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### **Understanding Why More Regulation Means Less Investment**

**by**

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Market economies require at least some clear rules in order to function efficiently. A free enterprise system cannot function without a legal framework to establish property rights and enforce contracts. Once property rights are established, markets are very efficient at allocating resources and financing to their best uses, but certain features of markets may lead to failures in this process.

Thus, regulation will only improve economic outcomes such as growth, increased employment, and new innovation if it corrects for a “market failure.” Importantly, the list of types of market failures is quite short. To the extent that regulation does not address a specific market failure, its costs will inevitably greatly outweigh its benefits, if any. It is widely accepted among a broad range of economists that too much regulation, or poorly-designed regulation, leads to less economic activity, less productive investment, and less creative innovation in regulated markets.

This *Perspectives* reviews the work of prominent U.S. economists demonstrating that, as a general proposition, more regulation leads to less investment, and describes in broad terms how regulation can be improved to encourage more private investment. Indeed, one of the major costs of excessive and ill-conceived regulations is a reduction in the benefits from investment in regulated industries. In future publications, I will apply this general proposition to specific contexts, such as segments of the communications marketplace.

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This is a time when the country can ill-afford diminished capital investment attributable to unnecessary regulation. Low capital investment is already a problem in the U.S., where private business investment between 2008 and 2015 grew at less than half the rate it grew in other post-recession periods since 1948<sup>1</sup>. Sustained capital investment is the most important driver of economic growth, which in turn increases employment and labor productivity. Therefore, it is important for the health of the overall economy that business investment grow more robustly than it has over the last several years.

With this in mind, it is important to understand why unnecessary regulation adversely affects the amount of investment, innovation, and job creation. Richard Williams, former Vice President for Research at the Mercatus Center at George Mason University, identified several ways in which too much regulation can adversely affect the amount of investment.

- First, regulations may make it harder to enter an industry. Regulations requiring licenses, permits, minimum capital requirements and other conditions that must be met before entering can impose large start-up costs on businesses. Preventing new firms from entering an existing industry can reduce both the level of investment by new firms and the incentive for firms already in the industry to innovate.
- Second, regulation can be a source of uncertainty, which discourages investment.<sup>2</sup> All firms must make investment decisions in light of uncertainty about the demand for their products and about how much it will cost them to produce their products. The possibility of changing regulatory requirements can add to their uncertainty on both the demand and cost side. While it is possible that regulations can reduce uncertainty for certain well-established firms by insulating them from competition, the cost to the economy is likely to be greatly outweighed by the reduction in market competition and diversion of resources from innovation activities.
- Third, the resources utilized to comply with regulations will not be utilized for other productive activities. The net effect of more regulatory compliance on job creation can be positive, as more people are needed to meet the new regulatory requirements. The problem is that resources that go into compliance are unlikely to produce a mix of new or improved goods and services that consumers value more than those they give up.
- Fourth, overly burdensome regulations may lead firms to move their productive activities overseas, where the regulatory burdens are lower. While the U.S. economy may still benefit from imports that come in as a result of innovation in other countries, the associated jobs will be created abroad, and the intended benefits that were supposed to be derived from the regulation may be avoided.<sup>3</sup>

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<sup>1</sup> Mark P. Keightley Marc Labonte and Jeffrey M. Stupak, “Slow Growth in the Current U.S. Economic Expansion,” Congressional Research Service, June 24, 2016, at 20, available at <https://fas.org/sgp/crs/misc/R44543.pdf>.

<sup>2</sup> See, e.g., Randolph J. May, “Regulatory Uncertainty Harms Broadband Investment and the Economy,” Free State Foundation, December 10, 2015, available at <http://freestatefoundation.blogspot.com/2015/12/regulatory-uncertainty-harms-broadband.html>.

<sup>3</sup> Richard Williams, “The Impact of Regulation on Investment and the US. Economy,” Policy Briefing, Mercatus Center at George Mason University, January 11, 2011, available at

Besides reducing the amount of investment in an industry, regulation can also diminish the effectiveness of the investment by altering investment choices. Regulatory mandates may force firms to make certain investments, which may be measured as an increase in industry investment, but these types of investments often produce less benefits than the investment activity crowded out by the regulation. John Mayo, Director of the Georgetown Center for Business and Public Policy, described the problem as follows:

A careful reading of the economic literature as well as an examination of observed investment patterns in the face of regulatory changes reveal that, independent of any impact regulation may have on the level of investment, the imposition of additional regulation may alter the mix of investments. Importantly, the resulting distortions to the mix of investment may be as harmful to consumers and the future of the telecommunications industry as are impacts on the level of investment. In the dynamic telecommunications market, which relies heavily on private-sector investment, regulators and policymakers must be keenly aware that their policy decisions can affect not only the level of investment but can also skew investment decisions. Such skewing of investment across firms, technologies, or geographic areas harms economic efficiency and threatens the future economic vitality of not only the industry but also the larger economy.<sup>4</sup>

Economists have long debated how much regulation is enough in the United States. In general, such analysis finds that there is too much. While this view may be associated with more conservative and libertarian-leaning economists, many economists considered to be more on the liberal side of the aisle agree that regulations often do more harm than good. For example, Cass Sunstein, appointed by President Obama to head the Office of Information and Regulatory Affairs (OIRA), strongly advocated for review of federal regulations using cost-benefit analysis, which was reflected in a series of executive orders by President Obama eliminating regulations OIRA found to be inefficient.<sup>5</sup>

Supreme Court Justice Stephen Breyer, appointed by President Clinton, described how “well-meaning, intelligent regulators, trying to carry out their regulatory tasks sensibly, can nonetheless bring about counterproductive results.”<sup>6</sup> Breyer described the problem as “tunnel vision,” as agencies pursue a particular goal until their regulatory activity imposes increasingly high costs while producing no significant benefits. Meanwhile, Alfred Kahn was the economist appointed by President Carter as the last Chairman of the Civil Aeronautics Board as it ended air passenger rate regulation. Kahn, who later served on the Board of Academic Advisors for the Free State Foundation, as a matter of first principles, famously declared, “Whenever competition

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<https://www.mercatus.org/system/files/House%20Oversight%20Response%20on%20Regulations%20and%20Economy%5B2%5D.pdf>.

<sup>4</sup> John W. Mayo, “Regulation and Investment: Sk(r)ewing the Future for 21st Century Telecommunications?” Economic Policy Vignette, Georgetown Center for Business and Public Policy, Washington, DC, June 2016, available at <http://cbpp.georgetown.edu/publications/regulation-and-investment-skewing-future-21st-century-telecommunications>.

<sup>5</sup> Michael B. Rappaport, “Using Delegation to Promote Deregulation,” *Regulation*, Winter, 2015-2016, at 26-30, available at <https://object.cato.org/sites/cato.org/files/serials/files/regulation/2015/12/regulation-v38n4-5.pdf>.

<sup>6</sup> Stephen Breyer, *Breaking the Vicious Circle: Toward Effective Risk Regulation*, Harvard University Press, 1995, as quoted in Susan E. Dudley and Jerry Brito, *Regulation: A Primer*, 2nd ed. Arlington, VA: Mercatus Center at George Mason University and George Washington University Regulatory Studies Center, 2012, at 61.

is feasible, it is, for all its imperfections, superior to regulation as a means of serving the public interest.”<sup>7</sup>

In light of the high costs, counterproductive results, and imperfections, it is not surprising that the adverse economic effects caused by regulation are demonstrable. Probably the most comprehensive study of the economic burden of U.S. regulation found that if federal regulations had been held constant at levels observed in 1980, the U.S. economy would have been about 25 percent larger than it actually was in 2012. This difference translates to approximately \$4 trillion in economic activity, or a loss of approximately \$13,000 per person.<sup>8</sup> This 2016 study was by Bentley Coffey, Assistant Research Professor at the University of South Carolina, Patrick McLaughlin, Director of the Program for Economic Research on Regulation for the Mercatus Center at George Mason University, and Pietro Peretto, Professor of Economics at Duke University.

The Coffey study generally captures the offsetting benefits from regulations aimed primarily at changing economic outcomes, such as the increase in corn production due to federal regulations requiring that gasoline contain a minimum percentage of ethanol, but misses some benefits that are not well measured by GDP changes, like improvements in environmental quality. Thus, their estimates only partially capture the benefits of regulation.<sup>9</sup> Nonetheless, the study shows that regulatory accumulation is creating a very large drag on the U.S. economy that far exceeds any plausible claim of benefits not captured by their measurements.

Industries that formerly were heavily regulated and then experienced significant deregulation provide important case studies showing the magnitude of new investment that is possible as regulation is reduced. In the 1970s, accumulated federal regulation nearly drove U.S. railroads out of business. The Staggers Rail Act of 1980 eliminated most rate regulation, allowed railroads and shippers to enter into new types of contracts, and established time limits for regulatory review of mergers and discontinuations of unprofitable services. Jerry Ellig, Senior Research Fellow for the Mercatus Center at George Mason University, shows how since this deregulation, the now-profitable private railroads have invested more than \$630 billion in their networks, while operating costs dropped by more than 50% in the first 13 years after deregulation.<sup>10</sup> As a comparison, in 2014 railroads invested \$28 billion in private funds into their networks,<sup>11</sup> while the federal government spent \$46 billion on highways.<sup>12</sup>

Similarly, air cargo transportation was largely deregulated in 1977, a year before passenger air service price regulation ended. Before 1977, Federal Express existed under a limited exception to

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<sup>7</sup> Alfred E. Kahn, as quoted in Dudley, *supra* note 6, at vii.

<sup>8</sup> Bentley Coffey, Patrick A. McLaughlin, and Pietro Peretto. “The Cumulative Cost of Regulations.” Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, VA, April 2016, at 7. available at <https://www.mercatus.org/system/files/Coffey-Cumulative-Cost-Regs-v3.pdf>. These authors survey other scholarly research that also found large costs due to regulatory accumulation.

<sup>9</sup> *Id.*

<sup>10</sup> Jerry Ellig, “Infrastructure Policy: Four Lessons from Freight Rail Deregulation,” Mercatus Center at George Mason University, Arlington, VA, forthcoming.

<sup>11</sup> Association of American Railroads, “Freight Railroad Capacity and Investment,” April 2016, available at <https://www.aar.org/BackgroundPapers/Freight%20Railroad%20Capacity%20and%20Investment.pdf>.

<sup>12</sup> Congressional Budget Office “Approaches to Making Federal Highway Spending More Productive,” February 16, 2016, available at <https://www.cbo.gov/publication/50150>.

the prevailing air cargo regulations, on a much smaller scale than today. FedEx's main competition at the time was passenger airlines filling empty space in their luggage holds with cargo. Kenneth Button, Professor of Public Policy and formerly the Director for the Center for Transportation Policy, Operations, and Logistics at George Mason University, described how in only a few years after this deregulation, air cargo transportation was transformed through mostly private investment into the current nation-wide overnight delivery network. Button points out that this deregulation led to increased investment that went well beyond the air cargo industry. The massive investments by Amazon, eBay, and other online retail giants that transformed retail commerce would not have occurred without the improvements in the air cargo transportation network.<sup>13</sup>

Many economic regulations may be created based on questionable economic analysis of the costs and benefits, or even with no economic analysis at all. In a recent working paper, Professor Sunstein concludes, "There is a strong argument that some form of quantified cost-benefit analysis, showing that benefits justify the costs, is the best way to demonstrate that a regulation would promote social welfare. Unless a statute says otherwise, a failure to offer such a demonstration requires some kind of explanation."<sup>14</sup> Sunstein is discussing a standard for a court to strike down a regulation as arbitrary, which is a standard that is stricter than economists use in deciding whether a regulation is economically justified or not.

Executive branch agencies have long been required to perform the kind of quantified analysis described by Professor Sunstein, although this requirement does not extend to independent agencies like the Federal Communications Commission.<sup>15</sup> Executive Order 12866, issued by President Clinton in 1993, is still in effect, and has been followed by subsequent administrations. This executive order "expresses the philosophy that regulations should (1) address a 'compelling public need, such as material failures of private markets'; (2) be based on an assessment of 'all costs and benefits of available regulatory alternatives, including the alternative of not regulating'; and (3) 'maximize net benefits' to society unless otherwise constrained by law."<sup>16</sup>

Regulations that may have been justified when implemented often lose that justification over time. Michael Mandel, chief economic strategist at the Progressive Policy Institute, and Diana Carew, an economist at the Progressive Policy Institute, point out that "For each new regulation added to the existing pile, there is a greater possibility for interaction, for inefficient company resource allocation, and for reduced ability to invest in innovation. The negative effect on U.S. industry of regulatory accumulation actually compounds on itself for every additional regulation added to the pile."<sup>17</sup>

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<sup>13</sup> Kenneth Button and David Christiansen, "Unleashing Innovation: The Deregulation of Air Cargo Transportation." Mercatus on Policy, Mercatus Center at George Mason University, Arlington, VA, December 15, 2014, available at <https://www.mercatus.org/publication/unleashing-innovation-deregulation-air-cargo-transportation>.

<sup>14</sup> Cass R. Sunstein, "Cost-Benefit Analysis and Arbitrariness Review," Harvard Public Law Working Paper No. 16-12, last revised: April 22, 2016, available at [https://papers.ssrn.com/sol3/Papers.cfm?abstract\\_id=2752068](https://papers.ssrn.com/sol3/Papers.cfm?abstract_id=2752068).

<sup>15</sup> President Obama's Executive Order 13579 encourages independent agencies to conduct retrospective review of their existing regulations. Executive Order no. 13,579, *Federal Register* 76, no. 14 (January 21, 2011).

<sup>16</sup> Dudley, *supra* note 6, at 41.

<sup>17</sup> Michael Mandel and Diana G. Carew, "Regulatory Improvement Commission: A Politically-Viable Approach to U.S. Regulatory Reform" (Policy Memo, Progressive Policy Institute, Washington, DC, May 2013), at 3-4, available at <http://www.progressivepolicy.org/2013/05/regulatory-improvement-commission-a-politically-viable-approach-to-u-s-regulatory-reform/>.

A particular problem with regulations is that they tend to be static, while business managers must deal with dynamic changes in their markets. Patrick McLaughlin and Richard Williams explain the problem as follows:

Regulations take years to develop and are often dated by the time they are created. Dealing with nonfunctional and static regulations crowds out scarce resources that could be devoted to newer, emerging risks. These risks could come from new technologies, new production methods, new products, or new sources of labor. For firms, increasingly complex and detailed rules build a rigid structure that is not flexible enough to innovate in the face of new threats. These rules present opportunity risks by removing the choices to continually improve or develop resiliency.<sup>18</sup>

It should be noted that some regulations may be intended to address certain equity concerns that may be distinct from promoting economic efficiency. These objectives may include promoting universal service, assuring customers that products meet certain quality and safety standards, and protecting the environment in ways that go beyond correcting for externalities.<sup>19</sup> But just because a regulation is aimed at a non-economic objective should not exempt the regulation from being evaluated using cost-benefit analysis. Even non-economic benefits can be given a value, and cost-benefit analysis may reveal that the cost is too great or that alternatives for pursuing the same goals are available at less cost or which require less onerous restrictions on economic activity. Executive Order 12866 makes this clear: “Costs and benefits shall be understood to include both quantifiable measures (to the fullest extent that these can be usefully estimated) and qualitative measures of costs and benefits that are difficult to quantify, but nevertheless essential to consider.”<sup>20</sup>

One non-economic consideration that is often raised is the implication for income distribution. With most regulations, however, the implications for income redistribution are often ignored by regulators. While regulation is often described in general terms as intended to protect poor and average income Americans from abuses by the rich and powerful, on balance regulation generally has the opposite effect. For example, Diana Thomas, Director of the Creighton Economic Institute at the Heider College of Business at Creighton University, finds that the aggregate impact of health and safety regulation “reflects the preferences of high-income households and effectively redistributes wealth from the poor to the middle class and the rich.”<sup>21</sup>

Professor Thomas cites the example of rear-view cameras, which will be mandatory for all new passenger cars starting in 2018. She points out that rear-view cameras have been a popular option for new car buyers for several years, especially on more expensive cars that were more likely to

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<sup>18</sup> Patrick A. McLaughlin and Richard Williams, “The Consequences of Regulatory Accumulation and a Proposed Solution Patrick,” Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, VA, February 11, 2014. Available at <https://www.mercatus.org/publication/consequences-regulatory-accumulation-and-proposed-solution>.

<sup>19</sup> Dudley, *supra* note 6, at 12-14.

<sup>20</sup> Executive Order no. 12,866, *Federal Register* 58, no. 190 (September 30, 1993).

<sup>21</sup> Diana Thomas, “Regressive Effects of Regulation.” Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, VA, November 27, 2012, available at <https://www.mercatus.org/publication/regressive-effects-regulation>.

be purchased by the wealthiest car buyers. By making the cameras mandatory, regulators have forced less wealthy car buyers to pay for them, even though this option is unlikely to be the most cost-effective use of the funds they devote to risk reduction. Forcing all customers to buy this option may even lead some low income car buyers to increase their risk by driving older cars for a longer time. Spreading the cost of this safety mandate to low income car buyers also lowers the cost of this feature for wealthy car buyers who would have bought the safety feature anyway.

Thus, in this instance, the effect is that lower income households are forced by regulations to subsidize the lifestyle preferences of the wealthy. Thomas estimates that the cost of health and safety regulation as a share of income is approximately six to eight times higher for low-income households than for high-income households.<sup>22</sup> Another study by Patrick McLaughlin and Laura Stanley, an economist at the Environmental Protection Agency, found that increasing the number of entry requirements needed to start a business is significantly and positively correlated with increased income inequality, due to requirements preventing economic activity by new entrepreneurs while protecting established business owners.<sup>23</sup>

Economic regulations that are properly designed and narrowly tailored to address a specific market failure can serve a public interest purpose. Economic analysis shows that regulation can help establish property rights, address spillover effects that may harm other parties, and create standards that different producers can find useful. Regulation can also protect entrenched interests from competition, discourage innovation, and cause more harm than good as it loses its effectiveness as it becomes outdated. The results from the deregulatory movement in the late 1970s, for example, with respect to the airline, railroad, and energy markets, shows how much new investment can be unleashed after inefficient regulations are removed. The sluggish U.S. investment activity since the last recession can be improved through regulatory reform. A major regulatory cleanup is long overdue to eliminate or modify obsolete or otherwise undesirable regulations.

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<sup>22</sup> *Id.*

<sup>23</sup> Patrick A. McLaughlin and Laura Stanley, “The Regressive Effects of Entry Regulation.” Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, VA, January 20, 2016. Available at <https://www.mercatus.org/publication/regulation-and-income-inequality-regressive-effects-entry-regulations-0>.