Chapter 3.
Regulatory Theory

3.1 Introduction

For more than half a century, scholars have grappled with questions of "regulatory origin" (Fiorina 1982, 37): why regulatory agencies get established and why regulation gets imposed in particular sectors and in particular ways. The resulting body of work has diversified over time as government regulation of the economy has expanded, contracted, and changed. Establishment by government of specialist bodies to regulate aspects of the economy began during the late 19th century with the development of nationwide railways and communications markets. In the US, such "economic regulation," aimed at markets deemed susceptible to natural monopoly, continued to expand throughout the early-to-mid 20th century with the development of commercial aviation, trucking, and energy utilities. In Britain, the regulatory agency model was increasingly substituted by public ownership during the same period (Ogus 1994). The 1960s and 1970s saw a proliferation of regulatory agencies on both sides of the Atlantic that concerned themselves with cross-industry "social regulation" of health, safety, and the environment. Since then, scholars have been grappling with the tension between calls for deregulation – ridding the economy of formal regulatory oversight, and even of regulatory agencies themselves in some cases – and the expansion in modes of economic governance that go beyond traditional command-and-control regulation.

Experience with regulatory agencies across all of this time and many industry sectors has yielded a wide variety of theories of regulatory decision-making that have been tested using a diversity of methodological approaches, from historical analyses to econometric modeling to qualitative case studies. As noted in Chapter 2, support for the public interest theory waned substantially during the mid-20th century as scholars came to appreciate its multiple shortcomings. First, it assumes that the public interest is somehow uniform and easily identifiable, rather than vague, indeterminate, and comprised of conflicting views, as reality would suggest (Katzmann 1980; Noll 1985). Although legislators often charge regulators

with vague public interest mandates (Lowi 1979; Stewart 1975), there is no single operationalized definition of the public interest that can be used to judge whether particular actions are serving the public interest or not (Mitnick 1980). The public interest theory also assumes that if an authoritative notion of the public interest existed in any given regulatory realm, regulators would have the tools at their disposal to identify it and act to protect it. In reality that is not necessarily the case (Mitnick 1980; Noll 1985).

The public interest theory does not account for how other interests affect regulatory outcomes. It assumes that the interests of affected groups and politicians – and even regulators' own self-interest – are exogenous to choices made about regulatory intervention. In reality, regulatory agencies are embedded within political systems where competing interests can drastically alter outcomes (Mitnick 1980; Stewart 1975; Wilson 1980). There must be some mechanism or advocate that allows the public interest to be identified among the field of interests presented to the regulator (Viscusi, Harrington, and Vernon 2005). The fact that regulators may be motivated by financial gain, jurisdictional desires to expand their turf, or other personal interests is ignored entirely (Baldwin, Cave, and Lodge 2012; Mitnick 1980).

Finally, there is ample evidence that refutes the theory. Regulation often arises in the absence of market failure and often does not arise despite market imperfections (Posner 1974). Regulation has been shown to have supported prices above cost in certain competitive industries and has had little effect on prices in certain monopolistic ones (Posner 1971; Stigler and Friedland 1962; Viscusi, Harrington, and Vernon 2005). A related problem is that the public interest theory does not account for any costs associated with regulation; it assumes that regulatory agencies are internally efficient and can costlessly deliver the best solution to the public (Noll 1985).

Realizing these drawbacks, scholars have looked to a wide variety of other sources of explanation of regulatory behavior. The field of regulatory theory is disciplinarily wide and

diverse, with few thoroughly developed theories of behavior but many promising directions. It was for years dominated by US perspectives given the pervasiveness of regulation there, but has since garnered substantial attention in Europe. It reflects the familiar social scientific tension between theories grounded in traditional rational actor assumptions from economics and those that relax these assumptions or cast institutions and their effects as more central than utility-maximizing behavior. This section surveys the explanations of regulatory behavior found in an interdisciplinary cross-section of literature from political science, economics, law, and organization studies in the US, the UK, and the EU. The explanations are divided into four categories: institutional design choices, external forces, internal characteristics, and nation-specific factors. Where appropriate, perspectives are provided about how these explanations might be applied in the context of telecommunications or net neutrality.

3.2 Institutional Design

Perhaps the most fundamental and observable factors contributing to an agency's behavior lie in its institutional design. The kinds of institutional choices that define agency structures and processes are many and varied, including the scope of the agency's jurisdiction, the extent of agency independence from other branches of government, agency governance structure, and procedural rules concerning transparency and public participation in regulatory processes (Horn 1995). These choices are highly interrelated.

Regulators generally draw their authority from legislative delegations that determine the scope of the issues within their purview. The limits (or lack thereof) on this scope are important for understanding why an agency chooses to take up a particular regulatory agenda or not. One key consideration relates to whether the agency is delegated a policy-setting function, or whether it is designed purely as an implementer or enforcer of policies set by government (Ogus 1994); the latter characterization has a strong tradition in the UK but is less common elsewhere. Particular agencies may be delegated specific authority because they

are presumed to behave in predictable ways – thus an environmental protection regulator and a governmental civil engineering department will presumably approach the same problems from quite different perspectives, and the delegating authority may prefer one over the other (Spence 1999). Mismatches between agency expertise and delegated tasks can create suboptimal regulatory outcomes (Baldwin and McCrudden 1987). Thus the choice of jurisdiction may have important implications for the agency's agenda, the alignment of its outcomes with legislative or executive preferences, and its overall effectiveness.

Although the independence of regulators is a subject of substantial academic attention, precisely defined ways of determining or evaluating independence are elusive. For example, scholars have suggested that formal independence from government is derived from employment conditions of key decision-makers (the standards and processes for their appointment and removal), agency jurisdiction (because legislative oversight is more easily accomplished for narrow, industry-specific regulators), location outside the executive branch structure, freedom from supervision within the executive hierarchy, the clarity of the division of powers between the regulator and the rest of government, and potentially other factors (Bernstein 1955; Gilardi 2002; Hanretty and Koop 2012; Horn 1995; Majone 1994; Prosser 2010). More independent agencies are assumed to have greater autonomy in setting their agendas and making their decisions. Even agencies that are not statutorily independent from government may have enough de facto independence to choose their own paths (Maggetti 2007). The model that is common for both the typical American "independent commission" (of which the FCC is one) and the British utilities regulators (of which Ofcom is one) tends to score high on most measures of formal independence (Ogus 1994).

Regulatory agencies come in many forms, from the multi-headed commission to the single-headed executive agency. The governance structure can have a profound impact on agency decision-making and is highly related to the question of independence. Commissions are said to offer more flexibility and independence than other structures, with commissioners serving on fixed and staggered terms that outlast the term of the President or Prime Minister;

appointments conducted on a bi-partisan basis; and removal of commissioners possible only on grounds of misbehavior (Horn 1995; Majone 1994). Commission action may be impaired in other ways, however: regulation by commission can result in incoherent compromises, horse-trading, mismanaged bureaucracies, and severe delays while trying to reach agreements (Katzmann 1980).

By contrast, the heads of executive agencies or ministerial departments may be more politically vulnerable since they can be removed based on the policy preferences of the President or minister in charge (Majone 1994). But by virtue of being able to act unilaterally within the agency they may be able to avoid problems of incoherence, mismanagement, and delay. Although many EU regulators were modeled on US regulatory commissions, Ofcom's governing structure – a board that includes executive staff (including the Chief Executive) and ministerial appointees – is a novel variant that potentially avoids the pitfalls associated with both the single-headed and commission models (Prosser 2010).

Finally, decisions about policies and procedures to allow for transparency and public participation in agency processes can have a profound impact on regulatory outcomes. Public participation is said to compel regulators to take societal interests into account (Stewart 1975) and to insulate them from political pressures since they need to be seen to be responding to the interests that participate (Croley 2008). However, the mere imposition of requirements that agencies publish their activities and consult with stakeholders does not automatically achieve these results, and may impact regulatory decisions in other ways. It may be that only well-organized or well-financed interests participate, that open processes reduce the impact of expert input, or that the resulting compromises fail to meet the needs of the public (Baldwin and McCrudden 1987; Ogus 1994; Rothstein 2004). This may argue for flexible rules concerning transparency and participation, along the lines of those established by Ofcom; in the absence of strict statutory requirements of the sort imposed on US regulators by the Administrative Procedures Act, the agency has established its own rules for consultation and

openness (Lunt and Livingstone 2012; Prosser 2010), in line with a broader movement towards "better regulation" in Europe (COM(2001) 428 final; COM(2002) 275 final).

To an outside observer, the FCC and Ofcom appear very different when it comes to institutional design. A new FCC chair is nearly guaranteed to be appointed when the presidency changes parties; the agency's remit is comparatively broad (Shaffer and Jordan 2013); and it operates under strict requirements for transparency and public participation. Ofcom appears far less politicized, with its own discretion to rely on in determining the extensiveness of its consultations. The questions from the perspective of this study are whether those characterizations ring true and how they influence the decisions that the two regulators have made with respect to traffic management.

3.3 External Forces

Institutional design choices are deeply intertwined with the "mosaic of forces" (Horwitz 1989, 8) that external entities impose on regulatory agencies. Initial attempts to theorize about the influence of external forces on regulatory decisions tended to focus on a single external actor, with significant attention in the literature devoted to interest groups, legislatures, and courts, respectively. As those theories have matured, scholars have widened their focus to evaluate how a broader set of external forces combine with interest group pressures, legislative control, and judicial oversight to produce regulatory outcomes. This section examines the specific bodies of work on interest groups, legislatures, and the judiciary before reviewing broader theories of external influence on regulators.

3.3.1 Interest Groups

The earliest attempts to model the impact of interest groups on regulatory outcomes started by applying traditional economic assumptions to the regulatory process (Baldwin, Cave, and Lodge 2012; Black 1997). Under the "economic theory of regulation," all actors are assumed to be maximizing their utility (material wealth, or votes as a means to material wealth in the

case of elected officials). All parties are expected to be well informed and to learn from past interactions. Regulation itself is assumed to be costless. With these assumptions in place, regulation is treated as a product whose allocation is governed by the same laws of supply and demand as market goods (Posner 1974).

The most prominent contributor to the economic theory was George Stigler. Stigler (1971) proposed that, given the market for regulation as modeled above, the greatest beneficiaries of regulation would be large, concentrated, well organized interests – that is, the industries subject to regulation. The consequence of this is regulatory "capture," in which "regulation is acquired by the industry and is designed and operated primarily for its benefit" (Stigler 1971, 3). Consumer interests might be present in the market for regulation, but they would likely be more diffuse and less well organized than the regulated industry itself, and therefore less able to obtain favorable regulation. A politically motivated regulator would maximize its gains from fulfilling industry's wishes.

The application of the capture theory in the net neutrality context would be complex. Articulated with reference to price regulation of natural monopolies, Stigler's theory focuses only on obtaining regulation, not remaining free from it (Wilson 1975). It does not easily accommodate the case where the potentially (or previously) regulated industry – Internet service providers – prefers not to be regulated at all, or where multiple industries have a web of relationships with the regulator (Prosser 1999). One could alternatively view Internet application providers as the industry capable of capturing the regulatory agency, but the regulation they seek to obtain would not apply to their own industry.

In an important predecessor to Stigler's work, Bernstein (1955) relates agency capture to the maturity of the regulatory agency. He depicts a life cycle of regulatory commissions in which their early existence is characterized by antagonism with the regulated industry and a crusading, pioneering spirit that is bolstered by strong political support from those who sought to create the agency in the first place. But as they mature, they find it increasingly

difficult to extend regulation beyond the limits acceptable to the industry, settling into a role of protecting the industry and the status quo – the capture phase. This model could yield important insights for understanding net neutrality regulation globally, given differences in regulator maturity between countries.

The capture theory has been criticized because it fails to explain the existence of regulation to which industry is opposed (Posner 1974; Wilson 1980). The wave of social regulation that occurred on both sides of the Atlantic in the 1960s and 1970s, together with the deregulation of transportation and communications industries over the objections of monopoly incumbents, created substantial doubt about the universal applicability of capture (Derthick and Quirk 1985; Noll and Owen 1983). The capture theory is also based on neoclassical assumptions concerning rationality and utility, some of which behavioral economists have called into question (Simon 1955; Thaler and Sunstein 2009).

Furthermore, the capture theory fails to account for the interests of others outside the (potentially) regulated industry and the regulators, as discussed in the net neutrality case. Recognizing this, several scholars attempted to extend Stigler's theory to provide a fuller account of the interest group landscape, drawing on Olson's (1965) seminal work on collective action. Peltzman (1976) argued that to make regulation politically feasible, regulators would seek compromises that would require the regulated industry to share the benefits of regulation with other politically salient interest groups, including competing companies and potentially consumers. Becker (1983) suggested that regulation would particularly favor groups that were efficiently organized and put the least burden on other groups. Empirical studies in cases with a small number of affected interests have demonstrated that organized interests do often succeed (Noll 1989). Observers might reasonably claim to see these theories at work in the FCC's *Open Internet* rulemaking, whose compromises among organized producer and consumer groups have been openly acknowledged (Clyburn 2010).

When political scientists look at economic theories of regulation, they see specialized instances of broader theories of pluralism and interest group politics (Moe 1987a). Most influentially, James Q. Wilson emphasized the need to understand regulators as operators within the wider political system. Wilson (1975; 1980) identifies specific relationships between the diffusion of a regulatory policy's costs and benefits and the character and strength of interest group influence over regulatory outcomes. Policy issues yielding benefits only to a concentrated interest group but whose costs are more diffuse may well be subject to capture dynamics, whereas when a regulatory battle yields concentrated costs and concentrated benefits (on differing groups), regulation would emerge as the product of compromise or coalition-building between the interests. As the discussion of the net neutrality literature revealed, there is little consensus about the level of concentration or diffusion of the costs and benefits associated with net neutrality regulation across the population of application developers, broadband providers, and consumers, making it difficult to draw conclusions according to Wilson's taxonomy without further empirical evidence.

3.3.2 Legislatures and the Executive

The economic theory of regulation is distinguished by its purposeful omission of political institutions. As Moe (1987a, 475) has observed, "[t]he implicit claim is that institutions do not matter much . . . . There is little reason for accepting this claim. . . . if decades of political research testify to anything at all, it is that public policy cannot be understood without systematic attention to the nature and dynamics of political institutions." Moe and his American contemporaries therefore turned their attention to the impact of political institutions, particularly the US Congress and President, on regulatory outcomes. Accounting for differences between presidential and parliamentary systems, more recent work in Europe has followed similar lines of development, examining the relationship between elected politicians and independent regulatory agencies at both the EU and national level. This literature focuses on the extent to which regulatory agencies are controlled by politicians,

how that control is exerted, and to what effect. The last of these questions is clearly most salient for this thesis, although it is the least developed.

The literature is characterized by two divergent views about the extent to which regulatory agencies are controlled by politicians. The first of these holds a traditionally bureaucratic view (following Niskanen (1971)), arguing that agencies are mostly autonomous and operate outside the bounds of political oversight. Some scholars, particularly early US commenters and more recent European ones, view this state of affairs as an explicit goal of legislators and government officials, along the lines of the public interest theory. They argue that politicians delegate authority to agencies to allow regulatory decisions to remain above the political fray, or because the technical complexity of regulatory issues is better dealt with by a dedicated expert agency (Baldwin and McCrudden 1987; Lowi 1979; Majone 1999; Thatcher 2002a). Particularly in Europe, with the shift from public to private ownership of utilities that began in the 1970s, delegation of authority to regulatory agencies has been viewed as an explicit means for politicians to make credible commitments that regulation will not fluctuate with the whims of the electoral cycle (Gilardi 2005; Majone 1999; Thatcher 2002a).

Others are less emphatic about bureaucratic autonomy being an explicit regulatory design goal, but they nonetheless conclude that agencies are able to maintain their own discretion for a variety of reasons. There may be little cause to believe that arcane regulatory issues have political salience – if an issue is too obscure to sway voters, it is not likely to be worth a politician's time (Spence 1997; Wilson 1980). Regulators may be capable of cultivating their own political legitimacy directly with interested parties, giving them the ability to challenge politicians with whom they disagree rather than being controlled by them (Carpenter 2001). Even if politicians have a desire to control agencies, they may lack the technical expertise or inside information to do so (Baldwin and McCrudden 1987; Niskanen 1971; Spence 1997). Leveraging these advantages, agencies will seek to maintain themselves or even expand their turf regardless of the preferences of politicians (Katzmann 1980; Niskanen 1971).

Reacting to some of these arguments, and focusing specifically on the US Congress, Weingast and Moran (1983) put forth an influential alternative view: the theory of congressional dominance. According to this theory, congressional committee members with oversight over regulatory agencies are assumed to have both the incentives to control agency behavior and the instruments to exert it: budgetary authority, oversight hearings, and threats of restrictive legislation. Weingast and Moran provide evidence by analyzing Federal Trade Commission behavior, showing how the FTC pursued controversial policies when encouraged to do so by Congress before becoming more conservative following a shift in the legislature's political orientation.

Scholars in the congressional dominance camp argue that congressional oversight is present even when it is not overt. Linking congressional dominance with the power of interest groups, McCubbins and Schwartz (1984) argue that Congress prefers to rely on "fire alarms" – concerns raised by constituents – to conduct regulatory oversight. By crafting procedural rules to ensure that interested parties can be informed about regulatory processes and have avenues to complain, Congress need not invest its own resources to determine when a regulatory agency is in need of a course correction (McCubbins, Noll, and Weingast 1987). These procedures may constrain agency action to such an extent that agencies are able to operate on "autopilot," with no need to seek further legislation – and no need for legislators to expend further resources and political capital – even as new policy issues arise. McCubbins, Noll, and Weingast (1987) use the FCC's regulatory approach to cable television as an example of the workings of an agency on autopilot, showing how the agency started by erecting barriers to the development of cable (at the behest of one of the agency's key existing constituencies, the broadcasters), moved on to craft concrete policies reflective of the political climate at the time, and eventually brought cable television fully within its remit, all without ever needing new legislation.

Rejecting both the bureaucratic and congressional dominance views, Moe (1985; 1987b) suggests a more president-centered theory of agency control. He argues that the White House

uses its power of appointments to populate agencies with leaders who are conducive to Presidential control (Moe 1985; Moe 1987b) and loyal enough to the President's interests to continue to provide the President with inside information about agency business once appointed (Moe and Wilson 1994). However, the President's inability to foresee how an appointee will react to both emerging policy issues and influences from professional agency staff call Presidential control into question (Spence 1997). Presidents may choose agency heads based on politics rather than substantive policy (Heclo 1977; Wilson 1989).

Beyond appointments, executive agency officials including the President can centralize regulatory control in the executive by imposing procedural rules. Scholars often point to President Reagan's executive order requiring the Office of Management and Budget to review cost-benefit analyses of all major regulations and the somewhat less stringent requirements for cost-benefit analysis imposed by the Thatcher Administration as examples of this behavior (Baldwin and McCrudden 1987; Kagan 2001; Moe and Wilson 1994; Ogus 1994). It is far from clear, however, how effective these kinds of measures are in aligning agencies with executive preferences (Spence 1997).

The question from a traffic management perspective is whether the bureaucratic view, the congressional dominance theory, or theories of executive control provide explanations for the activities of the FCC and Ofcom. Does Ofcom operate as autonomously from government as other British regulators appear to have in the past (Thatcher 2002b)? Are the FCC's decisions controlled by members of the House and Senate Commerce committees, their constituents, the President's appointment choices, or other factors? Whether the primarily US-centric theories developed here can be generalized to other kinds of political systems is a significant question for further research.

3.3.3 Judicial Review

As much as political scientists have been attentive to the relationship between legislatures, the executive branch, and agencies, administrative legal scholars have focused on the relationship between regulators and the judicial institutions meant to hold them accountable. The body of work examining these relationships has been particularly responsive to increases, whether real or perceived, in the frequency and intensity of judicial review of agency decisions across many sectors.

In the US, the doctrine of judicial review is rooted in the Administrative Procedures Act (APA) of 1946, which provides a general authorization for courts to evaluate whether agency decisions are supported by substantial evidence and are not arbitrary or capricious (5 U.S.C. 500 *et seq*). In the decades since the passage of the APA, these standards have been significantly strengthened through case law and acts of Congress. Analytical requirements on agencies have expanded, such that agencies have been required to show that they have a "reasoned explanation" for specifying rules, not merely substantial evidence to back up their decisions (McGarity 1992). Substantive requirements have likewise become stricter, in particular by application of the "hard look" doctrine adopted by the lower courts in the 1970s (Breyer 1986). The hard look doctrine obliged the reviewing courts to "examine carefully the administrative record and the agency's explanation, to determine whether the agency applied the correct analytical methodology, applied the right criteria, considered the relevant factors, chose from among the available range of regulatory options, relied upon appropriate policies, and pointed to adequate support in the record for material empirical conclusions" (McGarity 1992, 1410). These standards are considered to be significantly more intensive than the original APA requirements.

The years since the passage of the APA have also seen a substantial enlargement in the population of interests entitled to participate in the regulatory process and seek judicial review. The expansion of these rights was articulated in a number of court decisions

beginning in the 1960s as "a judicial reaction to the agencies' perceived failure to represent such interests fairly" (Stewart 1975, 1728). While the courts may have been aiming to make the regulatory process more available to public interest groups, the net result was an opening of the process to anyone interested in challenging regulatory decision-making (Horwitz 1989) and heightened attention within the judiciary as to whether agencies had given all interests "adequate consideration" (Stewart 1975).

British legal doctrine has no similar statutory basis for judicial review as the APA, but has instead a well developed common law basis for court review of governmental actions on the basis of illegality, irrationality, or procedural impropriety, supplemented by agency- or department-specific statutes that allow for appeals of regulatory decisions on their merits (Baldwin and McCrudden 1987; Bishop 1990; Wade and Forsyth 2004). As in the US, an uptick in the incidence and substance of judicial review in the UK has been observed in recent decades (Black and Walker 1998; Ogus 1994), despite a perceived general aversion among UK officials to the litigiousness of regulatory decision-making in the US (Moran 2003; Ogus 1994; Prosser 1997; Prosser 2004). Scholars have attributed these developments to shifting perceptions about the efficacy of the judiciary and its relationship to other branches of government. With heightened political divisions throughout government, the judiciary has emerged as an arena for adjudicating political disagreements (Baldwin and McCrudden 1987). Whereas the mere appeal of a regulatory decision might have once been considered a symbol of incompetence on the part of the responsible regulator or minister, frequent adjudication has merely come to reflect common interplay between an emboldened judiciary and other branches of government. Within telecommunications specifically, the increased incidence of appeal – and of Ofcom being overturned in court – is unmistakable, and possibly attributable to the widely held perception that Ofcom's predecessor Oftel was never properly held accountable, as Oftel was never successfully challenged in court during its 19 years of existence (Walden 2012).

Scholars have theorized (and in some cases sought to empirically verify) a number of implications for regulatory agency behavior based on observed and perceived increases in the strength and frequency of judicial review. The overarching claim is that agencies become more conservative as a result of heightened judicial review. The fact that courts may overturn them on an ever-expanding and ill-defined set of grounds creates uncertainty and excessive deliberation about how the agency should construct its rules and explanations for them (Baldwin and McCrudden 1987; Melnick 1992; Pierce 1995). The adoption of "adequate consideration" standards exacerbates this constant second-guessing, since agencies need to be able to anticipate every potential grounds for appeal that any interested party might launch and build appropriate defenses into its rules and rationales for them (Horn 1995; McGarity 1992).

This conservatism is said to manifest in a variety of ways. Rules can take much longer to develop (C. Scott 1998), and in some cases the combination of onerous rulemaking processes and extensive reconsideration of rules that have been remanded to the agency can be essentially debilitating, leading to the so-called "ossification" of the rulemaking process (McGarity 1992; Melnick 1992; Seidenfeld 1997). Agencies may also become less likely to reopen settled rules for fear of spurring a lengthy legal process, even when changes in the marketplace necessitate regulatory updates (Breyer 1986). As a general matter agencies become disinclined to experiment with radical or innovative ideas in promulgating new rules, preferring to rely on safer ground that has already been tested under judicial review (Baldwin and McCrudden 1987; Horn 1995; McGarity 1992). The overall effect may be one of fewer rulemakings altogether (Melnick 1992; Pierce 1988).

Increased judicial oversight may also cause agencies to seek alternative procedures that are not statutorily subject to appeal, including informal rulemaking, guidance, policy statements, and the like (Baldwin, Cave, and Lodge 2012; Pierce 1995; Seidenfeld 1997; Spence 1997). Scholars point to a number of examples where agencies have shifted their processes in response to a pattern of lengthy (and at times unsuccessful) court challenges: the US National

Highway Transportation and Safety Administration moving to post-hoc recalls and adjudications rather than affirmative promulgation of vehicle safety rules (Mashaw and Harfst 1986); the US Environmental Protection Agency preferring informal dealings with industry to implement the Clean Air Act rather than formal requirements (Melnick 1983); and the UK Commission for Racial Equality shifting to bargaining and rulemaking after judges proved hostile towards the agency's formal investigations of businesses (Baldwin and McCrudden 1987).

Whether claims of conservatism, ossification, and circumvention are manifest in practice, remain unchanged by developments in case law, and are relevant to telecommunications regulation are all significant open questions. Although certain agencies at certain points in time may appear to have been hampered by judicial oversight, empirical evidence of US regulators writ large suggests that they continue to produce more and lengthier rules (Coglianese 2002) and that most rulemakings are completed fairly promptly (Yackee and Yackee 2010). The US Supreme Court's jurisprudence regarding deference to agency expertise, first in *Chevron* (Chevron U.S.A. Inc. v. National Resources Defense Council, Inc. 467 U.S. 837 (1984)) and more recently in *Mead* (United States v. Mead Corp. 533 U.S. 218 (2001)), have further complicated evaluations of the impact of judicial review. While *Chevron* is said to restore judicial deference to the expertise of regulators, scholars dispute the evenness of its application by judges (Baldwin, Cave, and Lodge 2012; Melnick 1992). Whether *Mead*, which held that *Chevron* deference only applies in cases of formal agency decision-making, increases or decreases agency discretion has also been the subject of debate (Baldwin, Cave, and Lodge 2012; Yackee and Yackee 2010). In the UK, scholars and government officials have noted the increased incidence and intensity of judicial review (Black and Walker 1998; Prosser 1997) and the fact that the telecommunications regulator is largely unique among economic regulators in that it can be appealed on the merits of its decisions (National Audit Office 2010), but the implications of these facts are unclear.

Such implications may be weighty in the case of traffic management and net neutrality. The UK government was so alarmed by the effects of increased appeals on Ofcom that it launched three separate consultations in the span of four years about revising standards for judicial review (BIS 2010; BIS 2013; DCMS 2011c). No legislative changes resulted from the first two and the third was ongoing at this writing. The FCC notoriously gets challenged on every major decision it makes, including its most significant pronouncements related to net neutrality (one of which was based on the *Policy Statement*). Whether judicial review has inspired conservatism, ossification, circumvention, or other characteristics in the two regulators is a vital line of inquiry in this thesis.

3.3.4 External Signals

Trying to understand agency behavior on the basis of a single cause – the regulated industry's preferences, the party in power in Congress, or the standards for judicial review – may be appealing for its analytic simplicity, but it is unlikely to adequately reflect reality (Moe 1987a). Recognizing this, Roger Noll coined the term "external signals" to describe a theory that explains agency behavior as the product of multiple external forces:

> [A]gencies try to serve the public interest but have difficulty identifying it, because the public interest is such an elusive concept. Consequently, they judge the extent to which their decisions satisfy the public interest by observing the responses of other institutions to their policies and rules. . . . Among these sources of performance indicators are the courts; congressional committees that decide upon the budget and legislative program of the agency; the relevant budget examiners in the Office of Management and Budget or corresponding state or local government agencies; the press, whose primary locus of concern is the regulated industry and who may criticize the agency if performance there deteriorates; and the constituent interest groups participating in agency procedures, who, if dissatisfied with an agency decision, can appeal to the courts or can take their case to the politicians or the press. (Noll 1985, 41)

The external signals theory suggests that agencies are judged in multiple "theaters," including the marketplace, the hearing room, and the political arena (Noll 1971). They seek to minimize criticism and conflicts within and between each one (Joskow 1974; Mitnick 1980) while maximizing positive feedback. Succeeding in this endeavor involves creating a base of

support among multiple external groups, allowing the agency to "shelter itself from changing political environments" and maintain its autonomy (M. K. Olson 1995, 388).

The external signals theory is attractive because it provides the opportunity to draw together the diverse strands of regulatory theory based around individual external forces and understand how they integrate with one another in a given regulatory context. The theory has been applied empirically to show that energy regulators respond to a combination of signals from environmental advocates and markets (Joskow 1974); that Congress and consumers jointly influence how the Food and Drug Administration (FDA) chooses regulatory instruments (M. K. Olson 1996); that different kinds of FDA drug approvals respond to different external signals (M. K. Olson 1995; 1997); and that the Environmental Protection Agency responds to a combination of marketplace and bureaucratic factors (Magat, Krupnick, and Harrington 1986). The external signals approach is a promising fit for understanding traffic management regulation given the complexity of the regulatory space for broadband.

3.4 Internal Characteristics

Theorists who focus on the influence of political institutions and external signals have noted that internal factors relating to agencies and the individuals they employ may be as important, if not more so, in understanding regulatory behavior (Carrigan and Coglianese 2011; Magat, Krupnick, and Harrington 1986; Moe 1987a). Scholarly attention to regulatory agencies from the perspectives of public administration, organizational sociology, economics, and management has shed light on how agencies function from the inside, how bureaucrats (or "agency officials," as they will be called here since "bureaucrats" does not appropriately describe Ofcom staff) behave, and the motivations behind both. This literature is vast and operates both at the level of the organization and of the individual employee. Given that the design of this thesis (involving interviews and participant observation) is focused on the experiences of individual regulatory employees as opposed to whole internal organizational

structures, this section highlights the theoretical developments that focus on the link between agency officials and regulatory decisions.

The literature on bureaucracy and public administration reveals a tension – typical for any field that has engaged the attention of economists – between conceptions of agency officials as purely self-interested utility maximizers and those who suggest motivations based on a combination of self-interest and concern for other values (DiIulio 1994). This distinction harkens back to debates about the public interest theory of regulation – do officials concern themselves with the agency, its mission, and what it is intended to accomplish on behalf of the public? Scholars have pointed to a variety of motivations to explain the behavior of individual officials, some self-interested, some "public spirited" (Golden 2000, 12) and some that blur the line between the two.

Perhaps the most fundamental interest that agency officials have is "survival": remaining in office (Russell and Shelton 1974, 49). According to the economic theory of regulation, the desire to stay in office drives officials to make decisions that please the regulated industry (Niskanen 1975; Peltzman 1976; Stigler 1971), but under alternative conceptions it could imply appealing to the public or forming a cross-cutting political coalition that will continue to support the official's decisions (Russell and Shelton 1974; Wilson 1980). Some scholars argue that agency heads are imperialistic, constantly seeking to expand their jurisdiction as a means of survival (Niskanen 1971; Tullock 1965). The implication is that they will seek to please legislators and executive branch officials (in the Office of Management and Budget, for example) that control their budgets and authority.

Whether imperialism drives most regulators is debatable, however. Reflecting on case studies of nine US regulatory agencies, Wilson (1980, 376) was struck by the "defensive, threat-avoiding, scandal-minimizing instincts of these agencies." Officials at such agencies prefer a posture that gives them a low profile and reduces the chances of having agency decisions reversed or stirring controversy among interest groups – what Leaver (2009) terms "minimal

squawk" behavior. Furthermore, evidence suggests that in reality many agencies have declined budget increases or volunteered to cut departmental units (Wilson 1989).

Since agency executives usually serve limited terms, survival may be less important to the self-interested official than post-tenure job prospects. A "venal administrator" might operate his or her agency so as to find the most lucrative employment afterward (Horn 1995; Noll 1985). As a result, executives may be reluctant to antagonize or alienate industry segments that might provide future employment, leading to regulatory decisions that favor the industry or temporary resolutions or lengthy procedures that postpone weighty decisions until after the executive's term (Hilton 1972; Noll 1985; Russell and Shelton 1974). However, Mitnick (1980) questions the extent to which venality motivates agency executives given that all high-ranking agency officials are all likely to be highly valued in the private sector at the conclusion of their agency service. Agency executives obtain valuable expertise, experience, and inside knowledge of the agency (Carpenter 2010), which together comprise "a non-transferable, personal capital asset which can only be realized in a future non-official position" (Russell and Shelton 1974, 48). For the professional staff of the agency, private sector jobs may not even be desirable give that "the material and nonmaterial satisfactions of public service may equal or exceed those of private employment" (Wilson 1989, 86).

Agency officials who make their own professional development a key priority will likely be responsive to the norms and teachings of their professional cultures, even if those norms drive behavior that is at odds with the goals of the agency (Golden 2000; Noll 1985). For lawyers and economists – two common breeds in the telecom world – the ways in which they are trained and evaluated are profession-specific: lawyers are considered successful when they win cases, and economists when they maximize welfare (Katzmann 1980; Wilson 1989). The impetus to fit these moulds can skew officials towards particular approaches to their work; for example, lawyers may focus on trivial cases they know they can win, or they may devote more resources to their cases than are strictly necessary (Katzmann 1980; Wilson 1989). If officials' post-agency job prospects depend on the judgments of their professional

counterparts in the private sector, they may be more responsive to how professional culture shapes those judgments than to the mission of the agency (Horn 1995).

Underlying both the concern for future employment prospects and adherence to professional norms may be the more fundamental pursuit of personal status, esteem, and reputation (Carpenter 2010). Success in public service is often equated with perceptions of influence or popularity among the agency's key audiences (Wilson 1989). These less tangible benefits may motivate officials to favor regulatory work that reflects well on them, avoids controversy, or upholds their integrity (Russell and Shelton 1974).

As an agency head, building one's own reputation and maintaining the reputation of the agency may or may not be mutually reinforcing; executives of a more public spirited nature may favor the latter over the former. Agency reputations tend to be formulated around a multitude of specific traits: efficiency, uniqueness of service, or expertise, for example (Carpenter 2001; 2010). Regulatory decisions can be perceived by numerous audiences – organized interests, politicians, or the media – as either reinforcing or detracting from these reputations (Wilson 1980). Focusing on maintaining agency reputation may lead to the same kinds of conservative behaviors as focusing on "survival," since reversals of agency decisions or perceptions that agencies are shifting course can call agency reputation into question (Carpenter 2004). While "external signals" accounts of regulation likewise emphasize the feedback that agency officials receive from their external audiences, reputation provides a further refinement by helping to explain why agencies are more responsive to some signals than others at different times (Gilad 2012).

Having a reputation requires having an audience. But much of what defines the day-to-day workings of an agency, while not for public display or judgment, can influence regulatory decisions. As in organizations of many types, employees of regulatory agencies develop distinctive beliefs about their jobs, patterns of conducting their work, and shared expectations about how they relate to the agency as a whole. Scholars have variously labeled the collection

of these items as an organization's "culture" (DiIulio 1994, 283), "sense of mission" (Wilson 1989, 95), "moral factor" (Barnard 1938, 72), or "essence" (Halperin 1974, 28). Particularly when an organization's goals are vague – as is often the case with regulatory agencies – its members develop distinctive ways of pursuing their work and understanding internal relationships (Wilson 1989), often with reference to their interpretation of how the agency is meant to serve the public. Far from being on "autopilot," agency officials act purposefully to conform to the mores of their colleagues and the agency as a whole (DiIulio 1994). A strong sense of culture in an agency can yield regulatory behavior that is consistent and cohesive (Kaufman 1960), although it may also make organizations resistant to taking on new and different tasks (Wilson 1989). Conversely, when subdivisions within an agency develop their own distinct cultures, conflicts between them can lead to dysfunction.

Finally, regulatory outcomes will depend on the personality and temperament of executives and staff. Agency leaders who favor negotiation and compromise will make different decisions than those who see themselves as advocates for a particular executive branch agenda or those who value their own personal autonomy in making choices and acting decisively (Wilson 1989).

As this section has demonstrated, the literature on organizations as it relates to regulatory officials offers few particularly strong theoretical directions to guide inquiries into specific regulatory decisions. Assigning causality at the individual level provides little predictive value without a deep understanding of the specific officials involved in any particular regulatory decision. This work does suggest, however, that between the need for "survival," pecuniary motivations, professional norms, the quest for status, and organizational culture, the internal workings of agencies and those they employ should not be overlooked in understanding regulatory outcomes.

3.5 Nation-Specific Factors

One of the criticisms of the economic theories of regulation is that they minimize or ignore the influence of culture, tradition, history, and ideas on regulators. While these aspects may be more difficult to measure or understand than individual or political preferences, an important collection of scholarly work seeks to make them more central to explanations of regulatory behavior.

Under a nation-centric view, industrial history and culture are said to circumscribe both the potential problems and the potential solutions perceived by national regulators (Dobbin 1994; Dyson 1983). Thus when national regulators are faced with new decisions, they are implicitly drawing on policy paradigms that have accrued national endorsement over time: notions of community sovereignty and mistrust of government in the US, or notions of champion firms and club-like regulatory governance in the UK (Dobbin 1994; Moran 2003; Vogel 1978). These same national traditions also help to constitute the repertoire of regulatory responses that firms perceive (Dobbin and Sutton 1998; Hancher and Moran 1989; North 2005), causing firm behavior to be driven and shaped by subjective national models of policymaking (North 1990). By emphasizing the importance of distinctive national patterns in regulators' approaches to problems, relations with industry, and conceptions of acceptable solutions, the nation-centered view challenges the notion that universal laws of utility maximization, efficiency, and the relative power of interest groups fully constitute policy outcomes.

What derives from "the experience of history, the filter of culture, and the availability of existing resources" (Hancher and Moran 1989, 280) are distinctive national "policy styles" that govern the interaction between the government's problem-solving approach and the relationship between government and other actors in the policy process (J. J. Richardson, Gustafsson, and Jordan 1982, 13). Scholars have discerned a number of measures to distinguish national policy styles from each other, including whether the government policymakers operate consensually or adversarially, with an incrementalist or rationalist

approach, in anticipation of problems or in reaction to them, and along many other dimensions (Hancock 1983; Heidenheimer, Heclo, and Adams 1990; J. J. Richardson 1982; J. J. Richardson, Gustafsson, and Jordan 1982).

A number of scholars have sought to use the national policy style concept as a way of understanding cross-national variations in government regulation of particular industries (Kagan (2003) provides one list of studies). Vogel (1986) found national "regulatory styles" to be a key differentiator between British and American environmental regulations. The case studies presented by Kagan and Axelrad (2000) contrast the adversarial American style against the styles of a number of other nations by focusing on the experiences of multinational corporations operating in regulated industries such as chemicals and manufacturing. In each case, the national policy style is found to be a central differentiator in how regulation is created and in how firms respond to it. Generalizing, American regulatory style is said to be adversarial, with policymaking processes that provide ample opportunity for interest group participation but also breed suspicion and result in litigious, contentious relationships between regulators and regulated industries. Regulators in Europe and those operating under parliamentary forms of government are said to have a more consensual style, cooperating more closely with businesses which themselves tend to be less mistrustful of government bureaucrats (Kagan 2003; Vogel 1986; Wilson 1989).

Related to the nation-centric and policy styles approaches to regulation is the notion of the "power of ideas" in shaping national regulatory strategies (Baldwin, Cave, and Lodge 2012, 49). Ideas-based approaches focus on the role of the intellectual climate and the influence of experts in the policy process. When the intellectual or expert classes seize on new ideas – deregulation or environmental conservation, for example – the spread of these ideas fuses with the state's latent administrative and political biases to produce state-specific policy outcomes (Derthick and Quirk 1985; Hall 1989; Wilson 1980). Thus ideas and institutions serve in mutually reinforcing roles, with the diffusion of ideas providing some explanation for change in both the structure and output of institutions (Hall 1993).

The point of ideas-based arguments is not that intellectual paradigms are nation-specific, but that their interpretations can be. Policymaking in the European Union is particularly ripe for isomorphism and idea diffusion given the harmonized legal standards across Member States. Indeed, regulatory agencies have sought to emulate each other where they have found their neighboring counterparts to be successful (Gilardi 2002; Gilardi 2005). These dynamics have been further reinforced by the creation of regulators' groups, which foster the "cross-national fertilisation of ideas" between regulators in the same sector (Thatcher 2002a, 137). Thus idea dissemination is not the limited province of think tanks and academics that manage to infiltrate the policy process (Derthick and Quirk 1985), but may further rely on the intellectual exchange between regulators.

In a cross-country qualitative comparison such as this thesis, it would be difficult to ignore the influence of culture, tradition, and history on the specific regulatory decisions of interest. The questions that nation-specific regulatory theories raise for traffic management concern how the American and British regulators and firms filter their choices through these lenses, whether conventional notions about each country's regulatory style hold true in the case of net neutrality, and whether any particular ideas found institutional settings receptive enough to powerfully shape regulatory outcomes.

3.6 Conclusion

While the ideas behind the public interest theory clearly continue to influence scholarly thinking about regulation, and about net neutrality in particular, more recent work on regulatory theory has broadened and diversified in many different directions, some of which are in conflict with each other. Taking an interdisciplinary view requires considering and combining ideas from fields where the units of study, assumptions, methods, and solution spaces are at odds. This makes the development of meaningful hypotheses and generalizable findings in a specific case (such as traffic management regulation) uncomfortable at times. If there is one overarching lesson from surveying such a diverse corpus of work, it is that no

single discipline or perspective has thus far successfully captured the nuance and complexity of regulation to the point of offering predictive power across a sizable range of agencies or industry sectors, let alone countries.

What is notable about the array of theories surveyed here is the extent to which they are interrelated. Institutional design choices clearly affect (and may be affected by) how external forces are brought to bear on regulatory agencies. The same could be said for national traditions and history, which may not only create path dependency in choices about how regulators relate to the rest of government, but may also influence the types of individuals that pursue work as regulatory officials, which in turn influences internal regulatory culture. Teasing these aspects apart to find causality between any particular factor and a specific regulatory outcome is a complex process.

With those difficulties in mind – and recognizing that observable facts about the relationships and inner workings that comprise telecommunications regulation in the US and UK were limited at the launch of this study – a simple hypothesis was crafted about the relationship between each country's institutional setting and its traffic management outcomes (the substance of Research Question 2). It focuses on a single type of institutional factor:

> Question 2: How does the institutional setting – the formal and informal constraints that comprise the regulatory environment – influence traffic management outcomes?
>
> Hypothesis 2: National regulatory styles are a key determinant of traffic management outcomes. Consensual regulatory regimes are more likely to produce regulatory outcomes that do little to constrain network operator behavior; adversarial regulatory regimes are more likely to restrain network operators from discriminating for traffic management purposes.

This simple hypothesis does not capture the complexity of regulatory arenas, but instead focuses on one of the most plausible differences between the US and the UK: regulatory style. Acting according to the UK's traditional regulatory logic of negotiation, Ofcom's reticence to regulate traffic management practices may be influenced by close relations to the broadband industry. By contrast, the adversarial nature of US regulation may help to explain both the FCC's willingness to act and the seemingly endless debate about the agency's

authority. These differences may relate to particular institutional design choices while also relating to the broader logic at play in each nation's approach to regulation of the economy. The hypothesis does not foreclose explanations based on institutional design choices, but focuses on how those choices are manifest in the relationship between industry and the regulators.

Compared to national regulatory styles, the application of the external forces and internal characteristics theories to the observable facts in the US and the UK was much less clear at the launch of this study. Similar interests with similar agendas were affected in both countries, but the regulatory outcomes were obviously different. Agreement about the effects of judicial review was far from clear. Generalizing across both countries on the basis of primarily US-based theories concerning the influence of legislatures and the executive seemed imprudent given the differences in the two countries' political systems. Internal characteristics were viewed as fruitful potential explanations for the observed results, but theories based on the motivations or personalities of agency personnel offered little predictive value or means to shape the research inquiry.

Following the discussion of research methodology in Chapter 4, the second half of this thesis will explore whether the two hypotheses put forth provide explanations for the realities of traffic management decisions in the US and the UK, or whether other perspectives that have been discussed in the last two chapters better elucidate the experiences of the two countries.