



THE NEED FOR ECONOMIC ANALYSIS IN FEDERAL REGULATION

Objective Analysis can lessen the Costs of Regulations

April 30, 2014

INTRODUCTION¹

Are federal regulatory agencies providing the public good value? Are regulations accomplishing their purpose? Might there be ways to regulate more effectively and at lower cost? Notwithstanding the fact that—for the last quarter century—executive orders have required executive agencies to base rulemakings with significant effects on cost-benefit analyses and recommend them for independent regulatory agencies, federal regulators rarely perform analyses that answer these questions. Of the more than 3,500 regulations issued in a typical year, only a tiny fraction—less than half a percent²—is analyzed for the costs and benefits. And, when agencies do analyses, stakeholders often consider them perfunctory and meaningless or contrived and biased.

Why is this? To choose the best course of action, one must consider the costs and benefits of the alternatives. Regulations obviously can vary in effectiveness and give rise to differential costs, direct and indirect, which cannot be fully understood much less minimized without analysis. Why are federal regulators not consistently conducting such analysis? The answer may reside in a set of beliefs endemic to the federal government: that there are limits to the functions markets can or should perform; that federal officials know those limits; and that beyond those limits, problem-solving is the province of these officials.

No one in government would claim that federal agencies should not observe good management practices; hence the formal directives to assess costs and benefits remain in place. When federal officials deem market solutions inadequate, however, officials want the power to implement their own. Under the observance of elaborate rulemaking procedures, federal agencies then promulgate rules that by their judgment are in the “public interest,” a claim that all agencies make with respect to all of their rules.

Federal regulatory agencies in general do not credibly analyze the effectiveness and costs of their regulations.

Federal officials claim to generate greater public benefits with their prescriptions than markets can but do not necessarily feel the need to prove it.

¹ Table of Contents provided on page 37.

² “Federal Regulation: The Costs of Benefits,” Wayne Crews, *Forbes*, January 7, 2013.

Federal regulation commands economic resources and demands accountability the same as federal spending.

Governments do not inherently know the optimal division of market and agency functions.

The lines are drawn differently in different countries, over time, and even by different parts of the same government.

The public interest is not government's only motivation. Bureaucratic and special interests also influence it, and the electorate often is disconnected from what federal officials decide.

From an agency perspective, cost-benefit analysis serves no real purpose other than to validate its judgment and show how large the benefits are of its rules.

From the public's perspective, however, objective analysis is essential to establish the extent to which regulations indeed are serving public interests. No one questions the need for public accountability with respect to federal spending; and a federal budget and appropriations process have been created to provide such accountability. Regulation can induce transfers, move resources, and cause economic gains or losses just the same,³ and those affected deserve to know the likely extent. Given the absence of a budget for regulatory costs imposed on the economy, federal agencies should account for the economic consequences of their actions. Furthermore, good judgment requires an understanding of quantitative effects. No responsible business or household makes decisions that have important economic consequences without financial analysis, even when there are considerations that cannot be precisely valued. The federal government is not omniscient. Transparent analysis by generally accepted methods is necessary to assure appropriate diligence by federal regulators to maximize the chances for successful outcomes.

The efficient division of private and governmental functions is not self-evident; and government officials do not know inherently what it is. Outside the United States during most of the 20th century, it was commonplace to provide telecommunication, television, radio and postal services through government-owned national monopolies called Postal, Telephone & Telegraph Administrations (PTTs), but in recent decades many countries have been privatizing these services. In the United States, private firms used to provide telecommunication and broadcast services in federally segmented markets under varying forms of regulation. Prior to 1982, the Federal Communications Commission (FCC) had been regulating the national telephone company, AT&T, as a public utility on the premise that its Bell System was as a "natural" monopoly, then the Justice Department broke it up into eight separate companies. The U.S. Post Office always has been and remains a federal agency.

Last, the idealized view of government presumes it is motivated purely by the public interest, but bureaucratic and special private interests also shape government actions. The civil service relies on firmly structured, seniority-based personnel policies that can have the unintended effect of deemphasizing merit. Private sector employment and compensation practices that help to align employee with ownership interests (e.g.,

³ See, for example, "Taxation by Regulation," Richard A. Posner, *Bell Journal of Economics and Management Science*, 1971.

commissions, stock options) do not lend themselves readily to the government sector. The voting public is relatively unfamiliar with the details of most of what government does, and referendums in any event are rare. The effect on government decisions of an individual vote is infinitesimal, whereas the cost of acquiring subject matter knowledge can be large. Hence, interest groups form around particular issues to exert influence on government officials.

In reality, the government's performance is impaired by principal-agent and asymmetric information problems, and once the government controls a market function it generally faces little competition to discipline its performance.

Therefore, one cannot take on faith that agencies make rules in the public interest, nor can one rely exclusively on procedural measures, of which there are plenty, to assure that they will. Objective analysis and data are necessary to provide credible justifications for the form and scope of government intervention into the economy and people's lives.

Procedural measures alone cannot produce good regulations. Objective analysis is needed.

GOVERNMENT IMPERFECTIONS AND MARKET IMPERFECTIONS

Government imperfections. Vehicle fuel regulations, for example, reflect the faith placed in federal officials to determine how best to reduce dependence on foreign crude oil and lower harmful emissions, but their decisions lack comprehensive analysis and are largely uncoordinated.

Ethanol—Refiners are required to blend ethanol into the gasoline supply in amounts that increase each year, and even the permissible types of ethanol feedstock are prescribed to them. However, the fuel mandates have collided with reality. Beyond certain concentrations, ethanol may damage pipelines, storage tanks, and engines intended for petroleum products and invalidate manufacturers' warranties. There also are state laws that limit concentrations of ethanol in gasoline to 10 percent.⁴ Further, cellulosic ethanol, as opposed to corn ethanol, is not available in the quantities refiners are mandated to use.⁵

Federal vehicle fuel policy exemplifies disjointed regulatory requirements that are not based on comprehensive analysis yet are claimed to be in the public interest.

⁴ Ten percent is widely regarded as the "blend wall" for ethanol based on state regulations limiting its concentration in gasoline and the technical concerns of automobile manufacturers, fuel distributors, and filling station operators.

⁵ Transportation fuel producers and importers may purchase or use renewable fuel credits banked in prior years, but as their inventory dwindles the credits' price rises raising fuel cost and eventually forcing reductions in the quantity of fuel produced (see, "Economic Impacts Resulting from Implementation of RFS2 Program," NERA Economic Consulting, October 2012). The Environmental Protection Agency (EPA) has authority to adjust the mandated fuel volumes; its administration of the Renewable Fuel Standards (RFS) program has been contentious, however. See, "The Ethanol Tax," and "Put a Corn Cob in Your Tank," *The Wall Street Journal*, July 20 and August 17, 2013. For 2014, the EPA has proposed to lower the ethanol mandates for the first time.

There are alternative vehicle and fuel technologies with the potential to reduce oil import dependency and harmful emissions.

The federal government has made its choices without comprehensive analysis, even though the costs of implementation obviously are very large.

The Obama administration insists on its energy choices despite encountering practical obstacles and growing evidence that there are better alternatives.

Electric cars—The Obama administration has a preference for electric cars and has promised one million of them on the road by 2015.⁶ The administration decided to continue production of GM’s electric car, the Volt, when reorganizing the company in bankruptcy and offers financial incentives both to produce and purchase electric cars. Yet it is far from clear that putting more electricity-powered vehicles on the road is the best way to protect the environment. From a lifecycle perspective, electric vehicles generate nowhere near zero emissions as is often suggested.⁷

Natural gas—In recent years, large domestic natural gas reserves have become accessible through breakthrough drilling technology and greatly enhanced the potential of natural gas as a motor fuel that is cleaner than gasoline or diesel. Electric-powered vehicles produce no less greenhouse gas emissions than natural gas-powered vehicles. But electric vehicles receive much larger subsidies through income tax credits than do vehicles that run on compressed natural gas, and the Federal Renewable Fuel Standard as outlined in the *Energy Independence and Security Act of 2007* does nothing to encourage the use of natural gas. Natural gas is not a renewable fuel, but its use would clearly advance the mission of the Act, which is to promote energy independence and clean fuel sources.⁸

Clean diesel—In Europe, more than half the cars on the road have diesel engines and many run on what is considered “clean” diesel (which generally is *not* biodiesel) for reasons of fuel economy and lower emissions—an option whose costs and merits the federal government has not presented to the American public.

The Obama administration pursues its energy preferences unmoved by the promise of natural gas as a fuel, and unimpressed by the fact that declines in both U.S. oil imports and emissions have less to do with its energy policies than advances in oil and gas drilling. Vehicles running on increasing concentrations of ethanol, electricity, or natural gas, need very different fueling infrastructures from each other and from what is in place for gasoline- and diesel-powered vehicles, but there is no indication that the infrastructure costs of any, much less varying combinations of them

⁶ Why one million is not clear. The government has not shown what the optimal market share is for battery powered cars. As an aside, they actually outnumbered cars with combustion engines for a time in the early 20th century.

⁷ See, “Green Cars Have a Dirty Little Secret,” Bjorn Lomborg, *Wall Street Journal*, March 11, 2013.

⁸ MIT professor and former chief economist of President Obama’s CEA, Michael Greenstone, gave testimony entitled “The True Costs of Alternative Energy Sources: Are we Unfairly Penalizing Natural Gas?” at a U.S. Congress, Joint Economic Committee Hearing on April 26, 2012 as director of the Brookings Institution’s Hamilton Project.

have been fully analyzed and entered into federal government policy choices. Meanwhile, producers of the various fuels and types of cars compete to influence the government to further their own interests whereas the public has had no direct say in what their government mandates or subsidizes.

The problems described are not new or unusual. Government efforts to drive technological, economic, and social developments often are characterized by limited understanding of how markets work, ignorance of—if not disregard for—consumer preferences, and failure to produce a *net* benefit. These are among the reasons why centrally planned economies tend to stagnate at relatively low levels of economic performance and why only a few of them are left.

The problems with government decision-making and its lack of adaptability when assumptions prove wrong or circumstances change fall into distinct categories that represent ever-present challenges to efficient and publicly beneficial government actions:

1. **The agency problem.** Divergence of interests between voters (principals) and political representatives (agents) lead to policies that do not accurately reflect public preferences.
2. **Information problems.**
 - a. **Asymmetric information.** Federal agencies, the political parties, and special interest groups have an information advantage over the voting public.
 - b. **Incomplete information.** A central authority cannot fully capture, process, or replicate information in kind and volume that markets continually generate.
3. **Rent-seeking.** Special interest groups seek favors from activist government, which come at the public's expense and create economic waste.
4. **Organizational costs.**
 - a. **Diseconomies of scale.** Large organizations slow decision-making, inhibiting flexibility and adaptability.⁹
 - b. **Intra-governmental problems.** Different branches and levels of government can give rise to overlap, frictions, or

Federal regulation is reminiscent of centrally planned economies that supplant market activity, operate inefficiently, and are not in tune with public preferences.

The challenges that face private endeavors also face the government:

- ***Representing the interests of stakeholders,***
- ***Acting on the best information,***
- ***Maximizing efficiency,***
- ***Using power judiciously.***

⁹ Economics Nobel laureate George J. Stigler illustrated this general problem well: “[A]nyone who watches a line of automobiles start forward as a traffic light changes will be impressed by how each additional driver starts a little later than his predecessor, so it takes considerable time for the motion to be committed to the twentieth car, even when all the drivers can see the light change.” *The Theory of Price*, 3rd edition, 1966, Macmillan Publishing Co., Inc., p. 156.

gaps among them if policy development and execution are not properly assigned and coordinated.

5. **Monopoly power.** Government can supplant competition and with it experimentation, choices, instructive comparisons, and disciplining of its performance, leaving the public to rely on government monitoring itself.

Market imperfections. A market-based price system continually signals information to buyers and sellers, and competition motivates them to discover and seize opportunities. Competition also drives the dissemination of superior solutions. The U.S. market economy has a remarkable record of long-term economic growth and technological progress that lift American living standards. Based on that record, it has become an article of faith that the economy will continue to grow and advance technologically. A basic assumption by the Office of Management and Budget (OMB) and the Congressional Budget Office (CBO) in their analyses of federal budgets and programs is the steady increase in potential and actual GDP over time, and this assumption is generally shared by macroeconomists. However, when a particular condition is unsatisfactory, the government invokes the fact that real world markets do not function exactly as depicted in textbook models with their abstractions of optimal self-organization, perfect competition, zero transactions cost, and perfect knowledge by all participants. The common types of market failure invoked are:

The market system produces advancements that transcend many problems. Federal agencies, on the one hand, take this for granted, but on the other, invoke market imperfections whenever they want to impose their own will.

1. **Monopoly power.** The term “natural monopoly” describes the exclusive control of an important natural resource for which there is no close substitute and economies of scale that exceed the size of a market, effectively limiting the number of suppliers to one. However, monopolies usually persist because the government grants them exclusive rights.¹⁰
2. **Public goods and externalities.** A “public good” confers benefits that cannot be effectively apportioned for sale. Because it is possible to consume them for free, public goods that exist in nature are at risk of being depleted, and public goods that require production are supplied in smaller quantities than their value would justify. Externalities are similar but may be either positive or negative (leading to under- or overproduction). They also represent costs or benefits that are not paid for, because they are not readily apportioned for sale. However, in many cases the government could help to establish tradable property rights if it chose to.

¹⁰ For a discussion of the topic see, for example, “The Myth of Natural Monopoly,” Thomas J. DiLorenzo, *The Review of Austrian Economics*, Vol. 9, No. 2 (1996): 43-58.

3. **Asymmetric information.** Some parties may have an inherent information advantage that favors them in market transactions. For example, car dealers have an information advantage over car buyers. So-called lemon laws that confer the right to return malfunctioning vehicles for a refund aim to offset this advantage. However, the market only fails if honest merchants cannot gain a reputation advantage over dishonest ones.
4. **Behavioral anomalies.** Good market outcomes depend on the participants behaving rationally—making choices in their own best interest with the information they have. Market outcomes may not be optimal otherwise. However, in a complex world it is difficult to discern what considerations and practices are reasonable for making choices and what methods would yield consistently better results. The government is not all-knowing and also behaves in anomalous ways; it is taking a drastic step when it claims that people do not know what is good for them and denies them choices.
5. **Income redistribution.** Markets are concerned with efficiency but also affect income distribution. Much government intervention concerns income redistribution, whereby regulation does so much less transparently than taxation and transfer payments.

Imperfect regulation applied to imperfect markets. Rules should improve a process with little distortion, dislocation, or drag.¹¹ Unfortunately, most of the rules in the steadily expanding Code of Federal Regulations, which had 174,545 pages in 2012, are not the product of efforts to improve market mechanisms but to prescribe specific methods and solutions. The costs of the former are mainly in administration, enforcement, and compliance whereas the latter can substantially widen the scope of costs.¹² Federal agencies nevertheless tend to take a narrow view of regulatory costs because they claim to prescribe outcomes that markets would produce on their own if they were working properly. For example, the government justifies imposing mandates to reduce pollution on the claim that market transactions do not account for pollution's costs. Jobs lost or consumer choices that disappear, among other negative fallout, are not costs of regulation in this view because they would not exist but for the market's failure to function "correctly." Federal officials presume they are acting in the public interest and claim huge social welfare gains for their regulations, failing to acknowledge the flaws in

Federal agencies impose rules without much regard for how the market system works.

¹¹ All rules affect the nature of what they regulate to some extent, which is why rule changes in sports, for example, may be hotly debated.

¹² For further discussion of the distinction between rules that facilitate a process and prescriptive rules, see "Designing and Evaluating Regulation," page 20.

their regulations that arise from the challenges facing the administrative state—the *government* imperfections enumerated above—and the costs that are associated with them.¹³

ECONOMIC AND SOCIAL REGULATION

Failures of economic regulation. The federal government’s prescriptions may not be at all what a competitive, efficiently functioning market would adopt and very well may create inefficiency and obstacles to economic growth. Until the late 1970s, so-called economic regulation of price and output by federal agencies dedicated to particular industries were the predominant form of regulation. It is based on claims of correcting various competitive malfunctions, principally constraining monopoly power thought to be held by firms (as opposed to professional groups or unions) that antitrust measures cannot solve. The classic reason for economic regulation is “natural monopoly,” although it assumes that the fundamental technology stands still. Known as “utility” or “common carrier” regulation, it usually entails “universal service” and uniform pricing requirements that institute transfers through cross-subsidies from lower to higher cost customers.¹⁴ The subsidies are said to serve a public goal, such as affordable telephone service for high-cost locations and low-income groups.

Government regulation of price and output often serves industry at the expense of consumers.

Such regulation goes hand-in-hand with government protection of incumbent firms from “cream skimmers,” competitors that sell only in the low cost market segments at less than average prices. But regulators also prize order and stability for their own sake and disfavor potential market entrants for the disruptions they cause, whether or not they are cream skimmers. Hence, incumbent firms may actually prefer to be regulated. The government may justify its regulation of industry based on alleged competitive problems and support for disadvantaged or needy groups, but in fact, it supports prices by artificially stabilizing market shares. Regulators find it difficult to monitor costs and prevent incumbent firms from earning above-normal profits, and worst of all, they tend to entrench prevailing practices and slow innovation.

The economics profession has developed explanations of how government regulation may be “captured” by industry. Nobel laureate George Stigler

¹³ See, “OMB’s Reported Benefits of Regulation: Too Good to Be True?,” Susan E. Dudley, *Regulation*, Summer 2013, pp.26-30. OMB reported annual ranges of \$193 billion to \$800 billion in benefits and only \$57 billion to \$84 billion in costs (2001 dollars) for major federal regulations it reviewed from October 1, 2002, to September 30, 2012, that had agency estimated monetized costs and benefits, “2013 Draft Report to Congress on the Benefits and Costs of Federal Regulations and Agency Compliance with the Unfunded Mandates Reform Act,” p. 3.

¹⁴ See, “Taxation by Regulation,” Richard A. Posner, *Bell Journal of Economics and Management Science*, 1971.

showed how interest groups advance their own goals by enlisting the government's "power to coerce" in *The Theory of Economic Regulation*.¹⁵ The government responds to the demand for regulation by interest groups in exchange for their political support. The value to special interest groups of favorable regulatory treatment, in particular, is that it is durable. Regulators provide the public interest interpretation of their rules, while the practical workings of regulations obscure the true beneficiaries and costs.¹⁶ The costs of regulation often are widely dispersed, which, even when recognized, makes it difficult for political opposition with the necessary counterweight to form against well-organized interest groups (known as the "problem of concentrated benefits and diffused costs").

The public choice branch of economics studies government motivation and behavior. Public choice economics points out that politicians and government employees are people, who like everyone else, have their own interests. One ought not to assume they are uniquely motivated to understand and solve problems and set aside their own interests.¹⁷ Public choice economics also stresses that the effort by interest groups to shape regulation for their benefit—so-called rent-seeking—is a pure waste of economic resources.¹⁸

Leading members of both political parties have accused different agencies of regulatory capture on various occasions. While it proclaims confidence in the power of federal regulation to correct market failures,¹⁹ the Obama administration has blamed the last financial crisis on the capture of oversight agencies by banking interests and the Macondo well drilling accident on the capture of the Minerals Management Service (MMS)²⁰ by oil companies.

Reduction in economic regulation. In the 1970s when productivity increases were abysmally small, the economy stagnated, and the true costs of regulation became apparent, the Carter administration began to

The economic theory of regulation and public choice theory suggest that federal agencies may not choose the most efficient method to accomplish a goal and may produce regulatory failures.

Starting with the Carter and continuing with the Reagan administration, the inefficiencies of economic regulation led to critical review and deregulation.

¹⁵ *The Bell Journal of Economics and Management Science*, Vol. 2, No. 1, (Spring, 1971). Also see, Sam Peltzman, "Toward a More General Theory of Regulation," *Journal of Law & Economics*, 1976.

¹⁶ See also, Bruce Yandle, "Bootleggers and Baptists: The Education of a Regulatory Economist," *Regulation*, 1983. Baptists favor Sunday bans on alcohol for moral reasons, regulators find such bans easy to administer, and bootleggers welcome them for blocking legal competition.

¹⁷ See, "Public Choice: Politics Without Romance," by Nobel laureate James M. Buchanan, *Policy*, The Centre for Independent Studies, Spring 2003.

¹⁸ See, *The Economics of Special Privilege and Rent Seeking*, by Gordon Tullock, Kluwer Academic Publishers, 1989, pp. 55, 56.

¹⁹ See, for example, "Improving the Quality of Life through Smart Regulation, Innovation, Clean Energy and Public Investment," *Economic Report of the President*, Chapter 8, 2012.

²⁰ MMS has been renamed the Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEMRE).

President Reagan, by Executive Order, institutionalized federal regulatory cost-benefit analysis. Every President since him has endorsed it.

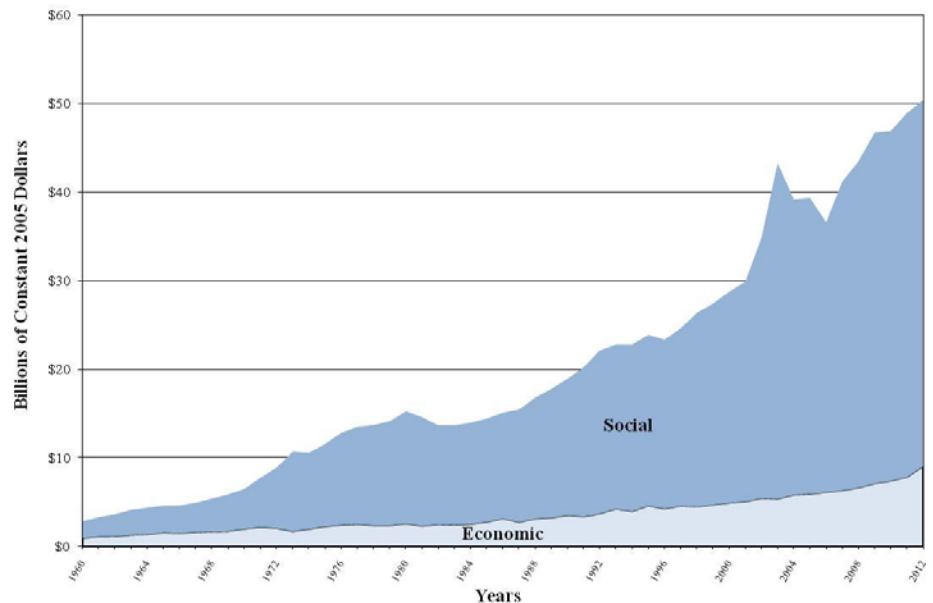
Social regulation has long been expanding at an accelerated pace and become, by far, the predominant form of regulation. The federal government has no limiting conceptual framework for it.

deregulate various industries. The Reagan administration continued and broadened deregulation. Regulations were no longer justified on the mere presence of a market imperfection but put to the test of whether they actually made things better. Economists from outside the government provided regulatory analyses and recommendations, and even reformed or abolished entire agencies.²¹ The Justice Department ended AT&T's national telephone monopoly in 1982.

The Reagan administration institutionalized cost-benefit analysis in rulemaking by Executive Order, meaning that executive agencies had to analyze the different approaches to a problem systematically and demonstrate that the one they selected (a) was the most cost effective among the alternatives, and (b) produced benefits greater than costs. President Reagan also charged OMB with regulatory agency oversight. These requirements for rulemakings are so eminently sensible that every President since Reagan has officially endorsed them.

Booming social regulation. In the 1970s, the federal government began to focus on quality-of-life concerns and created mission-specific agencies with economy-wide responsibilities, the Environmental Protection Agency (EPA), Consumer Product Safety Commission (CPSC), the Occupational Safety and Health Administration (OSHA), and recently the Consumer Financial Protection Bureau (CFPB). The public interest theory seems to

Figure 1: Annual Budgetary Costs of Federal Regulation, Adjusted for Inflation



Source: "Fiscal Stalemate Reflected in Regulators' Budget: An Analysis of the U.S. Budget for Fiscal Years 2011 and 2012," by Susan Dudley and Melinda Warren, 2012 Annual Report, May 11, 2011, Weidenbaum Center, Washington University and the Regulatory Studies Center, the George Washington University.

²¹ Alfred Kahn at the National Aeronautics Board and Darius Gaskins at the Interstate Commerce Commission.

fit this so-called social regulation better. Even when markets are competitive, externalities and incomplete information in particular can play a role in social problems. The public may show greater sensitivity to air and water quality, for example, than to the details of airline or telephone regulation, and different industries have to compete for regulatory influence with cross-cutting regulatory agencies offsetting each other's efforts to some extent. However, there remain ample grounds for caution in adopting the public interest theory for social regulation. The federal government has not adopted a conceptual framework for declaring social problems or limits to what it might prescribe—what washing machines or cars people may buy; what light bulbs to use, etc. The list is potentially endless. Social regulation has long been expanding at an accelerated pace and become, by far, the predominant form of regulation (see Figure 1). If the government can override any private choice it does not like, it becomes a threat to personal freedom.

For social regulation, the government invokes mostly market externalities, information problems, and private behaviors for which it can find no rational explanation, inferring that market participants are not acting in their own best interest. On these grounds, it prescribes methods and outcomes that it deems to be in the “public interest,” meaning supposedly better than what existed before it intervened and with little regard for the creativity of the private sector to overcome problems by itself. The mindset that government knows best is particularly pronounced in the social realm and leads to misdiagnoses of the causes of market malfunctions and even misinterpretation of what is and is not a malfunction. Common problems with the premises and justifications government invokes for social regulation include the following:

Focusing on externalities and ignoring tradeoffs. Everyone wants to be safer, healthier, and enjoy a cleaner environment, but these are not the public's only concerns; there are tradeoffs to be decided. This is a fundamental problem with social regulation. Pollution and other health risks associated with work and consumption, for example, generally are not the deliberate or avoidable result of pure neglect but the byproduct of the processes and products that raise our material standard of living. The tradeoff between environmental controls and economic growth is on display in many countries right now. China's national leadership has spoken openly of the economy-versus-environment tradeoff, acknowledging that it “must appease an increasingly pollution-conscious public without undermining economic growth.”²² China's government has the power to force reductions in pollution by cutting back industrial

In the social realm especially the federal government professes to know best.

Some other countries openly acknowledge the tradeoffs between social and economic goals.

²² “China Clean-Air Bid Faces Resistance,” Brian Spegele and Wayne Ma, *The Wall Street Journal*, January 23, 2013, p. A16.

production as it did during the Beijing Olympics, but afterward it allowed industrial production and the attendant pollution to resume for economic reasons. Arguing for the primacy of economic concerns, the Environment Minister of Poland, Marcin Korolec, last year said that higher carbon emissions permit prices (Europe has a cap-and-trade system) would make electricity more expensive and threaten his country's economy.²³ It may not be clear what the right price is for carbon emissions in Europe, but it is clear to the Polish Environment Minister that industry is not the enemy of his people.

In the centrally planned economies of the former eastern bloc countries, pollution was far worse than in the West. This held true even within the same country, the divided East and West Germany. There was no profit motive or externalities to blame in the East because the communist governments had nationalized industry. The governments there made a choice between economic growth and environmental quality and presumed to know what was best. They chose to tout their industrial accomplishments to the population while revealing little about environmental damage and health consequences.

Federal agencies place social goals above economic growth and avoid acknowledging the tradeoff.

Federal regulatory agencies tend to do the opposite, they make a risk assessment, a determination of what is safe in terms of air and water quality or the use of machinery, vehicles, child car seats, toys—their reach knows no limit—and ignore the value of “substandard” products. They attribute product features or production processes that fall short of their standards to failures on the part of the marketplace, not to failures in the way they set their standards—a phenomenon known as the “planner’s paradox.”²⁴

Free markets settle on tradeoffs among many risks, costs, and many rewards that incorporate consumer preferences. Market imperfections may affect tradeoffs in which case the government might present to the public what incremental sacrifice it would take to reduce a risk and let the public decide; but government officials should not presume to know what the public prefers and should not presume that the public would always choose less risk.

Market externalities, such as may be associated with pollution, can cause suboptimal resource allocation but invoking them as a blanket justification for government agencies to impose their standards suppresses a key part of the issue. There are tradeoffs to be decided and the question is how to do that. While policymakers and administrators who make choices for the public may believe in their superior understanding of a problem and prefer

²³ “Europe’s Emissions Plan Hits Turbulence,” *Wall Street Journal*, February 20, 2013.

²⁴ “The Planner’s Paradox,” Brian Mannix, *Regulation*, Summer 2003, p. 9.

not to have their judgment questioned, they have not validated their claim of acting in the public interest unless they demonstrate the quality of their choices and the effectiveness of their regulations once implemented with comprehensive, transparent analysis.

Ignoring problems arising from government policies. For example, well-meaning government protections and guarantees may cause people to take more risk, which may prompt still more government intervention, when a better response would be less intervention. The housing market collapse and financial crisis in 2008, at least in part, resulted from socially motivated government supports and guarantees that increased private risk-taking. The government has identified the problem as deficient market oversight and responded with thousands of pages of laws and regulations that leave many unconvinced the true problems have been solved.²⁵ Government policies have unwanted consequences because they affect incentives in unanticipated ways. People, businesses, and markets are not passive entities for the government to mold as it envisions. Minimizing unintended consequences in rulemaking, therefore, requires careful study as much of the reactions existing rules have produced as of the reactions new rules under consideration may produce.

Confusing social problems with ill-defined property rights. Nonexistent or ill-defined private property rights lead to problems that are viewed as “social,” but that could be fixable without social regulation. For example, problems of overuse such as overfishing or overgrazing can occur because the scarce resource in question—a body of water, a parcel of land—is not owned by private parties with a sufficient individual economic interest and/or legal authority to manage it. Sought-after game may be hunted to extinction because there are no owners motivated to protect and authorized to sell it. The fewer there are of a species, the higher its value may be, yet its price is zero. In such cases, the government may be able to establish property rights and terms for trading them to create a functional market mechanism rather than declare a “market failure” and take over. There is no market failure with respect to domesticated livestock.²⁶ Accordingly, as part of rulemakings regulators should provide an analysis of property and trading rights that discusses the options for improvements in place of imposing prescriptive rules.

Regulation can have unintended consequences. Before they impose new rules, it behooves agencies to rescind the ones that are not working as intended.

Some “social” problems could be solved with better definitions of property and market trading rights.

²⁵ See, for example, *Bad History, Worse Policy: How a False Narrative about the Financial Crisis Led to the Dodd-Frank Act*, by Peter J. Wallison, The American Institute for Public Policy Research, Washington, D.C., 2013, and “Stopping Bank Crises Before They Start,” John H. Cochrane, *Wall Street Journal*, June 23, 2013.

²⁶ See, for example, “Treat Elephants like Cattle,” Doug Bandow, *Providence Journal*, March 8, 2013, and *Free Market Environmentalism*, Revised Edition, Terry L. Anderson and Donald R. Leal, Palgrave, 2001.

Information is a scarce and costly commodity for government and private entities alike. Federal agencies should not presume to command a lasting informational advantage over the private sector.

When federal agencies justify their actions by claiming to provide private benefits in addition to public benefits, they position themselves to regulate anything.

Claiming to have information markets lack. Good decisions depend on good information, but good information is scarce and costly. Economics textbooks abstract from this reality to focus on the mechanics of market forces, but that does not mean a market malfunctions when this reality introduces itself. Market participants generally become cognizant of information problems and find ways to address them through the structure of payments, offers of contractual guarantees and restitution, investment in a reputation for honesty and reliability, and a whole host of other methods. It may be easy to disparage consumers' or businesses' choices after the fact when more information has become available, as in Monday morning quarterbacking, but the government is no fountain of knowledge nor does it receive relevant information easily and freely. Indeed, federal agencies are dependent on the private sector for most of the information they use in rulemaking. In any case, rather than impose the outcomes it believes would prevail if market participants had more information, government can provide more information if it is able, or require more information to be generated and distributed among the market participants, letting them decide how to use it.

Claiming to bestow private benefits in addition to public benefits. The choices that people and businesses make for themselves may be puzzling to observers who do not have to live with all the consequences and may have different perspectives. For instance, timesaving conveniences play a large role in people's decisions that are difficult to explain otherwise and that government observers may not appreciate. A prime example of government jumping to the conclusion that market participants fail to act in their own best interest is the so-called energy-conservation gap, which refers to energy cost savings people and even businesses supposedly pass up if left to their own devices. The federal government imposes energy standards on manufacturers of home appliances and light bulbs, for example, which raise purchase prices and preclude production of some products customers would prefer to buy. The federal government's justification rests not on public savings, but on the lower private usage costs it ascribes to the standards, which supposedly outweigh higher purchase prices in present value terms by its calculation. The standards cannot be justified based on costs or benefits to the public.²⁷ The government's contention that it is better able to weigh all the considerations relevant to private decision-making than those who have to live with the consequences of a decision is highly dubious and opens the door to government invading any private decision, even when it does not concern the public welfare.

²⁷ "Overriding Consumer Preferences with Energy Regulations," Ted Gayer and W. Kip Viscusi, *Journal of Regulatory Economics*, June 2013, Vol. 23, Issue 3, pp. 248-264.

Supporting regulations with claimed incidental benefits.

Regulators increasingly have been attributing supposed incidental benefits to rules that will not cover their cost based on achieving their express purpose. This is a misleading practice by which the public may get the wrong impression of the costs of achieving different purposes, the reasons for imposing a rule, and the authority by which an agency does so. The EPA's Mercury and Air Toxics Standard (MATS) and its National Ambient Air Quality Standards (NAAQS) are examples. The express purpose of MATS is to limit mercury and other toxic emissions into the air by power plants pursuant to Section 112 of the Clean Air Act (CAA), but toxic emission reductions account for less than one ten-thousandths of the monetized benefit EPA estimated for the rule; nearly all the monetized benefit derives from reducing fine particle emissions.²⁸ The EPA sets NAAQS pursuant to Sections 108 and 109 of the CAA, and its standard for fine particle emissions at the time was above the level it gave MATS credit for. The EPA used its authority under one section of the CAA to pursue the purpose of other sections, counted as a benefit surpassing a standard it deemed safe, and adopted a new objective it had not justified. EPA subsequently lowered the fine particle standard by 20 percent and presented a cost-benefit analysis that assumes power plants are compliant with MATS. So the costs attributed to reducing the standard for fine particle emissions do not include the cost of MATS, one of the most expensive rules ever issued.²⁹ EPA should have compared the cost of MATS only with the benefits that derive from the rule in terms of reducing mercury and air toxics emissions and should have shown the full cost of reducing its fine particle standard by 20 percent. Sections 108, 109, and 112 of the CAA direct EPA not to consider costs in rulemaking, so the results of its cost-benefit analyses would not require it to change the rules, but analyses that show the true causality of costs and benefits might motivate lawmakers to adjust the statutes. Rules have legitimacy only to the extent they serve a statutorily authorized purpose. Agencies that invoke incidental benefits to justify a rule have failed to fully specify its purpose and statutory authorization, and may have an alternative agenda. Stating unambiguous objectives supported by statute and measuring progress toward them should be a central function of regulation.

When federal agencies justify a rule by invoking incidental benefits, they have failed to fully specify its purpose and statutory authorization, and they may have an alternative agenda.

²⁸ See, Prepared Statement of Susan E. Dudley, Hearing on "Review of Mercury Pollution's Impacts to Public Health and the Environment," before the Committee on Environment and Public Works Subcommittee on Clean Air and Nuclear Safety, U.S. Senate, April 17, 2012; "Perpetuating Puffery: An Analysis of the Composition of OMB's Reported Benefits of Regulation," Susan E. Dudley, *Business Economics*, July 2012, vol.47, no. 3; "Technical Comments on the Regulatory Impact Analysis Supporting EPA's Proposed Rule for Utility MACT and Revised NSPS (76 FR 24976)," Anne E. Smith, NERA Economic Consulting, August 3, 2011.

²⁹ The analysis does not include the benefits from MATS either, but EPA played a kind of shell game with the costs and inflated the benefits; see, "The EPA's Implausible Return on its Fine Particle Standard," Susan E. Dudley, *Regulation*, Spring 2013, pp. 3-4.

Regulatory agencies should consider all the costs of their actions.

Ignoring costs beyond compliance and enforcement. There are important reasons why federal regulatory agencies should consider all the costs of their actions. First, regulators acting in the public interest have a duty to minimize the adverse effects of their actions, and they obviously cannot minimize costs they do not consider.

Second, the public has a right to know not only what the objectives are that regulators aim for, but also what is likely to occur relative to existing conditions as a result of their actions. If a rule's implementation has adverse incidental effects, such as on present employment, prices, or product availability, then it is incumbent upon regulators to limit them as best they can and inform the public of adverse effects they cannot avoid. Susan E. Dudley, former administrator of the Office of Information and Regulatory Affairs (OIRA), testified with respect to the MATS rule that

*EPA quantifies or lists every conceivable good thing that it might attribute to a decision to set new emission limits, while on the cost side, it only considers the most obvious direct and intended costs of complying with the regulation. Thus it dismisses risks associated with reduced electricity reliability, the competitiveness of the U.S. economy in international trade, or the effect that higher electricity prices will have on the family budget.*³⁰

It is grossly misleading for the EPA to present a cost-benefit analysis in support of its rule and leave out these costs.

Third, among the greatest costs regulation can impose are slowing the economy down and obstructing technological progress. Hence, federal regulators should justify their proposed regulation relative to a baseline that recognizes the economy's growth potential and the market potential for innovative solutions, convincing the public with its analysis that the proposed regulation will enhance positive market developments and not hinder them.

HOW GOVERNMENT CHOOSES ITS METHODS

Many options. The following list of a dozen approaches, from which many more combinations and modifications can be derived, demonstrates the need for analysis to make good policy choices. Depending on the context, any one of the approaches could be appropriate.

1. Investigate existing government policies for the source of the problem and modify rules, change the regulatory regime, or deregulate.
2. Defer to state and local authorities to regulate or tax (federalist approach).

³⁰ Ibid, p.5.

3. Allow advancing technology or economic growth to solve a problem (Executive Order 12866, September 30, 1993, explicitly includes “the alternative of not regulating.”)
4. Focus on property rights and allow or encourage liability rules and litigation to resolve damage claims (“The Problem of Social Cost,” Ronald H. Coase, *The Journal of Law and Economics*, October 1960).
5. Impose a fee or tax (A. C. Pigou, *The Economics of Welfare*, 4th ed., London, 1932).
6. Compensate parties adversely affected by externalities or subsidize their relocation.
7. Require dissemination of important information by certain market participants to facilitate efficient market transactions or generate such information through government research (*Nudge*, Richard H. Thaler and Cass Sunstein, 2008).
8. Utilize behavioral policies to address inefficient biases in people’s decision-making (“choice architecture,” *Nudge*).³¹
9. Set performance standards that leave the methods for achieving them to producers and permit averaging as with CAFE rules (command-and-control, “light”).
10. Prescribe design standards, quality, or quantity of production (command-and-control “severe”).
11. Impose price controls (ceilings or floors).
12. Outlaw production/consumption (Prohibition).

When considering a market intervention the federal government and its agencies have many options to choose from.

Government may not choose efficient methods. From a public interest perspective, the government should choose the most efficient approach to achieve an objective and that would require economic analysis. But the economic theory of regulation and public choice theory suggest that government officials may prefer approaches that create private costs and benefits tradable for political support, position them to negotiate, claim credit for benefits, and avoid blame for unwelcomed consequences. Following are two examples.

Frequency spectrum allocation. In “Assigning Property Rights to Radio Spectrum Users: Why Did The FCC License Auctions Take 67 Years?”³² Thomas W. Hazlett explains why the Federal Communications Commission (FCC) conducted comparative hearings to assign licenses for frequency use to broadcasters free of charge. Similar to land, the frequency spectrum is a valuable natural resource that the government more recently has been auctioning for a total of \$50 billion in revenue so

Examples from radio spectrum allocation and environmental protection illustrate the federal government’s deviation from transparent objectives and efficient methods in its regulation.

³¹ Such as default rules for retirement accounts that employees must decide to opt out of rather than opt into. See, “A Dozen Nudges,” chapter 16 in *Nudge, Improving Decisions about Health, Wealth, and Happiness*, by Thaler and Sunstein, Penguin Books, 2009.

³² *The Journal of Law and Economics*, vol. XLI (2), (PT. 2), October 1998.

It took the FCC 67 years to introduce radio spectrum license auctions because awarding licenses based on comparative hearings conferred political power.

far to the Treasury.³³ The hearings held by the FCC to compare license applicants and select those most likely to serve the “public interest” were an extremely inefficient method of allocating and managing the spectrum. The administrative assignment of spectrum use rights sacrificed public revenue and constituted highly valuable grants to private entities whose relative merit for the most part could not be established by any meaningful, objective criteria. The administrative method gave rise to rent seeking costs and paperwork burdens, thwarted incentives to conserve frequency use and innovate, and led to artificial spectrum shortages.

The FCC had argued that the “public trusteeship” of the frequency spectrum made it improper to sell frequencies (it is selling use rights now), and interference would become rampant if transmissions were turned over to market forces. But long ago, economics Nobel laureate Ronald Coase and others refuted these arguments.³⁴ The real reasons for the hearings that created artificial rents and made their distribution discretionary were the government’s desire to control broadcast content without violating the First Amendment’s “freedom of the press” clause and keeping broadcasters beholden to political interests with the threat of revoking their highly valuable licenses.³⁵

Environmental protection. The social regulatory agencies created in the 1970s, from the outset to the present day, choose options that are among the most interventionist and aimed principally at industry, requiring manufacturers to use specific emission control devices and setting limits on industrial discharges that they have tightened progressively (#10 on the list of options above). In practice, when faced with the unattainability of their standards, federal agencies engage in a process of negotiation with industry and reach compromises. The federal government exercises much discretion in terms of the pressure it exerts and the methods it uses when negotiating. It can, on the one hand, publicly vilify the regulated, threaten to litigate, withhold operating permits, the list goes on; or, on the other, waive, suspend, defer, or loosen requirements, and this list goes on as well. Public interest theory might suggest that government imposes restrictions

³³ “The Broadband Engine of Economic Growth,” Julius Genachowski, FCC chairman, *The Wall Street Journal*, March 6, 2013.

³⁴ Ronald H. Coase, “The Federal Communications Commission,” *Journal of Law and Economics* 2 (1959): 1-40; “Evaluation of Public Policy Relating to Radio and Television Broadcasting: Social and Economic Issues,” *Land Economics* 41 (1965): 161-67; “Concepts of the Broadcast Media under the First Amendment: A Reevaluation and a Proposal,” Note, *New York University Law Review* 47 (April 1972): 83-109; “Law and Economics at Chicago,” *Journal of Law and Economics* 36 (April 1993): 239-54.

³⁵ When cellular license applications reached volumes that were administratively unmanageable, the FCC first employed lotteries rather than auctions to award them, avoiding introduction of a revenue source that could be extended to the politically more sensitive broadcast license awards. Federal budgetary pressure eventually overcame the political resistance to spectrum auctions.

on polluters directly because that will reduce pollution the fastest, surest way possible. Command-and-control intervention, indeed, can produce substantial results when first applied to unattended problems; however, progressive application yields decreasing incremental benefits, and unwanted consequences become more difficult to avoid. Continually increasing or tightening restrictions is subject to a fundamental limitation known as the “law of diminishing returns.” Economist Gary Vaughn writing for the Manufacturers Alliance/MAPI in 2006 had put it very well:

*When the U.S. Environmental Protection Agency (EPA) was created more than 36 years ago, the first regulations could aim at large, obvious problems—yielding large benefits at relatively modest costs. The environmental challenges that remain in 2006 pose smaller targets that are far more difficult and costly to hit.*³⁶

Diminishing returns increase costs disproportionately to the improvements achieved. Regulatory standards have been tightened long after the initial phase when direct measures may have had speed and clear improvements to recommend them. In 2013, 43 years after the EPA was created, the agency still is tightening emission standards and piling on more requirements. Now the gains may be infinitesimal and require augmenting with “co-benefits” (see page 15).

When regulating this way, federal officials position the regulated to take the blame for unwelcomed consequences, such as price increases, loss of familiar product choices, or layoffs—actions by utilities, manufacturers and other businesses that may result from regulation, but that federal regulators do not expressly order. Federal regulators claim they are improving industry performance but do not publicize the unfavorable effects their regulations cause down the line. However, doing so is critical to an understanding of regulatory tradeoffs and ultimately to attaining better results overall.

In sum, the policies that would best serve the public interest are not self-revealing; to identify them, their full ramifications must be analyzed. Whether or not they are deliberately chosen and used as such, regulations can be a vehicle for pursuing nonpublic objectives and for political manipulation. Absent objective analysis, misuse, inefficiency, and unintended consequences of regulations imposed on the economy may be kept from public view for a long time.

Over decades, command-and-control has remained the method of choice for environmental regulators who continue to tighten their requirements.

Regulating this way allows government to make political trades and blame industry for unwelcomed consequences.

³⁶ “Regulatory Sleight of Hand: How the EPA’s Cost-Benefit Analyses Promote More Regulation and Burden Manufacturers,” Economic Report, Garrett A. Vaughn, April 2006, Manufacturers Alliance/MAPI, p.1.

DESIGNING AND EVALUATING REGULATION

Good rules help a process function efficiently; they do not direct the allocation of resources or dictate specific solutions.

Participants in a process generally prefer rules that allow them to focus on achievement rather than compliance.

Generally applicable, stable rules minimize regulatory manipulation, whereas specific rules that require regulators to exercise discretion invite it.

What is good regulation? F. A. Hayek made a distinction that is helpful in thinking about rulemaking. The distinction is between what he called the "Rule of Law" or "formal" rules that set conditions for the use of resources and "substantive" rules by which government directs resources to particular uses. Hayek explained:

The difference between the two kinds of rules is the same as that between laying down a Rule of the Road, as in the Highway Code, and ordering people where to go; or better still, between providing signposts and commanding people which road to take.³⁷

Good rules make a process work better. Good rules bring an order to useful activity that facilitates it and does not interfere with its purpose. Rather than perceive them as an intrusion, participants in a process generally welcome rules that allow them to focus their energy on substantive achievement rather than on what the rules mean and how to manipulate them. For instance, everyone realizes that traffic rules are necessary and enhance individuals' ability to drive anywhere in relative safety. In Hayek's words, rules of this kind "could almost be described as an instrument of production, helping people to predict the behavior of those with whom they must collaborate, rather than as efforts toward the satisfaction of particular needs."³⁸ To function this way, formal rules should be set in advance, made known to everyone, apply to everyone, and not changed frequently or arbitrarily. One can think of formal rules as "rules of the game" made clear at the outset to all players, applicable to all players, and not changeable midgame or midseason. In the context of public choice theory, good regulation is a stable, generally applicable structure that minimizes attempts at manipulation by special interests. Even assuming the best of intentions, regulation becomes problematic when it engages government in detailed decision-making. Says Hayek:

When the government has to decide how many pigs are to be raised or how many busses are to be run, which coal mines are to operate, or what price shoes are to be sold, these decisions cannot be deducted from formal principles or settled for long periods of time. They depend inevitably on the circumstances of the moment, and, in making such decisions, it will always be necessary to balance one against the other the interests of various persons and groups. In the end somebody's views will have to decide whose interests are more important ...³⁹

³⁷ *The Road to Serfdom*, F.A. Hayek, edited by Bruce Caldwell, The University of Chicago Press, 2007, p.113.

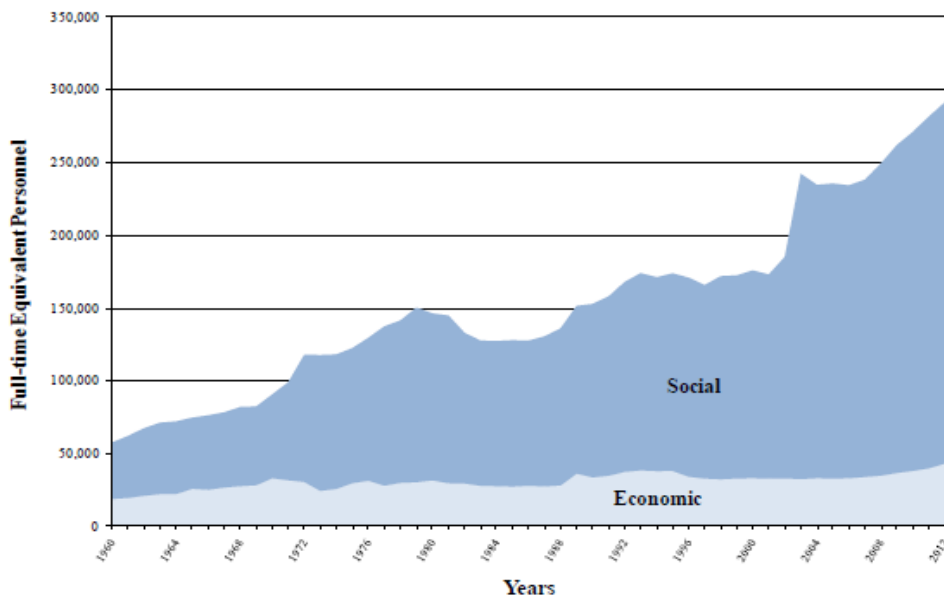
³⁸ *Ibid.*

³⁹ *Ibid.*

As regulators intrude further into the workings of the marketplace, they increasingly must make situation-specific decisions based on arcane information. Economist James W. McKie long ago aptly observed:

*Extension of control in response to perpetually escaping effects of earlier regulation may be called the “tar-baby effect,” since it usually enmeshes the regulatory authority in a control effort of increasing complexity with little gain in efficiency but a growing feeling of frustration.*⁴⁰

Figure 2: Staffing of Federal Regulatory Agencies



Situation-specific rules are prone to grow in number and complexity, increase the cost of compliance and enforcement, and are likely to produce unintended consequences.

Source: “Fiscal Stalemate Reflected in Regulators’ Budget: An Analysis of the U.S. Budget for Fiscal Years 2011 and 2012,” by Susan Dudley and Melinda Warren, 2012 Annual Report, May 11, 2011, Weidenbaum Center, Washington University and the Regulatory Studies Center, the George Washington University.

Thicker rulebooks require more personnel for administration and enforcement (Figure 2), and, of course, for compliance by the regulated. Agencies resort to temporary provisions and discretionary waivers to accommodate rulemaking delays and unforeseen events. The resulting regulatory uncertainty *encourages* lobbying and “rent-seeking.”⁴¹

In the pursuit of the specific visions and political rewards, government is drawn to order the economy where to go. But, the market-preemptive approach to social goals is a recipe for unintended consequences and progressive entanglements. Stable rules that leave the market room to

⁴⁰ “Regulation and the free Market: The Problem of Boundaries,” James W. McKie, *Bell Journal of Economics and Management Science*, vol. 1, no. 1 (Spring, 1970), p. 9.

⁴¹ A recent case of an EPA exemption from the ethanol mandates illustrates the problem; see “Washington’s Latest Special Favor,” “Behind an Ethanol Special Favor,” both by Kimberly A. Strassel, and “No Special EPA Refinery Favor Here,” letter to the editor, Janet McCabe, EPA, Washington, *The Wall Street Journal*, August 8, 14, and 26, 2013.

Regulators view the profit motive as incompatible with social goals, but profit drives technological progress and economic growth that benefit society.

Astute entrepreneurs will purposefully deliver social benefits if it is possible to make a profit—they need not capture all the benefits. Others will experience competitive pressure to follow suit.

adapt to new circumstances require more thought and analysis, but ultimately will cost less and serve the public better.

The profit motive. The public interest theory blames unwelcomed social outcomes on the profit motive; it presumes a basic tension between good social outcomes and selfish motives. Vigorous active competition and strong legal limitations must constrain self-interest from doing harm in this view. Consequently, market-based approaches to regulation can be viewed with suspicion as they do not counteract the profit motive directly. This perspective is problematic in several ways.

First, the profit motive in a competitive market system is the force that generates economic growth and technological advancement, which in turn lift material living standards far above those of economies operated without it. This advancement also leads to less pollution, safer products, and better working conditions—the very objects of social regulation. Pollution in the centrally managed economies of communist countries was higher than in the West partially because their economic growth was slower than the West’s profit-driven market economies.

Second, there is a misperception that the mere presence of externalities or “public good” attributes cause markets to underperform or fail. But markets will directly address social needs, if it is possible to make a profit. Some companies invest in superior product safety (Volvo), environmental friendliness of their products (Toyota’s Prius),⁴² special employee benefits (Google), or a socially responsible supply chain (Starbucks) and tout the benefits to consumers and job applicants to the extent it pays off. Less astute firms face the loss of market share, the best workers, and profit if they do not keep up.⁴³ When private enterprise finds it difficult to capture enough of a public benefit to recover its costs and make a profit, the government should try to make it easier rather than mandate specific actions or investments.

Third, the profit motive does not just go away when government blocks or mandates a particular outcome. A basic fallacy of command-and-control regulation is that it thwarts the profit motive. Industry reacts when faced with a government constraint, and the reaction is driven by the profit motive. The profit motive is like a river that the government can channel to an extent but cannot stop from flowing. Regulation that ignores incentives does so at its own peril, because randomly redirected incentives may cause greater harm, including possibly defeating the very purpose of

⁴² Hybrids receive government subsidies, but some other major carmakers were slow to offer hybrids failing to see the PR value.

⁴³ Other carmakers have caught up to Volvo, which no longer emphasizes safety in its advertising.

regulation. As it struggles against evasive maneuvers, government faults the profit motive, but rarely its own rules.

Alternatively, the government also may try to use the profit motive to manipulate business ostensibly for public ends by turning rules that should be generally applicable and predictable into “carrots and sticks” with selective enforcement or discretionary grants and denials of operating permits, for example. This is outcome-driven regulation that channels the profit motive to currying favor with the politically powerful. It leads to “crony capitalism,” which ultimately operates at the public’s expense.

Dilution of economic analysis in regulation. Incentive-based rules may not lead to a preconceived solution and are therefore unsatisfying to regulators committed to a particular solution. Prescriptive rules are more suited to demonstrate compliance with administration directives and to specify the conditions negotiated with interested parties. Agencies prefer to have their attorneys write the rules and have in-house economists prepare a cost-benefit analysis to help justify them if one is required. Various studies of the role of economists and cost-benefit analysis in regulation have found that they can make a positive difference, but that overall the quality of regulations is poor and has stagnated.⁴⁴ Notwithstanding official pledges, OIRA as a part of OMB cannot be a reliable guarantor of sound cost-benefit analysis and efficient rulemaking unless an administration wants it to be. A prominent advocate of incentive-based regulation as an academician was chief of OIRA during a time when the EPA drastically ratcheted up its regulations.⁴⁵

Economic analysis in the late 1970s and in the 1980s had a cleansing effect on regulation because the highest level of government endorsed it as a decision tool. However, the institutional moorings were insufficient to prevent the subsequent reversion to prescriptive regulation in the social realm. The regulatory bureaucracy contracted in the early 1980s as measured by agency budgets, staffing, and the number of pages in the Federal Register; but after several years of healthy economic growth, prescriptive regulation again expanded. The number of pages in the Federal Register has been about 80,000 pages in recent years (Figure 3).

Government mandates do not thwart private incentives as much as misdirect them.

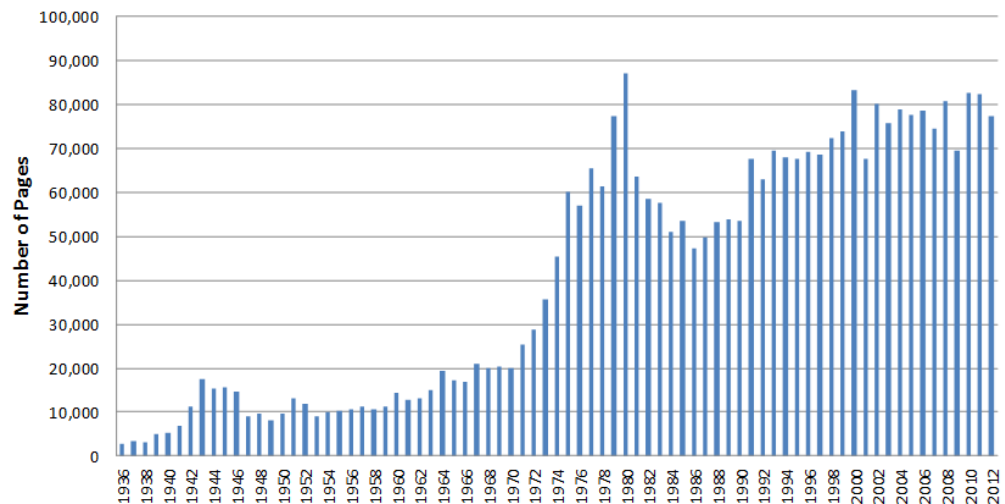
Government efforts to manipulate the profit motive lead to “crony capitalism” that serves the politically powerful, not the public.

Economic analysis could have a cleansing effect on regulation, but federal agencies coopt it to support the rules they favor.

⁴⁴ See Mercatus Report Card; “The Quality and Use of Regulatory Analysis in 2008,” Jerry Ellig and Patrick McLaughlin, *Journal of Risk Analysis*, 2010; “The Influence of Regulatory Economists in Federal Health and Safety Agencies,” Richard Williams, Mercatus Working Paper NO. 08-15, July 2008; “Has Economic Analysis Improved Regulatory Decisions?,” Robert W. Hahn and Paul C. Tetlock, *Journal of Economic Perspectives*, vol. 22 no. 1, Winter, 2008, pp. 67-84; “How Well Does the Government Do Cost-Benefit Analysis?,” Robert W. Hahn, and Patrick Dudley, *Review of Environmental Economics and Policy*, 2007, 1(2): 192-211.

⁴⁵ Cass Sunstein, the author of *Nudge*. See, “The Jackson Damage,” Review & Outlook, *Wall Street Journal*, December 27, 2012.

Figure 3: Federal Register Pages



THE COST OF REGULATION TO THE ECONOMY

Few rules are fully analyzed. For fiscal year 2012, federal agencies conducted analyses of both costs and benefits with respect to only 14 regulations. OMB, in its 2013 draft report to Congress on federal regulation, based its estimate of total regulatory benefits and cost on only those 14 out of 47 major final regulations and over 3,500 total regulations issued.⁴⁶ Agency analyses are reviewed by OIRA, which is part of OMB, and subject to direction from the administration. Unless an administration favors rigorous regulatory reviews, there is no other critical examination and enforcement to ensure good analysis and good rulemaking. Agency cost-benefit analysis is:

1. Not applied to the vast majority of rulemakings;
2. Not a uniform requirement across all agencies;
3. Not conducted in standardized fashion when agencies do use it;
4. Prone to agency manipulation with a pro-regulation bias, for example, in the choice of
 - a. Methods and assumptions for valuing regulatory benefits;
 - b. Types of benefits to claim for regulation (including private and co-benefits);
 - c. Types of costs ignored (*e.g.*, international competitiveness of American business);
 - d. Baselines for evaluating regulations.
5. Not applied to the huge volume of regulations already in place;

⁴⁶ “2013 Draft Report to Congress on the Benefits and Costs of Federal Regulations and Agency Compliance with the Unfunded Mandates Reform Act,” p. 3; *Federal Register Documents Published, 1976-2012*.

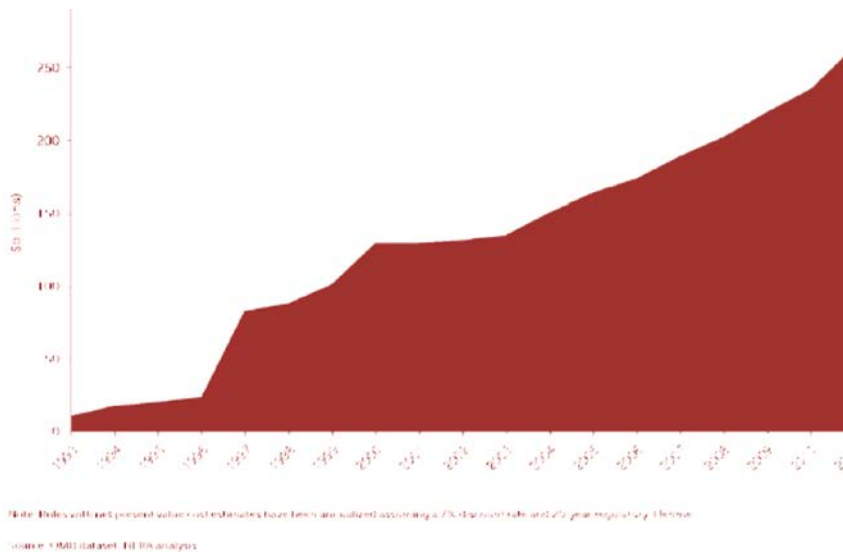
OMB based its estimate of federal regulation’s benefits and costs on only 14 regulations out of more than 3,500 issued in fiscal year 2012.

There are indeed many problems with federal agency analysis of regulations.

6. Not conducted adequately in the aggregate to determine the total burden on the economy of regulation because, in addition to the above listed problems—
 - a. Interactive effects among different regulations are not addressed;
 - b. State and local regulations are not included.

Data on rules that have been analyzed show a growing economic burden. Measuring the aggregate cost of regulation is difficult. A very credible effort in this regard is a study by NERA Economic Consulting⁴⁷ which basically adds up the individual costs that OMB has reported for rules issued between 1993 and 2011. NERA uses the 320 regulations from OMB reports to Congress for which quantitative cost estimates are available, mostly “major” rules,⁴⁸ and adjusts them for inflation. Figure 4 shows the annual cumulative direct cost of compliance with federal regulation estimated this way rising over time to \$265 billion in 2011. There are major rules for which cost estimates are not available,

**Figure 4: Cumulative Cost of Regulations over Time
(Constant 2010 Dollars)**



and NERA also identified 5,756 non-major rules from the same period whose cost it did not estimate for lack of sufficient data but it believes the cost could easily approach that of the major ones. NERA estimates that the total direct compliance cost of federal regulation is in the range of

⁴⁷ “Macroeconomic Impacts of Federal Regulation of the Manufacturing Sector,” August 21, 2013; commissioned by the Manufacturers Alliance for Productivity and Innovation (MAPI). Figure 4 is reproduced from a graph on page 50 (Figure 16).

⁴⁸ A regulation is considered economically significant or “major” if OIRA determines that it is likely to have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities.

The growth in cost of major regulations has far exceeded economic growth and growth in physical manufacturing output.

The federal regulatory burden impairs the international competitiveness of U.S. firms.

\$265 billion to \$726 billion for 2011. State and local regulations are not included in the analysis. There are other studies whose estimates of regulatory costs are far higher than NERA's. Wayne Crews Jr., author of *Ten Thousand Commandments, An Annual Snapshot of the Regulatory State*, 20th Anniversary Edition, Competitive Enterprise Institute, 2014 (page 2), estimates an annual cost of \$1.863 trillion.

The regulatory burden on the economy is substantial and increasingly damaging. NERA points out that the growth in cost of major regulations has far exceeded economic growth, especially manufacturing sector growth. From 1998 through the end of 2011, the cumulative inflation-adjusted cost of compliance with major regulations grew by an annualized rate of 8.8 percent. Over this same period, U.S. inflation-adjusted GDP growth averaged 2.2 percent a year, and the annual growth in the physical volume of manufacturing sector output averaged a mere 0.4 percent.⁴⁹

The federal regulatory burden leads to higher manufacturing costs making domestic goods less competitive internationally. NERA estimates that, on average, U.S. manufacturing exports in 2012 were between 7 percent and 17 percent lower as a result of the regulatory burden, whereby energy intensive subsectors experience much worse impacts.⁵⁰

THE VAGARIES OF “REGULATING THE REGULATORS”

Patchwork of rulemaking requirements. Lawmakers delegate a measure of authority to regulatory agencies so they may exercise the judgment necessary for applying general laws to specific circumstances. In theory, procedural and analytical requirements for rulemaking limit regulators' discretion to assure their adherence to legislative intent. However, actual requirements for rulemaking have been added incrementally in disjointed fashion and in some cases with deliberate vagueness. Some requirements are little more than perfunctory, and some are practically inoperative because they have no enforcement mechanism or leave interpretation of critical concepts to the regulatory agencies (*e.g.*, the *Regulatory Flexibility Act*).⁵¹ The requirements for conducting cost-benefit analysis of the Reagan administration and of subsequent administrations are contained in Executive Orders that apply to executive agencies but do not extend to independent regulatory agencies. Special procedures, reports and analyses are required for certain kinds of regulatory impacts, such as on the environment and small businesses, but in some rulemakings cost considerations are expressly disallowed by

⁴⁹ *Ibid*, p. 50.

⁵⁰ *Ibid*, p. 60.

⁵¹ The Government Accountability Office (GAO) has repeatedly made the point that terms such as “significant economic impact” and “substantial number of small entities” lack clear definition and hinder the Act's effectiveness.

statute (although none prohibits cost-benefit analysis for informative purposes). “Regulation of the regulators,”⁵² such as it exists, has been criticized as cumbersome and time consuming for federal agencies, supposedly “ossifying” rulemaking, but it obviously has not kept the rate at which they issue rules from increasing. Accusations of regulatory overreach have become common, and the lack of clear statutory instructions for rulemaking often leads to drawn-out litigation over agency rules.

Impervious bureaucracy. Regulatory agencies also have important operational functions on which commerce depends, such as issuing permits, conducting safety inspections, or holding auctions for leases on federal land and offshore to produce oil and gas, for instance. In *The Rule of Nobody* (2014), Phillip K. Howard describes how agencies use rules to shield themselves from accountability. Creating highly specific, prescriptive rules relieves administrators of responsibility for their actions and even can lead to dysfunction when they are able to pass off or delay decision-making. As pointed out above, writing more rules may not to increase certainty or efficiency at all but become counterproductive.

Missing: consistent, objective analysis. The reason that federal rulemaking requirements form a patchwork lacking in effectiveness is that rules have wider impacts than exclusively on their stated public goals and difficult tradeoffs among the impacts have not been settled by statute. In some cases, new laws are needed but have not been passed, and the administration uses its authority over the executive agencies to pursue its own political agenda. In other cases, Congress deliberately passed vague laws that delegate politically difficult decisions to the agency level where it expected to control outcomes more readily by less transparent means.⁵³ Some regulatory agencies are ostensibly independent, but they still are subject to congressional oversight and appropriations. (See Appendix for a list of independent regulatory agencies).

The pressuring and maneuvering behind the scenes does not ensure that the benefits of regulation exceed its costs or that the costs of the regulations to which the country is subjected are at a minimum. Indeed, the behind-the-scenes part of regulatory decisions may have precious little to do with enhancing public benefits or minimizing costs. Agencies manage to navigate the legal and procedural requirements for rulemaking without performing comprehensive analyses and what specific analytical

Federal rulemaking requirements are disjointed and vague, and rules often end up in drawn-out litigation.

Existing checks on regulatory agencies are compromised in several ways:

- ***Fragmented analytical requirements;***
- ***Interpretation of requirements left to the agencies themselves;***
- ***Vagueness in statutes;***
- ***Continuing political influence over agencies’ implementation of statutes.***

⁵² See the Reg Map in the Appendix (from OIRA’s website).

⁵³ See, *Power Without Responsibility*, by David Schoenbrod, Yale University Press, 1993. The regulation of the frequency spectrum is an example of Congress actually prescribing the method. The FCC, an independent regulatory agency, had requested authorization to conduct spectrum auctions many times under both Democratic and Republican administrations but was denied by Congress.

There is no substitute for objective economic analysis to determine the cost and effectiveness of rules.

instructions are contained in Executive Orders and statutes do not add up to a consistent, uniform requirement for fully weighing all relevant costs in any event. Guidance from OIRA to the agencies on how to conduct cost-benefit analysis is often ignored. However, the need for comprehensive analysis of markets, regulatory options, and regulatory outcomes by objective standards is obvious and its urgency is heightened by the increased role of unelected regulatory officials in policymaking for health care, banking, energy, the environment, and more.

OBJECTIONS TO COST-BENEFIT ANALYSIS AND RESPONSES

The arguments advanced against cost-benefit analysis of government regulation fall into three categories:

1. There are human and societal values that inherently defy monetization and quantitative comparison, such as human life, health, and nature.⁵⁴
2. Efficiency considerations alone should not determine regulatory decisions; the distribution of costs and benefits among different groups (*e.g.*, children, the elderly, people with low incomes, and others) should enter into the decisions. Concepts such as equity, fairness, and dignity cannot be precisely defined and mechanically applied; they must be incorporated through the political process and by exercising administrative judgment.
3. Aside from the objections on principle, monetization of important public costs and benefits, as a practical matter, is an artificial and essentially arbitrary exercise for lack of market transactions that establish meaningful, observable prices.

The basic response to these objections is that they may knock down a narrow and formulaic application of cost-benefit analysis, which is like saying that private companies should not use discounted cash flow analysis to evaluate projects because it does not incorporate strategic considerations. Of course, financial calculations alone are insufficient to make good business decisions, but they are necessary. No investor would commit substantial resources to a venture without a business case, and federal regulatory agencies should not choose to undertake a social project and pick their methods from the list on pages 16 and 17 without a similar analysis. Following are more specific responses.

1. Interpersonal comparisons of utility indeed are impossible; that is as true in the private sector as it is in the public sector. People

⁵⁴ See, *Priceless, On Knowing the Price of Everything and the Value of Nothing*, by Frank Ackerman and Lisa Heinzerling, The New Press, New York, 2004, p.8.

whose profession becomes obsolete due to automation may feel a greater personal loss than the gain experienced from lower prices by buyers of cars made by robots. However, the greater efficiency in production produces a material gain for the economy, from which government can compensate those suffering material losses (e.g., with retraining assistance). If, as a matter of principle, we do not allow such calculation to help guide public policy, then we confer veto power to groups that can claim any subjective loss from progress; we cement the primacy of the status quo and stunt economic growth. There are car plants in Europe operating at a third of capacity, subsidized by the state to avoid layoffs.⁵⁵ Such policies shrink the collective wealth, which fact should not be ignored in policymaking. Our inability to quantify the value of everything should not predispose us to accept outcomes that are objectively inferior.

2. The political and administrative processes by which government controls scarce resources do not measure efficiency. Hence, without quantitative analyses the government will misallocate and waste some of the resources it claims and generate less public benefit with them than it might. For example, the cost per life saved varies widely across different federal agencies charged with protecting public health and safety, which implies that resource reallocation among them would save more lives. There is no public interest justification for rejecting such analysis.
3. Academicians and think tank researchers analyze regulations on everything from police enforcement to education and then testify before Congress. At times, special government commissions are formed for the purpose of analyzing a particular regulatory regime. Why should the agencies that write the rules in the first place not do their own analyses and report their findings? It is necessary for lawmakers and regulators to try to understand the tangible as well as intangible implications of employing scarce resources under alternative policies.

Some examples: The war on drugs concerns values that are not measurable but it still is important to know what its costs are and how well it is working by some objective metrics. In the anti-tobacco campaign, state and federal governments have used an assortment of methods including (numbered per list on pages 16 and 17): states attorneys' litigation (2, 4); substantial taxation (5); restrictions on advertising,

Rejecting quantitative analysis in rulemaking undermines the government's public interest mission:

- ***It obstructs progress,***
- ***Leaves government oblivious to resource misallocation and waste, and***
- ***Blinds it to more effective policies.***

⁵⁵ "Unprofitable Auto Plants Multiply in Europe," *Wall Street Journal, European Business News*, June 18, 2013.

warning labels, public service announcements (7); product design prescriptions (10); restrictions on consumption, such as minimum age, no smoking areas, and on production, such as of flavored cigarettes (12). In the course of a half century, tobacco consumption has declined, but more analysis may have produced better design, sequencing, and combinations of regulations. With Prohibition, the federal government used the ultimate form of command-and-control, which led to a sharp increase in crime, undermined parts of the government itself, and proved unsustainable.

CONCLUSION

Problems with federal regulation. Federal agencies do not inherently possess better information than the private sector; on the contrary, they are largely reliant on private sources for information about the real world. Yet, the agencies collectively analyze costs and benefits for only a small fraction of the thousands of rules they issue each year. No coherent, comprehensive requirement to analyze costs and benefits exists either for making new rules or for evaluating existing rules. The instructions for agency rulemaking that exist are disjointed, unevenly enforced, and mostly ineffective. There even are statutes that instruct regulators *not* to consider costs in some rulemakings.

Regulations are proliferating at an increasing cost to the economy. A rudimentary summation of the costs agencies themselves had initially calculated for a small portion of the regulations in place shows a burden in the hundreds of billions of dollars *per year*. The growth rate of this cost burden far exceeds the growth rate of the economy, and there is no sign the pace of rulemaking is abating.

Whatever the statutory goal of a rulemaking, the public interest will be advanced by employing the most cost effective method to achieve it. To the extent that agencies do not use concrete indicators and metrics to measure the costs and benefits of what they are doing, they leave more room for errors in judgment and pursuit of non-public interests. And, to the extent agencies focus their attention on new rulemaking and not on the actual effects their existing rules are having, unintended consequences multiply.

The Joint Economic Committee (JEC) held a hearing last year on federal regulation⁵⁶ at which the witnesses expressed remarkable agreement:

⁵⁶ Hearing on “Reducing Unnecessary and Costly Red Tape through Smarter Regulations” June 26, 2013. The witnesses were professor Susan Dudley, Director, Regulatory Studies Center, George Washington University; Dr. Michael Greenstone, Director, Hamilton Project and 3M Professor of Economics, MIT; Dr. Jerry Ellig, senior research fellow, Mercatus Center, George Mason University; and Dr. Robert Kieval, Executive Vice President and Chief Technology Officer CVRx, Inc.

(1) executive orders, as internal government documents, are not legally binding and their analytical requirements do not cover all agencies and rulemakings; (2) the agencies often perform analysis only after they have decided what they want the rules to be; (3) the agencies are prone to “confirmation bias,” (4) regulations among independent regulatory agencies overlap because OIRA does not oversee them, and (5) regulation is placing a large burden on the economy.

Improvements to federal regulation. Agencies need to do more than declare a market failure, prescribe the outcomes they envision and pronounce them to be in the “public interest.” While the regulators’ goals may be laudable, there are tradeoffs to the outcomes they seek and there are alternative measures they could use to pursue them that differ in cost and effectiveness. Regulators cannot presume to know what the most efficient tradeoffs and options are without analyzing them. Regulatory actions should be grounded in principles aimed to preserve and enhance market functions and individual choice and kept from extending boundlessly to any condition deemed unsatisfactory in some way.

Agencies need to explain the tradeoffs of their pursuits within a coherent analytical framework, state their objectives clearly, and show how they can achieve them at minimum cost. Regulation should be evaluated based on progress toward the stated objectives and on all the costs, not only those for compliance and enforcement. The same principles should apply to all agency analyses, and their application to different jurisdictions, such as finance and the environment, should be accepted by the stakeholders.⁵⁷

Regulation should be least strident where objective data is difficult to obtain, such as in the social realm. Regulators should act less as “saviors” and focus more on facilitating market functions, minimizing economic tradeoffs, and containing regulation’s unintended effects. Economic analysis can help to develop process enhancements—such as in defining property and trading rights and improving information flow—that are more efficient and stable than proliferating mandates and prohibitions, which tend to introduce more regulatory discretion and uncertainty.

If regulatory agencies employed economic analysis to design rules rather than merely rationalizing them afterwards, they could be incubators of more sophisticated regulation. The 2012 Nobel Prize in economics was awarded in part for an algorithm that better assigns students among sought-after schools and matches donated kidneys with suitable recipients.

Regulation should be least strident where objective data is difficult to obtain, such as in the social realm.

⁵⁷ An Advanced Notice of Proposed Rulemaking appears to be a particularly useful device to improve individual rulemakings; see, “Regulatory Process, Regulatory Reform, and The Quality of Regulatory Impact Analysis,” Jerry Ellig and Rosemarie Fike, Working Paper No. 13-13, July 2013, Mercatus Center, George Mason University.

In both contexts it is not socially acceptable to use auctions; nevertheless economic analysis proved capable of improving the methods in use.

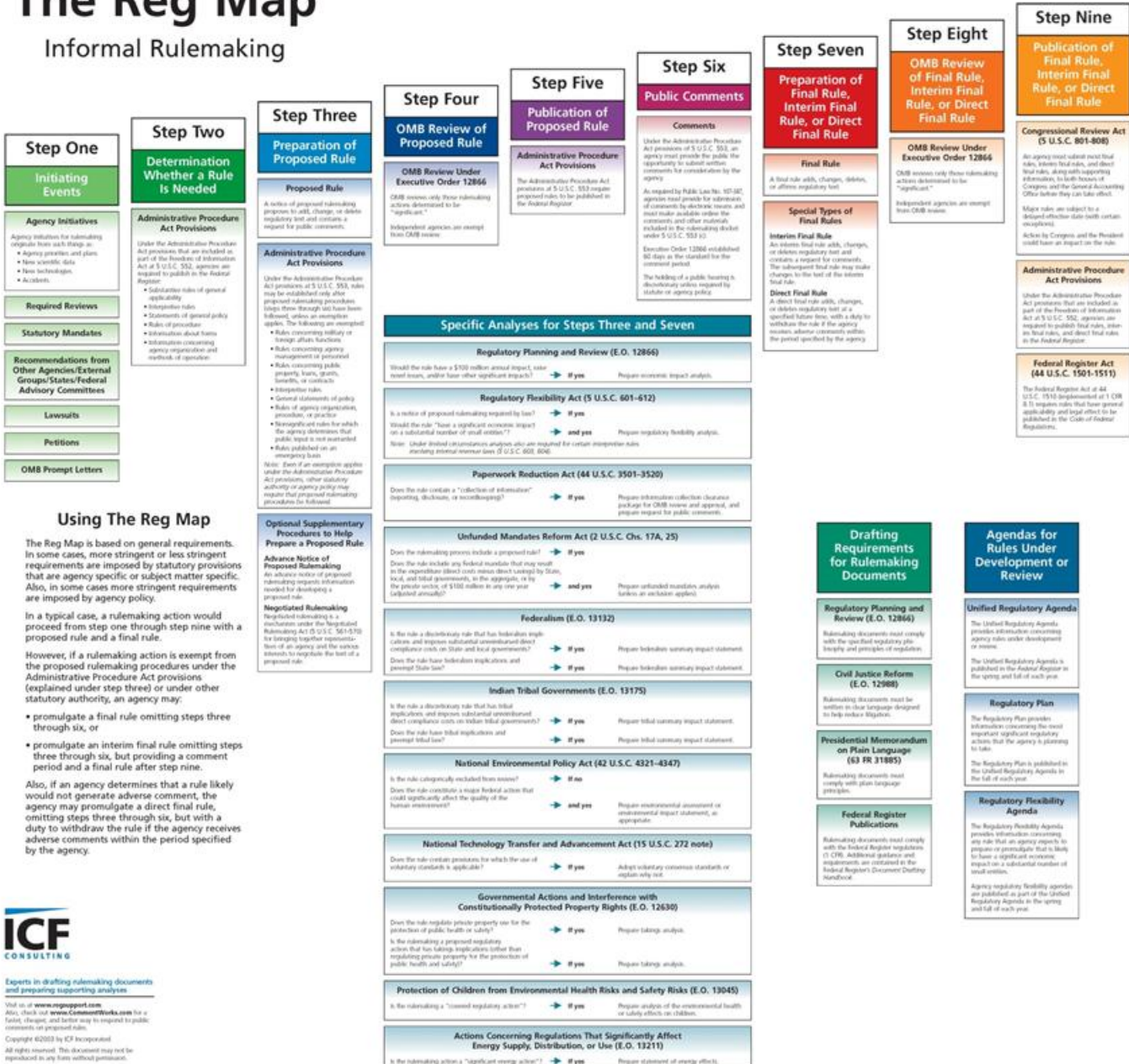
The JEC witnesses also agreed on the following: (1) Legislation is needed to make analysis a legally binding requirement that applies to all federal agencies and all rulemakings of importance; (2) retroactive reviews of rules in place are needed to make appropriate changes to the ones that are not working as intended; and (3) independent review of agencies' analysis and rulemakings is needed to cut down on overlap and hold rulemaking to common, objective standards.

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APPENDIX

The Reg Map

Informal Rulemaking



Executive Orders on Regulatory Analysis and Oversight and Regulatory Review Laws

(Susan E. Dudley's Prepared Statement, Joint Economic Committee Hearing, June 26, 2013)

Executive Order	Title	President	Date Signed
EO 12044	"Improving Government Regulations" (revoked by EO 12291)	Carter	March 1978
EO 12174	"Paperwork" (revoked by EO 12291)	Carter	November 1979
EO 12291	"Federal Regulation" (revoked by EO 12866)	Reagan	February 1981
EO 12498	"Regulatory Planning Process" (revoked by EO 12866)	Reagan	January 1985
EO 12866	"Regulatory Planning and Review" (amended by EO 13258)	Clinton	September 1993
EO 13258	"Amending Executive Order 12866 on Regulatory Planning and Review" (revoked by EO 13497)	G. W. Bush	February 2002
EO 13422	"Further Amendment to Executive Order 12866 on Regulatory Planning and Review" (revoked by EO 13497)	G. W. Bush	January 2007
EO 13497	"Revocation of Certain Executive Orders Concerning Regulatory Planning and Review"	Obama	January 2009
EO 13563	"Improving Regulation and Regulatory Review"	Obama	January 2011
EO 13579	"Regulation and Independent Regulatory Agencies"	Obama	July 2011
EO 13609	"Promoting International Regulatory Cooperation"	Obama	May 2012
EO 13610	"Identifying and Reducing Regulatory Burdens"	Obama	May 2012

Regulatory Review Laws

Regulatory Flexibility Act (RFA) of 1980. Requires agencies to assess the impact of a regulation on small businesses and provides for review by the Small Business Office of Advocacy.

Paperwork Reduction Act (PRA) of 1980 (amended in 1995). Established OIRA within the OMB to review the paperwork and information collection burdens imposed by the federal government.

Unfunded Mandates Reform Act (UMRA) of 1995. Limits regulatory agencies' ability to place burdens on state, local, and tribal governments.

Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996. Enforces requirements for small business impact analyses under the RFA.

Congressional Review Act (CRA) of 1996, contained in the SBREFA. Requires rule-issuing agencies to send all mandated documentation that is submitted to the OMB to both houses of Congress as well. It also allows Congress to overturn regulations within a specified time with a congressional resolution of disapproval.

Consolidated and Emergency Supplemental Appropriations Act of 1999 (section 638(a)). Requires the OMB to report to Congress yearly on the costs and benefits of regulations and to provide recommendations for reform.

Truth in Regulating Act of 2000. Gives Congress the authority to request that the GAO conduct an independent evaluation of economically significant rules at the proposed or final stages.

Information Quality Act of 2000. Required the OMB to develop government-wide standards for ensuring and maximizing the quality of information disseminated by federal agencies. Under the guidelines, agencies must follow procedures for ensuring the utility, integrity, and objectivity of information used in rulemaking and elsewhere. They also must offer an administrative mechanism for responding to public requests to correct poor-quality information that has been or is being disseminated.

INDEPENDENT AGENCIES

(As described and grouped in “Independent Regulatory Agency Compliance with the Regulatory Flexibility Act,” Microeconomic Applications, Inc. the SBA Office of Advocacy, May 2013)

Depository Financial Institutions

Independent federal agencies that regulate depository financial institutions include the following:

- **Farm Credit Administration (FCA).** The FCA provides credit and other services to agricultural producers, farmer-owned cooperatives, and other selected rural businesses.
- **Federal Deposit Insurance Corporation (FDIC).** The FDIC insures deposits in banks and thrift institutions, addressing risks to the deposit insurance funds, and intervenes to limit economic impacts when a bank or thrift institution fails.
- **Federal Reserve System (FRS).** The Board of Governors of the FRS supervises the financial services industry, regulates commercial banks and other depository institutions, oversees the nation's payments system, administers certain consumer protection regulations, and sets the nation's monetary policy.
- **National Credit Union Administration (NCUA).** The NCUA charters and regulates federal credit unions.

Non-Depository Financial Institutions

Independent federal agencies that regulate non-depository financial institutions include the following:

- **Commodity Futures Trading Commission (CFTC).** The CFTC regulates commodity futures and option markets to facilitate their competitive functioning, ensure their integrity, and protect market participants.
- **Securities and Exchange Commission (SEC).** The SEC enforces the federal securities laws and regulates the securities industry, the nation's stock and options exchanges, and other electronic securities markets, as well as participants in those markets.

Energy

Independent federal agencies that regulate businesses in the energy sector include the following:

- **Federal Energy Regulatory Commission (FERC).** The FERC regulates the interstate transmission of electricity, natural gas, and oil, as well as certain aspects of related infrastructure.
- **Nuclear Regulatory Commission (NRC).** The NRC regulates civilian use of nuclear materials – including reactors, nuclear waste, and other non-energy uses of nuclear materials - to protect the public health and safety.

Transportation

Independent federal agencies that regulate businesses in the transportation sector include the following:

- **Federal Maritime Commission (FMC).** The FMC regulates ocean borne transportation in the foreign commerce of the U.S.
- **Surface Transportation Board (STB).** The STB regulates railroad rates, service issues, and restructuring transactions of railroads and (to a limited extent) interstate trucking, ocean shipping, busses, and pipelines.

Consumer Protection

Independent agencies that regulate commerce more broadly, especially with respect to consumer protection, include the following:

- **Consumer Product Safety Commission (CPSC).** The CPSC regulates consumer products, under authority from nearly a dozen statutes, to protect the public from unreasonable risks of injury or death.
- **Federal Trade Commission (FTC).** The FTC has a dual mandate that includes: Anti-trust activities to promote and protect free competition, and protection of consumers against unfair, deceptive, or fraudulent marketplace practices.

Federal Activity

Independent federal agencies that regulate quasi-federal organizations include the following:

- **Recovery Accountability and Transparency Board (RATB).** The RATB provides transparency and investigates fraud, waste, and mismanagement of American Recovery and Reinvestment Act funds.
- **Federal Housing Finance Agency (FHFA).** The FHFA regulates government-sponsored enterprises in the secondary mortgage markets: The Federal Home Loan Mortgage Corporation (Fannie Mae), The Federal National Mortgage Association (Freddie Mac), and The 12 Federal Home Loan Banks.
- **Postal Regulatory Commission (PRC).** The PRC regulates the U. S. Postal Service.

Adjudicatory Agencies

Independent federal agencies that provide services of an administrative court include the following:

- **Federal Mine Safety and Health Review Commission (FMSHRC).** The FMSHRC provides administrative trial and appellate review of legal disputes arising under the Mine Act of 1977.
- **Occupational Safety and Health Review Commission (OSHRC).** The OSHRC provides administrative trial and appellate review under the Occupational Safety and Health Act of 1970.

Other Agencies

Independent federal agencies that have other distinct missions include the following:

- **Federal Communications Commission (FCC).** The FCC regulates interstate and international communications by radio, television, wire, satellite, and cable
- **Federal Election Commission (FEC).** The FEC administers and enforces the Federal Election Campaign Act, which governs the financing of federal elections.
- **National Indian Gaming Commission (NIGC).** The NIGC regulates gaming activities on Indian lands for the benefit of Indian tribes and to assure fair conduct of gaming.
- **National Labor Relations Board (NLRB).** The NLRB protects the rights of private sector employees to join together (with or without a union) to improve their wages and working conditions.

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