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Uncertainty, ideas, and institutional reform

Abstract

It has become broadly accepted that causal ideas affect institutional reforms. Now the key question is why such ideas matter. In the literature on ideas, uncertainty is presented as an important precondition for the impact of ideas. This article develops the argument that uncertainty makes causal ideas matter, because the ideas help decision-makers manage uncertainty by linking problems to solutions. The more uncertainty about what is at stake and the consequences of different choices decision-makers face when deciding on institutional reforms, the more causal ideas shape their choices of new institutional models. The hypothesis is probed in a cross-sectoral (telecommunications and electricity) and cross-national (Great Britain and Germany) analysis of liberalization reforms from 1980 to 2000. The analysis provides some support for the hypothesis, but also calls for its further development.

Mads Leth Felsager Jakobsen

Introduction

There is a consensus in the contemporary literature on ideas and institutional change that causal ideas matter for institutional reforms (Béland and Cox, 2011; Campbell, 2004; Hall, 1997). Yet, the causal mechanisms that links causal ideas with the choice of new institutional models are still poorly understood (Metha, 2011: 25; Jacobs, 2009; Campbell, 2002: 29). The 'why ideas matter' question is thus an important challenge for the literature.

It is also well-recognized in both the rationalist (Vis and Kersbergen, 2013; Goldstein and Keohane, 1993) and constructivist (Hall, 2005: 134; Blyth, 2002) camps of ideational theory that uncertainty conditions the impact of causal ideas on institutional change. This has also been documented in empirical analyses of utility reforms (Bartle, 2002: 11), welfare state reforms (Jacobs, 2009), and reforms of central bank systems (McNamara, 2002). This article contributes to the literature by developing and probing the argument that the way decision-makers use causal ideas to make choices in uncertain situations is a mechanism, which links causal ideas with institutional reform.

In choice situations with high uncertainty about what is at stake and about the likely consequences of choosing different institutional models, causal ideas help actors make choices by connecting problems to solutions. Causal ideas are specified as policy programs, which are configurations of ideas that for a given policy area link problems to solutions in the form of institutional models. The argument leads to the hypothesis that policy programs matter more for institutional reform, the more uncertainty decision-makers face.

The hypothesis is probed on the liberalization reforms of the electricity and telecommunication sectors in Germany and the United Kingdom in the 1980s and 1990s. Liberalization within

utility sectors is a process of market creation based on the opening of monopoly markets, privatization of publicly owned companies, and the establishment of independent regulatory agencies (Levi-Faur, 2004: 8). The reforms in the two sectors and countries are well-suited for an empirical test of the hypothesis, because they happened under different levels of uncertainty. While liberalization of electricity in the United Kingdom for instance had no past precedent and happened without a strong pressure from economic globalization and EU regulation, the latter was very much the case for telecommunications in Germany. The context though created a much lower level of uncertainty in the German case.

The paper is structured the following way. First, the theoretical argument is presented, which is then followed by a section on methodology and design. Subsequently, the reforms in Germany and Great Britain are analyzed. The article ends with a conclusion.

Theoretical Argument

Causal ideas are collectively shared 'beliefs about cause-effect relationships' (Goldstein and Keohane, 1993: 10). If a configuration of causal ideas both defines and links a problem to possible solutions, it constitutes a policy program (Campbell 2004: 98). A policy program can for instance single out national competitiveness as the main challenge from globalization, and point to an institutional model such as the establishment of national industrial champions as the best solution. An institutional model is a model for the overall setup of a policy sector typically along dimensions such as regulation (e.g. independent or non-independent regulatory agencies) and ownership (e.g. public or private).

Policy programs do, however, not exist in a vacuum. They interact with and shape the interests of decision-makers. Decision-makers like political parties have basic interests such as

votes, office, and policy (Strøm and Müller, 1999), and they specify these interests when they connect to specific institutional models. For instance, some parties would see liberalization to be in their best interest, because they believe it would increase their chances of gaining office. How actors then specify their basic interests depends on the level of uncertainty.

Uncertainty

Uncertainty is an ambiguous concept in the social sciences (see Rathbun, 2007). Still, a somewhat common definition of uncertainty has taken hold within the literature of ideas (Vis and Kersbergen, 2013; Blyth, 2002; Beckert, 1999; Beckert, 1996). Uncertainty is an attribute of :‘... situations in which intentionally rational actors cannot deduce strategies from their preference rankings, because the complexity of the situation and the informational constraints do not allow them to assign probabilities to the possible consequences of choices’ (Beckert, 1996: 804).

Uncertainty though arises when decision-makers cannot get the necessary signals from the environment or from prior knowledge to specify their basic interests in specific institutional models. The decision-makers hence have no relevant prior knowledge nor can they acquire such knowledge fast and easily. An example is a situation where the monopoly model of an industry has been undermined but the government has no experience with other models, and there are no clear indications from other countries, sectors or financial markets about the consequences of choosing different institutional models.

Uncertainty, thus defined, is an objective phenomenon that can differ from the perceived uncertainty of the decision-makers (McMullen and Shepherd, 2006). Decision-makers can perceive a lower level of uncertainty than they actually face, because a policy program make them believe in a cause-effect relationship that does not exist.

Uncertainty is often contrasted with risk (Blyth, 2002: 30-34; North, 1990: 126). With risk decision-makers do not know with certainty the outcome of choosing an institutional model, but they know the probability of the different possible outcomes (North, 1990: 126). For instance, there could be no certain outcome of liberalization, but a positive outcome is known to be much more likely than a negative outcome. In choice situations characterized by risk the actors must receive adequate signals from the context to reliably estimate the probabilities of the different outcomes of the possible institutional models.

Risk and uncertainty are often argued to be qualitatively different phenomena (Blyth, 2011: 88). However, risk is also an endpoint on an uncertainty continuum. At the high end of the continuum, actors in novel situations receive no relevant signals on the likely outcomes of choosing different institutional models. At the low end of the continuum, actors receive unambiguous and strong signals about the outcomes of different institutional models. Between the two endpoints, decision-makers receive some but not adequate signals from the context to reliably estimate the possible outcomes. If a decision-maker moves from the high end to the low end of the continuum, he receives more and better signals on the likely outcomes and their probabilities.

Structures and institutions determine the location on the uncertainty continuum. Structures are material factors that (at least in the short term) are exogenous to the decision-makers. They include factors like technology, patterns of trade and finance, consumer-preferences, and demographics. Structures reduce uncertainty when they provide unambiguous and strong signals that indicate the likely outcomes of different developments and choices (North, 1990: 22). This could for instance be changes like economic globalization, where a choice not to liberalize a utility

sector is punished by capital markets. Institutions reduce uncertainty, because they regulate behavior. They limit the set of problems and solutions actors have to confront. In other words, they reduce the choice set of actors (Hinich and Munger, 1997: 67-69; North, 1990: 6). By way of example, EU regulation prohibits some institutional models like the monopoly organization of utility sectors and demands these sectors to be opened for international competition. But when the context does not provide unambiguous and strong signals, policy programs become important.

Policy Programs and the Specification of Interests

Actors use policy programs to interpret what signals reveal about the outcomes of different institutional models. If the signals are not very strong and unambiguous, they do not remove all of the possible interpretations – policy programs – of the choice situation.

The process of updating policy programs can be conceptualized as a form of Bayesian updating (Meseguer, 2005; Chalmers, 1999: 175-177). If a policy program predicts that liberalization quite likely has a negative outcome, it would be challenged by observing a case of successful liberalization. The decision-maker would start to question the policy program (but not necessarily discard it) and place more confidence in programs more compatible with a case of successful liberalization. Further signals about successful liberalizations – or unsuccessful non-liberalizations – could lead to the adoption of this new policy program. With very strong and unambiguous signals a process of Bayesian updating would lead to convergence around one policy program (Meseguer, 2005: 74).

The low endpoint of the uncertainty continuum allows for the specification of interests solely based on the structural and institutional context. Much rational choice theory assumes to analyse situations of risk and not uncertainty and hence deduce interests from the context

(Katznelson and Weingast, 2005: 3-4; Beckert, 1996: 805). Policy programs do not influence decision-making in such situations, as the programs merely reflect the structural and institutional context.¹

At the high endpoint of the uncertainty continuum such updating is, however, not possible. The actors receive no relevant signals from the context that allows for a fast and certain update of policy programs. Many policy programs are thus possible. Actors then use policy programs to manage the uncertainty and specify their interests. By adhering to policy programs, the decision-makers can specify their interests in different institutional models even in situations with high or moderate uncertainty (Blyth, 2002: 32). And these policy programs cannot be reduced to signals from the environment.

The policy programs hence become important in themselves, but not beyond the constraints set by the structural and institutional context. This very much follows the argument of Vis and Kersbergen (2013) that policy programs (causal ideas) exert independent influence on change within a room set by objective structural and institutional constraints. That causal ideas increasingly matter – the less clear the structural signals – is also a well-known argument within the social sciences more generally (Goldgeier and Tetlock, 2001: 79; Powell and DiMaggio, 1991). This argument is now to be theorized in relation to the process of institutional reform.

Institutional reform and the impact of policy programs

An institutional regime is the constellation of an institutional model that regulates who is involved in a given policy area, and a supporting policy program that gives reason to an institutional model (Baumgartner and Jones, 1993: 37-38; Eisner, 2000: 1). A supporting policy program consists of

causal ideas that specify the current institutional setup as the best solution to the main problems within the policy area.

A process of institutional reform consists of two phases: Destabilization, where the existing regime is undermined, and institutional choice, where a new institutional model is chosen and a new regime established (Aoki, 2001: 243; Culpepper, 2008). Destabilization happens when members in the coalition supporting the existing regime, begin to question its viability. The regime and its institutional model are hence no longer taken for granted (Culpepper, 2005: 197-198). Destabilization can be caused by external changes in the structural and institutional context, which undermines the benefits produced by the existing model (Peltzman, 1997), or by the de-legitimation of the policy program supporting the existing regime (Baumgartner and Jones, 1993). The actors then need to consider new possible institutional models (Walsh, 2006: 493-495). With the 'taken for grantedness' of the old regime gone, the decision-makers, however, have a weak repertoire of institutional models with well-known consequences they can use to specify their interests. Hence, they need new signals from the context in order to specify their interests in the new situation (Aoki, 2001: 241).

Without strong and unambiguous signals from the context, policy programs then become important factors in their own right in the subsequent phase of institutional choice. The actors need help to specify their interests. What is the problem? What are the possible solutions? Ideational entrepreneurs can then promote policy programs in order to persuade key decision-makers to specify their basic interests in a new way. This might lead to a struggle between proponents of different policy programs. Policy programs will, however, only survive and shape the choice of a new institutional model, if a strong coalition can be formed around the program (Walsh, 2006:

491; Hall, 1989: 374-375). Key decision-makers are actors who must be included in a coalition to make the choice of a new institutional model viable; typically the dominant political parties and strong sectoral organizations (Hall, 1989: 370-75). The content of reform then reflects the policy programs espoused by these key decision-makers (Jakobsen, 2010).

The stronger and more unambiguous the context, the less uncertainty there is, and the less policy programs though matter. This can be formulated as the hypothesis that the more uncertainty decision-makers face, the more policy programs shape the specification of basic interests and hence the choice of a new institutional model.

Research Design and Methodology

The hypothesis is probed on the liberalization reforms in the telecommunications and electricity sectors in Western Europe in the 1980s and 1990s. Liberalization is broadly defined as 'the promotion of a market economy' (Levi-Faur, 2004: 8). In network industries like electricity and telecommunications, the concept has a specific meaning (Ilzkovitz *et al.*, 1999). The networks – electricity grids and communication cables – are natural monopolies. Full competition on the networks is not possible. Furthermore, they are bottlenecks that communication and electricity must pass in order to reach the consumers (Baldwin and Cave, 1999: 214; Mitnick, 1980: 293). Creating more market thus requires the establishment of a system of regulation and ownership that secures equal access to the network for all actors. Liberalization in electricity and telecommunications consequently has three dimensions:

- (1) Opening of markets combined with (a) separation of commercial and network activities, and (b) impartial network access. Network and market activities are separated

within or most preferably between companies, and the network can be accessed based on regulated negotiations or prices (Klein, 1998: 51-52).

- (2) Privatization of commercial actors. With government ownership of companies with market activities, regulatory authorities will have incentives to preferential treatment of these companies.
- (3) The establishment of independent regulatory agencies. To shield regulation from the undue influence of commercial actors that seek preferential treatment either based on public ownership or just due to regular rent seeking behavior.

Measuring the impact of policy programs

To probe the hypothesis, it is necessary to assess the degree to which policy programs matter in comparable situations of institutional choice with different levels of uncertainty. Otherwise it is not possible to show that the programs (1) to different degrees affect behavior, and (2) that they are non-reducible to structural and institutional factors (Metha, 2011: 24). It must be shown that policy programs are neither just part of a spurious relationship nor are unimportant mediating factors between the structural and institutional context and the interests of actors. Unfortunately, there is no well-established method for assessing the impact of policy programs across several cases. Causal stories and detailed process tracing analyses of single cases are preferred and recommended options in the ideational literature (see Yee, 1996). However, they are difficult to employ in comparisons of more than two cases.

This article combines two methods to measure differences in the explanatory power of policy programs. The first method comes from Stolfi (2010: 111-113) who uses comparisons be-

tween actual reform results and theoretically expected reform results given the structural and institutional context to assess the impact of ideas. The difference between the actual result and the theoretically expected result is then (conditionally) attributed to the impact of policy programs. A supplementary condition is the identification of policy programs among the decision-makers that correspond with the actual reform result. Given an external structural and institutional pressure for liberalization in the telecommunications and electricity sectors (see below), this leads to the following empirical expectations shown in table 1.

Insert table 1 about here

The expectations based on structural and institutional pressure is a counterfactual that we should expect to happen, if the context was the sole determinant of reform (Emmenegger, 2011). For instance, in a novel situation with weak and ambiguous signals from the context and hence a high degree of uncertainty, based on the structural and institutional pressure we should only expect a low degree of liberalization, because there was little pressure to make an extensive liberalization. High or moderate degrees of liberalization indicate that policy programs matter.

The second method is a simple form of process tracing. It focuses on the openness of the key actors toward different policy programs in the phase of institutional choice. Openness indicates whether key actors rely on policy programs to specify their interests, or whether their policy programs are primarily a reflection of the structural and institutional context. The more open a phase of institutional choice, the more it includes competing and radically different policy programs among key actors. That is programs which cannot be reduced to the structural and institutional context. The specification of interests is thus not just due to the structural and institutional

context. In relation to liberalization reforms, the phase of institutional choice can be classified the following way:

- Very open: Some policy programs do not prescribe liberalization at all
- Open: All policy programs prescribe at least moderate liberalization
- Narrow: All policy programs prescribe a high level of liberalization.

Together with the counterfactual approach, this approach provides some leverage in determining the relative impact of policy programs in different choice situations.

Choice of cases

We choose cases where monopoly regimes are destabilized – which create uncertainty – but where the structural and institutional context to different degrees reduces this uncertainty. The strength and unambiguity of the context is operationalized as the combined level of globalization and Europeanization in relation to utility sectors in the EU member states.

Globalization is '... sharp increases (...) in trade, production, and capital flows across national borders' (Campbell, 2004: 125). It has been much stronger in telecommunications than in electricity. Telecommunications has had a massive technological development since the 1960s. This has led to rapid growth in the demand for new services and products, which again has created attractive markets for foreign operators and rapid growth in international communication (Thatcher, 1999: 55). Since the late 1990s, international alliances between companies in the sector have also grown substantially (Thatcher, 1999: 76). In electricity, technological developments have been more modest and the growth in demand and production has been relatively stable and predictable (Bartle, 1999: 369-371; Coen and Doyle, 2000: 20; Eising and Jabko, 2001: 744). It has thus

also become broadly acknowledged that globalization has been much weaker in electricity than in telecommunications (Bartle, 1999: 366; Eising, 2002: 96).

The same pattern goes for Europeanization, which is defined as the establishment of regulatory regimes at EU level (Levi-Faur, 2004). Due to supranational and majoritarian decision-making (Hix, 2005: 121-123, 242-243), such regimes can give rise to constraints on the member states' ability to autonomously determine their national policies. In telecommunications, EU regulation required the markets for mobile and trunk telephony opened in respectively 1996 and 1998, the abandonment of national monopolies on communication networks, negotiated access for all firms to the network, and accounting separation within firms holding both network and commercial activities. There was, however, no demand for independent regulatory agencies or for privatization (Eliassen and Sjøvaag, 1999: 7). In electricity, Europeanization was slower and less restrictive. From 1999, electricity companies were required to have accounting separation of their network and monopoly activities. Yet, there was no demand for neutral third party access to the network. The market was only required to be opened by 33% in 2002, and with the opportunity to exclude electricity from green energy sources. There was neither a demand for independent regulatory agencies nor for privatization. Thus, in relation to competition, stronger EU demands were seen in telecommunications than in the electricity sector.

The strength and unambiguity of the structural and institutional context of the electricity and telecommunications sectors in the Western European countries has thus increased in the 1980s and 1990s, but mostly in the telecommunications sector. This temporal and cross-sectoral variation also creates variation in the level of uncertainty. This is illustrated in table 2 below. The early liberalization reforms in UK electricity were made in a weak and unambiguous context,

while the early reforms in UK telecommunications were made in a moderately strong and unambiguous context. So were the reforms in the German electricity sector, while the late reforms in the German telecommunications sector were made in a strong and unambiguous context.

Insert table two about here

Reform capacity is a country's structural potential to go through with reforms (Knill, 2001: 85). By selecting German and British cases, reform capacity varies between countries but not within countries. The UK has a high reform capacity due to its first past the post electoral system, its two party system, its (typical) single party majority governments, and its unitary state structure (Bartle, 2002: 7; Lijphart, 1999: 10-20; Hulsink, 1999: 114). With its coalition governments, its high degree of corporatism, and its federal structure, Germany has a low reform capacity (Schmidt, 2005: 158; Bartle, 2002: 6-7; Knill, 2001: 87-89). The literature on ideas points to reform capacity as a factor that moderates the impact of policy programs although there is no consensus as to whether high or low capacity strengthens or weakens the impact of ideas (Blyth, 2002: 256-258). This potential confounder can be handled through intra-country comparisons.

Empirical Analysis: Utility-Liberalization in the United Kingdom and Germany

Destabilization in the United Kingdom

The starting point for telecommunications and electricity reforms in the UK was different versions of a monopoly model with no competition, with public ownership, and with non-independent regulatory agencies. Telecommunication was hence part of the government administration and the

government was both regulator and monopoly operator (Thatcher, 2004: 759-760). In electricity the model was more decentralized with both national and regional publicly owned monopolies (Böllhoff, 2005: 25). The model was based on a policy program that prescribed public monopoly and ownership as the best way to solve pertinent challenges like security of supply, financing, and natural monopoly. The model was hence supported by both Labour and the Conservative Party (Midttun and Thomas, 1998: 185; Helm, 1993: 411).

Destabilization happened in both sectors in conjunction with the rise of the New Right in the 1980s and in particular the policy priorities of the Thatcher government. Yet, in telecommunications this politically driven destabilization was supplemented by the need for additional funding for investment in new communication technologies, as well as by dissatisfaction in the business community with the price level (Thatcher, 1999: 145-146; Hulsink, 1999: 132; Midttun and Thomas, 1998: 185). In electricity, destabilization was also amongst other things fueled by dissatisfaction with the monopoly status of the regional companies and their alleged tendency to over invest (Helm, 2003; Thomas, 1997: 44-46).

Destabilization in Germany

In Germany there were larger differences between the monopoly models in the telecommunications and electricity sectors than in the UK. Telecommunications was part of the federal postal organization (Bundespost) that was both regulator and monopoly provider of telephony (Thatcher, 2004: 759; Werle, 1999: 111). Electricity had a mixture of public and private ownership within a very decentralized structure. Still, regional and local monopolies protected by an exemption from the competition law were widespread. Much of the regulation was furthermore self-regulation

conducted by the sectoral actors themselves (OECD, 2004a: 129; Eising and Jabko, 2001: 756; Böllhoff, 2005: 28).

In both sectors, destabilization happened in the early to mid-1990s. The growing pressure from the EU for open markets and neutral regulation was an important factor behind this development (Commission, 1987; Eberlein, 2000: 85-86). Yet, in telecommunications there had been national attempts to challenge the monopoly model, which was believed to cause higher prices and inhibit the introduction of new technology, before EU entered the scene (Bartle, 2005: 120; Schmidt, 1991: 211-212). In 1985, this led to the establishment of the so called Witte-Commission that had placed the future organization of the telecommunications sector on the political agenda (Schmidt, 1991: 213).

Counterfactual comparison

In both the British telecommunications and electricity sectors, reforms happened fast. By the early to mid-1990s, the main public operators (except the old nuclear plants in electricity) were privatized and markets were opened for competition in relation to particular consumer groups in both electricity and telecommunications (Böllhoff, 2005; Thatcher, 1999; OECD, 2002: 135; Midttun and Thomas, 1998: 183 OECD, 2004b: 182-184). Although some reforms followed in the late 1990s (OECD, 2004b: 182-184), both sectors were liberalized within the first 10 years after destabilization. This also included the establishment of independent regulatory agencies. That was a high degree of liberalization. The reform results in the two sectors are shown in table 3. Policy programs are indicated to matter if there has been a high degree of liberalization in electricity, where the strength and unambiguity of the context was low, and in telecommunications, where the pressure was moderate. This corresponds to our findings.

Insert table three about here

During the 1990s, the German telecommunications sector was also liberalized to a high degree. The only remaining part of the monopoly model was a share of ownership in Deutsche Telekom which was retained by the government. Markets for telephone services were opened and an independent regulatory agency for the sector was established (OECD, 2004a: 168; Bartle, 2002: 8). In the decade following destabilization, the electricity sector experienced a moderate degree of liberalization. Markets were opened, but there was no introduction of a strong sectoral regulation of network access nor was an independent regulatory agency established. The reforms correspond with the expectations derived from the context. Policy programs seem to have mattered little in both sectors.

In sum, policy programs mattered a lot for telecommunications in the United Kingdom, where there was much uncertainty, and little for telecommunications in Germany, where there was little uncertainty. Electricity had a moderate level of uncertainty in both countries and in the United Kingdom policy programs mattered while this was not the case for Germany. All in all this provides some support for the hypothesis.

Openness of the phase of institutional choice

With the process tracing method, the key task is to determine how broad the ideational agenda has been among the key actors. The broader the agenda, the more it indicates a high impact of policy programs on interest specification.

Telecommunications in the United Kingdom

In the UK, the key actors were the Conservative Party and the Labour party. When the Thatcher government in the early 1980s set out to reform the telecommunications sector, it faced some uncertainty about the outcome of the different reform choices (Bartle, 2002: 11). It was simply not clear for the Conservative government, how to organize and regulate a privatized telecommunications sector (Burton, 1997: 158-159). In the subsequent years, various policy programs were promoted by the key actors. There was a competition program developed by the economists Stephen Littlechild and Michael Beasley who were inspired by the Austrian school (Hulsink, 1999: 122). It recommended a radical liberalization including the privatization and splitting up of British Telecom. The program was espoused by groups within the Conservative party. Another program was a flagship program intended to establish a national flagship company. The vision was to make British Telecom a strong and united industrial motor. It should hence not be split up in order to increase competition. Instead the company was to expand internationally (Bartle, 2005: 173). The program had supporters among some Conservatives but also in the leadership of British Telecom. A third program focused on nationalization. There should be no competition and the government should retain its ownership of British Telecom. The program was supported by the Labour Party. It was argued to secure social justice, an offensive industrial policy, and efficiency, while liberalization was argued to lead to less social justice, to hamper industrial policy, and to decrease efficiency (Hulsink, 1999: 135-139). The process of institutional choice ended with a compromise between the supporters of the competition and flagship programs within the Conservative government.

In the 1990s –when the strength and unambiguity of the context had increased in both sectors – a broader consensus emerged, where Labour came to see liberalization as having both less detrimental effects and also as creating consumer value. However, from the early 1980s to the early 1990s, where the key UK reforms took place, the phase of institutional choice was very open. Labour espoused a policy program with no liberalization, which indicates a strong impact of policy programs. This is shown in table 4 below. We find a very open phase of institutional choice, which partly contradicts the hypothesis. We would expect policy programs to matter less than indicated.

Electricity in the United Kingdom

In the UK electricity sector, uncertainty was more prevalent than in telecommunications when the sector was destabilized in the late 1980s. There were no blue prints for reform ready (Thomas, 1997: 49-50) and liberalization was such a clear break with past practices that there was only theoretical guidance the designers could turn to (Helm, 2003: 44). Three policy programs crystallized that had had some resemblance with the programs in telecommunications. A competition program focused on creating as much competition as possible. In order to further this goal, the regional electricity companies should not be merged into one big company (Helm, 2003: 128-129). This program was espoused by the conservative secretary of energy Nigel Lawson and the same group of economists led by Michael Beasley and Stephen Littlechild which was also involved in telecommunications (Helm, 2003: 59-60).

A flagship program was supported by other conservative ministers who wanted to create a large and dominant electricity company (CEGB), which could act as an industrial motor pulling British industry ahead. This program recommended not to split up the Central Electricity

Generating Board and letting it maintain its monopoly on distribution. Furthermore, the market should not be liberalized for individual consumers (Helm, 2003: 127-130). Finally there was a nationalization program. It was again espoused by the Labour party, but initially also by Margaret Thatcher. In the early 1980s, she viewed government ownership of nuclear power as a key part of a conservative vision for the country (Helm, 1993: 411). Yet, the later nationalization program – at the time when Thatcher had turned away from government ownership – portrayed government ownership and monopoly as a threat to national employment (Helm, 2003: 295). However, as time went by – and the strength and unambiguity of the context grew – Labour also grew less hostile to liberalization of electricity (Helm, 2003: 141-142).

The actual reform choices about opening the market and privatizing the main electricity companies, was the result of a compromise between the proponents of the flagship and the competition program. This led to the establishment and privatization of two electricity companies (Helm, 2003: 127-130). The phase of institutional choice was very open. Key actors like Labour simply argued for no liberalization. This is also shown in table 4 below. The hypothesis predicts that the phase of institutional choice should be very open, which is also the case.

Insert table four about here

Telecommunications in Germany

When the Witte Commission was established in 1985, there were few supporters of liberalization in Germany (Bartle, 2005: 120-121; Thatcher, 2004: 760-761). Opponents were also key actors like

the large Conservative party CDU and the Social Democratic Party SPD. The subsequent development was marked by key actors that over time came to specify their interests towards supporting liberalization (Schmidt, 1991: 219).

Two policy programs materialized. One program was a competition program portraying radical liberalization as the solution to problems with economic competitiveness. The ministry of economics strongly supported the program. The other program was a flagship program supported by the Social Democratic Party, which until the late 1980s had been against liberalization (Schmidt, 1991: 214; 1996: 49). The Postal Ministry and the Federal Treasury also focused on giving the large operator Deutsche Telekom a strong position on the national market in order to promote its competitiveness and increase the revenue from a future privatization (Bartle, 2005: 123). The driving force behind the flagship program was still stronger signals from the structural context on the need for liberalization in order to make Deutsche Telekom competitive (Schmidt, 1996: 55).

SPD and Deutsche Telekom started to support liberalization in the 1990s (Bulmer et al., 2003: 256; Bartle, 2002: 8-9). Since privatization required a constitutional amendment, the Social Democratic Party assured that initial market openings were kept out of the reform and that political control with Deutsche Telekom was retained (Bartle, 2005: 123; Schmidt, 1996: 59). The two policy programs were closely connected to the actors' new perception of the technological, economic, and political changes.

The recognition that Germany needed at least some liberalization is in accordance with the signals that international markets and the EU sent to German decision-makers. The key actors only used flagship and competition programs to specify their interests. All policy programs among key actors in the phase of choice, thus prescribed a high level of liberalization. Contrary to

Labour, SPD did not argue for renationalization. It was hence a narrow phase of institutional choice corresponding with the hypothesis, which predicts little impact of policy programs.

Electricity in Germany

Before the destabilization in the mid-1990s, the key actors in the German electricity sector were not supporters of liberalization. Even the Ministry of Economics, which later became an active proponent of liberalization, argued in 1991 that there was no need for liberalization (Eising and Jabko, 2001: 756). Yet, when EU demands destabilized the sector in the early 1990s, three different policy programs developed among the key actors. One program was a competition program developed by the Ministry of Economics, which was led by the FDP minister Günter Rexrodt (Bartle, 2005: 125). It was supported by business and over time also by the large German electricity companies (Bartle, 2002: 9; 2005: 126). Still, the program was not enacted due to internal resistance in the government (Eising and Jabko, 2001: 760). There was also a version of a flagship program. It was supported by municipalities with large shares of ownership in electricity companies who wanted to protect the decentralized values of the existing system.

Finally there was an environmental competition program. The Social Democratic Party and The Green Party were originally focused on the environment, which they linked with skepticism to liberalization (Lauber and Mez, 2004; Eising and Jabko, 2001: 760). Yet, after destabilization and their coming to power in 1998, the two parties joined the principles of reform (Lauber and Mez, 2004). They started to see the sector with the spectacles of ecological modernization. Environmental protection and liberalization were seen as compatible (Lauber and Mez, 2004). Still, reforms were difficult in Germany. Consumer groups and the EU Commission argued for the estab-

lishment of an independent regulatory authority for the sector and regulated access to the network (Böllhoff, 2002: 246). Yet, the electricity companies resisted and not until it was demanded by the EU in 2003 was such regulation passed and an independent regulatory authority established.

The process of reform was an open phase of institutional choice characterized by competition, flagship, and environmental programs. Yet it was open – and not very open – since the environmental program only prescribed moderate liberalization. This is in accordance with the hypothesis which expects a moderate impact of policy programs in a case with a context of moderate strength and unambiguity in the process for liberalization.

Conclusion

The empirical probing of the hypothesis that the impact of policy programs increases with the level of uncertainty has been based on liberalization reforms in the British and German electricity and telecommunications sectors. Based on two methods, the main tendency supported the hypothesis. Policy programs seem generally to have mattered more for reform in the cases with high uncertainty like electricity liberalization in the UK than in cases with low uncertainty like the liberalization of telecommunications in Germany. Still some cases like liberalization in the UK telecommunications sector did not correspond precisely with the point predictions derived from the hypothesis. The hypothesis that policy programs matter for institutional reforms the higher the uncertainty can thus not be refuted based on this tentative probing. This result should furthermore have broader applicability as the probe is based on policy areas with actors with strong material interests – making it a difficult case to show the impact of ideas – and countries with markedly different political systems.

The article has only probed the hypothesis, and although it methodologically reflects the state of the literature, it has some methodological limitations that must be noted. It is based on a comparative design with only four cases providing a rather weak basis for providing inferences about relationships in a probabilistic world. Furthermore, the counter-factual and the process tracing approaches are not fine grained and precise measures of the impact of ideas, but only broad indicators of the impact of ideas. There is hence a need for further empirical examinations of the relationship and development of our methodologies to do this.

Still, the article has demonstrated that it can be fruitful to focus on uncertainty management as a mechanism whereby causal ideas affect institutional reform. It thereby contributes to the literature on ideas and institutional reform by theorizing and probing a key issue within the literature namely the relationship between external objective factors and internal subjective understandings. As Sheri Berman argued in a recent review of the literature (2013), ideational theory has so far not fully fulfilled its potential in terms of analyzing this relationship. This article provides an element to this quest by showing the importance of uncertainty management as a link between objective and subjective factors. Another contribution of the article is that it shows that ideational theory should have a strong focus on the scope conditions – like the level of uncertainty – for the impact of causal ideas on institutional reform.

Notes

¹ One important limitation for such matching of policy programs to the structural and institutional context is belief perseverance. Actors stick to long held programs despite receiving signals that strongly contradict these policy programs (Rathbun, 2007: 548; North, 1990). Yet, in situations where external shocks undermine the existing policy programs, belief perseverance should have limited effect on the subsequent process of updating.

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Table 1. Expectations to the Degree of Liberalization with the Counterfactual Method

	Uncertainty		
	Low (well-known situation with strong and unambiguous context)	Moderate	High (novel situation with weak and ambiguous context)
Predictions based on structural and institutional pressure	High liberalization	Moderate liberalization	Low liberalization
Policy programs matter if	Low or moderate liberalization	Low or high liberalization	High or moderate liberalization

Table 2. Institutional Choices in relation to the strength and unambiguity of the context and Reform Capacity

		Uncertainty		
		Low (well-known situation with strong and unambiguous context)	Moderate	High (novel situation with weak and ambiguous context)
Reform capacity	High		United Kingdom Telecommunications	United Kingdom Electricity
	Low	Germany Telecommunications	Germany Electricity	

Table 3. Degree of liberalization

		Uncertainty		
		Low (well-known situation with strong and unambiguous context)	Moderate	High (novel situation with weak and am- biguous context)
Reform capacity	High		High degree of liberalization Open market, IRA, and almost complete privatization (UK Telecommunications)	High degree of liberalization Open market, IRA, and full privatization (UK Electricity)
	Low	High degree of liberalization Open market, IRA, and partial privatization (GER Telecommunications)	Moderate degree of liberalization Partially open market, no IRA, and partial privatization (GER Electricity)	

Table 4. Openness of choice phase

		Uncertainty		
		Low (well-known situation with strong and unambiguous context)	Moderate	High (novel situation with weak and ambiguous context)
Reform capacity	High		Very open choice phase Programs on competition, flagships, and nationalization (UK Telecommunications)	Very open choice phase Programs on competition, flagships, and nationalization (UK Electricity)
	Low	Narrow choice phase Programs on flagships and competition (GER Telecommunications)	Open choice phase Programs on competition, flagship, and green environmental (GER Electricity)	