

2016

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Recommended Citation

Jonathan Masur & Eric Posner, "Should Regulation Be Countercyclical?," Coase-Sandor Working Paper Series in Law and Economics, No. 782 (2016).

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CHICAGO

COASE-SANDOR INSTITUTE FOR LAW AND ECONOMICS WORKING PAPER NO. 782
PUBLIC LAW AND LEGAL THEORY WORKING PAPER NO. 599



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SHOULD REGULATION BE COUNTERCYCLICAL?

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November 2016

Should Regulation Be Countercyclical?

Jonathan S. Masur & Eric A. Posner¹

November 4, 2016

Abstract. Politicians and commentators have from time to time proposed that regulations be suspended or delayed during recessions because of their adverse impact on employment. We evaluate this argument from within a macroeconomic framework. We argue that a case can be made for what we call countercyclical regulation if certain empirical premises are valid; explore the ways in which such regulation might best be designed; and evaluate the legal authority of agencies to issue countercyclical regulations. Because the empirical premises for countercyclical regulation are highly uncertain, it should be adopted on an experimental basis.

Introduction

In 2011, the Obama administration withdrew a proposed Environmental Protection Agency (EPA) rule which would have strengthened the National Ambient Air Quality Standards for ozone. The White House explained that, while it supported stronger environmental regulations, it was unwise to push ahead with them during a weak economic recovery because of their possible adverse effects on job growth. It promised to revisit the issue in 2013, and in 2015 the Obama administration finally issued a stricter ozone rule, in a healthier macroeconomic environment.²

While many people saw an unwelcome intrusion of politics into the rulemaking process, we are interested in evaluating the White House's policy justification for the delay. The suggestion is that the ozone rule would have increased unemployment in 2011, while it would not have increased unemployment in 2015 or would have done so only modestly and at lower social cost. What is interesting about this argument is that it is a *macroeconomic* argument relating to the timing of regulation. Many economists believe that the government can stimulate the economy during a recession by lowering interest rates, cutting taxes, or increasing government spending. Because regulations are functionally very similar to taxes, this argument might imply as well that the government can stimulate the economy during recessions by delaying, suspending, or weakening regulations. The argument simultaneously suggests that the costs of regulation might be different depending on the macroeconomic condition of the economy, above all the state of the labor market. A regulation might lead to significant

¹ University of Chicago Law School. Thanks to Daniel Hemel, Saul Levmore, Yair Listokin, Richard McAdams, Jennifer Nou, David Strauss, David Weisbach, and participants at a workshop at the University of Chicago Law School, for helpful comments, and to Kathrine Gutierrez for excellent research assistance.

² http://www.nytimes.com/2011/09/03/science/earth/03air.html?_r=2; <https://www.whitehouse.gov/the-press-office/2011/09/02/statement-president-ozone-national-ambient-air-quality-standards>; <http://www.politico.com/story/2015/10/obama-administration-tightens-regulations-for-smog-causing-ozone-pollution-214323>.

unemployment during a recession, and each lost job might impose significant costs on the laid-off worker; but the same regulation might involve many fewer lost jobs, and much lower cost, during normal or economic boom times.³ If agencies took account of these macroeconomic effects on a large scale, regulatory policy would be countercyclical.

Congress has also gotten into the act. From time to time, members of Congress have proposed bills that would require agencies to suspend regulatory activity during recessions. For example, the Regulation Moratorium and Jobs Preservation Act of 2011 states that “No agency may take any significant regulatory action, until the Bureau of Labor Statistics average of monthly unemployment rates for any quarter beginning after the date of enactment of this Act is equal to or less than 7.7 percent.”⁴ The sponsor of the bill, Senator Ron Johnson, hoped to block an EPA regulation of industrial boilers that he believed could risk 338,000 jobs.⁵ But the bill allows EPA and other agencies to regulate once unemployment falls, in the spirit of President Obama’s approach to the ozone regulation.

Is there a valid basis for President Obama’s and Senator Johnson’s claims that regulation should be cut back during periods of high unemployment? Critics of regulation have, for quite some time, argued that regulation increases unemployment. From a microeconomic standpoint, this criticism is misguided. In neoclassical models of the labor market, unemployment is not a social cost. If a CBA-justified regulation causes firms to fire workers, this means that employment of the workers was socially wasteful—they were participating in production that caused net social costs. The unemployment rate will increase as the workers seek new jobs or retrain, but the temporary increase in joblessness merely reflects (in this model) the workers’ own (presumably) rational estimate of the costs and benefits of searching or retraining versus taking a new job at a lower wage. If regulations cause a permanent increase in unemployment, that is just an unfortunate byproduct of structural factors. And even if regulations fail CBAs and are issued nonetheless (as many critics appear to assume), the effect on unemployment is largely irrelevant from a social welfare perspective under the traditional model. For these reasons, CBA has never included costs or benefits related to unemployment generated by regulation.

In recent work, we have argued that regulators should try to incorporate unemployment costs into their models.⁶ But in making our argument, we remained largely within the microeconomic/neoclassical perspective. We pointed out that studies showed that workers who lost their jobs incurred quite substantial costs, and there was no reason to believe that they were fully compensated ex ante by their wages.

In this paper, we revisit this argument from the macroeconomic perspective taken by Obama and Johnson. Our focus is on the possibility, forcefully suggested by Yair Listokin, that

³ See Yair Listokin, *Law and Macroeconomics: The Law and Economics of Recessions*, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2828352 (2016).

⁴ <https://www.congress.gov/bill/112th-congress/senate-bill/1438>.

⁵ <http://www.ronjohnson.senate.gov/public/index.cfm/2011/7/johnson-introduces-regulation-moratorium-and-job-preservation-act>.

⁶ Jonathan S. Masur & Eric A. Posner, *Regulation, Unemployment, and Cost-Benefit Analysis*, *Virginia Law Review*. See also Coglianese, Finkel, and Carrigan, eds., *Does Regulation Kill Jobs?*

under certain conditions regulation could be used as a tool of macroeconomic policy.⁷ A regulation is a kind of tax, and so one would expect regulations, holding all else equal, to suppress economic activity. In principle, the government could stimulate economic activity during recessions by weakening existing regulations—just as one common response to recession is to reduce taxes. It could also suppress economic activity during booms by strengthening regulations or creating new regulations—just as taxes should be raised during upturns. In short, regulation should be countercyclical, just like monetary and fiscal policy.

While the idea of countercyclical regulation may seem novel, there is in fact precedent for it. A major criticism of the capital regulations issued under the first two Basel Accords is that they were procyclical.⁸ When banks and other financial institutions fund projects, they will usually try to use a large amount of leverage. Capital regulations limit the amount of leverage they use by requiring banks to maintain a minimum ratio of equity to debt. This reduces the amount of risk externalized on the financial system. The problem with this approach is that during booms, a bank's assets may become overvalued, with the result that the bank will be able to increase its borrowing; during busts, a bank's assets may become undervalued, with the result that the bank will need to reduce its borrowing. Capital regulations in this way allow or encourage banks to borrow more during booms, and less during busts—when the goal is the opposite. Various proposals have been made to make capital regulations countercyclical, which we will discuss later in this paper.

We discuss whether this logic may apply to other types of regulation, like environmental regulation, and we explore the legality and practicality of such an approach. Adjusting regulation to reflect the state of economy involves substantial practical hurdles. Once regulations are put in place, they may endure for many years.⁹ Regulators are too busy to revisit them whenever a boom or bust occurs, and regulatory activity is often too slow to respond effectively to temporary downturns. Nor is it practical to introduce some kind of static macroeconomic discount or multiplier at the time that the regulation is first introduced. While (for example) a concern about unemployment might create a general bias against regulation, a concern about general macroeconomic effects does not produce a consistent bias for or against regulation. Instead, it requires the regulations to be adjusted over time in response to changing macroeconomic conditions.

⁷ Listokin, *supra* note 3; Yair Listokin, A Theoretical Framework for Law and Macroeconomics, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2860283 (2016). There is a small literature in economics that addresses these questions, mostly in the context of environmental regulation; see Fischer & Heutel, Environmental Macroeconomics, *Ann. Rev. Resour. Econ.* (2013) for a survey; and more recently, Richard Rogerson, A Macroeconomic Perspective on Evaluating Environmental Regulations, *Rev. Env. Econ. & Pol'y* (modeling effects of regulation on macroeconomic variables); Emissions cap or emissions tax? A multi-sector business cycle analysis by Yazid Dissou & Lilia Karnizovab, *JEEM*; Environmental policy and macroeconomic dynamics in a new Keynesian model Barbara Annicchiaricoa & Fabio Di Diob, *JEEM*. See also Robert J. Brent, Overview of the Field and the Contributions in the Handbook, in *Handbook of Research on Cost-Benefit Analysis*,

⁸ Hanson et al. 2011.

⁹ For example, a rule defining the phrase “waters of the United States” (and thus the scope of the Clean Water Act) was promulgated in 1986. 33 CFR 328.3; 40 CFR 122.2. It was not amended or updated until 2015. 40 CFR 230.3. https://www.epa.gov/sites/production/files/2015-05/documents/final_clean_water_rule_economic_analysis_5-15_2.pdf.

This paper proceeds in three parts. In Part I, we offer some background on macroeconomics and the types of policy tools typically used in macroeconomic policymaking. In Part II, we examine the case for countercyclical regulation. In Part III, we discuss the institutional dynamics of a macroeconomic approach to regulation and consider the mechanisms for tailoring regulation to macro conditions.

I. Background on Macroeconomic Stimulus Policy

Stimulus policy is based on a theory of the economy that assumes that prices do not immediately adjust to changes in supply and demand.¹⁰ On this theory, businesses invest in inventory based on predictions about future economy activity. When those predictions are falsified by events, businesses own either too much or too little inventory. If they own too much inventory, they lay off workers and reduce investment until the inventory is sold off. If these pullbacks occur across the economy, unemployment rises. The laid-off workers reduce their spending, which further inflates inventories, causing businesses to lay off additional workers, in a downward spiral. On the other hand, if inventories are smaller than needed in order to satisfy consumer demand, businesses will borrow heavily and hire additional workers, who will spend additional money, further increasing demand, in an upward spiral. The result is the familiar boom-and-bust pattern of economic growth.¹¹

With stimulus policy, the government attempts to ameliorate the business cycle. There are two basic approaches: monetary policy, through which the Federal Reserve takes action to raise and lower interest rates, and fiscal policy, through which Congress cuts taxes or increases spending. We discuss those approaches and then turn to a third option, automatic stabilizers, which are a variant of fiscal stimulus.

A. Monetary and Fiscal Policy

Monetary policy takes place through the central bank, the Federal Reserve Board. As an economy enters recession, the Fed attempts to lower market interest rates. It does this typically by buying liquid, low-risk securities like treasuries from private institutions known as primary dealers—the major banks and investment banks. As the Fed buys from the primary dealers, those institutions accumulate cash, which they turn around and lend out to other banks and lend to or invest in private firms. The surge of money in the economy reduces the market interest rate. Businesses can therefore borrow money more easily, allowing them to retain or hire workers. Consumers can also borrow more easily, allowing them to buy houses, cars, and other goods. This consumer behavior increases aggregate demand, which draws down inventories, taking the economy out of recession.

As the economy leaves recession and heats up, the Fed reverses course and now sells the securities that it had bought during the recession (and perhaps other securities in its portfolio). As it sells the securities, cash leaves the economy, and interest rates rise, suppressing economic

¹⁰ There is a different theory that puts emphasis on the distortions caused by taxation rather than price stickiness, but this seems to be a minority view.

¹¹ See Mankiw, for a textbook treatment.

growth. The goal is to reduce variance in economic growth, as well as manage inflation and mitigate cyclical, as opposed to structural, unemployment.

The government can also use fiscal policy to strengthen aggregate demand by cutting taxes or increasing public spending. When it cuts taxes, it increases the take-home pay of workers, who (in theory) spend some of the additional money on goods and services. The providers of those goods and services are then able to spend the additional money they have earned on other goods and services, increasing the flow of money throughout the economy. Purchases of goods also draw down inventories. As inventories fall, businesses rehire workers, who spend their paychecks on more goods, drawing down inventories further.¹² When the government increases spending, it directly hires workers or pays businesses for goods or services, which the businesses must hire workers to supply. Government purchases draw down inventories both directly, as the government purchases goods, and indirectly, as the newly hired workers purchase goods with their pay. In both cases, the government action reverberates through the economy: workers who are hired use their pay to buy goods, which draws down inventories, which requires businesses to hire more workers, who in turn buy goods as well, and so on. This leads to a multiplier effect. A single dollar in stimulus can increase economic output by more than a dollar, depending on how the stimulus is structured.

The government finances tax cuts and spending through deficit financing; eventually it must repay the debt through tax increases and spending cuts. These adjustments will cut short the boom, so that the overall effect is both to reduce variance in economic outcomes and to raise total long run output in the face of inadequate aggregate demand.

Critics of fiscal stimulus have argued that businesses and consumers would not adjust their behavior in response to a stimulus since they know that in future the government will impose costs on them. There are also significant questions about how people react to stimulus measures. If consumers save the proceeds from tax cuts, as they often do, the tax cut will not stimulate the economy. Many economists also argue that the government does not have enough information about the economy to engage in the sort of “fine-tuning” that fiscal stimulus policy requires.¹³ It is always a step behind the economy, and so an intervention can mistakenly stimulate the economy after the recession has ended, leading the economy to overheat during the boom cycle.¹⁴ That said, we assume for the purpose of the paper that the defenders of stimulus policy are right.

Indeed, the empirical literature gives the edge to the defenders of fiscal stimulus. One survey of empirical studies found government spending multipliers that varied from -3.8 to +3.8 and tax cut multipliers that varied from -4.8 to +3.0, depending on the stimulus being studied and the methodological approach used to model its effect.¹⁵ Another more limited survey of the

¹² This is the famous “Keynesian Cross,” the simplest model of sticky wages. See Mankiw, *supra*.

¹³ Alan J. Auerbach, William G. Gale, and Benjamin H. Harris, *Activist Fiscal Policy*, 24 *Journal of Economic Perspectives* 141 (2010).

¹⁴ Valerie A. Ramey, *Can Government Purchases Stimulate the Economy?*, 49 *Journal of Economic Literature* 673 (2011); John Taylor, *An Empirical Analysis of the Revival of Fiscal Activism in the 2000s*, 49 *Journal of Economic Literature* 686 (2011).

¹⁵ Patrick Van Brusselen, *Fiscal Stabilisation Plans and the Outlook for the World Economy*, Federal Planning Bureau 18 (2009).

literature on fiscal stimulus in the United States found multipliers ranging from +0.5 to +2.5 for direct government spending, to +0.1 to +1.5 for tax cuts.¹⁶ Individual studies typically arrive at much tighter estimates. One leading study estimates fiscal multipliers at approximately +3.0.¹⁷ While the choice of modeling methodology can greatly affect estimates of fiscal multipliers, and differences in models are responsible for a large percentage of the observed variation, there appears to be a general consensus that fiscal multipliers are positive,¹⁸ and that spending leads to higher multipliers than tax cuts.¹⁹ This latter point is due to the fact that public spending involves an initial round of economic activity—the spending itself—followed by subsequent rounds as the money percolates through the economy, while tax cuts or rebates do not involve the initial (government) round of economic activity.²⁰

The United States gross domestic product was roughly \$17.95 trillion in 2015,²¹ and so an economic stimulus program must be substantial if it is to make any serious dent. The largest such program on record is the American Recovery and Restoration Act of 2009, which involved \$862 billion in additional spending, tax cuts, and transfers to state and local governments.²² This was equivalent to 5.5% of that year's GDP, though it was spread over several years.²³ Stimulus packages in non-U.S. OECD countries during the same time period averaged 2.5% of GDP.²⁴ The largest stimulus program enacted during the Great Depression totaled only 1.5% of GDP.²⁵ President Bush's 2003 tax cut, which had an estimated size of \$350 billion (about 3% of GDP), was also promoted as a stimulus program.²⁶

Among those economists who support stimulus policy, the majority believe that the government should use monetary policy before resorting to fiscal policy.²⁷ The principal reason is the comparative speed and ease with which monetary policy can be implemented. Policymakers at the Federal Reserve can begin purchasing securities or lower interest rates in a matter of days (or even hours) after deciding that an economic downturn is taking place. By contrast, fiscal policy, whether tax cuts or spending, typically requires congressional action. Stimulus bills can be stalled in Congress for lengthy periods, by which point the macroeconomic situation might have changed dramatically, or even fail to pass Congress at all.

¹⁶ Charles J. Whalen & Felix Reichling, *The Fiscal Multiplier and Economic Policy Analysis in the United States*, Congressional Budget Office 12 (2015).

¹⁷ Christina D. Romer & David H. Romer, *The Macroeconomic Effects of Tax Changes: Estimates Based On a New Measure of Fiscal Shocks*, 100 *Am. Econ. Rev.* 763, 782-84 (2010).

¹⁸ Whalen & Reichling, *supra* note __, at 4.

¹⁹ Van Brusselen, *supra* note __, at 3.

²⁰ *Id.*

²¹ Bureau of Economic Analysis, *Gross Domestic Product: Fourth Quarter and Annual 2015*, at http://www.bea.gov/newsreleases/national/gdp/2016/gdp4q15_3rd.htm (2016).

²² Alan J. Auerbach et al., *Activist Fiscal Policy*, 24 *J. Econ. Persp.* 141, 152 (2010).

²³ *Id.* at 154.

²⁴ *Id.*

²⁵ Christina D. Romer, "Back From the Brink." Address to the Federal Reserve Bank of Chicago. Chicago, Illinois, September 24. <http://www.whitehouse.gov/administration/eop/cea/BackFromTheBrink> (2009).

²⁶ Joint Committee on Taxation, *Estimated Budget Effects of the Conference Agreement for H.R.2, the "Jobs and Growth Tax Relief Reconciliation Act of 2003,"* at <https://www.jct.gov/publications.html?func=startdown&id=1746>. Many economists criticized this tax cut as overly costly and largely ineffective at stimulating economic growth. Economic Policy Institute, *Economists' Statement Opposing the Bush Tax Cuts*, at http://www.epi.org/files/page/-/old/stmt/2003/statement_signed.pdf (2003).

²⁷ Mankiw, 552-55.

At the same time, once a stimulus policy has been enacted, there may be a lag before the stimulus begins to affect the economy. Monetary policy operates primarily by lowering the cost to businesses of investing in new facilities and equipment and hiring new workers. However, economists believe that most businesses make investment decisions approximately six months in advance; accordingly, the effects of a change in monetary policy will typically be visible only after that much time has passed.²⁸ For fiscal policy, the time lag depends greatly upon the type of policy chosen. Public spending often involves the construction of infrastructure projects that may take significant time to plan and execute. Once a project has been selected, the government must still hire employees (or a private contractor, who must then hire employees) and begin placing purchases. Delay can be exacerbated by bureaucratic red tape. Construction projects, for example, can be delayed for months and years while officials obtain approvals from federal, state, and local regulatory agencies. Direct payments to state and local governments will similarly affect the economy only as quickly as those governments use the additional money to hire new workers or make new purchases (or retain workers who would have been laid off). Tax cuts, for their part, will often affect workers' disposable income almost immediately if they reduce the amount of taxes withheld in weekly paychecks. Most recent stimulus packages, including President Obama's 2009 stimulus²⁹ and President Bush's 2003 stimulus,³⁰ have been structured to reduce tax withholding immediately, although this is not necessarily always the case. Some tax cuts take effect only at the end of the year.

Despite the advantages of monetary policy, the Federal Reserve's ability to stimulate the economy by lowering interest rates is limited. In a severe economic downturn, even lowering interest rates to zero might not be enough to effectively stimulate the economy. The Federal Reserve cannot lower rates (much) below zero because investors can always hold money as cash instead of depositing it at negative rates. When the Federal Reserve reaches this "zero lower bound," its options are limited to more exotic measures that are less effective. For economists who support stimulus policy, the case for fiscal policy is strongest when interest rates have reached the zero lower bound.

Because of the delays in implementing stimulus policies, particularly fiscal stimulus, policymakers have come to rely more heavily on stimulus policies that take effect automatically without active government intervention. Those types of policies are the subject of the next section.

B. Automatic Stabilizers

Automatic stabilizers are policies that are permanently in place—so that discretionary government action is not needed—but have the same effect as targeted macroeconomic interventions. Ordinary income taxes are automatic stabilizers because they partly counter the normal cyclical pattern of disposable income. On average, people earn more during booms than busts (in part because of bonuses but mainly because more people are employed). As a result, they pay more taxes during booms than during busts. Thus, their disposable income rises during

²⁸ *Id.* at 553.

²⁹ <https://www.gpo.gov/fdsys/pkg/BILLS-111hr1enr/pdf/BILLS-111hr1enr.pdf>

³⁰ <http://www.accountingweb.com/practice/growth/the-jobs-and-growth-tax-relief-reconciliation-act-of-2003>

busts relative to its level if taxes did not exist. Similarly, welfare and unemployment programs are countercyclical. More people receive welfare or unemployment insurance during busts than during booms, which means that the government pumps more money into the economy during busts than during booms.

Automatic stabilizers work best when they shift money to low-income people during recessions. The reason is that low-income people spend a larger share of their paycheck than high-income people, who save a portion of it. Thus, welfare programs are an effective source of stabilization. While a flat tax like the payroll tax also can stabilize, progressive taxes are even more effective because they shift a greater amount of spending from booms to recessions.

Despite the vigorous debate over stimulus generally, there is close to a consensus that automatic stabilization does have valuable macroeconomic properties. However, this consensus comes with some caveats. In a recent paper, Alisdair McKay and Ricardo Reis find that automatic stabilizers that operate by providing individuals with additional disposable income—such as reductions in income tax rates—actually do relatively little to stabilize aggregate demand.³¹ Automatic stabilizers that function as social insurance, such as unemployment benefits or food stamps, are significantly more effective. The macroeconomic context matters as well. McKay and Reis find that automatic stabilizers have greater impact when interest rates are at the zero lower bound and the role of monetary policy is reduced.³²

Automatic stabilizers can be quite substantial, particularly during severe economic downturns such as the Great Recession of the last decade. During fiscal year 2012, automatic stabilizers in the United States totaled \$386 billion, or 2.3% of potential GDP.³³ Those figures dropped to \$277 billion and 1.6% of potential GDP in 2013³⁴ and \$192 billion and 1.1% of potential GDP in 2014³⁵ as economic conditions in the United States slowly improved. Nonetheless, in just those three years, automatic stabilizers accounted for \$855 billion in spending, roughly equivalent to President Obama's 2009 fiscal stimulus. One model of automatic stabilizers during the same time period concluded that automatic stabilizers, principally the income tax, had the capacity to mitigate 32% of lost income in the United States and 38% of lost income in the EU, in cases where workers kept their jobs but saw wages decline.³⁶ Where workers became unemployed—creating larger income shocks but also triggering additional automatic stabilizers such as unemployment insurance—the mitigation amounted to 34% of lost wages in the United States and 47% in the EU.³⁷ These results are not unique to the past decade.

³¹ Alisdair McKay & Ricardo Reis, *The Role of Automatic Stabilizers in the U.S. Business Cycle*, 84 *Econometrica* 141 (2016).

³² *Id.*

³³ Congressional Budget Office, *The Effects of Automatic Stabilizers on the Federal Budget as of 2013*, March 2013, at <https://www.cbo.gov/publication/43977>.

³⁴ Congressional Budget Office, *The Effects of Automatic Stabilizers on the Federal Budget as of 2014*, March 2014, at <https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/45010/45010-breakout-AppendixE.pdf>.

³⁵ Congressional Budget Office, *The Effects of Automatic Stabilizers on the Federal Budget as of 2015*, March 2015, at <https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/49892/49892-breakout-AppendixD.pdf>.

³⁶ Mathias Dolls, Clemens Fuest & Andreas Peichl, *Automatic Stabilizers and Economic Crisis: US vs. Europe*, NBER Working Paper 16275 (2010), at <http://www.nber.org/papers/w16275>.

³⁷ *Id.*

An earlier study of automatic stabilizers between 1962 and 1995 found that income and payroll taxes alone offset approximately 8% of any shock to GDP.³⁸

II. Implications for Regulation

Regulations are similar to taxes, and for that reason a case may be made that if tax cuts can be used for fiscal stimulus, then “regulatory cuts” may be as well. But the argument is more complex than it seems at first. Not all taxes are equally useful for fiscal stimulus, and regulations similarly vary in ways that make some of them more appropriate for stimulus than others.

In the analysis below, we will use the following terms. A “regulatory cut” or “regulatory suspension” refers to an action by an agency to reduce or eliminate the impact of a regulation on industry. As we discuss later, a regulatory cut could take many different forms, including the formal suspension of a regulation, but also ad hoc approaches like reducing the quantity of inspections, the magnitudes of fines for noncompliance, the quantity of information a firm must disclose, and so on. We will also refer to “regulatory expenditure,” which is the cost to a firm from complying with a regulation.

A. Regulatory Suspension as Stimulus

Regulations are like corporate taxes, and suspending regulations should stimulate economic activity just as would a cut in the corporate tax rate.³⁹ U.S. GDP was almost \$18 trillion in 2015, and that automatic stabilizers averaged \$285 billion from 2012-2014. Measured against these baselines, it might seem unlikely that regulatory adjustments or suspensions could significantly affect the economy. But the costs imposed by regulation can in fact be quite high. In a 2013 report, the Office of Management and Budget (OMB) estimated that the economically significant rules promulgated over the prior decade (2003-13) imposed total annual costs of roughly \$85 billion in 2010 dollars.⁴⁰ A similar report produced in 2001 estimated the total annual costs of regulations promulgated between 1987 and 2000 at \$92 billion in 1996 dollars, or roughly \$121 billion in 2010 dollars.⁴¹ Based on this accounting, the regulations promulgated from 1987 through 2013 impose more than \$200 billion in yearly costs. This figure does not include the many regulations with economic impact of less than \$100 million, which are not classified as “economically significant.” It also does not include the many significant regulations from before 1987. (To offer just one example of under-counting: the Clean Air Act was passed in

³⁸ Alan J. Auerbach & Daniel Feenberg, The Significance of Federal Taxes as Automatic Stabilizers, 14 J. Econ. Persp. 37, 38 (2000).

³⁹ See Alexander Ljungqvist & Michael Smolyansky, To Cut or Not to Cut?, working paper 2016 (discussing effects of corporate tax cuts and increases).

⁴⁰ Office of Management and Budget, 2014 Draft Report to Congress on the Benefits and Costs of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities 11, at https://www.whitehouse.gov/sites/default/files/omb/inforeg/2014_cb/draft_2014_cost_benefit_report-updated.pdf (2014).

⁴¹ Office of Management and Budget, Making Sense of Regulation: 2001 Report to Congress on the Costs and Benefits of Regulations and Unfunded Mandates on State, Local, and Tribal Entities, at <https://www.whitehouse.gov/sites/default/files/omb/assets/omb/inforeg/costbenefitreport.pdf> (2001).

1963, and the Clean Water Act was passed in 1972. Those laws led to substantial numbers of regulations in the period before 1987.⁴²⁾

However, that is not to say that these regulations are misguided or should be repealed. Not all regulations are created equal for these purposes. The ideal regulatory cut involves a regulation that is prospective, involving cost savings that will be permanent rather than temporary, where the firm uses the savings in a stimulative way, where the regulatory expenditure will not stimulate the economy, and where suspending the regulation will not result in a net loss to social welfare. Regulatory cuts that do not satisfy these conditions are poor candidates for suspension.

Consider by way of illustration a generic environmental regulation that requires a factory to reduce pollution. Imagine that the regulation requires the factory to install a scrubber at time 1 at fixed cost F and maintain the scrubber at time 2 through n at variable cost V per period. A recession strikes at time $i > 1$. The agency may suspend the regulation during this time period in order to stimulate the economy. Clearly, by suspending the regulation, the agency does not save the firm F , but only V . In general, a regulatory suspension or “cut” acts as a stimulus only to the extent that prospective regulatory costs are high; sunk costs are irrelevant.⁴³ This is the first dimension of interest.

A second important issue is whether the savings to the firm will be permanent or only temporary. The savings that the firm realizes from not having to maintain the scrubber, V , are permanent. There is no future period in which the firm will be forced to “make up” for the maintenance that it failed to perform during the period of regulatory suspension. The firm is at liberty to spend V on some other project, such as increased dividends or hiring additional workers. By contrast, imagine that the firm decides to expand its operations and build a second factory during the period of regulatory suspension. At first glance, it might appear that the firm will also save F , the cost of installing a new scrubber, because the regulation requiring the scrubber has been suspended. But this is not really the case. At some point in the future, when the macroeconomic state of the economy improves, the regulation will be reinstated and the firm will be forced to pay F to install the scrubber after all. The firm’s savings are only temporary. It is saving the time value of F : the difference between paying F now and paying it at a later date, which is some fraction of F that depends on the prevailing interest rate.⁴⁴ Regulatory cuts that involve permanent savings to firms will produce greater stimulative effects than cuts that involve only temporary savings.⁴⁵

⁴² For instance, one retrospective study found that regulations promulgated as a result of the 1970 and 1977 Clean Air Acts cost approximately \$500 billion dollars between 1970 and 1990. The Benefits and Costs of the Clean Air Act, 1970 to 1990 - Retrospective Study, ES-8, at <https://www.epa.gov/clean-air-act-overview/benefits-and-costs-clean-air-act-1970-1990-retrospective-study>.

⁴³ Except perhaps if a firm can anticipate the regulatory suspension during a recession, in which case it may be able to save a portion of a rainy day fund that it holds in order to protect itself from the adverse effects of a recession.

⁴⁴ If macroeconomic conditions are poor, it is likely that interest rates are low, and so the time value of F may be small.

⁴⁵ There is an analogy to fiscal stimulus more generally. Government spending or tax cuts during a recession must eventually be paid for with tax increases at a later date. As we explained above, some economists believe that firms and individuals will rationally anticipate these future tax increases and will not increase spending during the downturn, defeating the purpose of the stimulus. There is debate over whether individuals and firms will actually behave in this fashion, as we note. Regardless of how likely it is that individuals and firms will incorporate

It is also possible that firms will anticipate the government over-regulating to “catch up” after periods of regulatory suspension. For instance, if the EPA suspends a sulfur dioxide regulation during a downturn, it might impose an especially stringent form of regulation once normal economic times resume in order to eliminate the “extra” sulfur dioxide that was emitted during the suspension. If firms anticipate over-regulation, they may increase their savings in order to pay for future regulation rather than increasing production or hiring more workers. This is analogous to the behavior predicted by the theory of Ricardian equivalence.⁴⁶ Of course, agencies should not over-regulate in the wake of regulatory suspensions; they should return to the optimal level of regulation. Any “extra” pollution that was released during a period of regulatory suspension is a sunk cost. In addition, increasing the level of regulation following a suspension would typically require a new notice-and-comment rule-making proceeding, which is costly for an agency. For these reasons, we think it is unlikely that firms will anticipate future over-regulation.

A third factor is how the firm uses the money that it saves, V . There are numerous possibilities. The firm might transfer V to shareholders in the form of dividends; retain or “save” V for future projects; or use V to expand production by, for example, hiring workers and buying inputs. Under standard macroeconomic theory, the regulatory cut will not serve as a stimulus if the firm saves V . The regulatory cut might stimulate the economy if V is returned to shareholders, but the stimulus is likely to be limited or nil because shareholders are typically wealthy and unlikely to spend much of their savings. The best case for stimulus occurs in the third case. If the firm buys inputs, it will reduce inventories held by other firms; if it hires workers (or pays its workers more), the workers will in turn buy goods, reducing inventories as well. But it may be doubtful that a firm will expand production in the middle of a recession. The best case for stimulus arises if the firm occupies a sector of the economy that has not been affected by the general downturn.

A fourth issue is whether the regulatory compliance action independently stimulates the economy. Imagine a pollution regulation that limits the quantity of pollutants that a factory may emit into neighboring bodies of water. As long as that regulation is in effect, the firm could comply with it in two ways: by cutting production or by installing water filtration devices and hiring workers to operate those devices in order to capture pollutants before they escape the premises. This means that if the regulator suspends the regulation, the stimulative effective will depend on how the firm complied with the regulation. If the firm complied with the regulation by cutting production, then suspension of the regulation may cause the firm to expand production, in which case it will hire workers and stimulate the economy. But if the firm complied with the regulation by installing and operating filtration equipment, then suspension of the regulation may cause layoffs of the workers who had run the filtration system, or layoffs at the firm that produces the filtration system. Accordingly, Yair Listokin suggests that certain types of regulation will typically be stimulative, and that regulation can be tailored to be more stimulative if regulations are written to require capital expenditures in purchasing and installing

expectations of future higher taxes, we suspect it is even more likely that a firm, when deciding whether to invest during an economic downturn, will take into account the fact that it must bear a fixed cost F to install a scrubber once the downturn ends.

⁴⁶ Robert J. Barro, *On the Determination of the Public Debt*, 87 J. Pol. Econ. 940 (1979).

equipment.⁴⁷ On the other hand, much of the macroeconomic literature on environmental regulation suggests that regulation will usually dampen economic activity, at least in the longer term.⁴⁸

It will be difficult for an agency to determine the macroeconomic effects of its regulations with any precision. However, an agency can likely obtain some purchase on this question from its own estimate of the overall employment effects of a regulation. Agencies are usually required to calculate the expected employment effects of their regulations, even if they do not incorporate these figures into the cost-benefit analysis.⁴⁹ The agencies' calculations include the jobs created when regulation requires firms to purchase and install additional equipment. If a regulation is expected to lead to job gains, as is the case with some regulations, then the regulation likely has a stimulative effect.⁵⁰ If the regulation is expected to lead to job losses, then the economic drag produced by the regulation likely exceeds any stimulative effect generated by compliance.

The fifth and final issue is whether suspending the regulation will lead to excessive social harm. Regulations typically generate net benefits.⁵¹ If a regulation is suspended during a downturn, the net benefit is lost. Nor can the net benefit be recovered if the government enhances the regulation during a boom. If the agency has regulated properly, the regulation should already be maximizing benefits net of costs. Enhancing the regulation during a boom would represent over-regulation and reduce the net social benefits. Consider, for example, a water pollution regulation that preserves a wilderness area worth \$10 million per year for users. If the regulation is suspended during a one-year recession, the \$10 million benefit is lost and cannot be recovered. As a general matter, it makes no sense to suspend regulations that generate net benefits. An economic downturn raises the unemployment costs generated by regulation by making it harder for workers who lose their jobs to find new ones. Accordingly, the value of stimulating the economy by relaxing the regulation may exceed the \$10 million benefit that has been lost.

This means that when an agency incorporates macroeconomic considerations into a regulation, it will need to add a new input to its CBA. Currently, agencies disregard unemployment costs but they do make predictions about the employment effect of a regulation. To take a simple case, suppose that an agency considers issuing a regulation during a recession. It should fold the unemployment analysis into the CBA by monetizing the cost of unemployment (or benefit, if the regulation will reduce unemployment).⁵² It should also use the relevant multiplier to predict and monetize the negative effect (or positive) effect of the regulation on economic output.⁵³ To ensure uniformity among agencies, the agency should use a multiplier

⁴⁷ See Listokin, *supra* note 3.

⁴⁸ For details, see sources cited in note 6.

⁴⁹ Masur & Posner, Regulation and Unemployment.

⁵⁰ *Id.*

⁵¹ See Masur & Posner, Unquantified Benefits and the Problem of Regulation Under Uncertainty, Cornell L. Rev. (2017)

⁵² As advocated by Masur & Posner, *supra*.

⁵³ A regulation imposes both costs and benefits on the economy. To calculate the multiplier effect, the regulator must estimate the net revenue effect of the regulatory cut at the time of interest. For example, a regulatory cut may save the firm \$100 today while increasing harms in the future. The \$100 savings is the equivalent of a \$100 corporate tax cut, and should be subject to the same multiplier as the tax cut would be.

supplied by OIRA or another central agency (like the Fed) rather than calculate the multiplier itself.

A more complicated case arises when an agency designs a regulation that it expects to last through many cycles. The agency must predict the effect of the regulation on unemployment and hence economic output for the booms and the busts—or explicitly design a regulation whose strictness varies with the business cycle. In both cases, at least in principle, it can make predictions about business cycles, use the multiplier, and regulate accordingly. It is not clear how practical this is in the current state of macroeconomic knowledge.

Let us consider a real-world example. A 1998 EPA regulation setting effluent guidelines for pulp and paper manufacturing was expected to produce \$159.5 million in net benefits (not including unemployment costs) but also lead to the loss of 5,711 jobs.⁵⁴ This regulation required manufacturers to switch from one type of chemical used in pulp and paper processing to a different, safer, but more expensive chemical. Suspension of this regulation would thus enable the firm to avoid incurring these extra costs. Instead, the firm would (presumably) retain the workers and continue with production. The workers would spend their savings, in line with the multiplier effect. It is also theoretically possible that switching to the more expensive chemical could also have a multiplier effect: the firm that sells the expensive chemical will hire workers as demand for its product increases. To determine whether a regulatory suspension would stimulate the economy, the regulator would need to net out these effects, taking into account the possibility that production of the expensive type of chemical might employ more workers than production of the other type of chemical—so that any possible loss in the regulated firm’s workforce would be offset or partly offset by a net increase in employment by chemical suppliers. If the regulator’s own job loss figures are to be believed, then suspension would on net produce a desirable macroeconomic effect. The question then is whether these gains exceed the cost to society from the pollution that regulation would have eliminated. If the job loss figures are accurate—and if the economy is in recession and interest rates are at or near the zero bound—then they may well have.

The analysis changes once the regulation is in force. Suppose that the industry already uses the new chemical because of an earlier-enacted regulation. A recession strikes. Should the EPA now suspend the regulation? The difference now is that many of the costs of complying with the regulation are sunk. If the firm has purchased new machinery that is only compatible with the expensive chemical, it may not return to the old chemical even if EPA suspends the regulation. But it is also possible that regulatory expenditures are almost entirely variable. The regulator would need to take into account these factors when deciding whether to suspend an existing regulation; they are of no or less relevance where the regulator must decide whether to delay a regulation in the first place.

B. Some Applications

We have so far used environmental regulations to illustrate our arguments. Here, we address other types of regulations that further illustrate how a regulatory stimulus might take place.

⁵⁴ *Id.* at 598.

Workplace safety. OSHA requires firms to maintain workplace safety by installing safety devices, training workers, adjusting the production process so as to minimize toxic inputs, and so on.⁵⁵ Like environmental regulations, workplace safety regulations can cause firms to cut back on production or hire additional workers. In the abstract, then, it is unclear whether a regulatory suspension would have a stimulative or depressive effect. However, we can imagine a setting where it would be prudent for OSHA to delay new safety regulations because of a recession. During a recession, firms normally cut back production because of excess inventories. A firm that is in the process of cutting back on production would probably be reluctant to purchase new safety equipment when the alternative is to lay off a few more people than it otherwise would. The case for a regulatory suspension, to be sure, is weaker to the extent that the regulation would produce significant health and safety benefits for workers at low cost to firms.

Consumer product safety (including financial products). Numerous regulators try to protect consumers from defective products, including risky financial products.⁵⁶ Usually, if a product is found to be dangerous or risky, the government recalls it or orders firms to correct defects. It seems doubtful that these actions would have macroeconomic effects, except perhaps in extreme circumstances, such as the recall of millions of cars. In the latter case, the cost will most likely fall on the firm, and the analysis is the same as in the workplace and environment cases. But at least in principle aggressive types of consumer product regulation could raise prices without creating sufficient offsetting quality improvements, which would suppress demand, exacerbating a recession. In such cases, an argument could be made for suspending the regulation. Another interesting case concerns financial products. A crackdown on risky financial products during a recession, when credit is tight, could worsen the recession. During the financial crisis of 2007-2008, financial regulators struggled with just this problem. They sought to crack down on risky mortgages just when people depended on such mortgages to refinance.⁵⁷

Transportation Safety. A panoply of federal and state agencies, including NHTSA, the Federal Aviation Administration, the National Transportation Safety Board, and the Federal Railroad Administration are charged with regulating the safety of passenger and cargo transport.⁵⁸ These regulations include requirements that transportation companies install certain types of safety equipment; that they provide training; and that they limit the number of hours that employees operate vehicles, among other restrictions. Some of the costs involved in these regulations will be sunk; a firm cannot easily uninstall safety equipment from a railroad or airplane, nor would it want to. But others will be variable: firms could scale back the training they provide or alter how they schedule employees for work, steps that would reduce the firm's operating costs. Lower transportation operating costs would then permit other manufacturers to move goods and raw materials at lower cost, which would reduce prices for consumers and lead to increased spending. This in turn would reduce inventories and possibly lead manufacturers to

⁵⁵ https://www.osha.gov/Top_Ten_Standards.html.

⁵⁶ <https://www.sec.gov/about/laws/secrulesregs.htm>.

⁵⁷ Department of the Treasury, Federal Reserve System, Federal Deposit Insurance Corporation, Department of the Treasury, and National Credit Union Administration, Statement on Subprime Lending, at <https://www.federalreserve.gov/newsevents/press/bcreg/bcreg20070629a1.pdf> (2007).

⁵⁸ <https://www.transportation.gov/office-policy/transportation-policy/transportation-safety-regulation-united-states-government>.

expand operations, increasing employment. There is thus a case for suspending some types of transportation regulations during downturns.

Food and drugs. Before a firm can market a food or pharmaceutical drug to the public, the Food and Drug Administration (FDA) requires that the firm demonstrate that the food or (especially) drug is safe to consume.⁵⁹ For drugs, the clinical tests required to demonstrate safety can cost firms hundreds of millions of dollars and delay the drug's market entrance for years.⁶⁰ The delayed market arrival of the drug acts as an economic drag; consumers who would wish to purchase the drug cannot access it, and the pharmaceutical firm has no reason to begin production. On the other hand, the clinical testing itself has stimulative effects; it requires that the pharmaceutical firm hire employees to run the trials, and there are often payments made to study participants. It is likely that the overall macroeconomic effects of FDA regulation are negative, however, and there is a case for relaxing them during recessions. At any given moment there are numerous drugs in the regulatory pipeline, and thus suspending FDA regulations could immediately allow additional drugs to enter the consumer market. Firms could then measure the effects of those drugs on the individuals who take them, obviating any further clinical testing and making the cost savings permanent.

Immigration. Immigration regulations increase the cost of production for firms by raising the cost of using the labor of migrant workers. Regulatory suspension thus would reduce costs, producing a possible stimulative effect like suspension of environmental and workplace regulations. But there is a twist. When immigration regulations are weakened, firms are given an incentive to switch from domestic labor to foreign labor. From a domestic macroeconomic perspective, it may be preferable for firms to use domestic labor. The reason is that foreign workers send money overseas as remittances, which means that less money is spent in the short term to draw down domestic inventories. It is possible, then, that immigration regulations should be strengthened, rather than weakened, during recessions.

Market regulation. Numerous agencies engage in market regulation, by which we mean antitrust-style regulation designed to enhance competition. The Justice Department and the FTC have general jurisdiction over anti-competitive behavior.⁶¹ Other agencies, like the Surface Transportation Board, guard against anti-competitive behavior in specific industries, like (in the case of the STB) railroads.⁶² There may be reasons for regulators to adjust their behavior during recessions. A recession might be a bad time to break up a monopolist, for example, because the costs to the firm and hence to its consumers occur in the short term, possibly exacerbating the recession. On the other hand, regulators should feel free to block anticompetitive mergers during a recession since the act of blocking the merger will not impose any costs on the firm, other than to deprive it of market power.⁶³

⁵⁹ <http://www.fda.gov/AboutFDA/Transparency/Basics/ucm194879.htm>.

⁶⁰ DiMasi, Hansen & Grabowski, *The Price of Innovation: New Estimates of Drug Development Costs*, 22 J. Health Econ. 151 (2003).

⁶¹ <https://www.ftc.gov/tips-advice/competition-guidance/guide-antitrust-laws/enforcers>.

⁶² See 49 U.S.C. § 10706.

⁶³ For some suggestive evidence that the Obama administration cut back on antitrust enforcement during the Great Recession, see Daniel A. Crane, *Did We Avoid Historical Failures of Antitrust Enforcement During the 2008-09 Financial Crisis?* (2010)

http://repository.law.umich.edu/cgi/viewcontent.cgi?article=1117&context=law_econ_current.

Employment law. Many economists believe that employment regulations create “rigidities” in the labor market that prolong recessions.⁶⁴ For example, regulations that require employers to show cause before firing employees, compensate employees who are laid off, and give notice to employees before laying them off all increase the cost of reducing the workforce in response to reduction in demand for the employer’s products. As a consequence, when a recession strikes, employers cannot adapt flexibly. In anticipation of this constraint, employers hire fewer workers than they would otherwise, contributing to structural unemployment. The unemployed but otherwise productive labor is a social cost.

What this means is that when the government considers regulations that protect workers, it must take into account the structural or macroeconomic cost as well as the immediate benefits and costs. Imagine, for example, that the government is considering whether to issue a regulation that requires employers to give one month’s notice before laying off workers. From a microeconomic standpoint, the regulation increases the cost of labor by forcing the employer to retain a worker after it learns that the worker’s productivity is less than his salary. The benefit of the regulation for the worker is that he knows that if he is laid off, he will have a month to find a new job before losing his salary, which enables him to save less so as to protect himself from a short-term income shock from a surprise layoff. Of course, it may be unlikely that such a regulation would be net beneficial given that the parties could bargain for it privately if the employer values the insurance more than it costs the employer, but we put this qualification aside.⁶⁵

The regulator should also try to take into account the macroeconomic effect of this regulation. The negative effect of the regulation is that it will reduce the speed with which workers are moved from lower-value to higher-value jobs. Under this regulation, the employer is given an incentive to retain the worker for the extra month rather than lay him off because, given the regulatory requirement, retention of the worker is close to free. As a result, there is delay before the worker finds the time to search for a new job, and in the meantime his continued retention may block an unemployed worker from taking his now lower-value job at a lower wage. However, it is also possible that the regulation would have effects similar to that of automatic stabilizers; the worker retains his wage for an additional month, which he can use to buy things, raising aggregate demand. The problem is that his wage comes at the expense of the employer or other employees, so the effect may be null rather than stimulative.

Regulators have not incorporated these macroeconomic costs in CBAs. When President Obama ordered the Department of Labor to raise the minimum wage for the employees of federal contractors, the DOL dutifully performed a cost-benefit analysis that found that the benefits of the regulation exceed the costs.⁶⁶ While the agency’s major point seems to be that the regulation is mainly a transfer from taxpayers to workers, and thus a wash from a CBA

⁶⁴ Labor and Employment Law and Economics, Dau-schmidt et al., eds., at 12; Richard B. Freeman, *Labour Market Institutions Without Blinders: The Debate over Flexibility and Labour Market Performance*. 19 *International Econ. J.* 129 (2005); Olivier J. Blanchard, Florence Jaumotte & Prakash Loungani, *Labor Market Policies and IMF Advice in Advanced Economies During the Great Recession*, 3 *IZA Journal of Labor Policy* (2014).

⁶⁵ See Christine Jolls, *Accommodation Mandates*, 53 *Stanford L. Rev.* 223 (2000).

⁶⁶ <https://www.federalregister.gov/articles/2014/10/07/2014-23533/establishing-a-minimum-wage-for-contractors>.

perspective, it also argued that the regulation would produce a variety of other benefits—including a boosting of worker morale that would raise productivity and a reduction in turnover. For our purposes, the agency’s most interesting claim is that “a higher minimum wage for low-wage workers, who tend to spend a larger fraction of their earnings, can increase demand for goods and services which, in turn, would boost employment and economic growth.”⁶⁷ However, as we have seen, while in theory transfers to low-income workers can increase aggregate demand, macroeconomic benefits are likely to be largest during a recession, while the regulation was implemented during a period of moderate economic growth.

Another point is that the minimum wage is a type of law that may increase rigidity of the labor market, since it blocks employers from lowering wages during recessions, forcing them instead to lay off workers. While there are many other reasons why employers lay off workers rather than reduce wages during recessions, a minimum wage law could increase their incentives at the margin. The DOL should have addressed this additional cost when it performed the CBA.

C. The Case of Capital Requirements

Finally, we briefly discuss here the single example we have found of a deliberately countercyclical regulatory approach. This example illustrates some of the reasons for taking macroeconomics seriously in regulation.

Banks and other financial institutions are required to maintain a minimum ratio of capital to assets under regulations known as capital requirements.⁶⁸ Under the traditional “microprudential” approach to bank regulation, capital regulations are justified by the existence of deposit insurance. Because of the guarantee supplied by deposit insurance, depositors lend money to banks without taking into account whether a bank is likely to repay the loan. This creates moral hazard: banks have an incentive to make risky loans, even loans with negative net present value, because taxpayers bear the downside while bank shareholders receive the upside. Bank regulations deter moral hazard in many ways; of present interest, capital regulations are designed to force shareholders to internalize more of the downside if the bank’s loans are not repaid. The larger the equity cushion, the more money the shareholders lose if the bank cannot repay its creditors and is taken over by bank regulators.

Even before the financial crisis, financial economists worried about the macroeconomic effects of this approach;⁶⁹ the financial crisis shows that these worries were justified. While the microprudential approach was designed to ensure that each bank internalized the cost of *risky* lending, it did not take into account a bank’s incentive to lend in the first place. During an economic downturn, a bank whose capital ratio falls too low can bring itself back into regulatory compliance either by raising more capital or by selling assets (that is, selling loans and/or refusing to originate new loans as old loans are paid off). But an economic downturn is typically accompanied (or caused) by the withdrawal of credit from the market. If a bank complies with capital regulations by reducing the size of its loan portfolio, it will exacerbate the credit withdrawal. And because raising equity during an economic downturn is costly, banks will be

⁶⁷ <https://www.federalregister.gov/articles/2014/10/07/2014-23533/establishing-a-minimum-wage-for-contractors>.

⁶⁸ In this discussion, we follow Hanson et al. 2011. For other discussions, see ___.

⁶⁹ Kashyap 2004.

inclined to do just that. Microprudential regulation is procyclical—aggravating the macroeconomic harm inherent in business cycles.

“Macroprudential” regulation addresses this problem by building a countercyclical element into the regulation. Among the many ways of doing this, a simple approach is to increase capital requirements during booms and reduce them during recessions. This will cause banks, against the microprudential baseline, to reduce lending during booms and to increase lending during recessions. Macroprudential regulation in this way reinforces, rather than contradicts, the efforts of the central bank to manage the business cycle by adjusting market interest rates.

The Basel Committee on Banking Supervision introduced macroprudential regulation in 2010.⁷⁰ The most important element of this regulation was a “countercyclical buffer” requirement. National regulatory authorities were instructed to monitor credit conditions. If a regulator determines that “credit growth is excessive and is leading to the buildup of system-wide risk,” it will require banks to increase their capital by between 0 and 2.5% of risk-weighted assets.⁷¹ When credit conditions normalize, banks are released from the countercyclical buffer requirement.

Note the effect that the macroprudential approach has on a traditional cost-benefit analysis. A CBA for a microprudential regulation will ignore business-cycle effects. Suppose that the CBA implies an optimal capital regulation of 8%. If, instead, the macroprudential approach is used, the regulator will incorporate macroeconomic effects into the CBA. This could imply, for example, that the capital regulation will be 12% during a boom and 4% during a recession.⁷²

The Basel example shows that countercyclical regulation is both conceptually coherent and politically possible. Still, we do yet know whether it will work as intended, and there are special features of capital regulation that do not carry over to other types of regulation. The capital regulation in question is a kind of monetary stimulus rather than a fiscal stimulus, and banks are of central importance in determining the money supply. For this reason, it is plausible that countercyclical capital regulation could have desirable macroeconomic effects. By contrast, the regulations we have discussed are fiscal in nature, and doubts about the effectiveness of fiscal policy tools are more pronounced than they are for monetary policy.

D. Is Countercyclical Regulation Ever an Optimal Policy Instrument?

A possible response to our arguments is that if the government seeks to counter the business cycle, it should always use tax cuts rather than regulation because tax cuts are more efficient.⁷³ To understand this argument, imagine that a regulation is a Pigouvian tax that is

⁷⁰ BCBS, *Basel III: A global regulatory framework for more resilient banks and banking systems* (2010).

⁷¹ *Id.* at 57-59.

⁷² Hanson et al. at 8-9.

⁷³ In the legal literature, this style of argument is famous from Kaplow & Shavell, *Why the Legal System Is Less Efficient than the Tax System in Redistributing Income*, who made an analogous argument that “legal rules” should never be used to redistribute wealth because tax-and-transfer redistribution is more efficient.

optimally set to correct an environmental externality. A recession strikes. If the government suspends or weakens the Pigouvian tax in order to reduce unemployment, it will cause harm to people who benefit from the environmental amenity, while it is very unlikely that the tax savings will be used entirely for consumption, as is necessary for the maximum macroeconomic benefit. By contrast, if the government cuts taxes (or engages in any other type of monetary transfer), it can both avoid the environmental harm and direct the money to those people who are most likely to spend it, maximizing the macroeconomic benefit. Or perhaps macroeconomic stabilization should be left entirely to the Fed to manage using monetary policy. Agencies should regulate efficiently; the Fed should act to stabilize the labor market; and Congress can then tax and transfer to achieve distributional goals.

While this argument is superficially appealing, it ignores the real-world context of interest to us. There are often serious political and practical limits on using tax cuts and spending increases to stimulate the economy. The political constraint is that the political system is frequently gridlocked and unable to engage in fiscal policy, whether through tax cuts or spending. Even if fiscal policy is possible, politics may greatly reduce its effectiveness. For instance, it may be that the only type of fiscal policy that can pass Congress is a tax cut targeted mainly at wealthier individuals, who are less likely to spend the stimulus.⁷⁴ Traditional monetary policy can also cease to be effective during a recession when interest rates are near the zero lower bound and the Fed cannot lower them further. These constraints are largely responsible for the aggressive efforts by the Fed and other central banks to use experimental forms of monetary policy to stimulate the economy.⁷⁵ It may also justify the use of fiscal policy by the executive branch in the form of regulatory suspensions and moratoria. The broader point is that fiscal and monetary stimulus are not mutually exclusive; they can (and often do) exist side-by-side. The same is true for counter-cyclical regulation.

III. Legal and Institutional Questions

How should countercyclical regulatory policy be implemented? And who should be charged with its implementation? In this final part, we discuss these issues of legal and institutional design.

A. Policy Mechanisms and Legal Authority

One critical question is which institutions should be charged with effecting counter-cyclical regulatory policy and what legal tools they should employ. We can imagine several different approaches:

1. The agency suspends or weakens the regulation during a downturn. The EPA, for example, promulgates a regulation suspending the requirement that factories be required to operate scrubbers.

This option relies upon the agency's standard rulemaking authority and thus falls well within the bounds of what agencies are normally permitted to do. It should be generally

⁷⁴ The 2003 Bush tax cuts were criticized on this ground.

⁷⁵ See NYT article on Christopher Sims at Jackson Hole, NYT August 26. And other sources.

permitted, except in cases when a statute explicitly states that an agency must take some type of regulatory action.⁷⁶ Those cases are not especially rare; for instance, the Clean Air Act states that the EPA “shall promulgate regulations establishing emissions standards” for a variety of hazardous air pollutants.⁷⁷ This type of language—particularly the word “shall”—has been held to require agency action.⁷⁸ A temporary suspension of an existing regulation might nonetheless be lawful, if the suspension is only temporary. The agency could argue that it has fulfilled its duty to promulgate regulations if its regulations remain in force at most (if not all) times. The agency would receive *Chevron* deference with respect to this type of claim, and that might be enough to shield its actions.

2. The agency maintains the regulation but suspends enforcement. The EPA announces that it will stop inspections or other enforcement actions. In other contexts, this is known as regulatory forbearance.⁷⁹

Here, too, in exercising its prosecutorial discretion the agency is acting well within the boundaries of typical authority.⁸⁰ Agencies have employed regulatory forbearance on numerous occasions, and their actions have typically been sanctioned by the courts.⁸¹ Unlike the issue of regulation in the first instance, courts have rarely held that agencies must enforce their own regulations to the utmost degree; to do so would violate long-standing norms of prosecutorial discretion.

3. A centralized administrator, such as the Office of Information and Regulatory Affairs (OIRA),⁸² is given the power to suspend or weaken regulations during downturns.

The central legal issue is the extent to which non-agency actors wield power, or may be permitted to wield power, over the administrative state. Most organic agency statutes explicitly vest power in the agency or its head, while others name the President alongside the agency head or refer more generally to the executive branch.⁸³ Some scholars have taken this to mean that the President can direct agencies to act via executive order only when the statute explicitly confers authority on the President.⁸⁴ Others have argued that the President has more general authority to direct the operations of the administrative state.⁸⁵ In practice the issue may be irrelevant, at least when it comes to executive-branch agencies such as the EPA or DOT. The President has unquestioned authority to fire the heads of these agencies and could always move to transfer power to a more pliant interim agency head. We are not aware of any examples of agency heads openly defying the president.

⁷⁶ Kathryn A. Watts, *Regulatory Moratoria*, 61 Duke L.J. 1883 (2012); 5 U.S.C. § 706(1)..

⁷⁷ 42 U.S.C. § 7412(d)(1).

⁷⁸ *Massachusetts v. EPA*, 549 U.S. 497 (2007).

⁷⁹ Famously used (to ill effect) in the S&L crisis. See Lawrence White.

⁸⁰ Masur & Posner, *Toward a Pigouvian State*.

⁸¹ Daniel T. Deacon, *Administrative Forbearance*, 125 Yale L.J. 1548 (2016).

⁸² OIRA is a unit of the Office of Management and Budget charged with reviewing agency regulations before they are promulgated. <https://www.whitehouse.gov/omb/oira/about>.

⁸³ Stack.

⁸⁴ *Id.*

⁸⁵ Kagan. For a useful overview of this debate, see Watts, *supra* note.

This means that under current law, the president could direct an agency to promulgate a new regulation suspending or weakening an existing regulation. The president could also direct the agency to refrain from enforcing the regulation for a period of time. OIRA has no formal powers of its own, but using an executive order the president could confer authority on OIRA to issue the same type of directive. The picture is slightly more complicated if the president intends for a non-executive branch actor such as the Federal Reserve to possess similar authority. For that type of action, a statute would likely be required.

4. The agency refrains from issuing *new* regulations during the downturn. Regulations are delayed until economic conditions improve.

Here, again, the agency would simply refrain from using its regulatory authority. The issues are the same as in option #1.

5. The agency issues regulations whose force depends on economic conditions. The EPA announces in the initial scrubber regulation that requirements are limited during downturns.

This is the regulatory version of an automatic stabilizer. So far as we can determine, there is no law that would prevent agencies from promulgating regulations whose force depends upon external conditions, although we hasten to add that there is very little law on the subject.⁸⁶ There is no statute that explicitly addresses whether or not an agency may promulgate a regulation that relies upon an external trigger of some sort and no reported cases evaluating the practice. However, there are examples of regulations, promulgated under a number of different statutes, which automatically spring into force or suspend based upon some external triggering event.⁸⁷ For instance, the Department of Labor has promulgated regulations that automatically extend eligibility for unemployment benefits in a state when that state's unemployment rate hits 5% or when the state satisfies other criteria.⁸⁸ There are also many regulations that can be suspended or reinstated at the discretion of the executive. For instance, when the president or a state governor declares a state of emergency, that declaration automatically suspends a wide range of regulations, including rules governing automobile and transportation safety.⁸⁹ States have promulgated regulations containing automatic triggers as well. For instance, regulations issued by the EPA require the states to devise their own plans to reduce greenhouse gas regulations. In the course of complying with this requirements, seven states issued regulations that automatically suspend if a court of appeals or the Supreme Court strikes down the underlying EPA regulation.⁹⁰ The EPA, which has the authority to approve or disapprove of state plans, has permitted states to use these automatic triggers.⁹¹ There are no reported cases testing such provisions, and so it is hard to assess their legality with any confidence. But the fact that agencies are allowed to use triggering provisions regularly and without comment indicates that a trigger based on external economic conditions would likely be viewed as permissible.

⁸⁶ Watts, *supra* note 113.

⁸⁷ See Jonathan S. Masur, Quadratic Voting as an Input to Cost-Benefit Analysis, Public Choice (forthcoming 2017).

⁸⁸ 20 C.F.R. § 615.11-13.

⁸⁹ 49 C.F.R. § 390.23(a)(1)(i).

⁹⁰ *E.g.*, Tenn. Comp. R. & Regs. 1200-03-09-.02.

⁹¹ Environmental Protection Agency, Approval and Promulgation of Implementation Plans; Tennessee: Prevention of Significant Deterioration; Greenhouse Gases—Automatic Rescission Provisions, 77 Federal Register 12,484 (2012).

Automatic triggers are sometimes built into statutes. For instance, the EPA’s duty to regulate is triggered when the agency finds that a particular pollutant “endanger[s] public health or welfare.”⁹² Some types of regulatory mechanisms will also function as automatic stabilizers, even if they are not phrased in those terms. Consider, for instance, a statute or regulation that uses cap and trade to control pollution. Any firm that wishes to emit a pollutant subject to the cap must purchase emissions permits on the open market that permit it to do so. The sulfur dioxide program implemented by the EPA in the 1990s to reduce acid rain is one such program,⁹³ and there have been proposals to curb greenhouse gas emissions using cap and trade as well.⁹⁴ When the economy is booming, emissions of airborne pollutants (including sulfur dioxide and greenhouse gases) will naturally increase. This will increase the demand for emissions permits, raising the price at which the permits are traded, and thus act as a brake on economic activity. When economic conditions are poor, emissions will naturally decrease, lowering the price of emissions permits and providing a stimulus to polluting firms. If firms are prohibited from using explicit automatic stabilizers in regulations, they still might select regulatory mechanisms that effectively function as automatic stabilizers.

B. Comparative Advantages and Disadvantages

The approaches we describe in the preceding section differ along several important dimensions. In this section, we analyze the options along four of those dimensions: legal significance, speed with which it could be implemented, whether the option involves ex ante or ex post discretion, and the identity of the policymaker charged with implementing the regulatory suspension.

1. Legal Significance

If an agency suspends a regulation (or the regulation is automatically suspended), then a regulated party that ceases compliance has violated no legal rule. On the other hand, if an agency or OIRA simply announces that it will not enforce the regulation (options #2 and #3), regulated parties that cease compliance will have violated the law, even if they are not prosecuted. There may be no practical difference between suspension and non-enforcement in the immediate term, but that will not necessarily remain the case. At any given moment, the agency could reverse its earlier decision and begin enforcing the rule. Even if the agency has attempted to commit itself in the most unequivocal terms, that commitment cannot legally bind the agency in the future. Not only could an agency “reinstate” the regulation at a moment’s notice, it could also prosecute regulated parties for past violations during the period when enforcement was suspended.⁹⁵ There are reasons to believe that agencies will shy away from such behavior, particularly reputational ones: if the agency wants non-enforcement to have any effect, it must cultivate a reputation for

⁹² 42 U.S.C. § 7521(a)(1).

⁹³ 42 U.S.C. § 7651.

⁹⁴ See DANIEL A. LASHOF ET AL., NAT. RES. DEF. COUNCIL, CLOSING THE POWER PLANT CARBON POLLUTION LOOPHOLE: SMART WAYS THE CLEAN AIR ACT CAN CLEAN UP AMERICA’S BIGGEST CLIMATE POLLUTERS 7 (2013), <http://www.nrdc.org/air/pollutionstandards/files/pollution-standards-report.pdf>; Matt Negrin, *Whatever Happened to Cap and Trade?*, ABC NEWS (July 17, 2012), <http://abcnews.go.com/Politics/OTUS/environment-happened-cap-trade-global-warming/story?id=16790018>.

⁹⁵ See literature on deferred prosecution agreements; Obama immigration plans; etc.

reliability. That consideration loses some of its force across administrations, however. For instance, one could imagine the Bush EPA suspending regulations in 2008, only for the Obama EPA to reinstate them in 2009 on the grounds that the suspension was not cost-benefit justified. Rational firms might decide not to take action in response to enforcement suspensions if the agency is not credible.

In addition, violations of certain statutes and regulations carry collateral penalties. For instance, a firm that violates the Clean Air Act or regulations issued under the Act is barred from contracting with the government.⁹⁶ Violation of an existing regulation would trigger this bar even if the EPA has announced that it will not enforce the regulation. Of course, the relevant agencies could announce that they will not enforce the contracting ban either, but this may involve additional delay and complication. Furthermore, a firm that violates the Clean Air Act may wish to contract with the Department of Defense, but the EPA cannot force the Department of Defense to suspend its enforcement of the anti-contracting provisions. (This highlights the need for centralization and coordination of regulatory stabilization policy, an issue we discuss at greater length below.) Accordingly, there is value to regulatory suspensions that carry legal force, despite the ease and simplicity of simply announcing a suspension of enforcement.

2. Speed

Consider, for instance, the first option we described above—agency suspension of a regulation. Under current law, an agency can only suspend or alter its own regulation, which was originally promulgated using notice-and-comment rulemaking, if it again employs notice-and-comment rulemaking. The only potential exception is if the agency can establish that “good cause” exists,⁹⁷ in which case the agency can issue an interim final rule (which takes immediate effect) and follow it with notice-and-comment rulemaking. A severe economic downturn that necessitates immediate action is the type of situation that courts have generally viewed as sufficient, although there has never been a case that raised precisely this question.⁹⁸ Without the requirement of notice and comment, rulemaking could in theory occur quite quickly but in practice will still take months (though not years). An agency must still comply with a variety of legal mandates, such as certifying compliance with the Paperwork Reduction Act and determining the effect of the rulemaking on small businesses.⁹⁹

By contrast, the agency could announce that it will suspend enforcement of a regulation (option #2) at any point, with no notice. The President, acting through an executive-branch administrator such as OIRA, could likely do the same (option #3).¹⁰⁰ Similarly, an agency could of course refrain from promulgating any new regulations (option #4) with no delay.

The fastest option would be to write regulations that automatically adjust in accordance with macroeconomic conditions (option #5). These regulations would behave like automatic

⁹⁶ Masur & Posner, *Toward a Pigouvian State*, U. Penn L. Rev. , 119 (2015); *see also* 42 U.S.C. § 7606.

⁹⁷ 5 U.S.C. § 553(d)(3).

⁹⁸ Jared P. Cole, *The Good Cause Exception to Notice and Comment Rulemaking: Judicial Review of Agency Action*, Congressional Research Service, <https://www.fas.org/sgp/crs/misc/R44356.pdf> (2016).

⁹⁹ *E.g.*, 44 U.S.C. §§3501-3521 (Paperwork Reduction Act); 5 U.S.C. § 601 et seq. (Regulatory Flexibility Act).

¹⁰⁰ Kagan; *but see* Stack.

stabilizers: they would take effect without the need for any affirmative steps and without delay. Agencies could include such automatic stabilizers in future regulations, or they could use notice-and-comment rulemaking to insert automatic stabilization provisions into existing regulations. These actions would naturally take a significant amount of time; if agencies were to pursue this route, they should act well in advance of an economic downturn.

As a normative matter, more speed in countercyclical policy is always preferred. As we noted above, economic conditions can change rapidly, often before economic policy has a chance to adapt. This is the reason why economists who favor activist stimulus policy are most optimistic about automatic stabilizers, which take effect immediately and seamlessly, and why they prefer monetary policy interventions (when available) as a first resort over standard fiscal policy. Like monetary policy, regulatory stimulus acts by lowering costs for businesses. Thus, like monetary policy, it may take six months for regulatory changes to impact the economy because firms will have made investment decisions six months in advance. Accordingly, there is an argument for regulations that contain automatic stabilizers and for agencies to act quickly to suspend enforcement of regulations, rather than engaging the cumbersome notice-and-comment process to change those regulations during downturns.

3. Ex Ante vs. Ex Post Discretion

Altering or suspending a regulation (option #1), suspending enforcement (options #2 and #3), and adjusting the types of regulations promulgated in the future (#4) are all exercises of ex post discretion—some administrative actor makes a policy decision after the economic downturn has occurred. Option #5, regulations that adjust automatically given macroeconomic conditions, involves ex ante discretion: the regulator chooses how to implement policy at the time the regulation is promulgated but takes no further action in the event of a downturn. It is also to imagine a type of mixed approach in which a regulation adjusts automatically when a policymaker certifies that a particular condition is present. The Basel III bank regulations, which we discussed above, is the leading example of this approach. Under Basel, if regulators certify that “credit growth is excessive and is leading to the buildup of system-wide risk,” the regulations automatically adjust to require banks to hold additional capital. The trigger involves human intervention, but the regulations are already written to have legal effect once triggered.

There are advantages and disadvantages to these approaches, most of which will be familiar from the standard literature on rules and standards. Ex post discretion allows agencies to tailor their responses to the specific details of an economic downturn, which can be very valuable. For instance, a recession might take place in one industry or sector while sparing others, as was the case in the 2001 recession (post September 11, 2001) for the airline transportation sector.¹⁰¹ If unemployment rates rise more dramatically in the airline industry than elsewhere, regulations that cause unemployment in that sector will have a more negative effect and should be scaled back further. If some other industry—power generation, for instance—is comparably unaffected, then the case for suspending regulations in that sector is weaker. If regulators’ hands are tied because of how the rules were initially written, they cannot make such

¹⁰¹ Harumi Ito & Darin Lee, *Assessing the Impact of the September 11th Terrorist Attacks on U.S. Airline Demand*, 57 J. Econ. & Bus. 75 (2005).

fine distinctions. The problem, as with legal rules in general, is possible over- and under-inclusiveness.

Note that because of the nature of enforcement discretion, agencies only have the ability to make real-time regulatory adjustments in one direction. They can relax regulatory requirements quickly and easily, but they cannot strengthen them. That is, imagine that an FAA regulation that imposes costs upon the airline industry has been written to automatically become more lax if the economy enters a recession. A recession begins, activating the automatic regulatory stabilizers. If this recession has an especially pronounced effect on the airline industry, regulators could elect to suspend enforcement to an even greater degree than would occur automatically, which would further weaken the regulation. However, if the recession has a smaller-than-average effect on the airline industry, there is no easy way for the FAA to cancel the automatic stabilizer and restore the regulation to its full force. Doing so would require new notice-and-comment rulemaking, which is slow and costly. This implies that when agencies write automatic stabilizers into their regulations they should err on the side of not weakening the regulations enough, knowing that the agency can always take further action if it is warranted by suspending enforcement.

At the same time, there are disadvantages to relying upon ex post agency discretion to suspend regulations when a downturn occurs. Decisionmakers may dither, wasting valuable time while the recession is ongoing. They may also come under political pressure to act too aggressively or not aggressively enough. This threat of political pressure is of course one principal reason why the Federal Reserve was made independent. The stakes for agency regulation will be lower, but the threat of pressure might nonetheless push agency actions away from what is optimal.

Accordingly, we believe that the best option might be for agencies to pursue a mixed approach in which modest automatic stabilizers are supplemented by discretionary regulatory suspensions when a downturn actually occurs. This approach would ensure that agencies take some action automatically and immediately, but it would also permit them to tailor their efforts to the particular economic conditions at hand.

4. Choice of Policymaker

The majority of the options we discuss above involve the agency itself as the prime mover. But it is also possible to imagine vesting authority with a centralized administrator, such as OIRA or even the Federal Reserve. Under current law, OIRA, even with the full weight of the president's authority behind it, cannot unilaterally promulgate or suspend regulations.¹⁰² That requires agency action in the form of notice-and-comment rulemaking. But the president could suspend enforcement of a regulation via executive order, and it is possible to imagine the president delegating OIRA the authority for selecting which regulations to suspend under which circumstances. In addition, Agencies could promulgate regulations that delegate to some other actor—such as t OIRA—the authority to suspend those regulations when conditions are met.¹⁰³

¹⁰² See Robert Percival, *Presidential Influence Over Administrative Action*, 79 Fordham L. Rev. 2487 (2011).

¹⁰³ Daniel T. Deacon, *Administrative Forbearance*, 125 Yale L.J. 1548 (2016).

Congress could also conceivably pass a law allowing the president, OIRA, or even the Fed to suspend regulations upon a finding that it is warranted by macroeconomic conditions.

Again, there are advantages and disadvantages to each of these approaches. Agencies have the most information about their own regulations and the industries they regulate, and so they will be best-positioned to evaluate whether suspending a particular targeted regulation will benefit an industry experiencing a downturn. On the other hand, there is clear value to coordination and centralization. In some cases, a recession may be so severe that a wide range of regulations across the administrative state should be suspended; in other cases, it might be sufficient for some agencies to suspend regulations while others leave them in force. For instance, if an economic downturn hit the energy sector, it might make sense for the EPA to suspend regulation of certain types of fuels or power plants but for the Department of Energy to maintain energy efficiency regulations at current levels.

It would be best if regulatory action were coordinated with monetary and fiscal policy. If the Federal Reserve is taking action that will be sufficient to address a downturn, agencies should stay their hand. The relationship between fiscal stimulus and agency action can be more complicated. For instance, if a fiscal stimulus bill includes significant spending on new infrastructure projects, there is little need for the EPA to relax its environmental rules on concrete production in order to accomplish the same ends. However, it might be valuable for the EPA to relax other rules—protection for endangered species; requirements of environmental impact reports; and so forth—so as to allow the new infrastructure projects to proceed rapidly.¹⁰⁴

Consequently, we believe there is a strong case for vesting primary responsibility with a central executive-branch actor, such as OIRA. That policymaker should then consult with individual agencies regarding the details of their regulations to find suitable candidates for suspension. One mechanism for implementing this type of policy is for OIRA to scrutinize proposed agency regulations, as they are being promulgated, to determine whether they include cost-justified automatic stabilizers. This review would take place alongside OIRA's traditional review of agency cost-benefit analysis. OIRA would thus be able to coordinate stimulus policy across agencies while relying upon the agencies themselves for technical evaluation of their own regulations.

C. Economic Triggers

A final question is one of timing: when should agencies deploy regulatory measures as macroeconomic stimulus? What sort of economic factors should agencies rely upon when deciding whether to act? This issue is particularly important when agencies promulgate regulations that include automatic stabilizers, but it is relevant as well when policymakers must decide *ex post* whether to relax or suspend regulation.

Knowing when the country has entered an economic downturn, and whether that downturn warrants a policy response, is of course an immensely complicated question. The

¹⁰⁴ See Lawrence H. Summers & Rachel Lipson, A Lesson on Infrastructure from the Anderson Bridge Fiasco, *Boston Globe*, May 25, 2016, at <https://www.bostonglobe.com/opinion/2016/05/25/lesson-infrastructure-from-anderson-bridge-fiasco/uKS6xQZxFBF0fZd2EuT06K/story.html>.

Federal Open Market Committee relies upon reams of economic evidence in making such decisions, and we have nothing to add on that score. Rather, our goal is to identify the particular challenges facing an agency, which is not likely to have expertise in macroeconomic policy, in fashioning stimulus policy, particularly when that policy comes in the form of automatic regulatory stabilizers. Agencies will need simple formulas or indicators that can be easily embedded in regulations and do not rely upon the application of substantial macroeconomic expertise to a wide swath of data.

One obvious solution might be to use the unemployment rate, either the national rate or the rate in the particular industry affected by a given regulation. After all, the costs of unemployment are the primary rationale for rethinking the stringency of regulations during a downturn. The problem is that either unemployment figure can be misleading. Economic weakness in a given industry might be a sign that advances in technology have made that industry obsolete, and the economy as a whole might still be booming. It would make no sense to relax regulations on the manufacture of buggy whips just because automobiles have taken over the market. As for the overall unemployment rate, the problem is that it may be difficult to know what constitutes “full employment” at any given moment in time. If the unemployment rate seems to be high—say, 6.5%—but the rate of inflation is similarly high, this may be a sign that the economy is experiencing a boom rather than a downturn.¹⁰⁵ Agencies could attempt to use some combination of the unemployment rate and the inflation rate to determine policy, but this begins to verge on the sort of complex policy decision that is best left to the Federal Reserve.

Another possibility would be to trigger regulatory stimulus when the economy goes into recession.¹⁰⁶ The problem here is that regulatory action might come too late to be useful. As we explained above, it may take six months for counter-cyclical regulatory policy to affect the economy. If agencies wait until the economy has entered a recession before acting, regulatory stimulus could lag the downturn by a year and might arrive only when the economy has already begun to recover, making it pro-cyclical rather than counter-cyclical.¹⁰⁷ Agencies could of course act more quickly—for instance, after just one quarter of negative growth—but they would run the risk of responding to a blip in the data, rather than a true downturn. Again, the policy could turn out to be pro-cyclical if the economy is actually in fine shape.

One final option is to trigger regulatory suspension when the federal funds rate is very low—at or near 0%. Low interest rates are an indication that the economy is not performing at full capacity and that inflation is low as well. Moreover, when interest rates are at the zero lower bound the Federal Reserve’s policy options are highly constrained. If monetary stimulus is unavailable, and fiscal stimulus is uncertain because it relies upon the actions of Congress, regulatory stimulus may be the best remaining option. This approach effectively allows agencies to piggyback on the expertise of the Fed in setting rates.¹⁰⁸ However, if agencies were to adopt

¹⁰⁵ Mankiw, 542.

¹⁰⁶ There is no single definition of a recession. The press often defines a recession as two consecutive quarters of negative economic growth, but the National Bureau of Economic Research (NBER) defines a recession differently. See http://www.nber.org/cycles/recessions_faq.html. The Department of Commerce uses the NBER definition. http://www.bea.gov/faq/index.cfm?faq_id=485.

¹⁰⁷ *Id.* at 535.

¹⁰⁸ See Listokin, *supra* note 3 (favoring the same approach).

this approach, regulatory stimulus would likely only occur during the most severe economic downturns and might be unresponsive to typical shallow recessions.

We intend this canvas of the available options to indicate the difficulties that agencies will face in formulating policy on the basis of macroeconomic conditions. Agencies will not want to act too late, for fear that the economy will already have recovered, or too quickly, for fear that there never really was a significant downturn. They must calibrate their actions despite lacking any significant macroeconomic expertise. (This highlights the potential value of transferring authority over regulatory suspensions to the Fed, despite its lack of expertise in regulatory policy.) In sum, stimulus by regulatory suspension turns out to be a challenging proposition. A possible conclusion is that the game is not worth the candle. However, we think that such a conclusion is premature. The effectiveness of a regulatory suspension for stimulating the economy is an empirical question. Our goal here is to lay out the major considerations, which may be used to guide empirical analysis.

Conclusion

We are left uncertain whether countercyclical regulation is practical and wise. It may be too difficult for agencies to adjust regulatory burdens in response to changing economic conditions, or to design automatic adjustments that work as they are supposed to. Moreover, the aggregate regulatory burden may be too small to allow for meaningful stimulus through regulatory suspensions that are consistent with all the constraints that we discussed earlier.

Yet the question of countercyclical regulation also seems inescapable. When economists complain that “rigidities” prevent the labor market from adjusting to a decline in aggregate demand, they are in part implicitly making a macroeconomic argument that employment regulations should be adjusted. Similarly, when policymakers complain that fiscal stimulus is thwarted by delay-causing environmental and related regulations, they are making a similar argument about the adverse macroeconomic effect of those regulations. If these arguments have any validity, then agencies should take them into account when performing cost-benefit analysis of regulations and addressing questions of enforcement. If nothing else, we hope that the discussions about the macroeconomic effects of proposed regulations begin to appear in regulatory impact analyses.

There is also another debate that has important implications for whether agencies should take into account the macroeconomic effects of their regulations. In recent years, economists have been debating the causes of slow economic growth in the developed world. Robert Gordon argues that the major source of slow economic growth has been the lack of major technological innovation.¹⁰⁹ On this view, slow economic growth will continue into the foreseeable future. By contrast, Larry Summers sees the problem as one of aggregate demand.¹¹⁰ As people have

¹⁰⁹ Robert J. Gordon, *The Rise and Fall of American Growth: The U.S. Standard of Living Since the Civil War* (2016); Robert J. Gordon, *The Demise of U.S. Economic Growth: Restatement, Rebuttal, and Reflections*, NBER Working Paper No. 19895 (2014), <http://www.nber.org/papers/w19895>; Robert J. Gordon, *Is U.S. Economic Growth Over? Faltering Innovation Confronts the Six Headwinds*, NBER Working Paper No. 18315 (2012), <http://www.nber.org/papers/w18315>.

¹¹⁰ Lawrence H. Summers, *Demand Side Secular Stagnation*, 105 *American Economic Review* 60 (2015); Lawrence H. Summers, *Reflections on the New Secular Stagnation*, in *Secular Stagnation: Facts, Causes and Cures*, Coen

reduced consumption in response to lower incomes, businesses have responded by reducing investment, in a downward spiral.

The two theories imply different things about regulation. If Summers is right, then the government needs to engage in stimulative policy, one in which cutbacks in regulation may play an important part if monetary policy is failing (as many believe) and government spending is stymied by gridlock.¹¹¹ If Gordon is right, stimulus will do no good, and we need to become accustomed to low rates of economic growth.¹¹² In Gordon's world, regulation could even become more stringent: as the returns to investment fall, the opportunity cost of regulation falls as well, which should be reflected in a reduction of the discount factor used in cost-benefit analyses of regulation. All of these issues must be worked out. But the regulatory component of macroeconomic policy deserves more consideration than it has received.

Teulings and Richard Baldwin, eds., 27-40 (2014); Lawrence H. Summers, U.S. Economic Prospects: Secular Stagnation, Hysteresis, and the Zero Lower Bound, 49 *Business Economists* 65 (2014).

¹¹¹ As Summers himself has implied. See Summers & Lipson, *supra* note 104.

¹¹² Of course, it is possible that both Gordon and Summers are correct to some degree. If demand shortfalls are playing any role in slowing economic growth, policymakers should consider using stimulative regulatory policy.