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Regulatory Exit

J.B. Ruhl* James Salzman**

Exit is a ubiquitous feature of life, whether breaking up in a marriage, dropping a college course, or pulling out of a venture capital investment. In fact, our exit options often determine whether and how we enter in the first place. While legal scholarship is replete with studies of exit strategies for businesses and individuals, administrative law scholarship has barely touched the topic of exit. Yet exit plays just as central a role in the regulatory state as elsewhere—welfare support ends, government steps out of rate-setting. In this Article, we argue that exit is a fundamental feature of regulatory design and should be explicitly considered at the time of program creation.

Part II starts from first principles and sets out the basic features of regulatory exit. It addresses the design challenges of exit strategies and how to measure success of exit. With these descriptive and normative foundations in place, Part III develops a framework that explains the four basic types of regulatory exit strategies, exploring the political economy that determines each strategy and explaining when policy makers are most likely to adopt them. To demonstrate its usefulness in practice, the framework is applied as a case study in Part IV to the emerging challenge of fracking. We conclude by describing a new exit strategy model for regulatory design, a hybrid approach of "Lookback Exit."

Exit is a vast, central, yet largely unexplored aspect of administrative governance. By providing a fuller account, we demonstrate why exit warrants focused research and theoretical development in its own right, create a framework for the analysis of exit issues, and identify the key questions for future research. Doing so provides important insights, not only for understanding the practice we see around us today, but also for the design of programs to manage emerging issues.

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We are thankful for the brainstorming and comments from participants in workshops at Duke, Vanderbilt, and Colorado law schools. Please direct any questions or comments to jb.ruhl@law.vanderbilt.edu or salzman@law.ucla.edu.

I.	INTE	RODUCTION1	296
II.	DEF	INING EXIT1	301
	A.	Key Attributes of Exit	
		1. What is exit? 1	
		2. Who exits? 1	302
		3. When does exit occur? 1	
		4. Where does exit occur? 1	304
		5. How does exit occur? 1	
		6. Why exit? 1	
	B.	Defining Exit Success 1	
III.	DES	IGNING EXIT STRATEGIES 1	
	A.	Ex Ante versus Ex Post	
	B.	Transparent versus Opaque 1	
	\overline{C} .	Exit Categories1	
		1. Mapped Exit (Ex Ante & Transparent) 1	
		2. Uncertain Exit (Ex Ante & Opaque) 1	
		3. Adaptive Exit (Ex Post & Transparent) 1	
		4. Messy Exit (Ex Post & Opaque) 1	
IV.	REG	ULATORY EXIT CHALLENGES AND INNOVATIONS 1	
	\boldsymbol{A} .	Applying the Model to Emerging Issues 1	325
	B.	Lookback Exit 1	
V C	ONICITI	CION 1	222

I. INTRODUCTION

There is a way to get out of almost every relationship in modern society—married couples can divorce, partnerships can dissolve, students can drop courses, banks can foreclose on loans, and universities can quit athletic conferences. While people might not like to admit it, the fact that there are structured processes available to *exit* relationships strongly influences the way we *enter* relationships. The prenuptial agreement is a classic example, serving as a pre-planned roadmap in the event of future marital dissolution, as is the agreement venture capital firms sign before investing in start-ups. The reality is that a wide variety of relationships only get started because one or more

^{1.} See Allison A. Marston, Planning for Love: The Politics of Prenuptial Agreements, 49 STAN. L. REV. 887, 890–92 (1997). Exit strategies are so important for venture capital firms that the topic is taught in business schools. Xu Han, Visiting Lecturer, The Univ. of Penn., The Wharton Sch. Mgmt. Dept., Venture Capital and Entrepreneurial Management, (Fall 2013) (class on "Managing the Exit: IPO and alternative exit strategies"); Lena G. Goldberg, Senior Lecturer, Harvard Bus. Sch. MBA Program, Syllabus for Legal Aspects of Entrepreneurship, (course content includes surveying legal aspects of exit strategies, including PE exits).

of the parties devised an "exit strategy" before entering the relationship.2

Exit is also a ubiquitous, inevitable feature of governance, and its challenges arise in a wider range of government activities than is commonly recognized. For welfare payments, when should particular recipients be deemed no longer eligible for public assistance? For voting rights, when should a district under federal supervision be excused from oversight? For energy production, when should government withdraw from electricity rate-setting? The list goes on and on—from deciding when to end pollution restrictions to shutting down a crop subsidy program. Indeed, it is no exaggeration to say that exit is ubiquitous in the background of the administrative state. The question is whether it should feature more prominently in the foreground.

In some cases, of course, government exit strategies are closely scrutinized. For example, seeking to prevent the demise of one of America's largest and most iconic corporations, in 2008 and 2009 the federal government provided nearly \$50 billion to General Motors, taking a majority share in Detroit's largest automobile company.³ The government also provided similarly extensive support to the insurance giant AIG and the "too big to fail" banks.⁴ At the time of the bailouts, newspapers and talk shows were abuzz with earnest debate over the government's exit strategy.⁵ How would the government be able to get out of its financial entanglement? As one blogger commented at the time, "Our current government will have that problem when they finally have to decide what to do with the multitude of bailouts that are

^{2.} Searching for the term "exit strategy" in Westlaw's Law Reviews and Journals database yields over 1,500 documents, the vast majority of which deal with exit strategies in business and financial settings.

^{3.} Tim Higgins, Ian Katz & Kasia Klimasinka, GM Bailout Ends as U.S. Sells Last of 'Government Motors', BLOOMBERG (Dec. 9, 2013, 11:01 PM), http://www.bloomberg.com/news/2013-12-09/gm-bailout-ends-as-u-s-sells-last-of-government-motors-.html [http://perma.cc/L5KN-2XTE].

^{4.} Bob Ivry, Bradley Keoun & Phil Kuntz, Secret Fed Loans Gave Banks \$13 Billion Undisclosed to Congress, BLOOMBERG (Nov. 27, 2011, 6:01 PM), http://www.bloomberg.com/news/2011-11-28/secret-fed-loans-undisclosed-to-congress-gave-banks-13-billion-in-income.html [http://perma.cc/7WM4-RDTH]; Matthew Karnitschnig, Deborah Solomon, Liam Pleven & Jon E. Hilsenrath, U.S. to Take Over AIG in \$85 Billion Bailout; Central Banks Inject Cash as Credit Dries Up, WALL STREET J., (Sept. 16, 2008, 11:59 PM), http://online.wsj.com/news/articles/SB122156561931242905 [http://perma.cc/AB75-HH2B] ("The Fed will lend up to \$85 billion to AIG, and the U.S. government will effectively get a 79.9% equity stake").

^{5.} See CONG. OVERSIGHT PANEL, JUNE OVERSIGHT REPORT: THE AIG RESCUE, ITS IMPACT ON MARKETS, AND THE GOVERNMENT'S EXIT STRATEGY 196–222 (June 10, 2010) (discussing options the government did and could still consider for terminating support for AIG and requiring AIG's repayment of federal funds).

ongoing. . . . [W]e will eventually need an 'exit strategy'; and we may find that Iraq was easier to leave."

The public discussions over an exit strategy prior to bailing out General Motors or invading Iraq seemed natural and necessary at the time. Nobody hoped for permanence in either case, so it was reasonable to ask the government to plan for exit at the outset. Surprisingly, though, similar concerns are largely absent in the *administrative* context.

Before launching a new regulatory or entitlements program, which in effect establishes a new relationship between government and the regulated or benefited entities, does anyone ask about the government's exit strategy? More to the point, *should* the government devise explicit, deliberate exit strategies for regulatory and entitlements programs? If so, what makes for an effective exit strategy? These may seem to be obvious questions, but they are rarely asked.⁸

Traditional regulatory design asks how government should *enter* a regulatory space and design regulations to accomplish Goal X in a way that is efficient, effective, and equitable. We argue that this is only half

Every constitution, then, and every law, naturally expires at the end of nineteen years. If it be enforced longer, it is an act of force, and not of right. It may be said, that the succeeding generation exercising, in fact, the power of repeal, this leaves them as free as if the constitution or law had been expressly limited to nineteen years only. In the first place, this objection admits the right, in proposing an equivalent. But the power of repeal is not an equivalent. It might be, indeed, if every form of government were so perfectly contrived, that the will of the majority could always be obtained, fairly and without impediment. But this is true of no form. The people cannot assemble themselves; their representation is unequal and vicious. Various checks are opposed to every legislative proposition. Factions get possession of the public councils, bribery corrupts them, personal interests lead them astray from the general interests of their constituents; and other impediments arise, so as to prove to every practical man, that a law of limited duration is much more manageable than one which needs a repeal.

Letter from Thomas Jefferson to James Madison (1789). ME 7:459, Papers 15:396.

9. President Obama recently summarized the conventional regulatory design process, explaining that

each agency must, among other things: (1) propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs (recognizing that some benefits and costs are difficult to quantify); (2) tailor its regulations to impose the least burden on society, consistent with obtaining regulatory objectives, taking into account, among other things, and to the extent practicable, the costs of cumulative regulations; (3) select, in choosing among alternative regulatory approaches, those approaches that maximize net benefits (including potential economic, environmental, public health and

^{6.} Bailout Exit Strategy?, NEOAVATARA (Apr. 16, 2009), http://neoavatara.com/blog/?p=3001 [http://perma.cc/JNU6-C37H]. Speaking of Iraq, many commentators questioned at the time of the invasion whether the United States had a coherent exit strategy.

^{7.} See generally Henry H. Perritt, Jr., Iraq and the Future of United States Foreign Policy: Failures of Legitimacy, 31 Syracuse J. Int'l L. & Com. 149 (2004) (discussing the Iraq war exit strategy).

^{8.} In a fascinating exception at the founding of the country, Thomas Jefferson recommended that the Constitution should be rewritten every generation. Through this forced exit, governance would regularly be re-examined and renewed. As he wrote to James Madison,

the task. Government should also ask how it will *exit* when it realizes it (1) has accomplished Goal X, (2) is not achieving Goal X, or (3) has regulated more than necessary to achieve Goal X.

Asking about exit is thus a key first step, but only the first, for the design of exit strategies presents other difficult challenges. Premature exit may negate the benefits gained from intervention in the first place or even make matters worse. The bird delisted too soon from the Endangered Species Act may still need protection and be pushed closer to extinction as a result. On the other hand, making exit too difficult might lead to locking-in of benefits for some interests, including the relevant agency and vested parties. This creates an effectively permanent relationship of dependence, often in the form of subsidy or shielding from competition. Just try terminating grazing allotments on federal public lands in the West. On Consequently, exit strategies need to address both of these concerns directly.

Even more important, as the field of law and economics has amply demonstrated, legal design influences behavior. Exit strategies are fundamental to what happens on the ground. It is often the case, though, that exit either is not contemplated beforehand or proves far more difficult than planned.¹¹ In short, exit poses both a pervasive and complex challenge for the administrative state.

This Article is the first to consider comprehensively the theory and practice of government exit. To be sure, many legal scholars have examined instances of exit in particular regulatory or entitlements programs. ¹² However, none has identified or explored the more general

safety, and other advantages; distributive impacts; and equity); (4) to the extent feasible, specify performance objectives, rather than specifying the behavior or manner of compliance that regulated entities must adopt; and (5) identify and assess available alternatives to direct regulation, including providing economic incentives to encourage the desired behavior, such as user fees or marketable permits, or providing information upon which choices can be made by the public.

Exec. Order No. 13563, 76 Fed. Reg. 3821 (Jan. 21, 2011).

^{10.} See Bruce Huber, *The Durability of Private Claims to Public Property*, 102 GEO. L.J. 991, 1005 (2014) (describing how grazing allotments, which are supposed to have defined terms, have become so entrenched as to be essentially perpetual).

^{11.} To be sure, deregulation can be a kind of exit strategy for the administrative state, but it is a blunt and awkward instrument. See CASS SUNSTEIN, SIMPLER 177–89 (2013) (discussing the Obama Administration's deregulation initiative). As we show, deregulation is only one type of exit and more usually is simply the result of having no exit strategy. The cycle of regulation, deregulation, and reregulation is usually the product of political dynamics, not of a purposive exit strategy. Recently, for example, Congress intervened to legislate the removal of endangered species protections for gray wolves in several states after protracted administrative and judicial proceedings had stalled the delisting process. See generally Edward A. Fitzgerald, Alliance for Wild Rockies v. Salazar: Congress Behaving Badly, 25 VILLA. ENVTL. L.J. 351 (2014) (providing the full history of the congressionally-mandated delisting).

^{12.} See generally David J. Barron & Todd D. Rakoff, In Defense of Big Waiver, 113 COLUM. L. REV. 265 (2013) (examining numerous regulatory programs that allow the agency to waive a

phenomenon of exit strategies in administrative practice and policy.¹³ Focusing on exit reveals foundational questions not usually asked in administrative law scholarship: What is the range of exit strategies? Which are most appropriate for promoting certain behaviors of public and private actors? Which are most appropriate for preventing perverse behaviors? Nor are these just of theoretical interest. A deeper understanding of exit helps explain the shape administrative programs can and should take. As we demonstrate at the end of the Article, the regulation of fracking and climate change both present current, contentious issues that would benefit from more careful consideration of exit strategies.

In Part II, we start from first principles and consider the basic features of exit. In separate sections, we explore the What, Who, When, Where, How, and Why of exit, identifying the key facets of exit in its many manifestations. We then address the normative aspect of exit strategies, exploring the different metrics one might use to measure success. With these descriptive and normative foundations in place, Part III turns to design, developing a typology of the different exit strategies for government and regulated/beneficiary parties. Drawing from concrete examples, we create a matrix framework for describing basic categories of exit and explore the political economy behind the groupings of exit strategies in the matrix boxes.

mandatory requirement); Hon. Richard D. Cudahy, Electric Deregulation after California: Down but Not Out, 54 ADMIN. L. REV. 333 (2002) (discussing the California electric deregulation event, which infamously failed); Steven Ferry, Exit Strategy: State Legal Discretion to Environmentally Sculpt the Deregulating Electric Environment, 26 HARV. ENVTL. L. REV. 109 (2002) (discussing "exit fees" as part of an exit strategy for moving industry and consumers toward renewable energy); Ron Haskins, What Works is Work: Welfare Reform and Poverty Reduction, 4 NW. J. L. & Soc. Pol. 30 (2009) (reviewing the techniques and impacts of "workfare" welfare reform of the 1990s). Most of the exit-oriented work in regulatory contexts focused on the deregulation movement of the 1990s and subsequent reregulation movements. See generally Project: Regulatory Reform: A Survey of the Impact of Reregulation and Deregulation on Selected Industries and Sectors, 47 ADMIN. L. REV. 461 (1995) (symposium issue covering deregulation in the energy, trucking, communications, food, financial, and other industries). Deregulatory, which presents a host of political and governance issues, is in our view only one form of regulatory exit.

13. In her work examining how to design regulation ex ante to accommodate growth in scale, measured in terms of number of sources of harm being regulated, Professor Hannah Wiseman recognizes the possibility of "ratcheting down regulation when it appears that the activity produces fewer harms as it grows" and kindly acknowledges an early draft of this Article as expanding on that theme. Hannah J. Wiseman, Remedying Regulatory Diseconomies of Scale, 94 B.U. L. REV. 235, 238 n.2, 303 (2014). Her work "focus[es] on the growth of harms in a negative direction [—] when society might have inadequate opportunities to bargain for harm reduction and regulation does not change." Id. at 238. Nevertheless, several of the mechanisms she describes for allowing regulation to more or less automatically ratchet up as harms increase when scale grows can also work in the other direction as harms decrease, and thus would qualify for our purposes as exit strategies.

Despite the breadth and endless number of exit examples, our simple model explains why we see particular types of exit strategies in certain settings and not others. In Part IV, we apply the framework to the case studies of climate change and the emerging regulatory challenge of fracking to demonstrate its usefulness in practice. After proposing a set of guidelines for policy makers to use in their choice of exit strategy in the program design phase, we conclude by describing a new exit strategy model: a hybrid approach we call "Lookback Exit." 14

Exit is a vast and central, yet largely unexplored aspect of governance. By providing the first full account, we demonstrate why exit warrants focused research and theory in its own right, create a framework for the analysis of exit issues, and identify the key questions for future research. Doing so provides important insights not only into the administrative practice we see around us today, but also for the design of new programs to manage emerging issues. Thinking clearly about exit before entering a relationship is important to people in settings as varied as college course loads and as sophisticated as venture capital investing. It is long past the time for government to think clearly about it, too.

II. DEFINING EXIT

This Section systematically explores the key attributes of regulatory exit strategies. Because this is the first article to treat exit as a complex, dynamic phenomenon, we lay a foundation by setting out in clear fashion the What, Who, When, Where, How, and Why of exit in the administrative state. We then step back to consider how one should evaluate the success of an exit strategy.

A. Key Attributes of Exit

1. What is exit?

For a phenomenon as widespread in the administrative state as exit, a useful definition must be broad enough to encompass exit's many

^{14.} As the name suggests, our proposal builds off the Obama Administration's term for retrospective regulatory review, Lookback Regulation, under which "agencies shall consider how best to promote retrospective analysis of rules that may be outmoded, ineffective, insufficient, or excessively burdensome, and to modify, streamline, expand, or repeal them in accordance with what has been learned." Exec. Order No. 13563, 76 Fed. Reg. 3821 (Jan. 18, 2011). For descriptions of Regulatory Lookback and previous administrations' retrospective regulatory review initiatives, see Reeve Bull, Building a Framework for Governance: Retrospective Review and Rulemaking Petitions, 67 ADMIN. L. REV. 265, 277–86 (2015); Cary Coglianese, Moving Forward with Regulatory Lookback, 30 YALE J. ON REG. ONLINE 57, 58–59 (2013).

manifestations, yet sufficiently precise to differentiate exit from other mechanisms of administrative process and policy. We define exit as the intentional, significant reduction in governmental intervention initiated at a particular time under specified processes and conditions. This definition includes actions ranging from welfare reform to electricity deregulation. As we describe below, different parties can initiate exit in a variety of governance contexts, and exit strategies have temporal, procedural, and substantive dimensions.

2. Who exits?

At its most basic level, exit can take two very different forms. presenting opposite sides of the same coin. On the face side, we are all familiar with the notion of government eliminating a program through blunt deregulation. When the government shuts down an electric utility rate-setting program, for example, it exits this domain, leaving electricity pricing to market forces. We call this and other ways in which government reduces its intervention Government Exit. In many cases. Government Exit will not be absolute. A regulated party will still feel other aspects of governmental influence after Government Exit. In the context of electricity rate-setting deregulation, for example, firms will still be constrained by antitrust laws. Nor must Government Exit always take the form of wholesale deregulation. For example, a regulatory threshold defining the class of regulated entities could be relaxed but not entirely eliminated, or the intensity of permitting standards and procedures could be reduced, as is done through the general permit mechanism.¹⁵

There is equally a tail side of the coin, where the party receiving benefits or subject to government restraint may also exit. Thus a party may no longer be eligible to apply for welfare benefits or perhaps may choose to no longer receive benefits. A factory subject to emissions controls, for example, may choose to reduce its emissions to a level where the restriction no longer covers it. We call this *Party Exit*, and it often plays a central role in regulatory and entitlement program design.

Importantly, Government Exit and Party Exit are related; indeed, one often depends upon the other. Government may set the standards for benefits eligibility or thresholds for regulatory supervision (the boundary conditions for coverage), but the choice to exit in these settings—whether or not to modify behavior—ultimately

^{15.} See generally Eric Biber & J.B. Ruhl, The Permit Power Revisited: The Theory and Practice of Regulatory Permits in the Administrative State, 64 DUKE L.J. 133 (2014) (discussing the range of permitting models from general permitting to specific permitting).

lies in the control of the regulated or benefited party. For example, if a regulatory program defines a threshold for determining which businesses are "in" the program, such as number of employees or annual gross revenue, businesses might take measures to move "out" of the program. A farmer may choose to exit a subsidy program rewarding conservation of wetlands, for example, if eligibility requirements also prohibit the use of pesticides.

3. When does exit occur?

Our definition of exit posits that exit occurs at a particular time. For Government Exit, this happens in one of three ways. First, Government Exit can occur when a predetermined threshold is met. This would include the date in sunset legislation that expires after a set period of years, such as the Bush-era tax breaks. 16 Second, the program may end when a predetermined funding limit has been met. For example, \$250,000 might be allocated for flood relief, and when the money runs out the program ends. 17 Alternatively, a program may cease to operate when a specified threshold has been met, such as the federal tax credits for hybrid and electric cars that ended once a specified number of eligible cars had been sold. 18 Finally, Government Exit may occur after a political event. Political considerations may eliminate funding of a program or even outright kill a program as part of a budget bill. 19 As described in Part IV, this is often a messy form of exit, a post hoc decision made after the program has commenced.

Party Exit generally occurs in two scenarios, involuntary and voluntary. Involuntary Party Exit occurs when an objective or published and predetermined threshold has been met. This may be automatic. A welfare recipient becomes ineligible, for example, if he or

^{16.} Arlette Saenz, What Happens If the Bush Tax Cuts Expire?, ABC NEWS (Dec. 13, 2012), http://abcnews.go.com/Politics/fiscal-cliff-bush-tax-cuts-expire/story?id=17907791 [http://perma.cc/L47K-8YDS] ("The tax cuts in question were initially proposed by President George W. Bush and passed by Congress in 2001 and 2003, but the law came with a 2010 expiration date.").

^{17.} FED. DEPOSIT INS. CORP. COMPLIANCE EXAMINATION MANUAL § V-6.1, https://www.fdic.gov/regulations/compliance/manual/5/V-6.1.pdf (Jan. 2014) [http://perma.cc/BS6Z-ETM2] (for single-family and two- to four-family dwellings and other residential buildings located in a participating community under the regular program, the maximum cap is \$250,000).

^{18.} The hybrid car income-tax credit was limited to 60,000 cars per manufacturer while the credit for plug-in cars extends to 200,000 per manufacturer. John Voelcker, *When Do Electric Car Tax Credits Expire?*, GREEN CAR REPORTS (July 15, 2013), http://www.greencarreports.com/news/1085549_when-do-electric-car-tax-credits-expire [http://perma.cc/DCC3-SVHL].

^{19.} As discussed *infra*, this has been a popular strategy for opponents to the Affordable Care Act. See, e.g., Chris Jacobs, Defunding Obamacare: The Next Best Option, THE HERITAGE FOUNDATION ISSUE BRIEF #4002 (2013).

she tests positive for drugs.²⁰ It may also occur following a subjective decision, when a party's status must be determined by an official, such as whether a recipient of disability funds is deemed no longer eligible. Voluntary Party Exit also can occur in regulatory and funding programs, either at the time a threshold has been satisfied, such as a stationary source no longer emitting the minimal level of pollutants for coverage,²¹ or upon request and government assent, such as a state seeking release from supervision under the Voting Rights Act.²²

Exit can also be gradual, with incremental steps resulting in a reduction of governmental intervention. As described below, for example, the Clean Air Act provides for discrete release from particular mandates as a region's ozone pollution gradually improves from Extreme and Severe Nonattainment to Moderate and Marginal Nonattainment.²³

4. Where does exit occur?

As the simple examples described above make clear, exit is not just about deregulation or defunding programs. Exit takes place in three general settings.

The first is *Takeover*. Here, the government steps in and effectively takes ownership or control for a limited period of time. This was most obvious in the industry bailouts of 2008, where the government acted as a silent or active investor, taking an ownership interest in companies of critical national importance to economic stability. An example from outside the administrative state involves invasion, where the goals require air strikes or military intervention by troops on the ground. Takeover can also occur when the federal or state government steps in to take control of an insolvent or corrupt local

^{20.} See KEVIN B. ZEESE, DRUG TESTING LEGAL MANUAL § 1:7 (2d. ed. 1996) (nine states have mandatory drug testing requirements for Temporary Assistance for Needy Families recipients under certain circumstances).

^{21.} The use of mandated pollution control technologies under the Clean Air Act's PSD program, for example, only applies to facilities emitting more than one hundred tons per year in one of twenty-eight source categories listed by the EPA. If a source emits ninety-nine tons per year, it is not covered by this part of the Act. 42 U.S.C. § 7479(1) (2012).

^{22.} Michael James Burns, Shelby County v. Holder and the Voting Rights Act: Getting the Right Answer with the Wrong Standard, 62 CATH. U. L. REV. 227, 235 (2012) ("Under section 4(a) of the VRA, a covered jurisdiction could become exempt from the requirement of section 5 preclearance by bringing an action for declaratory judgment in the U.S. District Court for the District of Columbia.").

^{23. 42} U.S.C. § 7512(a)(1) (2012); Shari R. DeSalvo, Ozone Transport and the Clean Air Act: The Answers are Blowin' in the Wind, 46 CLEV. St. L. Rev. 355, 364 (1998) ("Control regimes are established for each category; more polluted areas are required to take more and stronger measures to reduce VOC and NOx emissions, and are given more time to attain the standard.").

government.²⁴ In each of these situations and many others, there is a clear understanding from the outset that the intervention will not be permanent. At some point, the government will want its funds back, its soldiers re-deployed, authority returned to local officials. As we will discuss later, in these settings there is a shared understanding that the responsibilities required in a takeover are not the traditional roles of government. As a result, a government takeover should be a short-lived experience and the exit strategy prominently considered before the takeover occurs.

The second common exit category concerns Benefits. The government offers access to public resources, subsidies, or other values to classes of individuals or companies in an administrative process. Government Exit occurs when the government ceases to provide benefits. Government may "reinvent" welfare and eliminate certain programs, or tighten conditions for eligibility.²⁵ It may terminate particular resource subsidy programs,26 or it may write tax incentives out of the internal revenue code.²⁷ Party Exit arises in this setting as well, as parties find they can no longer meet eligibility requirements or choose for other reasons not to receive government benefits. Exit in these circumstances may seem entirely appropriate. The goal, after all, is to provide benefits for particular ends—perhaps creating a safety net for those in poverty so they can find a better paying job, or providing an incentive for particular types of investments or resource extraction. As we discuss later, through this vantage, exit actually should be seen as a good thing, appropriate when the program's goals have been met.

The last context in which exit commonly occurs is *Regulation*. In this form of exit, the agency restricts the behavior of third parties (private and/or public) and sets criteria for coverage under the program. Government Exit occurs when the regulatory program is eliminated, defunded, or scaled back. Party Exit occurs when the regulated parties

^{24.} See, e.g., Matt Helms, Nancy Kaffer & Stephen Henderson, Detroit Files for Bankruptcy, Setting Off Battles with Creditors, Pensions, Unions, DETROIT FREE PRESS, (July 19, 2013, 7:47 AM), http://www.freep.com/article/20130718/NEWS01/307180107/Detroit-bankruptcy-filing-Kevyn-Orr-emergency-manager [http://perma.cc/ 59MV-C6PG] (describing role played by state-appointed emergency manager).

^{25.} See, e.g., Gary Burtless & R. Kent Weaver, Reinventing Welfare... Again: The Latest Version of Reform Needs a Tune-up, BROOKINGS (Winter 1997), http://www.brookings.edu/research/articles/1997/12/winter-welfare-burtless [http://perma.cc/29YH-FR6S].

^{26.} See Matthew Philips, Wind Energy Companies Prepare for Tax Credit's End, BLOOMBERG BUSINESS WEEK (Jan. 9, 2014), http://www.businessweek.com/articles/2014-01-09/wind-energy-companies-prepare-for-tax-credits-end [http://perma.cc/KEM4-4BL9] (discussing the potential end of the tax credit for wind energy companies).

^{27.} See, e.g., Repeal of Geographically Targeted Economic Development Area Tax Incentives, STATE OF CAL. FRANCHISE TAX BOARD, https://www.ftb.ca.gov/businesses/Economic_Development_Incentives/Repeal_of_GTEDA.shtml [http://perma.cc/8PRQ-EC26].

no longer meet the requirements for supervision. For example, an industrial source that drops production of solid waste below 100 kg falls outside the administrative reach of RCRA.²⁸ When parties are released from regulatory strictures, the message is that they no longer pose a significant concern to the public (whether through pollution, market manipulation, hiring practices, etc.) and thus no longer need supervision to direct their behavior. As we discuss later, however, regulatory exit thus presents two concerns. The first is that of premature exit, where the party should still be regulated and releasing it will exacerbate the underlying problem that led to regulation in the first place. The second is that of tardy exit, where overregulation of too many parties or by too many requirements leads to reductions in social welfare.

5. How does exit occur?

Exit can occur as a binary "toggle switch" of the administrative state. In Government Exit, either an agency occupies an area or it does not. Jurisdictional and other prescribed boundaries define the scope of coverage. In Party Exit, a party is either in or out, above or below the threshold. This on/off vision of exit is oversimplified. In practice, the boundaries of exit can often prove indistinct, even turbulent. It is more accurate, therefore, to think of exit in terms of a spectrum, as shown in the diagram below.

$$Full \ Exit < \underbrace{\hspace{1.5cm} De \ Facto \ Exit}_{Ratchet \ Exit} > \ No \ Exit$$

The clearest example, of course, is what we call *Full Exit*. Here, the program or action has bright line boundaries and effectively operates as a binary system, with a party either in or out. From the vantage point of Government Exit, sunsetting a subsidy program means that after a certain date the government will no longer provide specific benefits, no matter how worthy the applicant. California's deregulation of the wholesale electricity sector provides a regulatory example of Full Government Exit.²⁹ Full Exit can occur with Party Exit, as well. If a facility emits less than one hundred tons of carbon dioxide per year, under the EPA's "tailoring rule" it is no longer subject to the strictures

^{28. 40} C.F.R. § 261.5 (2015).

^{29.} See infra, Section II.A.

of the Clean Air Act. A party can therefore modify its behavior to exit the regime or stay in.³⁰

It is important to note that Full Exit does *not* mean that the party is therefore free of all governmental restraints. There may well be other mandates in place such as the common law or other statutory regimes. A facility no longer covered by the Clean Air Act, for example, will still be subject to state environmental laws or to nuisance suits if its pollution causes harm.

At the other end of the range lies *No Exit*. Like the existentialist play by Sartre,³¹ this category covers administrative programs where there is no expectation that the problem will be solved. Absent regulation, problems will reappear, so exit is simply not a viable option. For Government Exit, core military programs administered by the Department of Defense fall under this category. It would be nice, but hard to imagine, a setting in the near future where we do not require an army or navy. Providing a military remains a core function of government. For Party Exit, speed limits on highways provide an example. Particularly skillful drivers are not allowed to exit speed limit restrictions. Parties cannot choose whether or not to be subject to limits based on how fast they can competently drive.³²

Between the extremes of Full Exit and No Exit are at least two types of partial exit. In these settings, the form of administrative action changes and edges toward exit. This is most obvious with Ratchet Exit. Here, Full Exit is clearly in sight but movement is stepwise, with identifiable steps gradually reducing the government's role. In Government Exit, this occurs when the government starts to draw down its level of management control after taking a major stake in banks or corporations during the recession. Over time, there is a decreasing level of governmental intervention. In Party Exit, this occurs when a party moves from one discrete regulatory category to another within the broader regulatory scheme. The 1990 Clean Air Act Amendments changed the nonattainment programs for ozone (smog) from a binary system of attainment or nonattainment to ratcheted stages of noncompliance. Depending on the level of nonattainment, a party can move from the most egregious level of noncompliance, Severe (which requires clean fuels programs and many other restrictions), to Moderate (enhanced inspection and monitoring of vehicles), to Marginal

^{30.} Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, 40 C.F.R. §§ 70.2, 71.2 (2015).

^{31.} JEAN-PAUL SARTRE, NO EXIT (Stuart Gilbert trans., Vintage Int'l ed. 1989) (depicting an afterlife in which three deceased characters are punished by being locked into a room together for eternity).

^{32.} Although choosing not to drive at all would provide a form of exit in this setting.

(entailing fewer restrictions), and ultimately to Full Exit (with no strictures). At each step toward compliance, as the district cleans its air, it faces fewer and fewer mandates and restrictions.

Another form of partial exit occurs through *De Facto Exit*, where a party is formally subject to government strictures but not in practice. Thus a prosecutor may decide not to enforce certain laws as a matter of policy (e.g., not enforcing marijuana laws).³³ There is no de jure exit in this setting because the laws are still on the books and, at any moment, the government could select someone to prosecute. However, the government has de facto exited the regulatory scheme by declining to enforce it. Similarly, a regulatory permit might define a term of ten years, but all the permitted activities and conditions are accomplished within three years. The permit is still alive, but the relationship between permitting agency and permittee is over for all practical purposes.

All four types of exit are at work under the Endangered Species Act (ESA).³⁴ The ESA protects imperiled species by authorizing the Fish and Wildlife Service to identify species that are "threatened" or "endangered." Wildlife species that are "listed" receive protection under the statute through, among other mechanisms, a prohibition against harming individual species members.³⁶ Full Exit occurs when a species is "delisted." The population has recovered to a level where it is no longer endangered or threatened,³⁷ and consequently its regulatory status goes from receiving the full protections of the Act to no protection at all (at least not under the ESA). Ratchet Exit can occur any number of ways. A species can be designated as threatened instead of endangered, providing lesser protections.³⁸ Or a landowner can apply for a permit allowing a specified quantity of incidental "takes" of protected species.³⁹ The permitted activity, however, could be completed well before the permit expires, creating a De Facto Exit. For example, the permit term for the construction of a building might be stated as ten years, while the building construction might be completed in three years. Finally, there is effectively No Exit for so-called conservationreliant species. These are listed species for which the threats in the wild

^{33.} See, e.g., Kevin Johnson & Raju Chebium, Justice Dept. Won't Challenge State Marijuana Laws, USA TODAY, (Aug. 29, 2013 6:29 PM), http://www.usatoday.com/story/news/nation/2013/08/29/justice-medical-marijuana-laws/2727605/ [http://perma.cc/9ZBW-WMDY].

^{34.} See Endangered Species Act, 16 U.S.C. §§ 1531-1544 (2012).

^{35.} Id. § 1533(a).

^{36.} Id. § 1538(a)(1)(B).

^{37.} Id. § 1533(g).

^{38.} Id. § 1533(d).

^{39.} Id. § 1539(a).

are so prevalent and intractable that the species cannot survive without active intervention.⁴⁰ The few California Condors living in the wild, for example, are periodically trapped by wildlife agencies so their blood can be filtered to reduce dangerously high blood-lead levels caused by eating carcasses with lead shot.⁴¹

6. Why exit?

The preceding sections have explored the practice of exit in the administrative state—what is exit, who exits, when they exit, where they exit, and how they exit. In this concluding section of Part II, we examine *why* government or parties exit—what policy objective does exit serve?

Any consideration of Government Exit must start with the fact of government intervention in the first place. Exit only makes sense in the context of exiting *from* somewhere. It might be a regulatory scheme, a benefits program, a pilot project, or some other initiative. Unless the intention is for the governmental activity to continue indefinitely (a prospect considered above when discussing *No Exit*), the possibility of exit is inevitable.

The most obvious reason for exit is "mission accomplished"—the government intervention has achieved its intended purpose. This is obvious in the case of delisting an endangered species that has recovered or withdrawing control of a corporation, taken over during a financial crisis, that can now operate on its own. The opposite occurs, as well, where the program has clearly failed and needs to be ended. New information may come to light, or social norms might change over time, suggesting the initial governmental intervention or program was unnecessary, excessive, or counterproductive. Official school segregation that ended before the *Brown v. Board of Education* decision provides one example.⁴²

Usually, though, success is less clear-cut but exit still seems appropriate. One obvious reason is scarce resources. There is only so much money to spend and exiting a program frees up resources for other competing needs. This is a common situation facing philanthropies, which fund worthwhile programs but do not wish to do so indefinitely. Changed conditions can make the government intervention less pressing. This may be driven by changing politics. In the rough-and-

^{40.} E.g., J. Michael Scott et al., Recovery of Imperiled Species Under the Endangered Species Act: The Need for a New Approach, 7 Frontiers Ecology & Env't 383, 386 (2005).

^{41.} E.g., Susan Milius, Lead Stymies Condor Comeback, SCIENCE NEWS, Jul. 28, 2012, at 16.

^{42.} Anne Richardson Oakes, From Pedagogical Sociology to Constitutional Adjudication: The Meaning of Desegregation in Social Science Research and Law, 14 MICH. J. RACE & L. 61, 98 (2008).

tumble between and within the Executive and Legislative branches, certain constituencies may be ascendant and demanding attention for their causes while other constituencies are losing sway.

B. Defining Exit Success

Given that exit will be desirable in many settings, another consideration, more normative than descriptive, is how to measure the success of an exit strategy and assess whether one type of exit is superior to another for a given context. We suggest there are four basic metrics of exit success.

Stickiness. Successful exit should ensure the persistence of the desired behavior change or condition over time once the regime has ended or the party has exited. For example, if a species is delisted, it should not need the protections of the ESA soon after. When a tax credit is removed, the hope is that it has spurred sufficient investment in the desired sector. The rapid reappearance of the problem that justified intervention in the first place is a sign of poorly planned or premature exit. Conversely, while exit can be premature, it can also be too late. We want parties in the program to avoid developing dependence and inability to exit. This is one of the classic criticisms of the welfare state.⁴³

Avoided Capture. A related though different challenge lies in capture—where parties subject to agency oversight unduly influence agency decisions for their private profit. We see this in benefits programs where subsidies endure for long periods of time because the beneficiaries exercise political influence that hinders Government Exit.⁴⁴ Regulated parties can also lobby to prevent Government Exit to ensure continued supply of a competitive benefit. The inability of city governments to deregulate taxi medallion systems, for example, ensures that supply remains limited and prices remain higher than would be the case without such a system.⁴⁵ Public choice theory provides the classic explanation for why such support programs for concentrated interests effectively operate as No-Exit regimes.⁴⁶ Taxi drivers,

^{43.} E.g., Julie A. Nice, Welfare Servitude, 1 GEO. J. ON FIGHTING POVERTY 340, 341 (1994) (citations omitted) (discussing the criticisms of welfare, including dependency).

^{44.} See generally Huber, supra note 10 (describing capture in the context of public property used for private purposes).

^{45.} See Katrina Miriam Wyman, Problematic Private Property: The Case of the New York Taxicab Medallions, 30 YALE J. ON REG. 125, 128 (2013) ("By inflating fares and limiting the availability of taxis, expensive licenses likely harm taxi consumers . . . ").

^{46.} See Steven P. Croley, Theories of Regulation: Incorporating the Administrative Process, 98 COLUM. L. REV. 1, 34 (1998) (Regulatory "goods" demanded by organized subgroups of citizenry dominate over regulatory interests of individual voters).

ranchers, and other concentrated beneficiaries of agency programs lobby hard to keep their preferred status. Thus one metric of exit strategy success is avoiding political capture by concentrated interests.

Flexibility to changing circumstances. Government regulatory and benefits programs evolve over time in response to new information, shifting political coalitions, and other changed circumstances. Welfare reform, for example, has altered and continues to alter benefits over time to reflect changing social norms and fiscal conditions. As a component of regulatory and benefits programs, exit strategies should incorporate sufficient flexibility to evolve as well. Indeed, the rise of adaptive management as a regulatory and benefits program implementation method demands exit flexibility over time.⁴⁷

Signaling and rhetorical power. Although exit often stands silently in the background as parties move along the spectrum, in some cases exit can send a powerful message. Full Exit can send the message to the public that the mission has been accomplished or to the beneficiary community that no further help is at hand and the parties have to make do for themselves. Equally, the impossibility of exit, reflected in an official No Exit program policy, can communicate to other parties the seriousness of the government's commitment to a regulatory program. When appropriate, then, exit should send a message to the regulated community or the public.

The idea of adaptive management is that agencies should be free to make more decisions, but that the timing of those decisions is spread out into a continuous process that makes differentiating between the "front end" and the "back end" of decisionmaking much less relevant. Rather than make one grand decision and move on, agencies employing adaptive management engage in a program of iterative decisionmaking following a structured multistep protocol; (1) definition of the problem, (2) determination of goals and objectives for management, (3) determination of the baseline, (4) development of conceptual models, (5) selection of future actions, (6) implementation and management actions, (7) monitoring, and (8) evaluation and return to step (1). Formal, time-limited public-participation junctures, such as the notice-and-comment process of conventional APA-style administrative rulemaking, are not a component of adaptive management; rather, public input is derived through an emphasis on more loosely defined processes for "stakeholder involvement" and multiparty "collaborative planning." With deep roots in natural resources management theory, the adaptive management protocol has begun to make inroads in public lands management in particular, though it has been applied or proposed in other policy contexts including pollution control, financial regulation, environmental impact assessment, public health and safety, civil rights, and social welfare. Adaptive management programs must incorporate flexible exit strategies every bit as much as they incorporate flexible regulation and benefits. See, e.g., Robin Kundis Craig & J.B. Ruhl, Designing Administrative Law for Adaptive Management, 67 VAND. L. REV. 1, 16-18 (2014) (explaining the adaptive management decisionmaking process).

III. DESIGNING EXIT STRATEGIES

As should be clear by now, exit in the administrative state is a wide-ranging and multifaceted phenomenon. Despite the breadth and endless number of exit examples, we argue that a simple model can prove analytically useful, explaining why we see particular types of exit strategies in certain settings and not others. This holds true for both Government Exit and Party Exit.

Our model involves a 2 x 2 matrix. The first dimension measures when the exit strategy design decision is made. Ex ante design decisions occur at the front end of the intervention, during the design of the program itself and prior to its implementation. Ex post exit design occurs after the intervention has begun. The second dimension reflects the clarity of conditions necessary for exit to occur, regardless of whether they are designed ex ante or ex post. Are the exit requirements clear? This dimension runs from *Transparent* to *Opaque*.

Much is obviously lost when examining as complicated a phenomenon as regulatory exit along just two dimensions. This is by no means a comprehensive model. Nevertheless, this simple framework reveals a great deal of what really drives the design and operation of exit in the administrative state.

A. Ex Ante versus Ex Post

While there are many reasons for exit, a central concern for both Government Exit and Party Exit concerns when the conditions for exit are determined. The time at which parties understand the consequences of exit has an important influence on behavior in a wide range of legal settings. This is as true for spouses contemplating separation and divorce, or for parties deciding whether to breach a contract and bargain in the shadow of the law, as it is for government takeovers, benefits, and regulatory programs.

In ex ante settings, the relevant decision-maker establishes the process and conditions for exit before engagement. For Government Exit, this is often achieved through "sunsetting," which describes when there is a determination at program creation that the program will automatically expire on a certain date unless there is explicit reauthorization.⁴⁸ The assault weapons ban and Bush-era tax cuts

^{48.} For a critique of sunsetting, see Rebecca M. Kysar, *Lasting Legislation*, 159 U. PENN. L. REV. 1007 (2011).

provide two recent examples.⁴⁹ As the exit date approaches, there may be sufficient political support to prevent this from happening, but it requires action on the part of those who wish to block the exit path.

For Party Exit, the conditions are known before entering the program and a party can choose whether to remain within the program. Under the Resource Conservation and Recovery Act, for example, wastes that are reused in the same process within ninety days are exempted from the statute's requirements for waste disposal.⁵⁰ For business reasons, a manufacturing plant may or may not choose to make use of the recycling exemption, but it understands the option before designing its production process. Ex ante exit design also could employ Ratchet Exit techniques by establishing tiers of regulatory thresholds defining different levels of intervention, thus providing incentives for Party Exit. Ex ante design can also establish a No Exit regime. Thus, the Selective Service program requires all eighteen-year-olds to register and does not allow deregistration.

In ex post settings, the process and conditions for exit are established after engagement has commenced. The classic example of this for Government Exit is after a military invasion (when the parameters for leaving may not be clear even after exit). In the administrative state, an obvious example may be found in deregulation, such as when a political decision is made to end a program with no sunset provisions, as happened in California with the deregulation of wholesale electricity pricing.⁵¹ Or Congress may choose to change the conditions in mid-stride, such as welfare reform that makes it harder to obtain coverage.⁵² Ex post exit can also occur more subtly, as sometimes happens behind the scenes when Congress engages in "zero-budgeting" through appropriation bills, forbidding existing programs to spend any money pursuing their goals.⁵³

^{49.} Michael G. Lenett, *Taking a Bite Out of Violent Crime*, 20 U. DAYTON L. REV. 573, 609 (1995) (discussing the features of the law, including the sunset provision after ten years); Saenz, *supra* note 16.

^{50.} See 40 C.F.R. \S 261.2(e) (2015); Am. Petroleum Inst. v. EPA, 906 F.2d 729, 741 (D.C. Cir. 1990).

^{51.} Robert B. Martin, III, Sherman Shorts Out: The Dimming of Antitrust Enforcement in the California Electricity Crisis, 55 HASTINGS L.J. 271, 275 (2003) (discussing the deregulation of electricity pricing in California).

^{52.} Michele E. Kenney, A Pitfall of Judicial Deference: Equal Protection of the Laws Fails Women in Lewis v. Thompson, 68 BROOK. L. REV. 525, 525 (2002) (discussing the "Welfare Reform Act" and its limitations on coverage for immigrant populations).

^{53.} Jerry Gray, Senate Backs Moratorium in Species Act, N.Y. TIMES, (Aug. 9, 1995), http://www.nytimes.com/1995/08/09/us/senate-backs-moratorium-in-species-act.html [http://perma.cc/34NW-SX4P].

B. Transparent versus Opaque

This dimension measures how difficult it is to determine whether the conditions for exit have been satisfied—how clearly the pathway to exit is mapped. A number of factors determine this level of clarity. Are the exit requirements objective and clear, or subjective and murky? Does the burden of proof rest with the government or the other party? The clarity of thresholds for coverage of regulated parties such as age, income, emissions, number of employees, or weekly hours worked, for example, is often a necessary precondition of what we call *Transparent Exit*. Absent clearly articulated conditions, exit is more difficult to predict, in what we call *Opaque Exit*.

It is important to note that this distinction turns not on the actual cost or ease of exiting, but on the perceived ease. One could have clear, objective conditions but very difficult exit opportunities because the requirements to leave the program are highly demanding either in terms of performance or the burden of proof. Transparent Exit means only that it is easy for parties to know precisely what exit will require. Hence the transaction costs of this determination are low, though the actual costs of exiting could be low or high. We are not suggesting that actual costs of exit do not matter, or that they are not part of the exit strategy design decision. Rather, the clarity of exit conditions will drive how easy it is for government and program participants to determine the costs and other demands of exit early on.

To a certain extent, the Transparent/Opaque distinction tracks the well-known difference between rules and standards.⁵⁴ In Transparent Exit conditions, for example, determining how exit is accomplished is made simple through rule-like thresholds and requirements. For Government Exit, a law with a sunset provision makes exit automatic. The program may be extended, but doing so requires political action. For Party Exit, programs with clear conditions for coverage make Transparent Exit prevalent. In child welfare programs, once you reach the age of eighteen, you are out.⁵⁵ Farmers can choose whether or not to apply for or continue receiving price supports. The same is true for beneficiaries of resource extraction

^{54.} See Gideon Parchomovsky & Alex Stein, Catalogs, 115 COLUM. L. REV. 165, 166–67 (2015) ("Rules come in handy for individuals trying to figure out whether their contemplated conduct is prohibited or permitted. The same kind of ex ante clarity is not readily available under standards, whose precise implications for a given course of action are determined by a court or an agency only after the fact.").

^{55.} See Keely A. Magyar, Betwixt and Between but Being Booted Nonetheless: A Developmental Perspective on Aging Out of Foster Care, 79 TEMP. L. REV. 557, 559 (2006) (discussing the negative impacts of ending child welfare programs at age eighteen).

subsidies such as grazing. Either you meet the thresholds or you do not. Depending on the particular program, of course, the thresholds may be difficult to meet, but the possibility of exit is straightforward and the transaction costs of determining the rules of exit are low.

For Opaque Exit, determining the conditions for departure can be more difficult and costly given the standard-based approach. Deregulation almost always entails political battles because certain vested interests will want to retain the status quo. Delisting a species from the ESA is a subjective determination regarding its "recovery" and demands a high evidentiary burden. Taking a site off of the National Priority List under Superfund functions in a similar manner, with judgments about "how clean is clean" varying from site to site. The standard standard

Combining the two dimensions of timing and clarity allows us to create a simple matrix, shown in Figure 1. The boxes highlight representative examples of Government Exit and Party Exit. We readily admit that there will be examples that do not fit neatly in any single box. Nonetheless, these categories have significant analytic power in explaining why exit strategies look the way they do and are preferable in some settings but not in others.

^{56.} See 16 U.S.C. § 1533(b)(1)(a) (2012) (requiring the decision be based on "the best scientific and commercial data available"); § 1533(f) (outlining the requirement of recovery plans).

^{57.} See 40 C.F.R. § 300.425 (2015) (identifying the criteria, methods, and procedures used to establish priorities for remedial actions).

Figure 1

		Transparent	Opaque
		"Mapped Exit"	"Uncertain Exit"
Ex	Government exit	TARP Sunsetting	Bush-era tax breaks ESA species delisting
Ante	Party exit	Emission controls Farm subsidies	Voting rights act Superfund site approval
		"Adaptive Exit"	"Messy Exit"
Ex Post	Government exit	California electricity deregulation Changing age for Medicare coverage	Attempts to halt the Affordable Care Act
	Party exit	Offshoring	Civil disobedience

C. Exit Categories

The matrix demonstrates that there are four distinct categories of exit. We argue that these are analytically useful, not merely descriptive. We set out below the key features of each category, examples showing how each category operates, and the political economy of why we would expect to see each particular exit strategy in practice. We move from the most common ex ante types of exit (Mapped and Uncertain) to the less common ex post (Adaptive) and rare (Messy).

The larger question is why agency officials or elected representatives would select one strategy over another? How would it influence the behavior of the parties?

1. Mapped Exit (Ex Ante & Transparent)

Mapped Exit strategies generally share a number of common features. The conditions required for exit are objective or easy to determine. If the conditions are met, exit is often automatic. Thus Mapped Exit often operates as a binary on/off switch. There is a burden of proof on the regulated party to prove the conditions have been met and, likewise, the burden of proof on the regulator to rebut exit is clearly spelled out. Taken together, these features create a situation where determining the requirements for exit involves low transaction costs.

For a recent example, consider climate change regulation in the United States. Following the Supreme Court decision in Massachusetts v. EPA, the Environmental Protection Agency under the Obama administration set in motion the regulation of greenhouse gas emissions, but it faced a series of challenges.⁵⁸ Greenhouse gases had never been regulated under the Clean Air Act before, so enabling regulations needed to be promulgated. Unfortunately, the statutory basis for these regulations mandated obtaining permits if new sources emitted more than one hundred tons of a pollutant per year. The problem is that greenhouse gases are much more common than conventional pollutants and this threshold would have required obtaining permits for hundreds of thousands of sources.⁵⁹ To avoid this absurd result, EPA promulgated the "Tailoring Rule" which, among other things, establishes a threshold of one hundred thousand tons of greenhouse gas emissions per year for the permitting requirement. This presents a classic case of Mapped Exit not because exit is easy (indeed it will be quite difficult for large power plants), but because it is easy for parties to know at the outset what exit entails, and therefore the transaction costs of this decision are low.60

And what are the design benefits of Mapped Exit using the metrics developed above in Part II.B? For starters, Mapped Exit is easy to assess and implement. In Party Exit, for example, the regulated party or beneficiary has satisfied a clear requirement or avoided thresholds that were explicitly anticipated. It also serves a clear purpose. The termination point for welfare based on income or time on the program makes sense—people should not receive welfare if they have sufficient income to support themselves, and a limited time for assistance creates an incentive to find work.

Mapped exit should also ensure lower transaction costs of determining eligibility criteria. The actual costs of exiting could be high—for example, the costs associated with lowering emissions to exit a pollution control program—but the clarity of the conditions for exit allows government and program participants to identify exit costs and

^{58.} See supra note 30 and accompanying text.

^{59.} EPA, Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule (June 2010), http://www.epa.gov/apti/video/TailoringRule/tailoring.pdf [http://perma.cc/ VG9Q-FJH9] ("Without the Tailoring Rule, there would have been millions of newly-subject sources and the costs would have been in the tens of billions of dollars.").

^{60.} Clear thresholds such as this work both ways, in that a facility could move into rather than out from under regulation if its emissions rise. Hannah Wiseman has proposed embedding cumulative effects thresholds into regulatory programs, under which tighter regulatory controls on all sources of a harm would be triggered when the aggregate harm crosses a threshold. See Wiseman, supra note 13, at 279–83. Such a mechanism, presumably, would also work both ways, allowing Mapped Exit as aggregate harm levels fall below the threshold.

thereby engage in political discourse over whether the exit conditions should be changed. This provides a classic example of bargaining in the shadow of the law.⁶¹

A program where the requirements for exit are well understood from the beginning sends a signal to the regulated and benefited communities that exit may be low cost or high cost depending on the specifics, but that the cost can be calculated up front and behavior changed accordingly. A predictable exit strategy, in other words, may provide incentives for parties to enter and comply with the regulatory or funding program conditions.⁶²

Mapped Exit also may help to reduce the danger of political capture and public choice pressures. In programs with a clear end date or conditions for exit, it should be more difficult for parties to expand benefits because it will require political capital to change the status quo. The requirements have already been set and any modifications will require new action. It is not easy to override a sunset provision, although, as will be seen with Uncertain Exit, it can be done. Low transaction costs associated with Mapped Exit may also be appropriate for a long program life with a fluid universe of covered parties, thus enhancing flexibility to changed circumstances.

Equally, however, Mapped Exit also poses potential pitfalls. As described earlier, premature exit may worsen the very problem the governmental intervention was designed to prevent. A subtler problem can occur with arbitrary endpoints, when there has been inadequate consideration of what follows the sunset date. In the Acid Rain Trading Program under the Clean Air Act, there has been no planning for what happens after the gross emissions cap is met and there are still outstanding allowances otherwise eligible for trading. There is great concern in California over what happens to carbon credits after the capand-trade program ends in 2020. What are allowances worth after that?

^{61.} See generally Robert Cooter, Stephen Marks, & Robert Mnookin, Bargaining in the Shadow of the Law: A Testable Model of Strategic Behavior, 11 J. LEGAL STUD. 225 (1982).

^{62.} Curt Bradley and Mitu Gulati have made a similar claim in support of customary international law, arguing that nations will be more likely to comply with customary law if they understand ex ante the costs of exit. Curtis A. Bradley & Mitu Gulati, Withdrawing from International Custom, 120 YALE L.J. 202, 269 (2010). See generally Laurence R. Helfer, Exiting Treaties, 91 VA. L. REV. 1579 (2005) (discussing exit provisions in international treaties and the reasons nations choose to exit treaties).

^{63.} Lesley McAllister, *The End of the Acid Rain Program*, CTR. FOR PROGRESSIVE REFORM BLOG (July 12, 2011), http://www.progressivereform.org/CPRBlog.cfm?idBlog=1F5EE49E-E7EA-6ACC-52991D37F7935E74 [http://perma.cc/7A67-L26E].

A similar story could be told about production tax credits for renewable energy.⁶⁴

2. Uncertain Exit (Ex Ante & Opaque)

In an Uncertain Exit, exit has been accounted for up front, but the specific conditions for exit are difficult to determine in practice. In these settings, subjective standards make the exit decision dependent on a discretionary judgment. In regulatory contexts, the regulated party must meet a high burden of proof to obtain exit approval from the agency and often incurs a correspondingly high cost to meet the conditions.

Consider, for example, the practice of delisting a species under the ESA. A rare example among regulatory statutes, the very purpose of the ESA is to put itself out of business by promoting the recovery of listed species to the point of justifying delisting. Yet the delisting process has seldom been used. 65 This ex ante strategy is subjective and requires a high burden of proof. Whether a species should be listed as endangered or threatened is based on five amorphous factors: (1) the present or threatened destruction, modification, or curtailment of its habitat or range; (2) overutilization for commercial, recreational, scientific, or educational purposes; (3) disease or predation; (4) the inadequacy of existing regulatory mechanisms; or (5) other natural or manmade factors affecting its continued existence.66 The statute establishes a variety of regulatory programs designed to "conserve" listed species, including "all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this chapter are no longer necessary."67 Delisting thus requires proving a negative—that the conditions leading to the listing no longer exist. This creates an Uncertain Exit situation because the requirements for exit are openended and heavily fact-dependent.

Uncertain Exit is well-suited to situations where there is a diversity of individual circumstances. Such diversity makes cookie-

^{64.} Production Tax Credit for Renewable Energy, UNION OF CONCERNED SCIENTISTS, http://www.ucsusa.org/clean_energy/smart-energy-solutions/increase-renewables/production-tax-credit-for.html [http://perma.cc/2VN9-N582] (discussing the disruptive effects of "off/on" expiration and renewal of the tax credits).

^{65.} See J. Michael Scott et al., By the Numbers, in THE ENDANGERED SPECIES ACT AT THIRTY: RENEWING THE CONSERVATION PROMISE 1 (Dale D. Goble et al., eds., 2006) (discussing the low number of recovered species).

^{66. 16} U.S.C. § 1533(a)(1) (2012).

^{67.} Id. § 1532(3).

cutter decisions difficult. Every species is different, hence there is no adequate formula for delisting based on, say, population numbers or geographic range. As a result, agency decisions in Uncertain Exit resemble adjudication with the associated costs/time required to assess evidence and policy concerns. Because of this case-by-case process, one would expect that Uncertain Exit will usually have high transaction costs. Concern exists over premature exit, but there is sufficient demand for clarity that broad ex ante provisions are adopted.

While the conditions for Uncertain Exit are articulated at the outset, in practice their application is difficult to predict. Under the Superfund law, for example, many contaminated site remediations remain under indefinite operation and monitoring. Concerns over post-exit conditions (is the site truly cleaned up?) lead to reluctance to approve exit.⁶⁸ The discretion exercised by officials creates a pragmatic balance between subjective standards and objective rules. One might also expect Uncertain Exit to signal a strong commitment by government that parties can't game the system and officials will need to be well and truly satisfied before approving exit.

The above examples concern instances of intentionally designed Uncertain Exit, but Mapped Exit can transform into Uncertain Exit. The Bush-era Tax Cuts and the ban on assault weapons initially looked like examples of Mapped Exit because sunset provisions clearly state when the programs end. As the credibility of commitment was undermined, however, deadlines were extended and the conditions under which the legislature would eventually sunset the programs became unclear.⁶⁹ This is also readily apparent in the case of grazing permits on public lands, where exit has become virtually meaningless. Permits are supposed to expire after ten years and be either reconsidered or offered to the public. But in practice, they are routinely renewed for the same users, often for decades.⁷⁰ Exit was built-in ex ante as Mapped Exit, but capture has rendered the transparency ineffective and converted the exit regime to Uncertain Exit. This is equally true for mining and water rights.⁷¹

^{68.~}See~40 C.F.R. $\S~300.420$ (2015) (describing the "methods, procedures, and criteria the agency shall use to . . . evaluate releases").

^{69.} Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010, Pub. L. No. 111-312, 124 Stat. 3296 (codified as amended in scattered sections of Title 26 of the U.S. Code).

^{70.} See generally Huber, supra note 10.

^{71.} See id. at 994-95.

3. Adaptive Exit (Ex Post & Transparent)

Adaptive Exit occurs when clear standards are established for exit but not until after the program has commenced. This is most appropriate in the face of uncertainty. It may be the case that it appeared too difficult to predict the conditions for exit at the time of program creation, and so exit decisions were intentionally pushed off under the assumption that agencies will learn over time as the program develops. It may also be the case that the demand for exit is only recognized after creation of the program, when experience makes clear that the original mechanism or conditions for exit were inadequate, making exit either too easy or too difficult.

Deregulation provides the bluntest example of Adaptive Exit, where the government simply departs from a formerly regulated area. Zero-budgeting, such as forbidding the use of agency funds to list endangered species, also presents an example of Adaptive Exit after the program has begun (although zero-budgeting tends to be a relatively short-lived strategy). Adaptive Exit can also be more sophisticated. The Clean Air Act, for example, requires regulation of "stationary sources." In the classic case *Chevron v. NRDC*, an environmental group challenged the EPA's decision to treat an entire facility as a stationary source (through so-called bubbling) rather than regulating each specific smokestack. This presented an example of efficiency-enhancing Adaptive Exit, since companies could avoid regulation if they increased emissions at one source so long as they reduced emissions from another source under the same facility bubble.

California's deregulation of electricity pricing provides an instructive example of Adaptive Exit gone wrong. In the 1990s, seeking to introduce competition into the electricity market and drive down prices, California changed its longstanding practice of regulating both wholesale and retail electricity rates. The state deregulated only the wholesale market, requiring the major investor-owned utilities to purchase their electricity through the new Power Exchange ("PX").⁷⁴ PX quickly developed into an active market and prices did drop initially.

^{72.} Omnibus Consolidated Rescissions and Appropriations Act of 1996, Pub. L. No. 104-134, 110 Stat. 1321, 1321-160 (1996).

^{73.} Chevron, U.S.A., Inc. v. NRDC, Inc., 467 U.S. 837, 839-40 (1984).

^{74.} For a history of the California crisis, see Timothy P. Duane, Regulation's Rationale: Learning from the California Energy Crisis, 19 YALE J. ON REG. 471, 480 (2002); James L. Sweeney, The California Electricity Crisis: Lessons for the Future 2 (2002) (unpublished manuscript), http://web.stanford.edu/~jsweeney/paper/Lessons%20for%20the%20Future.pdf [http://perma.cc/XFE3-GC79]. After California's exit, the wholesale market was still regulated by FERC, but it chose not to intervene.

However, PX operated as a commodity market with significant volatility and was vulnerable to market manipulation. In the summer of 2000, wholesale electricity prices rose dramatically, due partly to manipulation by Enron and power generators. Utilities thus were caught in the pincers of buying expensive power wholesale in the PX and then being forced to sell at a loss at fixed rates to consumers (who still operated under a regulated market). As losses mounted, utilities lost their credit and Pacific Gas & Electric filed for bankruptcy. The state government rushed back into the market, with the Department of Water Resources spending almost nine billion dollars to purchase electricity in order to prevent further blackouts. Adaptive exit proved extremely costly for California, costing the governor his job.

From a political economy perspective, Adaptive Exit should be less common than Mapped Exit or Uncertain Exit because it requires ex post action. This requires the marshaling of political interests to change the status quo, and thus can be politically volatile or costly. Even if there is a general acknowledgment that the original assumptions about exit have proven inadequate, that the program structure has proven too unwieldy or entrenched, or that the program was designed to adapt but has not, the costs of ex post change may prove high and potentially prohibitive.

4. Messy Exit (Ex Post & Opaque)

In the last category, Messy Exit, there are no—or poorly defined—ex ante conditions or mechanisms for exit, either because debating and designing exit had prohibitively high transaction costs or because the program was designed at inception as a No Exit strategy. As with Adaptive Exit, the demand for exit is recognized only after creation of the program. The difference is that, with Messy Exit, once the program has begun, either because of experience, politics, or changed conditions, demand for exit rises. But whether exit is even appropriate, much less under what conditions, leads to sharp disagreement. The highly politicized nature of the issue makes minor adjustments needed for Adaptive Exit difficult. Only blunt political intervention (in the case of Government Exit) or dramatic actions such as civil disobedience or offshoring (in the case of Party Exit) can create the opportunity for exit, and either way it comes at a high cost.

Messy Exit has clearly been playing out in the drama surrounding the Affordable Care Act. At the time of passage, it was highly contested whether government should even enter the area, and there was no discussion of Government Exit. As a result, the program was portrayed as a No Exit scenario. The whole point of a national health care system is to extend comprehensive coverage; thus there was no tolerance among supporters of the measure for discussing the terms of Government Exit. Following passage, the botched efforts by Tea Party activists in the House and Senate to force the de-funding or delay of the health care law in exchange for government spending provided a perfect example of a failed Messy Exit.

Or consider the example of the ill-fated Project XL initiative by the EPA. The EPA started a national pilot program in 1995 that sought to encourage "superior environmental results [of companies and communities] beyond those that would have been achieved under current and reasonably anticipated future regulations or policies" among other criteria. EPA hoped that highlighting such eXcellence and Leadership (hence the acronym, "XL") would identify strategies to achieve cleaner and cheaper environmental results than traditional reliance on regulations. As an incentive, the EPA offered the prospect of "regulatory flexibility" for participants. In practice, though, the EPA could not legally offer meaningful waivers or streamlined permits, and the program was shut down in 2002. To In retrospect, Project XL provides an example of failed Messy Exit, where the features of ex post exit were never clearly set out because the EPA's authority to offer such relief was itself uncertain.

Synthesizing the foregoing discussion of the categories of exit and their respective political economies, the chart below sets out the key factors influencing when we would expect to see the four categories of exit strategies in play.

^{75.} See Allen Blackman & Janice Mazurek, The Cost of Developing Site-Specific Environmental Regulation: Evidence from EPA's Project XL 1 (Resources for the Future Discussion Paper 99-35-REV, 2000). For the history of Project XL, see id.; Rena Steinzor, Regulatory Reinvention and Project XL: Does the Emperor Have Any Clothes?, 26 ENVT'L L. REPORTER 10527 (1996).

Figure 2

		Transparent	Opaque
		"Mapped Exit"	"Uncertain Exit"
	Government exit	• Exit demand is high and ex ante approach promotes passage of program	Concerns over post-exit stability lead to caution about exit but sufficient demand for ex ante exit provisions
Ex Ante	Party exit	 Conditions for exit are objective and easy to predict Expectation of long-term program life (e.g., welfare or pollution) but fluid universe of regulated/ benefited entities lowers transaction costs Low diversity of individual circumstances, easy to apply 	 Conditions for exit are more difficult to predict, and use standards rather than rules High diversity of individual circumstances Agency capture transforms Mapped Exit into an entrenched system that favors benefited parties
		"Adaptive Exit"	"Messy Exit"
Ex	Government exit	 Conditions change and there is broad demand to revisit exit strategies Program structure is not too unwieldy or entrenched, and may even have been anticipated to adapt 	 Program inception was highly contested and too politicized for ex ante exit Conditions, experience, and politics change, and deeply contentious demand for exit rises
Post	Party exit	 Regulated or beneficiary parties dissatisfied but government shows no willingness to alter terms of intervention Alternative source of benefits or means of avoiding regulation are clear and readily available, such as offshoring 	 Regulated or beneficiary parties dissatisfied but government shows no willingness to alter terms of intervention Alternative source of benefits or means of avoiding regulation are unclear and/or not readily available, leaving civil disobedience as only option

Using the model's descriptive power, we can now understand better the regulatory dynamic playing out in real time in the case of domestic climate change regulation. The application of the Clean Air Act's New Source Performance Standards to electric utilities and petroleum refineries provides a clear example of Mapped Exit. Emission limits determine whether or not a facility is subject to the Act's restrictions. The EPA has been in the process of promulgating regulations that will set forth the appropriate control technology for these sectors. The Tailoring Rule, described earlier, represents Adaptive Exit, where the threshold for exit is changed as a mid-course correction. Adaptive and Messy Exit are also in play, with Congress proposing legislation that would prohibit the EPA from addressing climate change, on the one hand, and the Supreme Court being asked to decide whether the EPA must address climate change, on the other.

IV. REGULATORY EXIT CHALLENGES AND INNOVATIONS

In Part II, we set out the basic features of exit in the administrative state. In Part III, we created a model that identified four different types of exit strategies, examined the characteristics of each strategy, and described when they were most likely to occur. In this Part, we put the model to work, showing that it has both descriptive and predictive power.

A. Applying the Model to Emerging Issues

Our central contention is that exit strategies matter and thus legislatures and agencies should explicitly consider exit at the creation of new regulatory programs. We can show this by considering the importance of exit strategies to what has become one of the most controversial environmental issues across the nation—hydraulic fracturing techniques for enhanced recovery of oil and gas resources from deep shale formations, popularly known as fracking. Fracking involves drilling deep into impermeable shale deposits, extending the drilling zone outward through horizontal drilling, pumping fluids into the shale at high pressure to create cracks, thus allowing the previously trapped oil and gas to flow, and injecting sand and other "proppants"

^{76.} See supra note 30 and accompanying text.

^{77.} See, e.g., Util. Air Regulatory Grp. v. EPA, 134 S. Ct. 2427 (2014); H.R. 4808, 113th Cong. (2014); H.R. 4813, 113th Cong. (2014).

into the cracks to keep them open.⁷⁸ This technique has opened up vast new reserves of oil and gas in the United States, making natural gas less costly and contributing to economic development in drilling communities, greater national energy security, movement away from coal as an energy source, and a revival of the petrochemical industry.⁷⁹

Fracking has downsides familiar to oil and gas extraction in general, including air and water pollution, water usage, and induced ground tremors.⁸⁰ Because fracking is both new and spreading fast throughout many parts of the nation, "[t]he magnitude of all these risks is uncertain and highly contested."⁸¹

Concerned with the threat of fracking to groundwater supplies, but eager to reap the economic benefits from drilling, the federal government and states have been wrestling over how best to regulate fracking activity. In 2005, Congress adopted an amendment to the Safe Drinking Water Act that expressly created an exemption for fracking from the definition of "underground injection." This effectively left the management of fracking to the states. Many states have adopted fracking rules of some kind, choosing among twenty-five different regulatory elements within eight activities. The result has been a wide range of regulations, differing minimum standards, and case-by-case reviews of permit and variance applications, with some states imposing strict requirements and others regulating with a much lighter touch.

Legal scholars have proposed their own approaches, ranging from information forcing and best management practices to permitting standards and negligence-based regulation.⁸⁵ All of these proposals,

^{78.} See Thomas W. Merrill & David M. Schizer, The Shale Oil and Gas Revolution, Hydraulic Fracturing, and Water Contamination: A Regulatory Strategy, 98 MINN. L. REV. 145, 152–54 (2013).

^{79.} See id. at 154-70.

^{80.} See id. at 170-80.

^{81.} Id. at 187.

^{82.} See NATHAN RICHARDSON ET AL., THE STATE OF STATE SHALE GAS REGULATION, RESOURCES FOR THE FUTURE 9 (June 2013), http://www.rff.org/rff/documents/RFF-Rpt-StateofStateRegs_Report.pdf [http://perma.cc/68VJ-FMZU] (providing a comprehensive review of the different elements used in state regulations).

^{83.} See Merrill & Schizer, supra note 78, at 200–01. The so-called "Halliburton loophole" exempted "underground injection of fluids or propping agents (other than diesel fuels) pursuant to hydraulic fracturing operations related to oil, gas, or geothermal production activities." 42 U.S.C. § 300h(d)(1)(B)(ii) (2006).

^{84.} See RICHARDSON, ET AL., supra note 82, at 22–75 (describing various state fracking regulations).

^{85.} See, e.g., David A. Dana & Hannah J. Wiseman, A Market Approach to Regulating the Energy Revolution: Assurance Bonds, Insurance, and the Certain and Uncertain Risks of Hydraulic Fracturing, 99 IOWA L. REV. 1523, 1546–71 (2014) (market based regime); Merrill & Schizer, supra

however, have tackled the problem exclusively through the lens of regulatory entry; none considers how exit should factor into the design. In fact, all four types of exit strategy can and should be part of the analysis. Consider, for example, the following range of approaches.

- A Mapped Exit strategy would establish clear quantitative thresholds for coverage, such as no fracking within 1,000 feet of public drinking water supply, injection of more than 1,000 kg of fracking fluid in a set time frame, etc. Fracking operations are either covered or not.
- An Uncertain Exit strategy would rely on ex ante qualitative standards. Officials might require a permit unless the operation proves no likelihood of endangerment, or require a bond that will be released once an official has determined through post-drilling monitoring that there is no significant environmental impact. Only when such a standard has been met can the fracking company exit the regulatory regime.
- An Adaptive Exit strategy would deliberately defer exit design for later based on lack of knowledge about the risks of fracking. The initial statute might have thresholds and standards, but over time the government may reach the conclusion that the level of regulation is excessively intense or costly, at which point the agency could introduce exclusions or graduated thresholds. The agency could equally make fracking regulations more demanding, creating additional requirements.
- Finally, a Messy Exit strategy would be the result of no consideration being given to exit at all, likely for political reasons. The regulatory regime would look much like it does today, or even more restrictive. Exit would arise later in a major political conflict. A perceived energy crisis, for example, might lead to calls for relaxing rules or streamlining permits in order to extract more natural gas. Or the benefits of fracking could be deemed so substantial, but so restrained by the regulatory regime, that a complete overhaul is accomplished through politically-driven deregulation—more like a hacksaw compared to Adaptive Exit's scalpel.

When applied to fracking, our model adds value for two reasons. First, considering exit changes the question asked from just "how much should we regulate?" to also include "how and when should we allow types of exit to occur and what should they look like?" Second, taking exit clearly into account ensures that the costs and benefits of different exit approaches, which necessarily play a part in the overall regulatory regime's costs and benefits, will be explicitly assessed. Even if on the margins, this can be important.

For example, the Mapped Exit approach allows fracking companies to determine the likely costs of compliance prior to commencing operations as well as the costs of avoiding regulatory coverage. Parties currently fracking can decide whether the costs to enter into compliance justify continued fracking. Adding Mapped Exit as a design consideration can also affect how the thresholds are designed. For example, a graduated set of site setback thresholds could be coupled with decreasing levels of regulation. This would produce a ratchet model allowing even finer assessment of exit costs and benefits by the regulated operations. 86

The most promising exit strategy, however, would likely be Adaptive Exit, for two reasons. First, fracking poses novel environmental risks. There are too many unknowns to design the clear, quantitative restrictions found in a Mapped Exit approach.⁸⁷ Indeed, if exit had been explicitly considered at the regulatory design stage, some states might have employed less quantitative regulation than they do today, when in hindsight the regulations appear poorly chosen. Second, the regulation of fracking has become a highly contentious political issue, with some state and local jurisdictions choosing to ban fracking altogether.⁸⁸ Inserting exit thresholds into regulation is more difficult in such a heated political environment.

As our model predicts, Adaptive Exit provides a strategy well-tailored to politically contentious issues with significant uncertainties. By design, the program is shaped explicitly to facilitate a more informed understanding of the issue so that, at a later date and with greater knowledge, the agency has the authority to relax or restrict the initial regulations as appropriate.

^{86.} To be precise, this would be an example of Mapped Ratchet Party Exit.

^{87.} See Merrill & Schizer, supra note 78, at 180-97 (discussing the novel risks).

^{88.} See Local Actions Against Fracking, FOOD AND WATER WATCH, http://www.foodandwaterwatch.org/water/fracking/fracking-action-center/local-action-documents/[http://perma.cc/C379-PAC6] (listing all state and local fracking bans).

B. Lookback Exit

As with fracking, emerging regulatory challenges often arise in sparse information environments and are politically contested. At bottom, Adaptive Exit and Messy Exit both present attractive "punt it" responses to political divisiveness or perceived lack of information, particularly when both the information flow and political discourse is dynamic and unpredictable. However, Adaptive Exit and Messy Exit not only defer exit design decisions until after program implementation, they also involve no prior commitment whatsoever to engage the exit question. They are reactive rather than proactive, and arise in an ad hoc fashion.

To be sure, administrations have often pledged to engage in a more purposive Adaptive Exit by periodically changing or removing rules they conclude are out of date, unnecessary, or overly burdensome, as most recently the Obama Administration's Regulatory Lookback initiative has promised.89 These retrospective reviews can lead to significant reductions in government intervention, but they are hampered by two constraints. First, as executive initiatives, they are ad hoc, unenforceable, and unaccountable without significant executive commitment, institutionalization, and follow-through. Second, even with that kind of executive engagement, agencies are stuck with the statutes they administer, which usually do not reflect the legislature having given much thought to exit. A statute designed exclusively around entry is unlikely to provide a robust platform for an agency later to explore exit options. As a result, the product of retrospective regulatory review is more often than not deregulation in the form of eliminating rules and requirements. 90 Ideally, an agency also should be in a position to adopt Mapped Exit or Uncertain Exit strategies after the program has commenced.

^{89.} Regulatory Lookback is the Obama Administration's term for retrospective regulatory review, under which "agencies shall consider how best to promote retrospective analysis of rules that may be outmoded, ineffective, insufficient, or excessively burdensome, and to modify, streamline, expand, or repeal them in accordance with what has been learned." Exec. Order 13563, 76 Fed. Reg. 3821 (Jan. 21, 2011); see Howard Shelanski, Reducing Costs and Burdens: Further Progress in Regulatory Lookback Effort, Office of Mgmt. & Budget Blog (May 7, 2014, 7:05 PM), https://www.whitehouse.gov/blog/2014/05/07/reducing-costs-and-burdens-further-progress-regulatory-lookback-effort [http://perma.cc/5VHL-SVLE] ("Ensuring regulatory flexibility for businesses and reducing unnecessary regulatory burdens through the retrospective review process are top priorities for the President and the White House Office of Information and Regulatory Affairs."). For descriptions of Regulatory Lookback and previous administrations' retrospective regulatory review initiatives, see Bull, supra note 14 at 277–86 and Coglianese, supra note 14, at 58–59.

^{90.} See SUNSTEIN, supra note 11, at 182-83 (listing various accomplishments of the Regulatory Lookback initiative, most of which were deregulatory in nature).

We believe government should consider *committing* to designing for exit in all cases, even cases when at the front end of program design the politics are difficult and information is incomplete. To encourage this, we propose a new model of exit—what we call "Lookback Exit"—to overcome the shortcomings of Regulatory Lookback and similar retrospective regulatory review initiatives through two novel components: (1) embedding authority for Adaptive Exit and Uncertain Exit explicitly in the statute ex ante, and (2) requiring the agency to engage in the lookback process and to justify its decision to use *or not to use* its embedded authority.

First, unlike the case with the Obama Administration's Regulatory Lookback and similar initiatives, under Lookback Exit the legislature would embed the tools of Mapped Exit and Uncertain Exit in the statute at the front end, explicitly making them available to the agency as it engages in the lookback process without having to engage in creative statutory interpretation. This approach would remove all doubt that the agency has the authority to engage in Adaptive Exit by adopting the methods of Mapped Exit and Uncertain Exit as the program moves forward.

Indeed, there are already a number of examples where embedded exit tools have been placed in existing statutes to accomplish Lookback Exit. This is clearest in so-called general permit provisions. For example, section 404 of the Clean Water Act provides that the Secretary of the Army, acting through the Chief of the Army Corps of Engineers (Corps), "may issue permits, after notice and opportunity for public hearings for the discharge of dredged or fill material into the navigable waters at specified disposal sites." In contrast to these "individual permits," section 404(e) establishes a general permit option and the standards for its use as an alternative to case-by-case individual permits offering vastly reduced paperwork, pre-approved permit standards, and less direct regulatory oversight. 93

^{91. 33} U.S.C. § 1344(d) (2012).

^{92.} Id. § 1344(a).

^{93.} The statute reads:

⁽¹⁾ In carrying out his functions relating to the discharge of dredged or fill material under this section, the Secretary may, after notice of opportunity for public hearing, issue general permits on a State, regional, or nationwide basis for any category of activities involving discharges of dredged or fill material if the Secretary determines that the activities in such category are similar in nature, will cause only minimal adverse environmental effects when performed separately, and will have only minimal cumulative adverse effects on the environment. Any general permit issued under this subsection shall (A) be based on the guidelines described in subsection (b)(l) of this section, and (B) set forth the requirements and standards which shall apply to any activity authorized by such general permit.

Section 404 thus illustrates the exit design flexibility provided to an agency through embedded exit tools. Congress did not have to predict the various contexts in which individual permitting would be overly burdensome; rather, it gave the tools to the agency to engage in Adaptive Exit over time so it could create Mapped Exit (using objective general permit criteria) and Uncertain Exit (using qualitative criteria) mechanisms as the need arose. With over ninety percent of the demand on the section 404 permit program handled under general permits requiring a small amount of paperwork, or in some cases no paperwork, and in a matter of weeks, ⁹⁶ this truly accomplishes regulatory exit. To be sure, use of general permitting as an Adaptive Exit method must be justified under specific regulatory program criteria and the general exit metrics we developed above in Part II.B.—fast is not always better ⁹⁷—but the point is to give the agency the flexibility at the front end rather than handcuff it to a No Exit outcome.

⁽²⁾ No general permit issued under this subsection shall be for a period of more than five years after the date of its issuance and such general permit may be revoked or modified by the Secretary if, after opportunity for public hearing, the Secretary determines that the activities authorized by such general permit have an adverse impact on the environment or such activities are more appropriately authorized by individual permits.

³³ U.S.C. § 1344(e)(1)-(2).

^{94.} The Corps' general permit program began in 1977 with the agency's promulgation of five general permits covering specified activities, such as utility line crossings and minor road crossings. 42 Fed. Reg. 37121, 37146–47 (1977). Congress amended the CWA in 1977 after the Corps promulgated this first set of general permits, essentially codifying the approach the Corps took. See Palmer Hough & Morgan Robertson, Mitigation Under Section 404 of the Clean Water Act: Where It Comes from, What It Means, 17 WETLANDS ECOLOGY & MGMT. 15, 17 (2009).

^{95.} CLAUDIA COPELAND, CONG. RESEARCH SERV., THE ARMY CORPS OF ENGINEERS' NATIONWIDE PERMITS PROGRAM: ISSUES AND REGULATORY DEVELOPMENTS 2 (2012), https://www.fas.org/sgp/crs/natsec/97-223.pdf [http://perma.cc/4T74-FUR9].

^{96.} See id.

^{97.} For a comprehensive overview of general permitting and the programmatic and general criteria for when it is appropriate, see generally Biber & Ruhl, *supra* note 15.

Under our proposal, therefore, a similar general permit authority, as well as standards for employing it, would be included in all statutes creating permitting regimes, so that agencies can periodically adjust (with justification) which actions receive the full permitting treatment and which receive a lighter permitting review. Similarly, statutes specifying regulatory thresholds would provide the agency room to adjust them based on standards contained in the statute, as the EPA attempted to do in its Tailoring Rule. 98 Similar exit design options could include authority to reduce monitoring, inspection, and reporting for facilities proven to have achieved compliance over time, authority to extend permit durations, adjusting the size of surety bonds or other compliance assurance mechanisms, and authority to implement trading and other market-based instruments in lieu of comprehensive regulation. The point would be to equip the agency with a menu of exit options it can implement after inception of the program when it has sufficient experience with the program to make defensible decisions about exit.

Consider, for example, how different the EPA's experience in the *Chevron* case would have been had such mechanisms been built into the Clean Air Act.⁹⁹ In *Chevron*, environmental groups challenged the EPA's interpretation of the Clean Air Act's mandate to regulate a "stationary source" to allow bubbling—measuring the emissions of an entire facility rather than regulating emissions from each individual smokestack at the facility. Bubbling therefore allowed plants to avoid regulatory requirements by increasing emissions from some sources while reducing them at others.¹⁰⁰ It took extensive litigation before this policy was deemed legal.¹⁰¹

By contrast, had Congress designed the Clean Air Act to provide the EPA the authority to, for example, "delineate stationary sources on a general or case-by-case basis in a manner that increases cost-efficiency of compliance by a facility without increasing total pollutant loads from the facility," the EPA could have implemented the bubble policy as easily as the Corps has designed its general permits. This example of Lookback Exit would not have required Congress to predict the bubble policy when it enacted the Clean Air Act. Once the EPA gained the experience to see the advantages of bubbling, however, it

^{98.} See Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, 40 C.F.R. §§ 70.2, 71.2 (2015).

^{99.} See Chevron, U.S.A., Inc. v. NRDC, Inc., 467 U.S. 837 (1984).

^{100.} James Salzman & Barton Thompson, Jr., Environmental Law and Policy 125 (4th ed. 2014).

^{101.} See Chevron, 467 U.S. at 866.

would have been able to design and apply the new exit strategy quickly. Lookback Exit would have provided the EPA a general authority later to employ in an applied context.

The second novel component of Lookback Exit is to require the implementing agency at specified intervals to reopen the issue of exit. either employing the tools of Mapped Exit and Uncertain Exit or justifying why not. Lookback Exit thus explicitly recognizes that at the time of regulatory- or benefit-program inception both political reality and information deficit may constrain the ability to design ex ante exit strategies, but they commit agencies to work toward adoption of Mapped Exit and Uncertain Exit models as the program evolves. It is, in other words, a binding commitment to employ Adaptive Exit, but does not limit the options to deregulation. For example, legislation creating a new program would add a requirement that the implementing agency engage in the deliberative exit review process we outlined above in Part III by a particular date. The exit conditions would not be fully specified at the inception of the regulatory program, giving exit an ex post quality, but the timeline for explicitly considering exit conditions and procedures would be mandatory. To be sure, this proposal has the downside of placing demands on agency resources at a time when budgets are tight across the government. It may be the case that agencies more often than not would choose to maintain the status quo. This process, however, would create the opportunity for more deliberate consideration of exit strategies than the blunt measure of eliminating rules and other forms of deregulation.

V. CONCLUSION

Legislatures and agencies work hard to address new policy challenges, so it is understandable that thinking about exit from such programs is not foremost on their minds at the time of creation. But exit is an unavoidable consequence of any new government program. Every threshold and standard inherently creates a universe of parties that are "in" the program and others that are "out," and very often it is possible that parties will move between those two states. As a result, it is as important to think clearly about exit in the administrative state as it is to think clearly about the creation of new programs in the first place. This Article has provided a framework for doing so.

The administrative state has relied too heavily on deregulation and defunding as its default exit strategy. This Article is the first attempt to create a framework for how to think about exit, helping to explain its importance and guide its design. Through the example of fracking and our proposal of Lookback Exit, we have shown how focusing on exit changes our analysis of regulatory design.

Exit, it turns out, is a big concept for the regulatory state. By starting a dialogue and proposing a framework model, we believe new questions come into focus for administrative law scholars. Key research topics include, for example:

- How would a law and economics perspective model exit?
- How do exit strategies vary by institution, and are there principles suggesting when exit is best determined by legislatures, agencies, or courts?
- What is the feedback between entry and exit strategies?
- Which exit instruments should legislatures make available at the front end for agencies to engage in Lookback Exit?

Exit is just as important to the administrative state as entry. Questions such as these listed above provide fertile ground for research and we trust this Article helps stimulate legal scholars to explore them further.