Regulating and deregulating the public utilities 1830–2010

Judith Clifton, Dr.
In recent years, path-breaking studies which map out the evolution of the regulatory frameworks which have governed public utilities over the nineteenth and twentieth centuries have been produced by business and economic historians. Of particular importance is the volume by William J. Hausman, Peter Hertner and Mira Wilkins (2008), which focuses on the financing of the electrification process around the world from the 1870s to the present, and that by Robert Millward (2005), which analyses regulation of energy, telecommunications and transport in Western Europe from the 1830s to the 1990s. These studies coincide in their argument that utility regulation has taken many diverse forms in different geopolitical, economic and sectoral contexts, but that it is of intrinsic interest to other business and economic historians to attempt to gauge overall patterns of utility regulation over time, wherever possible. Both studies argue that utility regulation can be organized, generally speaking, into three successive “waves”, whilst also recognizing that many alternative paths to utility organization and regulation were pursued simultaneously. In general terms, they argue that a “first wave” can be identified, particularly when infrastructure is initially constructed, where the high amount of investment required in sectors such as electricity, telecommunications and railways, as well as perceptions of great risk, made private alliances of entrepreneurs and families with banks and holdings essential as financiers. The state was involved in its capacity of adjudicating and granting rights of way, as well as regulating prices and service quality (Millward, 2005). Nevertheless, on occasions, the state acted as
financier, especially when there were shortages, as in the case of the railways in France and Scandinavia, but also for strategic reasons, such as in Belgium (Millward, 2005: 59).

The following “wave” of infrastructure regulation occurred gradually, from the end of the nineteenth century, being consolidated from the interwar period, and was characterized by the growing role of the state in infrastructure finance, management and, often, ownership. During this period, regional and national networks were becoming technologically possible and, as new nation states were emerging, the importance of national security questions intensified (Millward, 2005: 91). Focusing on electricity, Hausman, Hertner and Wilkins (2008: 31) provide impressive quantitative data on ownership to show a process of what they call “domestication” rather than the more commonly used “nationalization” for this period, since, though the state did not always assume ownership in all countries, the role of international finance in infrastructure was substantially reduced world-wide. At the same time, the state increased its involvement in utility regulation. Then, just as this stage was nearing completion, during the 1970s, the third wave began, which bore much in common with the first wave as regards the increased role of the domestic and foreign private sector and of market forces. One fascinating difference though, comparing the first and third stages is that, now, it was the public utility enterprises themselves who were the protagonists of this development. The upshot of this was that a significant number of former utility monopolies – particularly those based in the European Union - emerged in a short time span to become some of the world’s largest Multinational Corporations (Clifton, Comín and Díaz-Fuentes, 2007). These three waves of infrastructure regulation clearly reflect broader changes in the world economy and economic policy, whereby ideas, ideologies and policy-makers assign different weights to the participation of the
state and the market in governance (Toninelli, 2000). In the contemporary period, we are still in the third, market-driven phase, though there is by now substantial evidence that all is not perfect. During this period, there have been important cases of successes in infrastructure reform, but also instances of privatization and regulatory failures and reversals, as well as issues of under-investment in infrastructure around the world due to cream-skimming, particularly affecting developing regions (UNCTAD, 2008). Moreover, in the context of the financial and economic crisis, policy-makers in the United States and Europe have called for more investment and better regulation of infrastructure as part of a possible exit strategy.

The central argument we wish to make here, in the light of this mixed evidence during this third wave, is that history can provide invaluable insights into important issues of utility regulation, and provide lessons towards future debates, but that history was sidelined or marginalized when economists and policy-makers enthusiastically embraced the question of how to reform the utilities from the 1970s. Each of the papers included in this special issue of Business History reflects this same argument, in different ways. Utility regulation from the 1970s tended to be founded on assumptions or ideologies which directly countered those underpinning regulation in the previous phase. In particular, proponents of reform in the third phase tended to argue that the foundations structuring previous regulation were increasingly irrelevant and obsolete. More recently, there has been recognition that the dismissal of previous concerns about the special role of utilities in society and the economy went too far, and there has been some back-tracking or reconsideration of the issues, as shall be discussed. Before turning to the discussion of the papers, the main tenets underpinning, and some of the practical experience of, the second and third waves of regulation are discussed.
From the end of the nineteenth century, the state’s role gradually increased in the management and ownership of utilities. This intervention was justified by a complex mix of economic, military, political and social arguments. Firstly, from the economic perspective, utilities were understood as exhibiting particular features such as market failures (particularly due to the problem of the natural monopoly), high sunk costs and network economies. It was therefore sustained that services of this nature should be provided by a single enterprise or organization, such as an electricity central board, at the local or national level. Secondly, from the military perspective, utilities were responsible for providing communication, energy and transportation, all critical services in the defense of the nation. In the context of the aftermath of two, recent, world wars, the vital physical as well as psychological role played by infrastructure in defending the nation were still at the forefront of policy-makers’ minds (Taylor, 2003). Ultimate government control over infrastructure services, whether through ownership and/or regulation, was therefore seen as essential. Thirdly, from the political perspective, a government’s interest in regulating the utilities stemmed from its interests in influencing network development as geopolitical spaces themselves changed. Prior to the construction of modern Nation States, it may have been adequate to provide services provided by utilities on a “club” basis. The lack of connections between networks served to defend providers against competition, but also helped to defend designated areas from attack, by restricting movement across borders or spaces, for example, by blocking easy access to local networks. However, as Nation States came into their own, particularly from the nineteenth century, it became more important to integrate citizens into this national space. State regulation was often aimed at encouraging, or forcing, multiple, individual enterprises to inter-connect across territory to forge a national network. This emerging national network took various forms: in countries such as
France or Spain, emphasis was on imposing a single political centre, where the network hub would be established, whilst the peripheries were like spokes on a wheel, connected to the hub, but less so to each other (Flichy, 1995). In contrast, in federal systems, such as the United States or Germany, several hubs were established across the territory, and linked to their respective peripheries. In addition, state policy on utilities was often connected to their interest in linking the nation to their empire. States thus became managers and, often, owners of large technical systems (Bijker, Hughes and Pinch, 1989). A government was also well positioned to drive network development as rights of way often needed establishing. Finally, socially motivated influences on regulation of public utilities, understood as public services, included governments’ will to shape national redistributive policies. General welfare considerations were prioritized over and above individual benefit, since the latter was associated with fragmenting society and regions, and of being regressive, potentially undermining national and social collective action (Reynolds, 2004). In the case of the utilities, policies included the subsidization of important loss-making utilities with more profitable ones, hence sustaining jobs and services for communities across the whole range of services, as well as cross-subsidization policies, where network take-up and use in lower socio-economic households or in geographical peripheries was facilitated through subsidized prices, extracted from more profitable parts of the service, such as services more usually used by richer segments of society or from the hub (Clifton, Comín and Díaz-Fuentes, 2003). The practical outcome of state intervention in utilities was varied. Despite this, towards the end of the second wave, utilities increasingly came under fire for inefficiency, corruption, poor service quality and sometimes, their generation of enormous losses (Toninelli, 2000). Momentum increased for a new approach to governing utilities, and views on how to do this converged during the 1970s. To sum up, in most countries
around the world, it was held that the state should assume a predominant role in the regulation of utilities, very often as regards ownership, and nearly always, as regards its responsibilities as over-seer. But this approach was soon to change substantially.

With a view to addressing what had been identified as some of the key problems of utility performance in the second wave, proponents of reform stressed that new policies were needed to ensure utilities attained superior performance results, delivered better service quality and choice to users at lower prices (Kessides, 2004). Now, utility regulation would be supported by policies including privatization, liberalization and deregulation. The push to the new policy paradigm was partly fuelled by technological change, which was particularly significant in telecommunications due to convergence and digitalization, relevant in the cases of electricity, gas and transportation, though less so in sectors such as water. Technological change in the telecommunications sector, it was argued, eroded the argument that infrastructure was characterized by natural monopoly and economies of scale, since sunk costs were less significant and the market became more contestable (Bauer, 2010). Indeed, technological change in the telecommunications sector, particularly the increased importance of new customer premise equipment (fax, telex terminals, multiple telephone handsets and so forth) which had no claim to monopoly status, resulted in growing pressure from business groups in the mounting challenge to the telecommunications sector’s continued monopoly privileges (Millward, 2005: 252).

But the change in policy paradigm was also associated with a renewed attention by policy-makers and scholars to particular economic and managerial theories, particularly those influenced by public choice, which held that publicly-owned bureaucracies represented an inevitable obstacle to efficiency due to the incentive problem (Osborne, 1993). To rectify this, services provided by utilities, just as other
industrial goods and services, should be increasingly subject to pressures from competition from the market, even if unbundling policies to separate competitive and non-competitive elements were required, or the government had to find other means of promoting competition in markets that were essentially monopolistic. Whilst government ownership of utilities had been the norm around most of the world, policy recommendations from the international economic institutions now widely recommended the virtues of private ownership. Exposing the former monopolies to private-firm styles of management in a competitive or non-competitive environment was proposed as the solution to improving their efficiency and performance by many international economic organizations, including the World Bank and the OECD (Clifton and Díaz-Fuentes, 2011). The beneficiaries, it was claimed, would ultimately be the consumers, who would obtain a greater choice of services, at a better quality and a lower price. Welfare was understood as an aggregation of individual benefits, rather than as a social outcome. Gradually, the so-called “Washington Consensus” (Williamson, 2004) emerged about this new direction of policy. Arnt Aune (2000) traced the ways in which policies based roughly on neoclassical economic theory were diffused from think tanks and specific universities based in the United States to government departments and the mass media around the world. Stiglitz (2003) later criticized this one-fits-all approach to policy as amounting to an act of faith when he described it as “market fundamentalism”. Others have observed how the push toward deregulation was presented as being “one-way”, meaning that the benefits of deregulation were supposed to be so sure that reversals, in the form of re-nationalizations, contracting back in and re-regulation, were not predicted (Hefetz and Warner 2004). The fact that reversals had been common across the history of utility regulation seemed to have been forgotten (Comín and Díaz-Fuentes, 2005). What is
clear is that the promoters of the reform of utilities adopted an *aspecific* and *ahistorical* approach. Utilities were thought to be just as suitable a candidate for reform as other business from industrial sectors. Previous justifications for utility regulation based on their specificities and complexities had been largely dismissed by those enacting reform from the 1970s onwards, so that the essential roles of utilities in economic, technological, political and social terms were underestimated, or overlooked, whilst an oversimplified vision of the future of policy on utilities was promoted.

Hindsight, provided by over three decades of experience of utility privatization, liberalization and deregulation, accompanied by a growing body of empirical studies on the effects of reform, reveals that the experience of utility reform across different sectors and countries world-wide was mixed. Utilities, it turned out, were much more complex set of objects to reform than had been assumed by proponents of reform in the third wave (OECD, 2002). If utility deregulation was complex in the developed countries, it often proved even more problematic in the developing nations where discontent with utility reform inspired by the Washington Consensus increased dramatically (Checci, Florio and Carrera, 2009). Antonio Estache, a leading World Bank economist specializing in utility reform, stated that “the most dramatic lesson the international infrastructure community may have learned is humility”, recognizing the limits and weaknesses of policy advice from the international organizations to developing countries (Estache, 2006). Admitting the difficulties utility reform was having, the World Bank even began commissioning reports into emerging, or re-emerging problems, such as massive corruption in the privatized utilities (Kenny and Soreide, 2008).

Problems caused by infrastructure reform were multiple and complex. Privatization policies brought in sorely needed investors, but inevitably on an uneven
scale around the world, since the location, sector and related prospects for profit, mattered. In other words, profit-oriented private firms, sometimes in collaboration with governments, cream-skimmed infrastructure projects. So, whilst the sale of former telephone monopolies in both developed and developing regions, such as BT in the United Kingdom and TELMEX in Mexico, blazed the trail of ambitious privatization programs (Clifton, 1999), it proved much more complex to attract inward Foreign Direct Investment into certain utility sectors in poorer regions. Indeed, under-investment into infrastructure was deemed of such importance that the United Nations Conference on Trade and Development (UNCTAD) dedicated its annual World Investment Report to this issue (UNCTAD, 2008). Neither was privatization one-way: in the United Kingdom, where privatization had been early, deep, and rapid, reversals occurred, as in the case of the re-nationalization of British railways. Privatization reversals also occurred across the developing world, for instance, in the water sector (Hall and Lobina, 2008) as well as in the United States, especially when cost-savings failed to materialize, whilst alternatives to privatization grew, such as inter-municipal cooperation and government entrepreneurialism (Warner and Hebdon, 2001).

As regards introducing competition into the utilities, this proved, again, easier in some sectors, such as telecommunications, than in others, such as energy and water. In the context of the European Single Market, concern about the concentration of market power has increased in recent years (Clifton, Díaz-Fuentes and Revuelta, 2010). Stephen Thomas (2003) argued that market integration was leading, instead of to greater competition, to greater concentration, and labelled the remaining energy companies in the European Union the “seven brothers”, though even this irony may have been over-optimistic since only five or six major companies now remain. The policy of unbundling proposed to separate the organization of firms into two constituent parts;
those that could be exposed to competition in some form, and those that could not. Hence, in the case of electricity, generation and supply to final customers could become competitive, but high-voltage transmission and local distribution could not (Gonenc, Maher and Nicoletti, 2001). Another problem was associated with regulation. What was supposed to be “deregulation” actually turned out to be “re-regulation”, in that numerous independent regulatory agencies were established. It was thought initially that these bodies could be transitory, until the industry had been consolidated. Instead, this gave rise to a complex, seemingly permanent, new set of regulatory arrangements (Thatcher and Coen, 2008).

Downplaying - or ignoring - the lessons of history on the complexities of utility regulation came at a cost, most dramatically, during the 2000s, when new forms of terrorism used public utilities to organize (mobile telephony, internet) and attack (postal services, airlines, metros and buses) citizens and organizations around the world. The way in which governments believed their control over utilities had become less important from the 1970s has since been subject to re-examination. In the United States, following September 11, the Committee on Foreign Investment in the United States introduced new restrictions on inward foreign investment into the so-called “strategic sectors”, including communications and transportation infrastructure. In the European Union, similar concerns about identifying and protecting “critical infrastructure” are resurfacing in debates among policy-makers (EC, 2006), whilst France and Germany have introduced new measures at the national level to restrict investment (Clifton and Díaz-Fuentes, 2010). While policy-makers were far from advocating a return to the second wave of utility regulation, there was a generalized perception that proponents of the third wave had gone too far in their claims that utilities could be regulated just as any other sector of the economy. This is the starting point from which the papers in this
special issue can be read. Each paper examines and rethinks utility regulation from a long-term, international perspective, with special emphasis on the Western world. Authors were requested to place emphasis on the historical complexities of utility regulation, in terms of instruments, objectives and results, across sectors and countries, with a view to extract insights and lessons from history for the appropriate regulation of utilities in the future.

*The Special Issue Papers*

Robert Millward, Germà Bel and Jock Given, authors of the first three papers in this special issue, adopt a long-term perspective on how utilities have been regulated with a view to determining what the relative weight political and economic factors played in the different institutional settings. Millward’s paper is comparative, across multiple European countries and sectors; Germà Bel focuses on transport infrastructure in Spain, including road and rail, whilst Given analyses the communications sector in the context of Australia. Interestingly, all three authors coincide that, though the economic characteristics of networks mattered, as did technological change, political influence over regulation was decisive. Millward’s paper can be read as part of his ongoing work to synthetically explain the commonalities and differences in the regulation of the utilities across Western Europe from the middle of the nineteenth century to the present, with the aim of identifying which factors were most influential in shaping regulation (Millward 2005). Focusing on the period 1830-1939, Millward’s paper stresses how a mix of economic, military, political and social factors shaped utility regulation in Western Europe, but asks in particular why state intervention into the utilities was more
intense across Continental Europe than in Britain during this time. His answer is that
Continental Europe consisted of a set of contiguous and often hostile nation states, and
that the perception of the geo-political importance of utilities predominated over
perceptions about their economic characteristics, such as the problem of natural
monopoly. In contrast, in Britain, an island economy with a strong navy and merchant
fleet, disruptions to the communications and trade systems were less of a concern than
in the Continent. Moreover, as a first-mover in shipping, coal, and international
telegraphy, the informal management of utilities was deemed to be sufficient, and
preferable to outright control. Thus, he argues that this heightened concern about the
role of utilities in defense in the Continent explains governments’ more intensive
intervention vis-à-vis their British peer. Meanwhile, the main thrust of state
intervention was qualitatively different: in Britain, the emphasis was on price and
service quality; in contrast, in the Continent, regulation was more related to security
issues.

Continuing with the question of the relative weight of the importance of political
versus economic rationales as the predominant logic driving the design of infrastructure
regulation, Bel argues that the evolution of infrastructure policy in Spain from the
eighteenth century to the present was dominated by political interests, over and above
commercial or other economic interests. The fundamental explanation, he argues, is the
drive to centralize the Spanish mainland with Madrid as its hub. On these grounds,
subsidies were used to sustain this centralizing policy, despite projects lacking at times
solid commercial or economic justifications. A long-term drive to nation-building is
examined for road building during the eighteenth century, and railway construction and
expansion during the nineteenth century. During the twentieth century, motorway
expansion was subsidized to enhance Spain’s radial organization, again, with Madrid at
the centre, repeating the pattern applied to the rail system. Finally, this century, the high-speed train, whose first branch linked Madrid to Seville (home town of former President Filipe González!) cannot be justified by cost-benefit analysis, but rather, by political interests. Bel critiques this policy observing that Spain has the second best high-speed train network in the world after China, though it has a much smaller percentage of users than its French neighbours.

Some of the deepest reform of utilities is found in the communications sector. Jock Given’s paper also seeks to identify the relative weight of economic and political factors driving utility regulation, but does so from the perspective of the individual firm. His paper comparatively explores the establishment, evolution and eventual demise of three communications enterprises in Australia: Pacific Cable, which opened in 1912; Amalgamated Wireless Australasia, which launched wireless telegraphy services in 1927; and AUSSAT, a satellite system established in 1985. In each enterprise, the state participated in significant, but different, ways. Given’s general argument in all cases is that the state got involved in regulation above all for a mix of political and pragmatic reasons. The first two projects were international in reach, and were predominately driven by empire-building ambitions; in particular, improving communications was seen as a critical means of closing the huge distance between Britain, its territories, and Australia. The third project was regional in nature, and was motivated by nation-building objectives. In all three cases, the enterprises were established in order to compete with an incumbent. State participation was crucial in that this was seen as the only way to forge competition. Though, in all three cases, the government insisted that the generation of competition would be a profitable business, reality indicates they were motivated by other policies, such as trying to bring down prices, setting up alternative infrastructures, and making more widely available services. All three enterprises came
Utilities providing electricity have been subject to deep, though complex and sometimes, controversial reform, whilst less has been achieved by policy-makers in the field of water. The next two papers, by William Hausman and John Neufeld, and Martin Chick, respectively, vividly highlight the complex long-term evolution of the political economy of utility regulation in different settings, the United States, and Britain and France. Both papers use this rich historical background in order to contrast how the deregulation and restructuring of utilities from the 1970s was inevitably going to be far from being a “panacea”. Hausman and Neufeld focus on analyzing the organization of the electricity sector from its beginnings to the present in the United States, deploying explanations for regulation based on the economic and technological characteristics of the electricity sector, including the processes of generating and distributing electricity, as well as political features of the country. Against this background, the authors discuss one of the most controversial of deregulatory experiments; that pioneered by the Californian government, which, in retrospect, has been classified by most observers as a “big mistake”. Towards the end of their paper, the authors discuss what went so wrong in the California debacle. They find blame in abuses of market power, corruption and flawed (de)regulation, among other factors. Then, they show the consequences of these occurrences in the way that, from 2001, electricity utility restructuring has been frozen or reconsidered in a total of twenty-nine states; eight have still not embarked on reform, and a total of only eleven states have opted to continue. That deregulation was no panacea is a common thread with Chick’s paper, which analyses the ways in which three concepts, regulation, risk and responsibility, shifted across the twentieth century in
the organization of two utilities, electricity and water, in the United Kingdom. Drawing on his previous work, Chick contrasts the ways in which price and rates of return regulation was computed for nationalized industry and then during the run-up to and aftermath of privatization (Chick, 2007). His discussion is informed by an interest in the socio-economic consequences of such a shift, with the result that by the 1990s, restructuring meant that, whilst prices for electricity to consumers increased, those for industrial users fell, a trend confirmed by Florio (2004). Moreover, increased electricity prices fell harder on the elderly and the poorer whilst increased water prices occurred on a regional basis. Privatization and liberalization caused, or exacerbated, fuel and water poverty, Chick argues. The new regulatory paradigm re-introduced risk and uncertainty into industries that had not really endured these for decades, and inadequate attention was paid to how this new risk would affect prospective sunk investment. Finally, he argues that a new approach was taken as regards responsibility: poverty came to be increasingly dealt with as an outcome (such as the “cold weather payment scheme” for pensioners), rather than through policies seeking redistribution.

From the 1990s onwards, some utilities, many of which were state-owned and run as monopolies for decades, emerged rapidly to occupy leading positions in the ranking of world Multinational Corporations (UNCTAD, 2009). The two final studies in this special issue take up this rather surprising and still under-researched development. European-based utilities are leading the pack around the world, largely, as a consequence of service liberalization in the Single Market. The paper by Clifton, Comín and Díaz-Fuentes seeks to identify whether and how the regulatory framework that governed utilities over the long term could be an important part of the story explaining their internationalization. To do so, they examine the long-term regulatory experience and more internationalization experiences of two large telecommunications firms: BT
and Telefónica. Both are based in large European countries but, whereas BT became one of the least internationalized of all large European telecommunications incumbents, Telefónica became the most internationalized of all. The authors find explanations for the divergent internationalization strategies in historical differences in ownership, management style, capital access and exposure to liberalization. Telefónica was unique in the European context, born a private company and controlled by a foreign Multinational, ITT. Its nationalization was never completed, and its management was closer to that of a private firm than the traditional General Office of Post and Telegraph, and it enjoyed fluid capital access. Finally, despite privatization and liberalization elsewhere, Telefónica’s early acquisitions in Latin America were conducted from its privileged monopoly position, whilst, post liberalization, the firm continued to enjoy a high market share. BT, in contrast, was organized under state ownership early on, and controlled by the public administration from the end of the century. BT was sold as an integrated monopoly in 1984, and the government had to sponsor a rival, Mercury, in their duopoly policy. Liberalization in the UK was well ahead of the European average, and BT was not “pampered” by the government, as incumbents were in some Continental countries. Its strategy to pursue global alliances, rather than Foreign Direct Investment, failed time and time again; then, to protect eroding home markets, BT partially de-internationalised, shrinking, becoming the least international of the major European telecoms operators. The final paper, by Dominique Barjot, also explores the relationship between utility regulation and internationalization over the long term in the case of France. Here, the author asks why this country has produced some of the contemporary world’s most important and successful enterprises from the public works and public utilities sectors, including urban services, such as water, energy, transportation and other infrastructure. The key reason, he argues, lies in the distinct
legal traditions and definitions that existed for centuries which defined public works and
public utilities. This legal tradition allowed for, and actually encouraged, substantial
private sector involvement. In this context, the private sector participated in a variety of
ways, along with the public sector, in different forms, towards the construction,
operation and management of these services. In other words, the French legal system
stimulated the development of “network capitalism” by establishing financial and
managerial systems which allowed for the long-term participation of private capital in
the development of major infrastructure projects. After presenting the historical
evolution of the legal framework governing infrastructure and the role of private capital
therein, he explores the development of four, major Multinational Corporations based in
France: Vinci, Bouygues, Générale des Eaux and Lyonnaise des Eaux. Their dramatic
internationalization particularly from the 1990s was facilitated also by the growing role
of cities in contemporary capitalism. As the CEO of Veolia Environment claimed
recently in an interview, he “dreams of US urban cities” – the growth of huge, complex
urban cities is precisely where utilities can sell their decades of specialist management
experience (Amiel, 2011). Indeed, in the face of greater urbanization, the shift towards
economic growth to the East and the South, depletion of natural resources and issues of
global climate change, new forms of terrorism and war, the sustainable, safe and fair
regulation of utilities constitutes a key, future task for governments and business around
the world. Let us hope the historical idiosyncrasies of infrastructure are not
marginalized in the next wave of their regulation.

Utilities over the Long-Term: A scholarly network
This last section contains a final few words about the scholarly network around utilities over the long-term. From the 1990s, we were working in two, parallel, groups. Judith Clifton was introduced to the World Economic History Conference (WEHC) network by Francisco Comín, who had served previously as General Secretary of the Spanish Economic History Association, and Daniel Díaz-Fuentes, during the 1990s. This group was working together on the privatization and nationalization of public enterprises in the European Union. Towards the end of that decade, they applied to a pre-session of the WEHC to be held in Trois-Rivières, Canada, organised by Pierre Lanthier. In the event, it turned out that the pre-session was held on 11-12 October 2001, just one month after September 11th. In truth, the idea of taking a transatlantic flight was not a very attractive one, especially as Clifton had to travel with her new-born son. Temptation to call everything off was resisted and then finally celebrated due to the excellent organization of the Trois-Rivières pre-session. Not only did Pierre put participants up in the most exquisite of hotels, he also fed us with the best of haute cuisine. Conference attendees included Dominique Barjot, Claude Bellavance, Alain Beltran, Martin Chick, Lina Gálvez, Pierre Mounier-Kuhn, H. Vivian Nelles, Pedro Pablo Ortúñez, Aron Shai, Pier Angelo Toninelli, Nuno Valerio and Warren Young. The result of this most enjoyable pre-session was presented at the WEHC in Buenos Aires in 2002 (Chick and Lanthier, 2004). The expert for this session was Patrick Fridenson, and the time, energy and dedication he paid to our session marked the beginning of a strong academic and intellectual friendship. From this session two special issues were published in scientific journals: firstly, an issue edited by Alain Beltran, Martin Chick and Pierre Lanthier entitled ‘Nationalisations et dénationalisations de l'électricité’ in Annales historiques de l'électricité, no 1, Presses universitaires de France et Victoires éditions, June 2003 and,
secondly, Martin Chick and Pierre Lanthier (eds), ‘Nationalisations et

In parallel, another team was working on the long-term evolution of the process
of electrification around the world, particularly, as regarded the changing ways of how
this had been financed. William Hausman, Peter Hertner and Mira Wilkins organised a
pre-session on that topic in Wittenberg, Germany, and then a session at the WEHC in
2002, followed by several more meetings, including one held in May 2003 on the
invitation of EDF, organized by Dominique Barjot and Peter Hertner, and then in June
2003 panel at the Business History Conference under the organization of William
Hausman. The outcome of these meetings was the important volume Global
Electrification: Multinational Enterprise and International Finance in the History of
Light and Power, 1878–2007 (Hausman, Hertner and Wilkins, 2008) to which
Dominique Barjot, Jonathan Coopersmith, Kenneth E. Jackson, Pierre Lanthier, H. V.
Nelles, John L. Neufeld, Harm Schröter and Luciano Segreto, also contributed.

Because the utilities examined from the perspective of nationalization and
denationalization were emerging as some of the world’s leading Multinational
Corporations from the 2000s, and that this had clear historical precedents, Judith
Clifton, Francisco Comín and Daniel Díaz-Fuentes applied for a session at the WEHC
on the internationalization of utilities. After session acceptance, they held a pre-session
at the University of Cantabria inviting country experts country to analyse this perhaps
surprising development: Lena Andersson-Skog, Sean Barret, Carlos Bastien, Frans
Buelens, Candra S. Chahyadi, Patrick Fridenson, Marina Klinova, Lina Gálvez, Carlos
Marichal, William Megginson, Robert Millward, Ana Bela Nuñes, Tomas Pettersson,
Jesús Salas, Pier Angelo Toninelli, Julien van den Broeck, Michelangelo Vasta, Nuno
Valério and Hans Willem. After the successful pre-session, the main concern was that
Germany was missing from the analysis, so Harm Schröter accepted to step in. At the same time, Schröter was organising his pre-session for WEHC in Milan on the emergence of an European enterprise. This was published as *The European Enterprise: Historical Investigation into a Future Species* (Schröter, 2008). Because work from the other project, on the internationalization of utilities based in the European Union, could be interpreted as leading to a European-based firm, the interest of the two projects converged.

Positive reception of the session on the internationalization of utilities led to the publication of *Transforming Public Enterprises in Europe and North America* (Clifton, Comín and Díaz-Fuentes, eds., 2007) after the WEHC in Helsinki, 2006. In addition, Mira Wilkins kindly recommended Judith Clifton and Daniel Díaz-Fuentes as experts to the preparation of the *World Investment Report*, which was to focus on infrastructure (UNCTAD, 2008). Here, they met Peter Buckley, John Dunning, Hafiz Mirza, Anne Miroux and Rajneesh Narula, among others, and helped towards the establishment of the UNCTAD-academic network where close contact with policy-makers in developing countries helped clarify new, urgent issues, such as under-investment and asymmetrical investment negotiation in infrastructure. Other, new colleagues and friends were made on the basis of common research interests, including Andrea Goldstein, OECD Investment Division, Karl Sauvant, of the Vale Columbia Center on Sustainable International Investment and Louis Brennan, Professor of International Business at Trinity College, Dublin, who is currently managing an important COST project on the rise of multinationals from the south and their impact on Europe.

For the WEHC in Utrecht in 2009, the issue of how utilities had been regulated, or de-regulated, over time became the question under study, particular as it started to become apparent that the new regulatory model for utilities was proving far from
perfect, and more difficult than many policy-makers had thought to apply. Indeed, partly as a result of regulatory failure, the financial and then economic crises made funding complex in order to prepare for the World Congress. The Plan B, the virtual pre-session, had to suffice on this occasion. Meeting at Utrecht in 2009, Patrick Fridenson and Robert Millward, the session’s experts, coincided that the question of regulation and deregulation of utilities was still an open one, and that far more thinking needed to go into future regulatory models, particularly, as regards the environment and the generational question. Thanks for the successful outcome are due, as usual, to many individuals, including the Clifton and Gardner families, who cared for Judith’s children whilst we were working! After the session, over lunch, plans were made to split the papers into two, on the logic of those papers which dealt with one country and a single sector over a shorter time period, and those which dealt either with multiple sectors in one country or one sector across a large country over a considerable time-period. The first batch of papers would be organised into a special issue for *Entreprise et Histoire* (forthcoming); the latter, after an additional open call for papers, to *Business History*, this volume.

Next, following the priorities established in the call for sessions by the WEHC organisers for Stellenbosch, South Africa, our team has an accepted session (number 109) which will focus on questions of international investment in infrastructure and the consequences of that for development based on experiences from the post-war to the present. The ideas for this session were inspired by the experience with the team in the UNCTAD, particularly regarding issues of asymmetry between investors and host countries, problems of under-investment and so on. The call for papers is still open! We encourage you to get in contact with your ideas and abstracts, as we strive to expand, strengthen and improve continuously, our network.
References


http://www.oecd.org/dataoecd/6/60/19635977.pdf


