economy.

2. Fiscal Policy

When monetary policy proves inadequate due to the zero lower bound or other factors, the textbook policy response is expansionary fiscal policy. If aggregate demand and output are too low, an expansion of government expenditures, combined with a reduction in tax revenues (which raises disposable incomes and thus consumption expenditures), raises the level of equilibrium output. When aggregate demand is too high, contractionary fiscal policies (higher taxes and lower government expenditure) bring the level of output down.

Fiscal stabilization policy can be “automatic” or “discretionary”. Automatic fiscal stabilization policy requires no legislation for spending and taxation to respond in a way that cushions the economy’s direction. Thus, an income tax is an automatic stabilizer; if the economy suddenly expands, the income

tax automatically raises more revenue and takes some of the sudden expansion out of the circular flow of the economy, reducing the size of the positive shock. Social welfare programs such as unemployment insurance the Supplemental Nutritional Assistance Program (SNAP) are also automatic stabilizers. When the economy declines, there are more unemployed persons and more people who qualify for SNAP assistance. As a result, spending via unemployment insurance automatically rises when the economy declines. Because recessions and booms trigger automatic fiscal stabilizers without requiring formal institutional responses, they are considered effective macroeconomic stabilizers.

By contrast, economics textbooks argue that discretionary fiscal policy is inferior to both monetary policy and automatic fiscal policy as a tool for macroeconomic stabilization. Discretionary fiscal policy means that “policymakers are free to size up events as they occur and choose whatever level of [government spending and taxation] they consider appropriate at the time.”²⁷ Discretionary fiscal stabilization policy suffers from at least two significant flaws. First, fiscal policy changes slowly.²⁸ To implement a change in fiscal policy, Congress and the president must agree to change tax and spending policy. Because changing laws is difficult—the political process moves slowly-- discretionary fiscal policy may respond to a macroeconomic shock after a response would have achieved the most effective countercyclical effect. Second, fiscal policy is plagued by opportunism. In the short run, expansionary fiscal policy (ie. Deficit spending) stimulates the economy, raising electoral prospects for today’s politicians. Over time, however, deficit spending must end and the resulting debts repaid. But these are problems for other politicians. As a result, today’s politicians may use discretionary fiscal policy opportunistically rather than to stabilize the economy.

Because of these weaknesses, discretionary fiscal policy is disparaged by many economists.²⁹ Indeed, many jurisdictions impose strict institutional mechanisms precluding fiscal policy stabilization. For example, almost all U.S. states have annual balanced budget requirements, preventing stabilization via fiscal policy. Similarly, the “Stability Pact” that formed the Eurozone prohibits Eurozone nations from running budget deficits of more than 3% annually. These restrictions severely limit the scope for fiscal policy stabilization (both automatic and discretionary) in these jurisdictions. In U.S. states, for example, recessions cause decreases in revenue. Because states need to balance the budget, they reduce public employment, exacerbating rather than mitigating recessions.

And even in jurisdictions that allow for fiscal policy stabilization, the response is often imperfect. The Great Recession provides a good example of the scope and the limits of discretionary fiscal policy. The depth of the Great Recession meant that, unlike smaller scale recessions, many economists called for expansionary discretionary fiscal policy. Indeed, the “Obama Stimulus” was passed in 2009, and most analyses conclude that it mitigated the fall in U.S. output. But the size of the stimulus was restricted by political factors, such as the requirement that government infrastructure project be “shovel ready”. And once the worst of the crisis was over, the calls for fiscal stimulus disappeared and were replaced by

²⁷ Mankiw at 453 (defining discretionary) and 578 (defining fiscal policy).

²⁸ Mankiw at 447.

²⁹ Mankiw at 446-48.

concerns about budget deficits. By 2011, U.S. fiscal policy was contractionary rather than stimulating. In total, many have argued that ineffective U.S. fiscal policy exacerbated the costs of the Great Recession.

In sum, fiscal policy stabilization complements stabilization via monetary policy. But, as with monetary policy, there are many obstacles to fiscal policy stabilization, including the slow political process and the fear that politics breeds wrongheaded long term policy. As a result, no one should be surprised that the combination of monetary and fiscal policy proved inadequate to forestall the Great Recession.

3. Law and Regulatory Policy

As the previous sections demonstrated, laws and regulations (aside from those relating to monetary and fiscal policy) have important, if overlooked, macroeconomic effects. Should policymakers use laws and regulations to complement monetary policy and fiscal policy as tools for macroeconomic stabilization?

It depends. At present, most regulators (outside of Central Banks) and judges are ill-equipped macroeconomic policymakers. There is no macroeconomics in law schools, little in public policy schools, and few incentives for policymakers to become familiar with macroeconomic models. If we encourage lawmakers and regulators to consider macroeconomic factors in their decisions, then mistakes are likely to follow. For example, it may be difficult for EPA regulators, who are considering imposing a new pollution mitigation equipment regulation, to know if the regulation increases aggregate demand (by increasing investment expenditures among the polluters who buy the new equipment) or decreases aggregate demand (by causing some polluters to simply shut down). And this says nothing about the many law and policy questions whose short term macroeconomic effects have never even been considered. Because of this lack of knowledge, we should hesitate before encouraging the widespread application of law and regulation for macroeconomic stabilization purposes.

Below, I propose several reforms that will facilitate the application of law and regulation to macroeconomic stabilization. If these reforms are implemented, then law and policy (outside of monetary and fiscal policy) could realistically become part of the stabilization arsenal of policymakers, particularly in response to acute reductions in aggregate demand.

And even if the institutional environment continues to preclude reliance on law and regulation as an instrument of stabilization, there are still many instances where macroeconomic effects should be considered by policymakers. Just because laws and regulations are not enacted for the primary purpose of stabilizing the economy does not mean that macroeconomic effects are irrelevant. If a new policy, such as a Pigouvian tax, is going to have a negative impact on aggregate demand and output, then it is better to introduce the policy in times of robust aggregate demand than in recession or depression. If the economy is currently shrinking due to inadequate aggregate demand, then delayed implementation of a Pigouvian tax is justified even if the policy is efficient over the long run. Moreover, even if we believe that the business cycle should never impact law and regulation, the macroeconomic impacts of regulation should be evaluated because these effects should inform monetary policy and/or fiscal policy. If the regulator is going to ignore macroeconomic effects and introduce an aggregate demand reducing

Pigouvian tax during a recession, then the Central Bank should consider using monetary policy to offset the reduction in aggregate demand.

D. Recommendations for Mitigating the Next Crisis

At present, efforts to avoid the next crisis have focused on Central Banks and financial institutions. In the United States, the Dodd-Frank Act enacted a raft of measures to both avoid the collapse of financial institutions and to diminish the disruption caused when a financial institution does collapse. Many of Dodd Frank's most important innovations, such as the Consumer Finance Protection Bureau and the enhanced supervision of non-bank financial institutions, increased the Federal Reserve's authority. In law, economics, and finance, the debate about the efficacy of Dodd Frank and its accompanying regulations is well under way. Some believe Dodd Frank has made the financial sector less crisis prone. Others disagree.

Law and macroeconomics demonstrates that the emphasis on financial regulation ignores a wide range of alternative legal responses to future slumps in aggregate demand. For example, there has been little effort devoted to rethinking fiscal policy implementation, even though fiscal policy is a staple of Keynesian stabilization policy that foundered during the Great Recession. And the use of policy outside of monetary policy, fiscal policy, and financial regulation has not been even been considered. In the final Section of the book, I propose reforms that will help realize the potential for fiscal policy and other law and policy to mitigate our worst recessions.

1. Create Sources of Macroeconomic Expertise for Government

It should shock no one that macroeconomically oriented policymaking requires some familiarity with macroeconomics. But this is not unattainable—introductory economics provides enough Keynesian macroeconomics to guide most policymakers. Just as we expect most policymakers to be familiar with the rudiments of supply and demand microeconomics, so too should we ask policymakers to be familiar with shortages of aggregate demand and the “circular flow” of the short run economy. Indeed, it is my hope that all the policy recommendations in this book should be accessible to anyone who has taken introductory macroeconomics.

Although familiarity with macroeconomics may enable a policymaker to understand why a macroeconomic policy is being implemented, it is not adequate (in most cases) for exploring which policy has the most favorable macroeconomic effects. To evaluate the macroeconomic impact of potential policies, government needs trained experts.³⁰

Expert macroeconomic advice could be provided to policymakers through several different paths. Just as many agencies hire microeconomists to provide some insight regarding the microeconomic efficiency implications of their activities, so too could these same agencies hire in-house macroeconomists. These macroeconomists would evaluate the macroeconomic effects of any significant policy under consideration by the government agency that employs them. Indeed, we can imagine that

³⁰ Trained macroeconomic experts should not be equated to mean economic Ph.D.s.. For policy evaluation, economics majors with business or policy experience may even be preferable to Ph.D.s. For a description of the failures of academic macroeconomics, see Section ??? below.

important initiatives of each arm of government be required to undergo some sort of macroeconomic evaluation, just as important initiatives currently must be vetting for environmental impacts (NEPA) and efficiency impacts (Cost Benefit Analysis).

In addition to seeding government agencies with macroeconomists, government agencies could rely on an outside center of macroeconomic expertise to review the in-house macroeconomic analyses of significant policy initiatives by different agencies. Central Banks, for example, possess considerable macroeconomic expertise. At present, that expertise is used to advise the Central Bank's internal policymaking operations (in monetary policy and financial regulation). In future, the Central Bank could be a useful source of expertise for other arms of government as well. An agency considering issuing a regulation might ask the Central Bank for its opinion about the current state of the business cycle. Or the Central Bank could opine on the macroeconomic impacts of important proposed regulations.

While involving the Central Bank in broader macroeconomic policy discussion has the advantage of exploiting a pre-existing center of expertise, I do not recommend using the Central Bank as the primary source of government macroeconomic expertise. Independent Central Banks already enjoy vast authority within their supposedly technocratic area of policy (monetary policy and financial regulation). Giving the Central Bank a role in other areas of policy brings this non-democratic institution too far into the central workings of government. Relatedly, involving the Central Bank in other areas of macroeconomic policy risks undermining the Central Bank's independence. If an agency is too powerful, the risks of its independence grow larger.

Instead of relying on the Central Bank as center of macroeconomic expertise for the government, I recommend the creation, or revival, of an alternative center of expertise within the executive branch of the government. The role of this macroeconomic government "nerve center" should be formal rather than ad hoc. The macroeconomic impacts of significant government policies should be estimated by the relevant arm of government, and then reviewed by an institution whose primary role is macroeconomic evaluation. In addition to evaluating the macroeconomic effects of a wide range of government policies, the institution should also play a coordinating function, bringing together different government actors to facilitate a coherent government response to the unpredictable forces buffeting the economy.

Where should this government center of macroeconomic expertise reside? I have no strong feelings on this question. The Council of Economic Advisers, OIRA, the Treasury department, or a new institution all offer advantages and disadvantages. The role played by this macroeconomic center is more important than where it resides. So long as the institution has sufficient staff, expertise, and legal authority to opine authoritatively on the macroeconomic effects of important government initiatives, then its location is more a matter of administrative convenience and opportunity than any other matter.

Section IV evaluates the relative merits of these different institutional proposals. But I should emphasize here that these institutional changes are not mutually exclusive. Agencies could have macroeconomically oriented experts on staff to provide an initial review of law and regulation from a

macroeconomic perspective. This analysis could then be reviewed by the Central Bank, OIRA, the CEA or some new locus of macroeconomic expertise.

A source of macroeconomic expertise along the lines suggested here would have many benefits. Indeed, it would facilitate all the other reforms suggested in this Section. In an economic landscape where prolonged shortages of aggregate demand are a real danger, government should have the capability of understanding and responding to these shocks.

But even if there is no systematic government pursuit of macroeconomic sophistication, macroeconomically informed policy could proceed along other dimensions. The next proposal, for example, advocates rule-based sensitivity of fiscal policy to the state of the business cycle. While such rules would benefit from the input of government macroeconomists, automatic fiscal policy rules do not require a specific center of government macroeconomic expertise.

2. Automatic Fiscal Policy by Law

For the first two plus years of the Great Recession in the United States, fiscal policy stimulated the economy. Discretionary fiscal policy, in the form of the “rebate checks” authorized by Congress and signed by President Bush in 2008, and the Economic Stimulus Act passed in early 2009, decreased tax revenue (raising private disposable income) and raised government spending. The automatic stabilizers also stabilized effectively. Income tax revenues went down. Unemployment benefit payments and duration rose, as did Supplemental Nutritional Assistance Program payments (commonly known as food stamps). As a result, the Federal Government’s budget deficit was extremely high, nearing 10% of GDP in 2009 and about 8% of GDP in 2010. This was a textbook Keynesian fiscal policy response to a collapse in demand, and most studies find that it increased output and decreased unemployment.

Many commentators, however, believe that the discretionary fiscal stimulus packages were too small. Private expenditures declined by much more than government expenditures increased. As a result, the stimulus packages mitigated, but did not come close to offsetting, the impacts of the Great Recession.

In 2010, moreover, discretionary fiscal policy altered course. Instead of continuing to increase spending and lower taxation, fiscal policy, in the most charitable reading, was neutral or even contractionary. Many commentators believe that this shift in fiscal policy exacerbated the Great Recession.

Perhaps this partial failure of discretionary fiscal policy is not surprising. While, in the abstract, most economists, and even most politicians, agree with the proposition that fiscal policy should stimulate during severe recessions and dampen during booms, this ignores the political context of changing fiscal policy. Any change in fiscal policy must overcome the many hurdles that delay the enactment of any new policy proposal. In addition, partisan politics may prevent widely beneficial programs from passage if they benefit one party more than the other.

In order to avoid these pitfalls to discretionary fiscal policy, I propose to make automatic fiscal policy more robust.³¹ Instead of requiring the passage of a new law to extend unemployment benefits or to increase infrastructure spending in times of high unemployment, Congress could implement such policy automatically. To provide two examples, the default maximum duration of unemployment benefits could be 26 weeks. The maximum duration of unemployment would be 52 weeks when the last two quarter's GDP growth was between 1% and -1%, and 99 weeks when the last two quarter's GDP growth was below -1% (a serious recession). Similarly, infrastructure spending could be set at different levels depending on GDP growth. Instead of specifying one set of numbers in each multi-year transportation spending bill, Congress could inject some automatic stabilization into the bill as follows. The default level of highway spending could be 1% of GDP. Highway spending could rise to 1.2% of GDP when growth in the previous two quarter growth was between 1% and -1%, and 2% of GDP in severe recessions (when output is shrinking by more than -1% a year.)

Fiscal policy could also become more automatic on the revenue raising (taxation) side of the government ledger. At present, income tax rates are constant through the business cycle. A change in tax law is required to lower income tax rates during a recession or to increase them once the recession is over. Alternatively, the income tax rate could be a function of GDP growth in the manner just described. Marginal rates would be highest in boom times, and lowest in periods of inadequate aggregate demand and negative economic growth.

Almost every aspect of fiscal policy could be made more automatic along the lines described above. And this automatic stabilization is especially desirable because Congress is a clunky and inertial institution.³² Indeed, the Great Recession demonstrated that we cannot rely on discretionary fiscal policy to stabilize the business cycle.

More automatic stabilization brings costs as well as benefits. If GDP goes down for an anomalous reason that should quickly dissipate, e.g., an unusually cold winter, then automatic stimulatory measures may be triggered when they are unnecessary or even harmful. In addition, budgeting, already an uncertain exercise, will become even more subject to the whims of business cycle movements. Relatedly, it will be difficult to spend highly variable funding efficiently. Infrastructure projects, for example, require steady funding over a period of many years rather than spasmodic funding that tracks the business cycle. I discuss these costs in greater detail in Section IV.

In spite of these costs, I believe that a greater degree of fiscal automatic stabilizers is warranted. In severe recessions, we need fiscal policy to augment monetary policy. Recent history, however shows that effective discretionary fiscal policy, may be untenable. And so automatic fiscal stabilization offers an attractive (partial) solution to the weaknesses of discretionary fiscal policy. Finally, automatic fiscal policy triggers can be set so that they only activate in times of severe recession. For example, suppose that Congress passed a policy that called for greater government spending when the unemployment

³¹ Some elements of this plan—on the taxation side—were proposed in the 1960s by a number of tax policy commissions.

³² In the Euro Zone, the Maastricht treaty essentially precludes discretionary fiscal policy. For more discussion, see Section ???.

rate exceeded 9.5%. This threshold has only been reached during the Great Depression, the Volcker Disinflation of the early 1980s, and the Great Recession. These have all been periods of low aggregate demand in which unemployment could have been ameliorated with additional expenditures.

3. Fiscal Policy Stabilization through an Independent Agency

As an alternative or even a complement to more automatic fiscal policy stabilization, fiscal stabilization policy can be delegated to an agency. Just as monetary stabilization policy is delegated to an independent agency (the Central Bank), so too could fiscal policy stabilization become the responsibility of the Central Bank or some other newly created independent agency with macroeconomic expertise. Delegation would mitigate fiscal policy's slow and uncertain response to the business cycle by replacing the legislature with a relatively nimble agency.

Under this proposal, the legislature would fix the "structural" government budget deficit or surplus it desires. (The "structural" government budget deficit or surplus is the deficit or surplus level when the economy is growing at its "normal" or "trend" rate of growth. The actual deficit is higher than the structural deficit when the economy is growing at a slower than normal rate, and the deficit is lower than the structural deficit when the economy is booming.) The legislature would also fix the target level of spending on different priorities, as well as the income tax rate that should apply when the economy is growing at its normal rate. The legislature could also specify which areas of spending and revenue generation should be fixed over the business cycle and which areas could be instruments of fiscal policy stabilization. Finally, the legislature could specify that fiscal policy stabilization should be subordinate to monetary policy stabilization. If short term interest rates are above zero, then the fiscal policy agency may be restricted from making any policy.

The fiscal policy agency would be charged with adjusting fiscal policy so that it is consistent with Congress's specifications (about the structural deficit and individual spending and revenue raising priorities), while also aiming to mitigate the business cycle's amplitude. When the economy is suffering from inadequate aggregate demand, the fiscal policy agency should use its discretion to expand government spending and reduce revenue raising. When aggregate demand is "too high", the agency should raise taxes and lower spending (consistent with the legislature's conditions).

The agency charged with fiscal policy stabilization should be independent. If it is not, then the executive branch would have a strong incentive to manipulate fiscal policy stabilization for political gain. At present, without executive control over fiscal policy and with mostly independent Central Banks, many nations exhibit a "political business cycle"—economic growth increases and unemployment decreases as elections approach. With executive control over an agency with discretionary power over fiscal policy, the political business cycle would be exacerbated. Indeed, without appropriate independence, we could imagine that a fiscal policy agency could undermine rather than enhance economic stability (by producing booms before elections and busts afterwards).

The necessity for independence suggests that an agency charged with discretionary policy should be distinct from the center for macroeconomic expertise discussed at the beginning of this section. Like the Central Bank, a fiscal agency will use a particular policy instrument, the size of the

actual deficit relative to the structural deficit, to help stabilize the economy. By contrast, the macroeconomic policy institution within the executive will opine on the macroeconomic consequences of policies that are neither monetary nor fiscal in nature.

The advantage of this proposal is that it provides policy discretion to an independent agency that has macroeconomic expertise rather than relying on rules or on the whims of the legislative process. The primary cost of the proposal is that it partially delegates one of the legislature's most important prerogatives—revenue raising and spending—to an agency. All of the costs and benefits of legislative delegation to administrative agencies assume higher stakes when the agency enjoys some control over fiscal policy. These costs and benefits are analyzed in greater detail in Section IV of the book.

4. Improved Recession Preparedness

Regardless of whether the legislature widens the scope for fiscal policy as an instrument of macroeconomic stability, government should improve its macroeconomic awareness. Because of the long period of relative economic stability that preceded the crisis, it is probably unsurprising that most government agencies had not invested in recession preparation. After the financial crisis and the concomitant Great Recession, however, such macroeconomic nonchalance should be considered irresponsible. All elements of government fiscal policy should be ready should economic crisis strike again.

Infrastructure spending, for example, is a classic Keynesian remedy for inadequate aggregate demand. The 2009 Obama stimulus, for example, included significant additional funding for high speed rail projects and highway improvements. President Obama emphasized a benefit of funding for such infrastructure programs—many were “shovel ready”,³³ meaning that the projects could be begun quickly and finished within two years. However, there were ultimately fewer “shovel ready” projects than advertised-- a shortage of “shovel ready” projects limited the scope of stimulus spending on infrastructure.³⁴

The shortage of “shovel ready” projects represents a failure of government planning. Just as government prepares for natural disasters with the Federal Emergency Management Agency (FEMA), or financial regulators prepare for financial crises through the Financial Stability Oversight Council (FSOC), so too should government be ready to respond to economic disasters. The shortage of shovel ready projects in 2009 would thereby be analogous to a lack of hurricane response preparedness by FEMA. Because infrastructure spending provides such an effective form of stimulus spending, agencies involved in infrastructure, such as the Federal Department of Transportation and state analogues, should maintain a list of prospective “shovel ready” projects in case of macroeconomic emergency. If the

³³ In December 2008, President Obama, arguing in favor of the stimulus, stated that “We’ve got shovel-ready projects all across the country. And governors and mayors are pleading to fund it. The minute we can get those investments to the state level, jobs are going to be created.” See <http://www.factcheck.org/2009/12/obamas-economic-speech/>.

³⁴ In December 2009, President Obama admitted that “The term ‘shovel-ready’ — let’s be honest, it doesn’t always live up to its billing,” meaning that spending on infrastructure projects had longer lag times than anticipated. See <http://www.factcheck.org/2009/12/obamas-economic-speech/>.

economy goes into crisis, then these projects can quickly be implemented. If the economy does not go into crisis, then the efforts invested in creating a portfolio of shovel ready projects will be wasted. But with the enormous costs of recessions such as the Great Recession, a bit of extra spending on “preparedness” should be well worth the cost.

Shovel readiness serves as an anecdote for all elements of fiscal policy. Before the financial crisis of 2008, Congress passed a tax cut in response to incipient economic weakness. The retroactive tax cut was implemented through checks mailed by the IRS to eligible taxpayers.³⁵(Most taxpayers were eligible.) Technical problems were considered to be a challenge to the prompt issuance of the refund checks. Because refund checks are an effective way of stimulating the economy, IRS technical problems may be especially costly. An IRS investment in brisk “refund check” capabilities may be a cost effective means of recession mitigation. And shovel readiness and refund check capabilities are but two of a potentially endless list of investments that would make fiscal policy more recession ready.

Recession readiness could be established in several ways. First, there could be an agency in charge of readiness, along the lines of FEMA. In order to be successful, this agency would need to ensure that other agencies, such as the Department of Transportation, had recession contingency plans in place. A second strategy would be to have independent macroeconomists in many different agencies. These macroeconomists would be charged with exploring how the agency’s activities affected the macroeconomy and how the agency could best respond to an economic crisis. These approaches to recession readiness are not mutually exclusive. For example, the Dodd-Frank Act created the Financial Stability Oversight Council within the Department of the Treasury. FSCOC has some of its own staff, but also serves as a coordinating point for financial regulators throughout the government. A related strategy in the macroeconomic context would be to have macroeconomists at each agency meet to ensure that their responses are coordinated, along the lines of FSOC, which includes senior officials from many different agencies charged with aspects of financial regulation.

5. Countercyclical Regulatory Policy

To this point, my policy proposals have focused on improving fiscal policy stabilization. Law and macroeconomics, however, demonstrates that many other areas of law have macroeconomic effects. At the margins, these macroeconomic effects should be considered when enacting policy. Indeed, because macroeconomic considerations often affect the timing of policy implementation rather than the long term desirability of a policy, the costs of considering the state of the business in making policy may be relatively small. As a result, countercyclical regulatory policy should have a place in the macroeconomic stabilization toolkit.

Countercyclical regulatory policy means that during periods of weak aggregate demand and low output, regulations that will inhibit aggregate demand should be delayed, and regulations that promote aggregate demand, such as a regulatory decision to remove a ban on certain types of economic activity (e.g. approval of the Keystone Pipeline), should be brought forward. In boom times, aggregate demand

³⁵ Strains on the I.R.S. Could Delay Rebate Checks for Months By DAVID CAY JOHNSTON, NYTIMES, January 25, 2008.

inhibiting regulations should be favored while aggregate demand promoting regulations should be avoided.

Consider a restriction on economic activity in certain areas to protect an endangered species.³⁶ The restriction mitigates the negative externalities of the economic activity. The implementation of a restriction on local economic activity, such as logging, likely inhibits economic activity by removing expenditures from the circular flow of the economy. When the economy is already suffering from a shortage of aggregate demand, the imposition of Endangered Species Act related restrictions exacerbates the resulting recession. Because the multiplier is greater than zero, this implies more idle capital and labor. Other things equal, restrictions on economic activity to protect endangered species should therefore be avoided during a recession.³⁷ When the economy is growing faster than its inflation-neutral level, by contrast, then the removal of expenditures from the circular flow is desirable. With fewer expenditures as a result of a “critical habitat” designation, output declines and moves closer to its “natural” level. 2009 would have been a very bad time to create many “critical habitats”. Critical habitats implemented in 1999, by contrast, would have had beneficial macroeconomic effects as well as the intended benefits of species preservation.

I do not mean to argue that the macroeconomic impacts of a regulation should generally be a decisive factor in determining the timing of implementation. In most states of the economy, the macroeconomic impacts of regulatory policy can be offset with suitable monetary policy. If a significant amount of economic activity is restricted in order to protect a species, for example, then monetary policy should be loosened to mitigate the restriction’s impact on the economy. But when conventional monetary policy is not available, (for example, if the zero lower bound on interest rates has been reached or a jurisdiction has abdicated its control over monetary policy), then countercyclical regulatory policy should be considered. The worse the shortfall in aggregate demand, the stronger the case for countercyclical regulatory policy.

The simple version of countercyclical regulatory policy just described delays implementation of regulations that inhibit aggregate demand during recessions and brings forward the implementation of these regulations when during inflationary booms. But more robust versions of countercyclical regulatory policy are possible. In order to stimulate aggregate demand, regulators can offer lower regulatory hurdles during periods of weak aggregate demand. In this type of countercyclical regulatory policy, regulatory burdens are different depending on the state of the business cycle. In effect, regulation could function like “bonus depreciation” and other fiscal policy responses that attempt to stimulate investment in periods of low aggregate demand.

To illustrate this possibility, consider zoning law. Construction is notoriously procyclical. In every month of 2005 and early 2006, an annualized total of at least 2.2 million units of new residential housing

³⁶ See Endangered Species Act of 1973, 7 U.S.C. § 136, 16 U.S.C. § 1531 et seq. For an example of restrictions imposed on economic activity to protect an endangered species, see the protections of the “critical habitat” of the Northern Spotted Owl imposed by the US Fish and Wildlife Service.
http://www.fws.gov/oregonfwo/Species/Data/NorthernSpottedOwl/Documents/11-21-12_NSO_PressRelease.pdf.

³⁷ Other things are not equal, of course. Delaying Carbon emissions caps will almost certainly exacerbate the

“starts” were authorized and under construction. By early 2009, this number had decreased to just above 500,000. As late as early 2011, the annualized number of residential housing starts remained below 600,000 per year. Due to multiplier effects, this dramatic downturn in residential construction investment was an important part of the collapse in aggregate demand that caused the Great Recession.

Throughout this dramatic decline in construction, zoning law, to my knowledge remained relatively constant. Limits of development applied during the residential construction boom, as well as during the bust. Housing construction changed dramatically, but the regulation of housing remained the same.

The regulation of residential construction does not need to be business cycle constant. Instead, regulations could be lighter when there is very little construction investment, and tighter restrictions when there is a lot of investment. For example, the maximum floor area ratio (FAR) could be higher for construction begun in periods of low housing demand. The ability to construct housing that would be prohibited during ordinary times provides incentives for developers to begin residential construction during times of slack demand. By using countercyclical zoning policy,³⁸ residential construction activity, a big source of economic fluctuations, could become more stable and less prone to collapse during downturns.

Countercyclical regulatory policy, whether through timing or through different regulatory burdens based on the business cycle, undoubtedly entails costs. Changing implementation time and/or rules based on the business cycle introduces new uncertainty into the regulatory environment. Section III weighs the costs of countercyclical regulatory policy against the benefits. In Section III, I conclude that countercyclical fiscal policy is appropriate only when low aggregate demand is an acute problem and other responses are not available. During the Great Recession, these two requirements were met in many if not all jurisdictions.

The addition of macroeconomists to regulatory agencies and the creation of a center of macroeconomic expertise within the executive branch would greatly facilitate countercyclical regulatory policy. For example, a macroeconomic policy center could be charged with countercyclical regulatory policy—delaying regulations that inhibit aggregate demand during recessions and favoring the same regulations during booms. Alternatively, the executive could issue guidance to regulatory agencies regarding its assessment of the state of the business cycle and how that assessment should affect the desirability of regulations that inhibit or promote aggregate demand.

The analysis just presented has focused on discretionary countercyclical regulatory policy. Automatically stabilizing regulatory policy is also quite possible. Indeed, once enacted, many regulations will have an automatic stabilizing effect. Any regulation that restricts economic activity more during booms than in recessions will serve as an automatic stabilizer.

³⁸ In Section ???, I consider whether such countercyclical zoning is already happening implicitly. For example, variances may be easier to obtain during recessions.

6. Countercyclical Adjudicatory Policy

As described above, adjudication has macroeconomic effects. Rulings that favor parties with high marginal propensities to consume stimulate consumption and aggregate demand. Rulings that favor parties with lower marginal propensities to consume inhibit aggregate demand.

Judges, and other parties involved in adjudication, are not macroeconomic experts. As a result, countercyclical adjudicatory policy will prove difficult to implement from an institutional perspective. Nevertheless, judges should consider countercyclical adjudicatory policy concerns in periods of extreme shortages of aggregate demand. This does not mean that the person with the highest MPC should always win in a case that comes before an adjudicator during an economic crisis. Instead, the adjudicator should consider the impact of the ruling on aggregate demand along with other factors in evaluating cases that are decided during severe recessions.

Countercyclical adjudicatory policy enjoys two advantages in severe recessions that do not apply in other time periods. First, the benefits of countercyclical adjudicatory policy are greatest in severe recessions. When aggregate demand plunges, the benefit associated with decisions that increase aggregate demand is much greater than in ordinary circumstances. Other things equal, these high benefits should make countercyclical adjudicatory policy more attractive.

Second, limiting the application of countercyclical adjudicatory policy to severe recessions reduces the burden of expertise on adjudicators. Judges may not be able to determine if the economy is growing at its trend rate or half a percentage point above or below. But they can recognize periods of collapses in aggregate demand such as the one witnessed during late 2008 and early 2009.

In spite of these benefits, there are obvious costs to countercyclical adjudicatory policy. It makes the law less certain. If the economy tumbles, the law is different than it would be otherwise. In addition, there is the risk of opportunism. Parties with high marginal propensities to consume may trigger litigation during severe shortages of aggregate demand in order to discharge obligations.

In my view, however, the benefits of countercyclical adjudicatory policy outweigh the costs when there is a severe shortage of aggregate demand and law as usual produces perverse outcomes that harm the economy. In my view, debtor and creditor law during the Great Recession may have met these strict criteria. Law as usual likely produced many microeconomically inefficient resolutions—mortgages were foreclosed when value would have been enhanced if the mortgages were modified.³⁹ This provides a microeconomic argument for mortgage modification that may or may not outweigh the general presumption of favoring the simple language of the contract. But the failure to modify also had pernicious macroeconomic effects, bringing down aggregate demand at the worst possible time. In combination, these two factors provide a powerful argument in favor of mortgage modification.

In an ideal world, the political process would reform ineffective legal regimes such as this one. During the Great Depression, the political process did indeed reform debtor and creditor law. But the political process is imperfect. During the Great Recession, there was no effective recalibrating of housing

³⁹ See Atif Mian and Amir Sufi articles in QJE, AER.

finance in spite of the fact that the system was not functioning effectively. In such circumstances, judges should have considered crafting an “economic emergency” body of law that altered conventional legal doctrines.

E. A More Comprehensive Law and Macroeconomics

Law and macroeconomics begins with an understanding of the “fixed price” assumption that contrasts with the flexible price assumption that characterizes classical economics, including law and economics and classical macroeconomics. I examine the implications of the fixed price assumption for the short run macroeconomic effects of a wide range of legal and regulatory policies, including zoning laws, a variety of environmental regulations, tax expenditures, and adjudication methodologies.

After I explore the effects of law on the macroeconomy, I investigate the institutional competencies of law with respect to monetary, fiscal, and regulatory policies. Finally, I use this functional and institutional analysis to propose a number of policy interventions that would reduce the costs of future economic crises.

In the rest of the book, I provide a more comprehensive analysis of the issues that I touched upon in the introduction. In particular, I examine the assumptions that determine the predicted effects of law on aggregate demand.

If every law has macroeconomic effects that are worth considering, at least at times, then any book, no matter how long, is inevitably incomplete. Some of my analysis will undoubtedly prove dependent on certain assumptions that prove questionable or just plain wrong. As a result, I hope the reader approaches the following Sections as the beginning of a conversation rather than an authoritative legal and policy analysis.