LIBERALISATION AND PRIVATISATION IN TELECOMS: DOES SEQUENCING MATTER?

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INTRODUCTION

The Issue

The European Union has made 1998 the target year for telecommunications liberalisation and at that time the European market is supposed to enjoy the virtues of full competition.[1] The general opening up of the market as such, is generally expected to contain national liberalisation processes facilitating the creation of an European market for telecommunications services. However, liberalisation includes not only the creation of competition, but consists of two principal components: the privatisation of the incumbent PTO (Public Telecommunications Operator) and product market liberalisation. In Europe, individual nations have chosen very different approaches regarding the status of their PTOs. There are examples of PTOs that remain part of a ministry, state-owned companies that operate under the same legal framework as private firms, or wholly/partly privately owned firms.[2] Other than instructions on the separation of regulatory and operational functions, there are no specific EU guidelines concerning the ownership status of public telecommunications operators – PTOs.[3]

Concordingly, nations have come to open their markets in many different ways, implementing new and different regulatory regimes, interpreting the implementation of competition on their own terms. There are examples of European telecommunications markets and sub markets that remain under monopoly, duopoly and oligopoly, as well as free competition.[4] Although 1998 has been set as the target year for opened telecommunications markets, the actual structure of supply – in terms of privatisation and liberalisation – set to emerge in many markets still remains unclear. Thus there is a choice to be made by policy makers regarding the route to market opening.

Consequently, the timing of various policies can and may be used by policy makers to control and direct the market opening process to their benefit. In particular, individual nations can position themselves visavis other countries. The internal processes can also vary in their duration, and the internal processes can vary in terms of which order – or sequence – privatisation and liberalisation are introduced. Across the world, nation states have chosen very different approaches regarding sequencing of privatisation and liberali-

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1 Tarjanne, P. Official Reference Book ITU, 1994.

2 See Appendix 2 where the ownership of European PTOs is presented.

3 See for instance Europe and the global information society – Recommendations to the European Council, May 1994.

4 OECD Communications Outlook, Paris, 1993 and 1995.

sation.[5] What can be learnt from these examples of telecommunications policy? Should privatisation precede liberalisation, or vice versa?

Purpose

The purpose of this thesis is to explore the importance of time in telecommunications liberalisation and privatisation processes, and in particular the issue of sequencing of privatisation and liberalisation.

The Concepts of Liberalisation, privatisation and market opening

Before continuing this explorative investigation, a number of key terms must be defined. The core concepts in this thesis are liberalisation, privatisation and market opening. Liberalisation is often used interchangeably with deregulation. Deregulation however, suggests the gradual elimination of market restrictions towards a state of workable competition. As will be pointed out further on in this thesis, liberalisation across the world so far shows that liberalisation may very well imply re-regulation, new regulation or changed regulation, instead of the total abolishment of regulation. Consequently, deregulation is less of an appropriate word and instead liberalisation will be used.[6]

The term liberalisation is related to the market structure of the supply of telecommunications services. A liberalisation process is defined as movement from a monopoly with a market totally dominated by one actor (the PTO) towards a market structure with a number of operators, who are competing freely and earnestly for business on a sufficiently level playing field. In addition, entry and exit barriers are not too high. The theoretical endpoint of this continuum being perfect competition.[7] The discussion on competition

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5 In Appendix 1 and 2 some of the differences among countries regarding privatisation and competition are presented.

6 Noam, Eli. Telecommunications in Europe, Oxford University Press, 1992.

7 Thus, the notion of perfect competition will be replaced by the term competition. An alternative would have been contestable market. This term originates in the seminal work by Baumol, WJ, Panzar, JC and Willig, RD, Contestable markets and the theory of industry structure, Harcourt Brace Jovanovich, rev ed 1988, which makes the potential for entry into an industry a centrepiece for their theory on market structure. The government may well introduce monopoly through regulation, but it cannot through regulation or other means create perfect competition, and may even have great difficulty in creating weaker forms of competition. In Scherer, FM & Ross, D. Industrial Market Structure and Economic Performance, Third Edition, Houghton Mifflin Company, Boston, 1990, the term workable competition is used to describe a market with a reasonable degree of competition. In this thesis the term competition should be interpreted in this sense.

relates to the product markets and the asset side of the corporation, where the PTO is engaged in a number of more or less competitive markets at home or abroad.[8]

Privatisation on the other hand relates to the ownership of the PTO, which reflects which actor or actors owns, controls and finances the entity. The most common objectives of privatisation[9] are to (1) improve management and operational efficiency and thereby reduce cost, (2) increase access to, and quality of, basic services as well as provide new services and (3) generate adequate capital for provision of new services, expansion and upgrading of the basic network.[10] Privatisation is defined as a process where the PTO is being transformed from a state owned and state-controlled entity towards a privately owned corporation; controlled and financed by private interests. Privatisation relates to the capital markets and the liability side of the corporation, where the PTO can receive financing from public or private interests or a combination thereof.[11]

In telecommunications like many other state-influenced industries, privatisation has normally been proceeded by corporatisation which can be viewed as a "pre-privatisation" step, where the PTO can find an intermediary plateau in which to get ready for becoming a private firm. Corporatisation is the transformation of the PTO into an entity, semiautonomous from government, which may still be state-owned but controls its own managerial and administrative functions. Corporatisation may help improve the value of a share offering to private investors by enabling the operator to become more efficient and accustomed to functioning more like a company rather than a government bureaucracy. Integrated with the corporatisation process is the separation of the operational and regulatory tasks, which are usually assigned to a separate government body.[12] Sometimes the corporatised entity is established as a fully fledged limited liability firm, which determines its status in contract and labour law. However, that description usually confuses legal detail with the reality of control, which is still very much governmental.[13]

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8 Clarke, T. & Pitelis, C. Introduction: The Political Economy of Privatisation, in The Political Economy of Privatisation, edited by Clarke, T & Pitelis, C. Routledge, 1993.

9 The perceived benefits of telecommunication privatisation may differ between countries. In developing countries privatisation is more likely used to generate funds for management, to pay off debt and to spur network development. In developed countries on the other hand, where universal service has already been assured, privatisation has been associated with the introduction of competition.(World Telecommunications Report, 1994, ITU.)

10 Caby L & Steinfeld C, Trends in the Liberalisation of European Telecommunications – Community Harmonisation and National Divergence, in Telecommunications in Transition, edited by Bauer. J.M, Caby L & Steinfeld C, Sage Publications, Thousand Oaks, California, US, 1994.

11 Clarke, T. & Pitelis, C. Introduction: The Political Economy of Privatisation, in The Political Economy of Privatisation, edited by Clarke, T & Pitelis, C. Routledge, 1993.

12 O Neil, J. Privatisation of Public Telecommunications Operators. Paper presented to ITU Telecom 91 Regulatory Forum, Geneva, October, 1991.

13 Noam E.M. & Kramer R.A , Telecommunications Strategies in the Developed world – A Hundred Flowers Blooming or Old Wine in New Bottles, in Telecommunications in Transition, edited by Bauer. J.M, Caby L & Steinfeld C, Sage Publications, Thousand Oaks, California, US, 1994.

In this thesis the *process of market opening* is regarded as the overall process containing the two main sub-processes: privatisation and liberalisation; that is the decoupling of the state from the PTO in terms of ownership and control, and the introduction of competition to the PTO nationally as well as internationally. Viewed in this way market opening relates to the overall market environment, encompassing both the status of supply (on the product market) and the status of the PTO (on the capital market).

Focus and Delimitations

This thesis is delimited in three ways. First of all, the study is confined to telecommunications, although the issue of sequencing is a general one with relevance for all industries undergoing a similar market opening process as telecommunications. The issue of sequencing will be discussed within the confinements of telecommunications and the sub market of basic networks services, which is the principal domain of traditional PTO activity.

Secondly this study concentrates on developed nations, although the issue of market opening processes and sequencing in this respect is a general one, relevant to most nations. Europe and the current European process is the focus of this study, but where appropriate, the study will be extended to cover other geographical areas in order to shed as much light as possible on the issue under study. The economic performance effects of the outcome of a liberalisation process is a subject of its own that is only briefly touched upon in this thesis.

Thirdly, as will be showed later on the issue of sequencing, there are actually a number of sub processes involved in liberalisation and privatisation; the between country process, the within country process, and process duration. In this thesis, the within country process is the object of study and the international will largely be ignored to limit the scope of this study.

In this thesis both positive findings and normative implications are suggested. The ambition is to avoid promoting one policy over another on ideological grounds, for instance regarding a preference for private rather than public ownership; but to identify the aggregated properties of different market opening processes.

Methodology

This research was initiated from the empirical observation that nations have approached telecommunications liberalisation and privatisation in different ways in terms of which order, or sequence, in which they have implemented their market opening efforts. The subject was approached out of curiosity, noting that most other researchers focused on product market structure and thus had a slightly different perspective, and therefore perhaps did not consider sequencing as an important issue. Due to the limited knowledge of the subject a number of various methods were considered.

As the explorative research effort proceeded and emphasis eventually was put on the processes as such, a longitudinal approach became necessary to allow for the obtainment of a rich, and empirically anchored account of market opening experience set in time. It soon became evident that the understanding of the market opening process as such would be enhanced through comparison between countries. First, the Swedish case was written, then the UK case and lastly, and quite late in the research effort, the New Zealand case was added. Through triangulation the cases were pitted against each other. As more and more countries were added, a weak and unclear pattern of causality emerged. Re-examining the cases a number of time showed that what at first appeared circumstantial and only of intrinsic value, assumed wider meaning and consequence and became instrumental for gaining insight into liberalisation processes in general.[14]

Empirical data have been built up from secondary sources solely for lack of time and resources. One problem with using only secondary sources has been a certain lack of parallelity and richness in the sources used. In addition, new interesting perspectives from actors involved have been forfeited. The rational for the empirical investigation was however not primarily to create "new" empirical input, but rather to relate three fairly well recorded cases from a somewhat different perspective. In particular treating privatisation and liberalisation as two equally important variables. The secondary sources include external and internal documents from the studied companies, national and corporate official and working documents, articles from newspapers and magazines, reports and books; both general and telecommunications specific.

As the understanding of the process grew, the interpretation of these events which resulted in concepts and routes, gradually introduced some dissonance between the related empirical experience at hand and the inductively generated hypotheses and propositions. Rather than surpressing this divergence, the cases were instead augmented in some respects to provide an account as fair as possible to the actual market opening processes and performance developments. Often, but not always, the new empirical input, could eventually be incorporated at the conceptual level as well, and sometimes even reinforced points found earlier or generated altogether new points. Going from the messy reality of practical experience to interpretation and then conceptualisation, some variation and di-

14 In Case Studies, Chapter 14 in Densin, NK & Lincoln, Y.S. Handbook of Qualitative Research, Thousand Oaks, Sage Publications, 1993. Stake discriminates between intrinsic, instrumental and collective case studies. The intrinsic case provides better understanding of a particular case, the incremental case study provides insight into an issue or refinement of theory, where the case is of secondary importance, playing a supportive role.

vergence could in the end not be accounted for. But as the conceptual work matured gaining internal logic on its own, the empirical match of some details were sometimes sacrificed, in order to arrive at a coherent conceptual understanding of market opening processes.

Only later, and gradually, was relevant theory found in the literature which affected and redirected the research process. Theory was chosen and used if it could contribute to the research effort in different ways: firstly, theory provided an important way to learn about the issues under study and of their relation, creating a platform for further inquiry. Secondly, theory also became a source of its own, providing building blocks towards understanding of liberalisation process. Thirdly, thoughts could be continually contrasted and compared with theory for improvement and clarification of the evolving conceptual understanding.

The research effort begun without a clear idea of what methodological assumptions that would govern the study. The emerging conceptual understanding, is a positivistic proposition, derived under the epistemological assumption of objectivism, and should be exposed to further operational and statistical work. The suggested mechanism is causal in its nature, the dependent variable being the aggregated temporary economic performance effects during the liberalisation process. The temporary economic performance effects emanate from the independent variables, the various policy routes and their stages.

The results of this study rest on the ontological assumption of realism according to which the world is external to, and independent from, individual actors (and the researcher).[15] Regarding generalisation, the aim has not been to create one-shot histories that represent historical facts, but to create propositions about reality that replicate themselves in new settings, and thus are general and hold over time, industries and countries. Furthermore, the ambition is that the insights reached in this thesis can be used for predictive purposes about how liberalisation processes work and can become a useful tool for policy makers who are designing national liberalisation policies.[16] The creation of new fragments of theory, derived from a mixture of theoretically and empirically based insights, should provide a tool for analysing sequencing decisions. In addition, the larger the potential for generalisation is, the more useful the presented propositions in this thesis are.

Arguably, the result of this research effort offers face validity, although the validity of this study admittedly is problematic. The principal problem concerns the ability to link theory and practice with the interpretation of the process made by the author. In an ideal world it should have been possible to operationalise temporary performance effects and

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15 Pihlanto, Pekka. The action-oriented approach and case study method in management studies, Scandinavian Journal of Management, Vol 10, No 4, 1994.

16 Leone, RP. & Schultz, RL. A Study of Marketing Generalisations. Journal of Marketing. Vol 44. Winter 1980.

systematically compare different nations regarding these effects. The problem with achieving both internal and external validity became more pronounced over time as the conceptual understanding started to live by its own, and as the understanding of the process became more holistic and aggregated than initially expected.

By letting structure and questions – presented in the text – lead the way during inquiry, the aim was to introduce some measure of reliability. The ambition was to spell out the reasoning and the theoretical and empirical inputs carefully to allow others to follow the line of argument. The choice of method however was affected by what the researcher has seen and perceived as important and has learnt more about. Thus, the selection of theory and empirical examples and the interpretations derived therefrom, belong to the author alone, reducing reliability in the process.

The research process has implied going from practice to theory, and from theory to practice, iteratively and repeatedly. Thus, although this study encompasses both inductive – where attempts at generalising from empirical observations have been made – and deductive moments – where created theory has been exposed to new empirical observations – this study is mainly inductive, in that it tries to create generally applicable theory from empirical experience.[17] Despite this mixture of approaches, the ambition has been to arrive at positive propositions about reality. Although created by the author, they are inspired by empirical experience as well as theory, and it is hoped that they will find wide acceptance and general application among other researchers as well as practitioners active in the field.[18]

Structure of Thesis

In order to answer the question posed above in the purpose, this thesis is structured as follows. In Chapter 2, the current European market opening process is presented and put into its historical context. Thereafter, in Chapter 3, a theoretical review and problematisation of liberalisation, privatisation and market opening is made, resulting in a framework of product and capital market combinations. In Chapter 4, previous studies on market opening processes are reviewed, followed by a discussion on chance and determinism. In Chapter 5, an empirical investigation is embarked upon to study the cases of the UK, New Zealand and Sweden, selected from the few developed nations cases available, describing their policies regarding competition and privatisation.

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17 The method of work used in this thesis is very similar to the approach proposed by Glaser & Strauss (1967) for exploratory case-studies where iteration is used to identify patterns as a part of a hypothesis generating process with a goal of developing ideas for further study.

18 Wiedersheim-Paul, F & Eriksson, LT, Att utreda, forska och rapportera, Liber-Hermods, 1991.

In the subsequent chapters, the three cases are compared and discussed to extract suggestions as to what the implications are from taking different policy routes. In Chapter 6, the empirical findings are integrated with the surveyed theory to extract what possible interdependencies there may be between policy routes and product-capital market combinations. In Chapter 7 the policy routes are decomposed into stages and further analysed. They are then in Chapter 8 confronted with an additional number of countries that have also embarked upon liberalisation, to investigate the scope for generalisation and importance of process duration. In Chapter 9, unresolved issues are presented and discussed to indicate the limitations of the study, but also to propose an agenda for further research.

Chapter 2. THE CURRENT MARKET OPENING PROCESS

This chapter starts with empirical observations regarding the current liberalisation and privatisation processes from which this study emanates. Then the larger context in terms of which academic debate the sequencing issue belongs to is presented.

Empirical Observations

As is evident from figure 1, the current market opening process can be traced back to the early 1980s when the US and the UK initiated the overall process.[19] The historical circumstances in the US and the UK were markedly different. AT&T had been a private monopoly for most of the 20th century, whereas British Telecom was a representative of the classical European model in telecommunications, combining monopoly with state-ownership. Initiating their liberalisation processes, the two countries opted for different approaches; in the US a functional market division was implemented with local monopolies and a competitive long-distance market.[20] In the UK, BT was privatised as a part of a general privatisation programme aimed at revamping the entire UK economy.

On the European continent not very much happened until the late 1980s when the process regained momentum. In Europe, corporatisation of PTOs was the dominating change (see figure 2). The European nations were reluctant though, and in many instances governments still believed that the existing order of bilateralism between nations and ITU (International Telecommunications Union) – the international forum for co-ordination of telecommunications policy – could continue much as it had for the past 100 years.[21] In Asia, Japan opened up its market for internal long-distance competition. In New Zealand, in line with its general profound shift in government policy, the PTO and the telecommunications industry, in a remarkably short time span went from state ownership and monopoly towards free competition and private ownership. When entering the

19 It can be discussed whether it actually is one or several processes of market opening which has taken place. This is not only a question of semantics, but also reveals different viewpoints on how market opening can be understood. In this thesis it will be argued that the there is a current market opening process with a number of sub processes, and that during this process there have been several waves of intensive change.

20 See for instance Stehmann, Oliver. Network Competition for European Telecommunications, Oxford University Press, 1995.

21 Kelley, Lee. Global Telecommunications Regulation – A political Economy Perspective. Pinter, London, 1996

	Monopoly	Geographical/ Functional Monopoly	Regulated competition	Free competition
100% Private Ownership		US		
Public Minority	SPA		UK	
Public Majority		ITA, JAP		
Public Ownership	GRE, IRL			
100% State Administration	ICE, FRA, GER, POR, DEN, NOR, AUS, NETH, BEL, FIN, SWI, LUX, NZ, AUST, SWE			

Figure 1. A selected number of countries in 1985.[22] [23]

1990s, the 1998 target year was set in classical EU manner to speed up the process, and suddenly liberalisation appeared an inevitable and unstoppable process that would eventually sweep the whole world. Governments almost unanimously embraced liberalisation as a cure for inefficiency and customer dissatisfaction; in consistent policy declarations both individual nations and the EU proclaimed their commitment to liberalisation.[24]

22 Telefonica of Spain is the earliest PTO to become privately owned. BT's corporatisation was finalised in 1981 and by 1984 it was 22 percent state owned. In Italy the situation is not really applicable since there have been a number of partly private companies dominating telecommunications in Italy: SIP, STET, Italcable etc. In Sweden, Televerket ruled the Swedish market as much as any other PTO in Europe, but it only enjoyed a de facto monopoly, with no support in the legislation. Prior to 1985, Telecom Eirann had just been corporatised in 1984 and NTT of Japan became an incorporated country in 1985. OTE of Greece had become an corporation already in 1942. In the US, a new functional monopoly between long-distance and local, and geographical between the Baby Bells had just been created in 1984, when private AT&T was broken up. By 1985 only the US, Japan and the UK have embarked on liberalisation, in all other countries the PTOs dominated their home markets without any significant threat to their positions. Out of the 22 countries in the diagram, 14 were state administrations working under monopoly.

23 Adopted, updated and augmented from P Barbet, Asymmetries, Competition and Internationalisation, in The Race to European Eminence – Who are the coming tele-service multinationals? 1994, North Holland.

24 Prieskel, R. & Hingham, N. Liberalisation of telecommunications infrastructure and cable television network: the European Commission's Green Paper, Telecommunications Policy, Vol. 19, No 5, July, 1995.

	Monopoly	Geographical/ Functional Monopoly	Regulated competition	Free competition
100% Private Ownership		US		***NZ***
Public Minority	SPA		UK	
Public Majority		ITA, JAP		
Public Ownership	GRE, IRL, ***FIN, FRA, GER, NETH, DEN, NOR, POR***			
100% State Administration	ICE, SWI, LUX, SWE, BEL, AUS, AUST			

Figure 2. The studied countries in 1990.[25] Bold indicates movement from 1985.

Until mid 1995 – only Sweden and the UK among European countries had actually seriously opened up their markets. A number of countries including Norway, Denmark and Finland had initiated their processes and were on their way. Other European countries, notably Germany, announcing the partial privatisation of Deutsche Telecom, were following.[26] In Europe as a whole, the picture became somewhat blurred (see figure 3). Some countries still found themselves wholly or partly in the old classical European model of state-ownership and monopoly. Although the European Union has made 1998 its target year for liberalisation, many European nations, notably France, were reluctant to change their national policies and unsure on how to approach and handle the EU target. Strikingly however (as is evident from figure 3), neither competition, nor privatisation

25 In 1990, Portugal, Denmark, Norway, Germany and France all corporatised their PTOs. Finland did so in 1987 and the Netherlands in 1989. New Zealand had in a short time period moved from state ownership and monopoly to free competition and private ownership. A small number of countries had still not corporatised their PTOs, but were soon to do so. Luxemburg in 1992/1993, Austria in 1992/1993, Belgium in 1991 and Switzerland in 1992. In Australia AOCT was formed in 1992, a wholly state owned company which was a merger between already incorporated Telecom Australia and OTC, later to be renamed Telstra. Australia has also announced its new regulated regime. Sweden was the last one out to corporatise its PTO in 1993, renaming Swedish Telecom Telia (previsously Televerket in Swedish) and launching the new telecommunications act. By 1993 only Iceland had state ownership and monopoly of all countries studied.

26 Europe's sell-off to end all sell-offs – High stakes are riding on the fate of Deutsche Telecom's November offering, BusinessWeek, 21October, 1996.

had proceeded very far in Europe by 1995. The core continental countries of Europe still had to embark on competition and privatisation. Although some countries have declared their intention to liberalise their markets in some respect before 1998, little has actually happened.[27] Thus, if 1998 were to materialise as envisioned, most countries would have to privatise their state-owned monopolies and change the structure of supply dramatically.[28]

	Monopoly	Geographical/ Functional Monopoly	Regulated competition	Free competition
100% Private Ownership		US		NZ
Public Minority	SPA		UK	
Public Majority		ITA, JAP, **POR**, **FIN**	**DEN**	
Public Ownership	GRE, IRL, **AUS**, FRA, GER,NETH, **SWI**, **LUX**, **BEL**		**AUST**, **SWE**, **NOR**	
100%State Administration	ICE			

Figure 3. The studied countries in 1995.[29] Bold indicates movement from 1990.

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27 During the autumn of 1996 both France and Italy announced that they would partially privatise their PTOs, France Telecom and Stet, during 1997.(Svenska Dagblandet, Data och Telekommunikation, 1996-10-28)

28 Spain has a partly privatised PTO, Telefonica. Telefonica has however been partly private-owned since 1925 and it is doubtful if the private majority has very much influence at all, despite its ownership. The government hase a decisive influence over the company and controls the management of the company. In most practical situations, Telefonica is very similar to France Telecom, and it has a firm grip on its own home market. Portugal has recently partly privatised Portugal Telecom. Italy is also moving towards privatisation, but STET must first consolidate its home market. Denmark and Finland are on their way to full liberalisation. Norway has just opened up for competition, but the PTO, Telenor, remains state-owned.

29 A number of countries announced plans to privatise their PTOs prior to 1998, notably Germany who also started to open up the market before the advent of 1995. The Nordic countries led by Sweden progressed the most in the early 1990's, indicating the influence of geographical proximity. In Finland, the competition was gaining strength in local markets, but Telecom Finland was so far allowed to retain its monopoly over international telecommunications. There was no indication in Sweden or Norway that privatisation would be undertaken of Telenor and Telia.

During 1996 the pressure to act grew further. The US congress abolished the functional market division, creating a gigantic free-for-all leading to rapid consolidation among the Baby Bells. In November 1996 there were rumours in the UK that all regulation would be abolished to create a similar free-for-all at least in international traffic.[30] Meanwhile, the French government announced that it would privatise France Telecom partially in the spring of 1997, and Italy announced that they would partly privatise STET in the late 1997.[31] Suddenly, there were countries moving rapidly ahead with further liberalisation and privatisation, while other countries were catching up. Suddenly, most countries were opening up their markets.

These changes were much a result of changing industry conditions building up in some countries that were advancing liberalisation and privatisation. By the mid 1990s it also become more evident that different nations and PTOs were achieving different economic performance. For example, national telecommunications markets grew at very different rates during the 1980s. OECD ranking showed different market structures emerging. There were marked differences in the adoption of new technology for instance in mobile telecommunications. Nations were upgrading and digitalising their networks at different paces. National price levels started to show large differences and fluctuations, as some countries liberalised their markets, while others did not. In addition, new ways of charging customers gained strength as prices were rebalanced in line with costs. Individual PTOs exhibited different strategies and entered new alliances. PTOs were faring differently; some managed to hold on to their home markets and even expand abroad, while others were trying to shore up support for protection and stalling of product market liberalisation.[32]

Going through the current process, clearly time sets nations apart, and arguably nations may be classified in time. First of all, there are differences between nations regarding when they initiated their market opening processes. US and the UK were first-movers, the Nordic countries followed, France and Germany were laggards etc. – making it appear as if liberalisation comes in waves. Secondly, nations could be classified for the duration of their processes. The New Zealand process took only a couple of years, the UK and US processes took 10 – 15 years or more depending on how they are delimited. Thirdly, nations differ in their internal processes regarding the sequencing of privatisation and competition. Some countries, like the US and Canada, already had private or partially private PTOs from the outset. Others countries privatised their PTOs first, and initially only introduced token liberalisation or no liberalisation at all (the UK is the primary example of this path). Yet other nations, like Sweden and Norway have only lib-

30 Dagens Industri, 14th November 1996.

31 Dagens Industri, 13th November 1996.

32 See appendix 1-3 were these changing industry conditions are related and detailed.

eralised their markets, leaving their PTOs in state-hands. But the fact that time sets nations apart does not necessarily imply that time is important for understanding the market opening process as such or its outcome for that matter. Is time an important variable for understanding market opening processes? Or is it a secondary, marginal issue?

This Study in a Larger Context

The market opening process currently evolving and the issue of privatisation and liberalisation in particular can be analysed in many ways. Robin Mansell has presented a model to analyse the alternative paths that telecommunications policy may follow in the future. Her overriding question is what features will be dominating the future of telecommunications. In order to describe the choices and consequences involved in the process, she presents two contrarian visions of the future. The first is referred to as the Idealist Model. This model is derived from theories that envision the emergence of a mature and fully articulated competitive market. In this world a large number of sellers are active in the market for goods and services such that the impact of one seller on the market is negligible. Buyers perceive that sellers produce a homogenous product, and buyers have access to perfect knowledge, or at least sufficient knowledge to make informed rational decisions. The market place is also characterised by the absence of barriers to entry and exit. [33]

The second model is referred to as the Strategic Model. It is rooted in theories of imperfect competition, monopolistic competition, oligopolistic rivalry and monopoly. This model is one which seeks to provide a reality-based analysis of institutional processes. In this model it is assumed that institutions are characterised by a will to create and recreate monopoly or oligopoly power, both in national and international contexts. The structure of markets is enmeshed with technical change, and the determinant of change are located within a broad array of social and institutional arrangements. In the Strategic Model there is continuos rivalry among a relatively smaller number of dominant firms. The Strategic Model emphasises the ways in which new market distortions are created and become embedded in the design of new technical artefacts such as intelligent networks, as well as in the institutions and regulatory environment surrounding the market place.

According to Mansell, the prevailing vision of an open world of telecommunications, is one which incorporates the assumptions of the Idealist Model. At the root of this model is the notion that a single trajectory of development will prove to be inherently superior and will become reflected in the technical composition of the future telecommunications infrastructure. The question is which vision of the future that prevail or come to dominate. Will it be a world of earnest competition for the benefit of the consumer? Or will it

33 Mansell, R, The new telecommunications – A political economy of network evolution, Sage Publications, 1993

be a world of oligopolies acting on a global scale benefiting their own producer interests? The issue of sequencing of privatisation and competition is in this thesis discussed in this perspective; as an important sub-process affecting the outcome of the liberalisation process as a whole. In this context, the implications of sequencing are not mainly related to economic performance during a limited period of time for a particular company or nation or for the welfare of an interest group, but to the future of telecommunications in society.

Chapter 3.
CAPITAL AND PRODUCT MARKETS

In the following theoretical review privatisation and liberalisation and their interdependence will be explored. The aim is to search for theory that could have bearing on the issue of sequencing.[34] The perspective is that of the policy maker. Three questions will be discussed to facilitate further investigation of the issue of time in market opening processes: 1) What capital and product market properties can be identified, relevant to the market opening process? 2) How can product and capital market combinations be analysed? and 3) How can sequencing be evaluated? The chapter is concluded with a discussion on the interplay between process and outcome.

Identifying Product and Capital Market Properties

The liberalisation process implies movement not only in time but also in the workings of the capital and product markets that the PTO participates in. As the market opening process progresses, the PTO passes through various combinations of product and capital market status's. Managing this process is the task of the policy maker, who influences in what sequence various product and capital market combinations are passed by as the process evolves. Before bringing capital and product markets together however, it may be productive to identify their individual properties first.

Comparing state ownership with private ownership, the most obvious difference, according to Vickers and Yarrow, lies in the relationships between managers – the agents – and their principals – the government – which arise from the facts that 1) the government do not typically seek to maximise profits[35], but rather to maximise a social welfare func-

34 This approach is similar to the one adopted by PM Jackson and C Price in Privatisation and Regulation: A review of the Issues, Longman, 1994.

35 See Caves, R. American Industry: Structure, Conduct, Performance, Prentice-Hall, Sixth Edition, 1987 where this classical debate in the literature is related. The claimed goal by managers of large firms in Anglo-Saxon oriented countries is profit maximation. But if managers did maximise profits, there would not be a principal-agent problem between owners and management. Whether managers really maximise profits is however very unclear, as pointed out by Caves. The management of a firm may seek firm growth, risk reduction or risk avoidance or just the high life at the top and act to maximise the welfare-function of the management team rather than the welfare-function of the owners which often is assumed to be profit maximisation. In Scherer, FM & Ross, D. Industrial Market Structure and Economic Performance, Third Edition, Houghton Mifflin Company, Boston, 1990, the constraints on departures from profit-maximisation are presented: take-overs from other investors who may try to take control of the company to improve

tion[36] – implying that the goal of profit is negotiated visavis other goals such as universal service, 2) there are no marketable ordinary shares in the firm, and hence no market for corporate control and no risk for take-overs – implying that the management must satisfy politicians rather than investors, 3) the bankruptcy constraint is diluted – implying that mismanagement can progress longer and with greater severity. In addition there are other differences: 4) the staff of the state owned entity – one of the most important inputs – may very often have special terms of employment compared to the private sector – implying that the flexibility in holding staff may be severely restricted compared with a private company,[37], and furthermore, 5) governments very often conduct policy through their agent since they control it directly – implying that the government cannot conduct policy through the privatised entity to the same extent[38], which often reduces cross subsidisation and other distortions.[39]

Comparing monopoly with competition, three themes suggested by Vickers and Yarrow are stressed with bearing on the issue of sequencing[40]: 1) in a monopoly situation

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the yield from corporate assets, but also pressure from other stake-holders with an interest in the survival of a corporation. Survival of the organisation can only be assured through non-negative profits or otherwise the firm will disappear from the economic scene.

36 Douma, S. & Schreuder, H. Economic Approaches to Organisations, Prentice-Hall, 1992.

37 O'Connell Davidson, J. Metamorphosis? Privatisation and the restructuring of management and labour, in Privatisation and Regulation: A review of the Issues, edited by Peter M Jackson and Catherine M Price, Longman, 1994.

38 According to Vickers, J. & Yarrow, G. Privatisation – An Economic Analysis, MIT Press, 1988: given a welfare maximising government, and assuming the that monitoring of management is equally effective under both types of ownership, it is obvious that public ownership has some potential advantages over the private alternative. In particular, it provides the government with additional policy instruments. The government may for instance decide to subsidise telephone users in remote areas by deciding on a national uniform level, creating cross-subsidising between regions and services. As the government enacts politically motivated corrections to deviations between social and private returns that arise from failures in goods and factor markets perceived by the government, it however also introduces new distortions in the product markets. A change of ownership to private owners clearly reduces the potential for the government to conduct policy through the PTO. Privatisation thus implies the loss of an important vehicle for implementing policy and forces the government to develop new means of conducting policy, primarily regulation instead. The new regulation introduced, may very well be exposed to the ambitions of various interest groups as they try to extract the most from the political process through lobbying.

39 Olson, M.A, The Rise and Decline of Nations – Implications, Economic Growth, Stagflation and Social Rigidities, Yale University Press, New Haven, 1982, and Olson, M. A Theory of Groups and Organisations in The Logic of Collective Action, 1965. From Olson (1965, 1982) a number of suggestions on some core groups interests emerge that affect the political process: some of the interest groups pressures on regulators fixing the prices of firms are clear enough as consumers benefit from lower prices and producers benefit from higher prices. Trade unions may align themselves with the private owners of a monopoly to appropriate higher wages. Olson also provides plausible reasons to why political decision-making may be sub-optimal, arguing that since the government must cater to key interest groups to survive politically, it may not be able to promote broader interests for society.

40 Vickers, J. & Yarrow, G. Privatisation – An Economic Analysis, MIT Press, 1988. Although competition may encompass a number of benefits for society, these benefits could in principle be created by more direct and detailed regulation of the companies active in the industry or indirectly through the market structure actually created by regulation. Direct regulation could for instance be price-caps, fixed interconnection prices, coverage and penetration minimum's etc., or the market could evolve as a result of ongoing competition between actors. Somewhat loosely they could be

the monopolist has a monopoly of information about industry conditions (prices, technology, customers etc.) – implying that moving away from monopoly creates more transparency that may otherwise exist[41], promoting the effectiveness of the regulatory regime.[42] 2) the monopoly is likely to lead to less customer welfare through restriction of output and variety of output – whereas the existence of actual or potential competitors puts a lid on prices and spurs innovation[43], and 3) through its interconnection policy primarily, the regulator can choose either to protect the incumbent or subsidise the entrants, implying that the government in fact determines the evolving new market structure (suggesting that the government in fact can discipline the incumbent), and implying that the government can create and adjust the level of competition over time.[44]

Taking privatisation on its own, theory suggests that the incentives, the motives and the policies change as the relationship between government and the PTO changes. The management, the staff, the bankers, the investors and the politicians will come to perceive the situation differently and behave differently under private ownership compared to public ownership. The privatised entity will relatively more single-mindedly pursue profit and producer surplus maximisation. Taking competition on its own, theory suggest that the information conditions, position and welfare of the consumer, and the potential for creating competitors as well as the threat of potential competition change of the market become contestable. The consumers, the regulators and the potential challengers will

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classified as regulatory measures and competitive measures. Rarely would one expect actual regulation to contain either only direct or only indirect measures.

41 Mansell, R. & Credé, A. Telecommunications Competition and "Commodity" Supply, European Network for Communications and Information Perspectives, Working Paper, Montpellier, 1995, quoted from Communication by Design by Robin Mansell and Roger Silverstone, Oxford University Press, 1995.

42 Milgrom, P & Roberts, J. Economics, Organisation and Management. Prentice-Hall, 1992. This is very much due to the fact of information conditions, in particular the asymmetry of information is likely to exist between the regulator and the firm. Usually, the policy makers cannot foresee or control all possible outcomes and it will therefore always to some degree be difficult to induce firms to act in accordance with the perceived public interest through direct regulation, forcing the regulator to rely on at least some degree of intra-firm competition. If the government and the firms managers had access to the same information about industry conditions and the involved firms behaviour, then the regulatory problem could be solved by simply directing the managers to implement the socially optimal plan given the information available to both parties. In reality, managers are much better informed about industry conditions than are the firms owners and regulator, and their behaviour can be thus be monitored only imperfectly.

43 Bailey E.E. & Baumol, WJ. Deregulation and the theory of contestable markets, Yale Journal on Regulation, 1, 111-37, 1984.

44 See Mitchell, BM. & Vogelsang, I. Telecommunications pricing: Theory and practice, Rand Research Study, Cambridge University Press, 1991. They point out that entry is a necessary, but not a sufficient condition for vigorous competition. Actors that have entered must also be able to compete forcefully enough to affect PTO behaviour. A critical conjecture in which this is tested is the interconnection regime. New entrants have to use the PTO network, at least initially to serve its customers. As a result, the determination of the ruling price mechanism that divided the proceeds between the entrant and the PTO effectively determines the ability of the new entrants to compete. Foreign entrants into domestic telecommunications markets have quite openly sought the protection of natural regulatory authorities to ensure the long-term pay back of their investments.

come to perceive the situation differently and behave differently under competition compared to monopoly. In a market open for competition the potential for improved customer welfare and increased consumer surplus is enhanced relatively, compared to monopoly. Having identified capital and product market properties relevant for sequencing, the next step is to bring them into one framework.

Analysing Product And Capital Market Combinations

The possible product and capital market combinations fall out naturally from the framework provided by Dunsire (1988) in which two continua, one of the capital market and one of the product market, yield four extreme, but illustrative, corners in a possible sphere of combinations: A) State-owned entity and product market monopoly. B) Privatised entity with product market monopoly. C) State-owned entity on a perfectly competitive product market. D) Privatised entity on a perfectly competitive product market.[45]

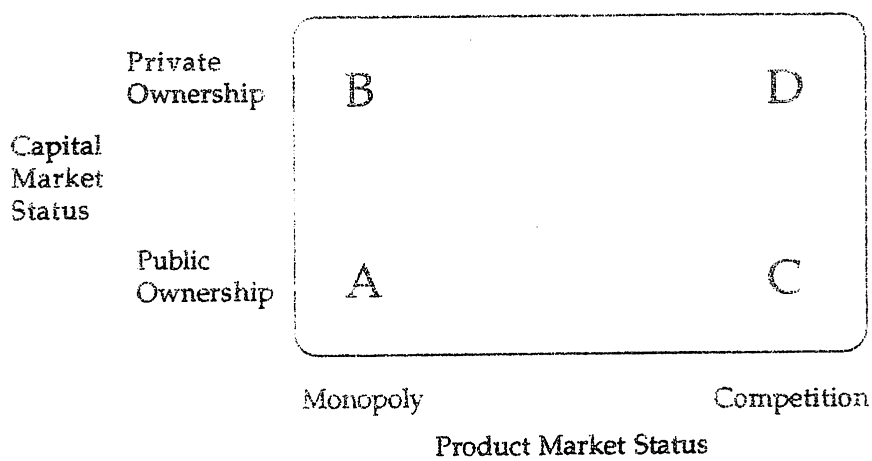

Figure 4. Four combinations of product and capital market status.

Using Dunsire's framework, sequencing can be defined as the movement from one product-capital combination to another. Movement is possible in all directions, in parallel or in one dimension only. Movement along the product market axis relates to the output side of the corporate entity analysed. In the product market, the output of the corporation is marketed and sold. Key variables are volume, prices, quality, products and services. The position of the corporation can be described in terms of market share, number and type of competitors and number and type of customers. Movement along the capital market axis

45 Dunsire A. Organisational structure: status change and performance, in K Hartley and A. Ott (eds) Privatisation and Economic Efficiency, Aldershot. 1991.

relates to the input side of the entity. On the input side, the corporation purchases and attracts the resources it perceives that it needs for its operations. In addition to the capital market, the corporation is active in the staff and knowledge markets to create its product market offering.

In this thesis sequencing is discussed primarily for its potential to yield economic performance. What then is economic performance? Central to the analysis of economic performance is the concept of efficiency. The formal definition used generally by economists is Pareto efficiency, which implies that it is not possible to re-arrange the firms, the flows, the production decisions, the consumption decisions or anything else in the economy, and still make someone better off without making someone else worse off. Pareto efficiency demands that firms and consumers make decisions on the basis of profit and utility, and that there are no external effects or interactions among the players active on the market.[46]

There are two principal dimensions to efficiency.[47] First, allocative efficiency, which requires that firms produce the level, mix and quality of output at a price, where through an re-arrangement of outputs, no consumer can be made better off, without making another worse off. This implies that all possible gains from trade have been exhausted. Secondly, there is productive efficiency, which requires the firm to produce the output demanded by consumers at the lowest possible cost subject the technical constraints of production. The productive efficiency relates to the input side and states that for Pareto optimality to hold, it should not be possible to re-arrange the production inputs and obtain more input of one good without reducing the output of another.[48]

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46 There are a number of quite similar definitions of economic performance of in the literature. Caves (1992) states that for an economic system to deliver maximum benefit it should achieve four goals: 1) it should be efficient, employing its scarce factors of production so that they yield the highest possible real income; 2) it should be progressive – it should add to its stock of factors of production, raise the quality and variety of the goods it makes available, and improve the techniques with which it organises factors of production, all at appropriate rates of progress; 3) it should be fully employed, because we waste factors of production more by leaving them idle than by using them inefficiently: 4) is should be equitable, distributing its real output among its members to provide for their essential needs and reasonable expectations as well as rewarding their productive efforts.

47 Stern El-Ansary (1996) provides a similar framework tailored to performance measures in marketing channels. Interpreted in general terms they suggest three overall categories of goals: 1) effectiveness 2) equity 3) efficiency. Effectiveness is divided into delivery which is a short term goal-oriented measure of how well the economic system meet the demand placed on them by users, and stimulation, which is a long-term goal oriented measure of how well members of the economic system stimulate latent demand to reach optimal levels of demand. Equity is defined as the extent to which an economic system serves problem-ridden markets and segments, such as disadvantaged or geographically isolated consumers. Efficiency is divided into productivity, which is the efficiency with which output is generated from resources and inputs are used or expanded. In essence, productivity is a measure of physical efficiency and profitability, which is a general measure of the financial efficiency of members of the economic system in terms of return on investment, liquidity, leverage, and growth patterns and potential in profits.

48 Jackson, P.M. & Price, C. Privatisation and Regulation: A Review of the Issues. Longman. 199[illegible]

Allocative and productive efficiency can also be related to the product and capital market.[49] Allocative efficiency is very closely connected to the output side, or product market, i.e. prices, quality, services, competition and customers. Productive efficiency is very closely connected to the input side and the input markets, one of them being the capital market. Going for privatisation first implies allowing for flexibility or change on the input side (both for capital and personnel) [50], and at the same time keeping the output side of the PTO constant. Going for competition first thus implies allowing for flexibility or change on the output side, and at the same time keeping the input side of the PTO constant.

Evaluating Product and Capital Market Combinations

In principle, privatisation and liberalisation can be viewed as two independent choices for governments. In practice however, variations in the product market structure can be expected to be related to variations in the capital market. Furthermore, movement in the product market dimension can be expected to be related to movement in the capital market.[51] How are they related?

Considering solution D in figure 4, where product markets are competitive and there is private ownership, it is more likely that the benefits of privatisation and liberalisation will exceed any accompanying detriments. However, in the absence of vigorous product market competition, the balance of advantages is less clear cut and much will depend upon the effectiveness of regulatory policy.[52] Competition is not something that automatically will emerge as privatisation of the state-owned company is enacted, rather competition must be created to assure society that the potential benefits of liberalisation and privatisation will be realised. The regulation introduced by policy makers for this purpose will together with historical circumstances create the new market structure. This market

49 Stern El-Ansary's (1996) framework for discussing performance is similar – but with a slight difference in emphasis. Effectiveness could be fairly well equated with allocative efficiency and relates to whether the corporate entity produce the right output thing both in the present and in the future, and production efficiency could be equated with efficiency and relates to productivity (using physical input resources efficient) and profitability (using capital efficient).

50 Although the capital market status change is very much related to access to capital, also the terms of employment – another important input – change since the new private owners will attempt to create their own new agreements with their staff.

51 This is indicated by the crude patterns emerging from figure 1 and appendix 1. Sweden and UK are so far the only countries that have reached regulated competition in Europe. Many European countries have still not chosen whether or not to free their market before their PTOs or vice versa. But there appears to be a strong correlation between the structure of supply and the status of the PTOs.

52 Vickers, J. & Yarrow, G. Privatisation – An Economic Analysis, MIT Press, 1988.

structure will determine the performance of the sector and thus largely decide the outcome of the liberalisation process.[53]

Reversing the argument around it becomes evident why state-ownership and monopoly, combination A in figure 4, have been the preferred solutions in product markets where there have been market failures or where major externalities exist. The classical case has been in telecommunications, where the case for natural monopoly has been made arguing the it is the most efficient solution from a societal welfare perspective; the claim being that since telecommunications is a core infrastructure service for society, it should also be controlled and managed by the state.[54]

Regarding combination C, competition with a state-owned entity present on the market can be expected to imply a different context compared to a more level playing field with a larger number of actors. The newly privatised firm can be expected to try to dominate or in any other way capture the product market which it is engaged in to extract maximum profits, in the same manner as other historically private firms; a corporation has a strong incentive to work for imperfect competition.[55]

The combination of B, private ownership and monopoly, implies that the government refrains from earning the proceeds deriving from the monopoly status on the product market. The monopoly status will yield monopolistic profits that will accrue to the new private owners. This is a potential fallacy due to the fact that privatisation implies not only that the company is financed by private interests and institutions, but also implies the loss of government control of the corporation. Privatisation can in many ways strengthen the corporation and can be expected to induce transformation, rationalisation and revitalisation of the company. These tendencies can, however, be expected to be much weaker under monopoly than under competition.

Comparing A and D there is no convincing theoretical support for state-ownership and monopoly, other than in very special circumstances where proper markets cannot be established and maintained, and thus market failure undermines satisfactory exchange among actors on the market. Regarding the options of only privatisation or only competition as end solutions – B and C – theory and experience is less clear cut, but on balance suggest that competition is the relatively more important variable, making privatisation only an inferior solution to liberalisation only from an economic performance perspective.[56] Furthermore, there is strong empirical support that private firms tend on average to be more internally efficient when competition in product markets is effective, supporting

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53 Stehmann, Oliver. Network Competition for European Telecommunications, Oxford University Press, 1995.

54 See Baumol, WJ. & Sidak, JG. Toward Competition in Local Telephony, AEI Studies in Telecommunications Deregulation. The MIT Press, 1994, for an extensive discussion on regulatory tools and natural local monopolies.

55 Milgrom, P & Roberts, J. Economics, Organisation and Management. Prentice-Hall, 1992.

56 Noam, Eli, Telecommunications in Europe. Oxford University Press, 1992

the claim that liberalisation and privatisation also in practice are closely related, enforce each other and together offer the best possible combination for improving economic performance.[57]

However, neither privatisation nor liberalisation alone, whichever is opted for, can assure satisfactory economic performance. They are merely necessary, but not sufficient, conditions. Regulation binds together the two spheres, and also governs in what way they may interact.[58] Regulation on interconnection may favour the incumbent over challengers, and may favour one type of ownership over another, for instance restricting foreign ownership. Summarising the theory and previous experience, there is no empirical or theoretical support for the benefits of introducing liberalisation only, and even less for only privatisation. [59] Thus, the discussion above strongly supports the introduction of both privatisation and liberalisation, as a means of safeguarding the potential positive benefits.[60]

Until now, the static consequences of arriving at any four of the extreme product and capital market combinations have been discussed. The task now, building on theory and prior experience, is to identify possible sequencing strategies, thereby entering into an discussion of the properties of market opening processes; movement between various capital and product market combinations.

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57 Vickers, J. & Yarrow, G. Privatisation – An Economic Analysis, MIT Press, 1988.

58 See Berg, SV & Foreman, RD, Incentive Regulation and Telco Performance: a primer, in Telecommunications Policy, Vol 20, November 1996, who review the literature on the implications of various regulatory regimes and propose a framework for identifying causation between regulation and performance.

59 Jackson, PM. & Price, CM. Privatisation and Regulation: A Review of the Issues, Longman, 1994.

60 That privatisation and competition yields improved economic performance is a basic belief that will not be questioned in this thesis. The issue of economic performance is a classical one that is well covered in the literature on competition and privatisation. The general conclusion is that liberalisation, i.e. going from monopoly to competitive markets, and going from state-ownership to private ownership, indeed improves economic performance, welfare for society and the lot of the consumer; see Scherer, FM & Ross, D. Industrial Market Structure and Economic Performance, Third Edition, Houghton Mifflin Company, Boston, 1990, for a developed argument on why competition yields improved economic performance compared to monopoly, and Jackson, PM & Price, C. Privatisation and Regulation: A Review of the Issues, Longman, 1994, for a developed argument on why privatisation yields improved economic performance compared to state-ownership.

Chapter 4.
PROCESS AND OUTCOME

In this chapter, previous studies on market opening processes are presented in order to find out how others have analysed and discussed market opening processes. Next, important tools are constructed, and some prior beliefs and assumptions presented towards the coming empirical investigation.

Previous Studies on Market Opening Processes

In research on telecommunications three main topics are discussed. The first is the question of the telecommunications industry being a natural monopoly. The second topic is estimation of demand for various telecommunications services. The third one is regulation and the effects of deregulation.[61] In the literature there are many examples of structurally oriented studies where a change in regulation – with a product market perspective – is being analysed. Going through the literature, the impression by the author is that there are few contributions dealing with the market opening process as such, and yet fewer that deal with time in particular.

The importance of not postponing the positive effects emanating from infrastucture competition at the national level has been investigated by Bear, who shows that there are considerable costs associated with delaying competition.[62] Granstrand has pointed out that timing is one of the issues that must be taken into consideration for an internationalising PTO.[63] Kaplan and Lundgren discuss what relative advantages and disadvantages a PTO may encounter when its home-market is being liberalised early compared to other countries. They found that not very many benefits accrue to the PTO if competition is promoted early on.[64] These contributions are however only partially relevant to the issues raised in this thesis, as they are mainly related to the timing between national PTOs and countries, rather than the domestic market opening process. However, they point out the importance of time in an international context and suggest one possible level of analysis. What about the domestic aspects?

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61 Segendorf, B. The Telecommunications Market: A Survey of Theory and Empirics, Industrins Utredningsinstitut, 1995.

62 Bear, WS. Telecommunications Infrastructure Competition - The Costs of Delay, in Telecommunications Policy, Vol 19, No 5, 1995.

63 Granstrand, O. Conclusions and Speculations, in the Race to European Eminence - Who are the coming tele-service multinationals? edited by Bohlin, E and Granstrand, O. North-Holland, 1994.

64 Kaplan, M. & Lundgren, A. Institutional Redesign and PTO First-Mover Advantages, conference paper presented at the ITS conference in Seville, 1996.

One important source dealing with the domestic aspects of market opening is Smith and Staple who discuss the domestic market opening process and process duration explicitly. They divide processes by whether they are conducted in quantum leaps, or in small incremental steps. They suggest that incrementalism may be beneficial when a country has limited experience in managing economic restructuring, or when there are significant political constraints and where regulatory arrangements must be established from the beginning.[65] Smith and Staple point out the importance of how long time the processes take in the domestic context and thereby suggest yet another level of analysis. But they do not connect process duration with the international market opening process.

Smith and Staple, divide market opening processes, whether incremental or carried through in quantum leaps, into three different parts. These parts are 1) restructuring, including the separation of operation and regulation, 2) privatisation, including divestiture and sale of equity of the incumbent dominant carrier, and 3) liberalisation, including reduction of barriers to entry. According to Smith and Staple, privatisation and liberalisation, should ideally be preceded by a restructuring process in which the state-owned carrier is commercialised, and the governments regulatory responsibilities are separated from its policy-making and operational roles.[66] Smith and Staple suggest that the order in which various domestic policies are implemented matters, and approach the subject of sequencing – arguing that restructuring should come before privatisation and liberalisation. However, they do not discuss in what order privatisation and liberalisation should be embarked upon, once restructuring has been completed. Yet they contribute to the identification of the third issue, that of sequencing between privatisation and liberalisation in the national context, and its connection to the international market opening process. What literature is there on sequencing?

Dealing with sequencing of privatisation and restructuring, and indirectly with sequencing of privatisation and liberalisation, Jones et al. have presented an useful model for understanding the interdependence between capital and product markets in market opening processes. Choosing privatisation as their starting point, they suggest that the timing of any restructuring of firms to be privatised (before or after floatation on the stock exchange) is a crucial factor in determining the distribution of proceeds from the divestiture. In particular, they point out that a government may be tempted to sell firms with monopoly power intact to maximise floatation proceeds from the divestiture and let internal restructuring as well as market transformation happen afterwards.[67] Jackson and

65 Quoted from Grave, R. & Lundgren, R. Telecommunications Growth in Asia – A masters thesis. Department of Industrial Management and Engineering at Chalmers University of Technology, April 1996.

66 Quoted from Grave, R. & Lundgren, R. Telecommunications Growth in Asia – A masters thesis. Department of Industrial Management and Engineering at Chalmers University of Technology, April 1996.

67 Jones, L., Tandon, P. & Vogelsang, I. Selling Public Enterprises, MIT Press, 1990.

Price have commented on Jones et al.'s model, and have added that shareholders may see the timing of the privatisation of a public enterprise as reneging on the original privatisation bargain where the price offered were determined by a particular industry structure, i.e. monopoly. Furthermore, in cases were regulation changes after the privatisation, i.e. is tightened to the detriment of the new privatised entity and its shareholders, re-negotiation of the privatisation terms after the event may damage the governments credibility in later phases of the market opening process.[68] Jones et al. analyse the issue from the perspective of when to sell a public enterprise, assuming that the degree of competition is constant, or at least not open for public policy at the same time.

Taking the product market perspective and focusing on regulation of the product market, a model, focusing on regulator (the government) and regulated (the firm), with implications for sequencing of the market opening process, is presented by Greenwald. If the government over time tighten up regulation, for instance by lowering the consumer price level (for the model to hold, any aspect affecting the profitability of future investment in the industry could replace price) in order to maximise consumer benefits, the consequence is that the incentive for investment is diluted This occurs because the government may alter the profitability of an undertaken investment, causing this risk to be assigned a cost in terms of higher returns which will restrict initial investment, which in turn is detrimental to social welfare. This is particularly so when there are large sunk costs involved. Thus the government objective of maximum user benefit is opposite to that of the firm, which is the high return of investments made. Therefore, to facilitate privatisation, the government must in some way guarantee the future income of the privatised entity. Accordingly, the wider and more vocal the constituency of new private owners will be, the more politically costly will it become for government to refrain from honouring its initial guarantees.[69] If the government knew what the future income of the incumbent would be or could estimate it with some accuracy, it could from the outset design a regulatory model that would signal the consistency of policy over time, and create mechanisms for review that would be stable enough to introduce credibility of the process instead of the content. Since the government in practice cannot foresee future demand, costs, technology or firm effort this solution is however unlikely to be workable. As the firms anticipate the regulator's dilemma and the prevalence of asymmetric information, they may try to capture the market opening process to their benefit.[70]

Jones et al. and Greenwald connect the product market with the capital market, and show the interdependence between product and capital market and identify how they are

68 Jackson, PM. & Price, CM. Privatisation and Regulation - A Review of the issues. Longman, 1994.

69 Greenwald, B. C. Rate Base Selection and the Structure of Regulation. Rand Journal of Economics 15: 85 - 95, 1984.

70 Vickers, J. & Yarrow, G. Privatisation - An Economic Analysis. MIT Press, 1988

related to each other. Change in one dimension is likely to create change and tension in the other, and vice versa. But these models do not offer any convincing clues to how the market opening process will develop over time and how the process actually will play out. How will the market opening process evolve?

Dealing with the question of how product market liberalisation takes place, Noam has presented an interesting model of interaction in telecommunications policy. Citing examples across countries and across different economic sectors, he argues that there is presently a general tendency of liberalisation of previously government controlled economic activities. He describes the process as an expansionary process and as a result of domestic and international interaction where liberalisation expands *functionally* from one line of business to adjoining ones (an example given is transportation in the US where liberalisation moved from airlines to railroads and then to trucks, another is telecommunications, going from equipment to long-distance service, local transmission and central office functions). Liberalisation also expands *geographically* (in airlines from the US to the UK and to some parts of Europe, as well as in telecommunications where it has moved from the US to the UK and Japan and to some extent to continental Europe).[71]

After having pictured how these market liberalisation processes migrate, Noam moves over to the question of why these long term trends take place and presents three strands of possible explanations: 1) there might be a change in ideology as ideas come in and out of fashion among policy makers, 2) there might also be a question of political dominance of one country or group of countries over others, which is then reflected in international trends of policy, and 3) there might be a dialectic cycle, in which the inevitable shortcomings of any policy will in time lead to the adoption of another policy.

Noam makes a further distinction between national or domestic liberalisation processes and international liberalisation processes, and assign importance to them both. Interpreting Noam, interaction and interdependence between the two levels of policy is an important junction in which national policy migrates into the international arena and vice versa. The more interrelated countries and economic activities are, the less likely is the existence and prevalence of separate national policies that are also stable solutions over time. Noam suggests that where instabilities exist, which is wherever there is interaction between national and international policy makers and policy levels, the caused oscillations will ripple throughout the entire system, raising demands for supra regulation to try to instil stability in the system. Noam's model is the most elaborated one and it explicitly deals with time. The model suggests that liberalisation is an expansionary process and

71 Noam, E. Telecommunications in Europe, Oxford University Press, 1992. Noam also points out that the trend of liberalisation is by no means a process with a clear end point. Rather there are examples of periods of intensive liberalisation followed by periods of regulation or reregulation of economic activity. One classical example supplied by Noam in telecommunications is the national telegraph regulation which was extended from one European country to another in the 1950s.

thus will migrate between sectors and countries. Like rings on the water, singular and individual liberalisation processes will transplant themselves further and further away. But Noam does not deal very extensively with privatisation, leaving out the workings and peculiarities of the domestic process – and does not at all deal with the issue of timing from a national policy maker view.

Building on Noam, bringing in privatisation and liberalisation on equal terms and focusing on their relation in time, regarding them as the pivotal aspects of the market opening process; the aim of this thesis is to gain new insights into the market opening process, which is rarely treated as related above. Is this can be achieved, there is an potential for contributing to literature as well as practice on the following issues: 1) When should a country liberalise in relation to other countries? Early, with the rest, or late? 2) For what duration of time should the internal process be laid out? As rapid as possible, as slow as possible or perhaps concurrently with other liberalising countries? 3) In what order should the internal market opening process be conducted in terms of privatisation and liberalisation? Privatisation first, liberalisation first or maybe a simultaneous process. In order to answer these questions, the process of market opening must first be put at center stage.

Chance and Determinism

In the classical structure – conduct – performance paradigm, devoted solely to the product market structure, there is an interplay between the basic conditions, market structure and conduct of the players that under the influence of public policy yield performance outcomes.[72] The industrial organisation paradigm incorporates regulation, both among basic supply conditions and public policy instruments, but says little about the actual workings or mechanisms through which public policy and performance interact. In the model, public policy cannot directly affect or control economic performance, it can only affect market structure and conduct and thus indirectly create the potential for some performance outcomes.[73] To make this paradigm of industrial organisation more appropriate to the issue of sequencing, the capital market must be explicitly introduced together with

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72 In Scherer, FM & Ross, D. Industrial Market Structure and Economic Performance, Third Edition, Houghton Mifflin Company, Boston, 1990, the authors discuss short and long run effects and these terms could be squarely equated with temporary and permanent effects. However, the term temporary performance is used in this thesis in a somewhat different way and thus assigned a particular interpretation – to indicate not singular performance effects, but rather to describe aggregated profiles of various policy routes. With the term permanent performance effects that will be used later is implied aggregated temporary effects, that arise during the liberalisation process and linger on substantially in time after the process has been concluded that both privatisation and competition has been introduced.

73 Scherer, FM & Ross, D. Industrial Market Structure and Economic Performance, Third Edition, Houghton Mifflin Company, Boston, 1990

the notion of time. In our context, economic performance is thus determined by the combination of product and capital market status, not only by the product market status.[74]

Going from monopoly to state ownership towards workable competition and private ownership, the end-point consequences in terms of economic performance are fairly well known and predictable as related above. So far in this thesis, product and capital market movement have been unrealistically analysed in terms of two dichotomies pitted against each other. But firm conduct in terms of movement along the product and capital market axis is not a question of binary states, but rather of two vectors with a sphere of many possible solutions. On one national market, product submarkets may be classified differently and show different competitive climates, as may the ownership variable if any qualitative assessment of the relationship between PTO and the state at all is introduced. The dichotomies are convenient since they provide analytical leverage. But in this thesis they rather provide a basis for further exploration, since they as such reveal very little about sequencing and its properties. Instead, the process or movement from one capital and product market solution to another is the key interest.

However, the studying of movement in product, capital or both spheres has a particular purpose. One empirical observation already made earlier in this thesis indicates that there is divergence in how the processes have developed. Countries are approaching market opening differently -- how can these different approaches be accounted for? Do the processes themselves hold important implications for their subsequent constitution? If the processes did not matter, deterministism would hold, allowing for disregarding the element of circumstance and chance. But, the outcome is not totally unpredictable, as the empirical experience related above of various liberalisation and privatisation processes suggests a common pattern of change, of restructuring and of transformation. Narrowing in on the process could be one key towards understanding the interplay between chance and determinism in deciding the outcome of market opening processes.

Towards this end the market opening process must be decomposed; the working hypothesis being in this thesis that time matters. One important observation is that there actually are three interdependent parallel processes; the liberalisation process, the privatisation process, and the market opening process. Furthermore, the fact that the sequence in which the two processes of liberalisation and privatisation are initiated, managed and stabilised holds important implications for how the market opening process evolves. Focusing on the processes rather than the outcomes of the processes, yet searching for

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74 This approach is used by Rave Ramumurti in Privatising monopolies: lessons from the telecommunications and transport sectors in Latin America, John Hopkins University Press, Baltimore and London, 1996. He views economic performance as a result of managerial incentives primarily. Ownership provides a direct link to managers, competition and regulation are affected by the ownership status indirectly and also indirectly affect managerial incentives.

patterns that repeat themselves in new settings, the patterns themselves become outcomes in their own right.

Putting the lens on the processes rather than the outcomes demands a new perspective. The static long term consequences are of a minor importance. Instead, the short term consequences become most important. Instead of studying the principal shifts in policy and outcome, the actual actors and their activities in the struggle for resources and power become central. Towards studying temporarity as outcomes, the term economic performance must also be given a close cousin for further exploration; temporary performance effects. That is, economic performance effects that arise during the process and then disappear or submerge into the long-term performance effects. Are there temporary performance effects? Are they significant? Can temporary and lasting performance effects be separated at all?

One important underlying assumption is that there is a mechanism governing actors in their activities for controlling resources. Actors are assumed to be rational, informed and clever enough to work for their own interests.[75] In addition, they predict and understand their counterparts enough to predict their moves adequately – and actors act on their perception of the evolving process. These seemingly strong assumptions are believed to reflect reality relatively well in the actual context. The reasons are that no actors are newcomers to the game, instead they are experienced players, and that they are groups or organisations or aggregated groups of customers – not individual people.

The key is that the initiation of a market opening process will release a number of consequent actions by the involved actors. The drive of actors to gain, regain and compensate themselves during the market opening process is regarded as the prinicipal engine promoting and enhancing the process. Whatever tactic considerations that are made by national policy makers, there is difficulty in satisfying all groups during or after liberalisation has been introduced. Depending on the new capital and product market structure put in place, various interest groups will gain or lose – at least in relative terms as liberalisation may be expected to result in a net growth of welfare, but also in some instances in absolute terms as well. Whatever the chosen order becomes, the government sets the priority among interest groups that have important stakes in the processes; the management of the PTO, the employees, existing and future shareholders, private users and corporate users, potential entrants into the industry, taxpayers and the government itself which may represent dual interests.[76] Furthermore, small interests groups may yield dis-

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75 This assumption is the same as the one made in the classical industrial organisation paradigm, where the distribution of income under monopoly and competition are based, among other things, upon the assumption that consumers maximise their subjective satisfaction and firms maximise profits. See Scherer, FM & Ross, D. Industrial Market Structure and Economic Performance, Third Edition, Houghton Mifflin Company, Boston, 1990.

76 Olson, M. The Rise and Decline of Nations - Implications, Economic Growth, Stagflation and Social Rigidities, Yale University Press, New Haven, 1982.

proportionate influence over the process as they try to affect the redistribution of resources and jobs, due to better organisation and the dilution of power from those representing the broader interests.[77]

Consequently, an important issue in this thesis is that the patterns of action among actors set in motion by the policy makers initiating the market opening process, are different depending on how policy makers go about opening up their markets. The decision before policy makers is quite straightforward, although the consequences are not; either privatisation precede liberalisation, or liberalisation precede privatisation, or both process run in inseparable parallelity. Can this decision on the relative timing of the two sub processes explain why different national market opening processes exhibit different characters in terms of temporary economic performance?

When discussing various liberalisation paths and their properties, attention will not only be given to allocative and production efficiency, but also to societal progress, employment and equity. Introducing time, the process features sought in this thesis are the temporary ones. That is effects in terms of production and allocative efficiency, societal progress, employment and equity, which arise and subside during the movement from one capital-product combination outcome to another. These various indicators are merged into an aggregated holistic interpretation of various policy routes; that is, the general character of a process, not its individual particulars that may point in any possible direction. Having defined temporary performance effects, and using the framework of product and market capital status's, three stylised cases can be identified; the privatisation first – then competition route, the competition first – then privatisation route, and thirdly the simultaneous process where privatisation and competition are introduced at the same time or very close in time.[78]

The lack of experience in managing market opening processes explains why there are few indications on the properties of various policies regarding temporary performance effects. The next step is therefore to explore the actual properties of the three policy routes for liberalisation. The question now is: how have various policy routes performed in practice? What are the essential properties of market opening processes in terms of temporary aggregated performance effects?

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77 Olson, M. A Theory of Groups and Organisations in The Logic of Collective Action, 1965. Interpreting Olson in this context, a simultaneous liberalisation process may prove very complicated to carry out, since it implies taking on and challenging all interests groups involved at the same time which may bring the whole process to a standstill. It could thus be that the policy of simultaneity paralyses the process to such a degree that neither liberalisation, nor privatisation is achieved. A contrarian view is that simultaniety may be an attractive option as it may undermine the existing order of coalitions and interests rather swiftly and disable the possibility of various actors to build coalitions and protect their interests.

78 In practice, the liberalisation processes in terms of sequencing, are seldom as clear-cut as in the three conceptual cases outlined above, but hopefully they can be used to identify the issues that the different strategies raise.

Chapter 5.
EMPIRICAL INVESTIGATION

As of yet, few countries have yet lived through anything that could be equated with a complete liberalisation process, whatever definition used. Rather, objects available for study are limited to those countries that have progressed the most and also to those who in some respect provide both interesting and recorded experiences. With this in mind Sweden, the UK and New Zealand have been chosen for deeper study, based on a belief that these cases can contribute to new insights regarding liberalisation. At a first glance, Sweden and the UK represent two relatively clear-cut experiments regarding liberalisation, precluding the general liberalisation process in Europe. Although both countries share early liberalisation, their strategies are opposite regarding the ownership status of their PTOs. In addition the two countries offer fairly opposite paths in terms of sequencing of privatisation and competition. For lack of European examples on a more simultaneous route towards liberalisation, the New Zealand case was included. To facilitate comparison and analysis, three aspects of the movement between capital-product market combinations will be especially related in the cases: How were the processes initiated? How were the processes managed during transition? How were the processes eventually stabilised? And lastly, running through the three aspects: What aggregated performance consequences exhibited themselves during the process stages? First the UK case is presented, then New Zealand and finally the Swedish case.

The Case of the UK

Initiation. The UK was the first European country to liberalise and privatise its telecommunications services to any greater degree. Telecommunications was one industry among many that would be liberalised and the government of the early 1980s put up a number of state owned assets for sale. The motives for liberalisation was ideological and it was claimed that privatisation would contribute to economic efficiency.[79] After privatisation of BT – the incumbent PTO – was started in 1984, an exclusive duopoly lasting 7 years was created. It consisted of BT and Mercury – controlled by the UK based and also privatised

[79] Clarke, T. The Political Economy of the UK privatisation programme – A blueprint for other countries? in The Political Economy of Privatisation, edited by Tomas Clarke and Christos Pitelis, Routledge, London 1993

Cable&Wireless, as the only contenders.[80] After 1984, the British government held 51 percent and then gradually reduced its stake to 22 percent.[81]

BT and Mercury were competitors, but both companies soon established clear roles, based on tacit understanding. Cable television companies could provide local services, but only as agents of BT and Mercury. For national and international services, cable operators required an agreement with BT or Mercury to take their traffic. In addition, BT and Mercury had the right to choose whether they wanted to connect a cable operator to their network. Since BT had its own local network in place, Mercury was the only realistic alternative. This placed Mercury in a strong bargaining position when negotiating with the local telephony networks.[82] The two companies were in effect looking in the whole market and as a result the two companies earned huge margins on their international calls while the domestic price level barely sunk.[83]

Under the duopoly policy, which was fully implemented by the mid 1980s, Mercury began to make inroads into certain BT markets, using a pricing strategy designed to appeal to large users. Since BT was restricted until 1991 from offering quantity discounts, Mercury was able to undercut BT's usage tariffs. At the same time, relatively high access charges prevented low volume users (households mainly) from switching to Mercury. This was a result of the regulatory restrictions on BT's pricing.[84]

This very limited competition was subscribed to by OFTEL, the British Office of Telecommunications responsible for regulation and control of the market. In 1983 it announced that it would charge Mercury with an access fee. If Mercury reached 10 percent of the market, or BT's share went below 85 percent.[85] This cooled down the interest for Mercury to increase its market share, and made Mercury concentrate its efforts to the London area. After 8 years in the UK market, Mercury had between 3 – 5% total market

80 Caby L & Steinfeld C, Trends in the Liberalisation of European Telecommunications, Community Harmonisation and National Divergence, in Telecommunications in Transition, edited by Bauer. J.M, Caby L & Steinfeld C, Sage Publications, Thousand Oaks, California, US.

81 See Caby L & Steinfeld C, Trends in the Liberalisation of European Telecommunications, Community Harmonisation and National Divergence, in Telecommunications in Transition, edited by Bauer. J.M, Caby L & Steinfeld C, Sage Publications, Thousand Oaks, California, US, 1994; in 1994, the state share was reduced to one golden share, leaving the state with some token influence making BT the least state-controlled European PTO in terms of visible influence through the structure of ownership.

82 OECD Communications Outlook, 1995, Paris France.

83 World Telecommunications Development Report, ITU, 1994.

84 Cave M & Sharma Y, Foreign Entry and Competition for Local Telecommunications Services in the UK after the Duopoly Review, in The race for European Eminence – Who are the coming teleservice multinationals, edited by Bohlin E & Granstrand O 1994, North Holland.

85 Oftel, Annual report, London, 1991.

share and its core business remained servicing firms in London's city. Its residential service failed to gain even 1% of the UK market.[86]

The privatisation strengthened the position of BT, as the new shareholders became a political constituency to preserve the dominant position possessed by BT. Widespread shareholder involvement in the UK created a strong force opposed to curbs in BT dominance that might threaten its profitability.[87] As a result of the privatisation first – liberalisation later choice made by the British government, managed competition was introduced implying that only domestically based companies, and not foreign actors, could enter the British market. Only Mercury could invest in its own infrastructure – this was a small company with marginal revenues compared to BT, and limited resources.[88]

1981	British Telecommunications Act splits BT from the post office.
1982	White Paper announces the governments intention to privatise BT. Mercury is licensed as a national network operator in competition with BT.
1983	BT/Mercury policy announced.
1984	Telecommunications Act establishes new regulatory framework and designees Oftel to supervise it. BT is privatised; 50.2 percent of its shares are sold.
1985-86	BT undertakes major rebalancing of call charges.
1987	BT's quality comes under severe public criticism.
1988	BT accepts contractual liability for poor service. Regulation is extended.
1989	The use of private networks is liberalised. More mobile operators are licensed.
1991	White paper end the duopoly policy. The government sells more shares in BT.

Figure 5. Major policy events in the UK.[89]

Transition. Eventually, Mercury chose strategy. Prices were kept up not no reach 10 percent market share and the charges of the 10 percent level and beyond access fee. Both BT

86 Unpublished Telia Seminar documentation about the Swedish Telecom market, 9th April 1994 and The Regulation of the Telecom markets in Sweden and UK – A Comparison, August 1995, Coopers & Lybrand.

87 See Godefroy Dang-N'guyen and Denis Phan, Competition in the British Telephone Market, in The race for European Eminence – Who are the coming tele-service multinationals, edited by Bohlin E & Granstrand O 1994, North Holland, where they follow the evolution of BTs share prices between 1984 and 1991. The share price slowly but steadily increased over time from a low-high 1984 on 166-223 to 271-422 pence in 1991. During this period the share price ended higher during virtually every year compared to the year before.

88 See Godefroy Dang-N'guyen and Denis Phan, Competition in the British Telephone Market, in The race for European Eminence – Who are the coming tele-service multinationals, edited by Bohlin E & Granstrand O 1994, North Holland, where they compute that the Mercury/BT turnover ratio increased from 1.6% in 1988 to 6.8% in 1992.

89 Armstrong, M. & Vickers, J. Competition and Regulation in Telecommunications, in The Regulatory Challenge, ed. [illegible] Bishop, M. [illegible] Mayer [illegible] Oxford University Press, 199[illegible]

and Mercury had been given a negative incentive, instead of spurring them both to give better service and lower prices to users. Increased penetration and improved coverage were forfeited since the competitors were not free to increase and keep their market shares. Furthermore, there was no incentive to make new actors invest in order to replace and complement BT infrastructure.[90]

Despite the UK being an early liberaliser, competition as well as quality had developed rather slowly.[91] Between 1984/85 when competition was introduced and 1990/91, which was the last year before the duopoly review, BT lost around 1 percent of the residential market and about 6 percent of the business market. In the two years following the doupoly review, this loss of market share accelerated. However, in 1995 BT still held well above 90 percent of the overall market.[92] The impact of competition was also very uneven. By 1992/93 BT had lost 13 percent of the market for business lines and calls, but only 2 percent of the residential market. Its market share losses ranged from 20 percent for international calls down to 3 percent for local calls, and it held less than 50 percent of the market in the financial district in London.[93]

Competition was however only limited in some sectors. In those sectors where competition was allowed, it blossomed.[94] It rapidly become stronger where there was no entrenched incumbent that could fight off new competitors easily. The primary example was mobile telephony where there initially also was a duopoly with BT's Cellnet and Racal Vodafone, each holding a 50% market share.[95] In this field, competition was fierce from the outset as the playing field was more level and customers without prior switching costs had to be won.[96] Two new networks launched in 1994 – 1995, Mercury One 2 One and

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90 Unpublished Telia Seminar documentation about the Swedish Telecom market, 9th April 1994.

91 According to OFTEL, the achieved percentage of fault repair within two days by BT even worsened between 1986 from 87.1% to a low in 1988 of 83.3%. It has since increased to 99% in 1992.

92 Attenborogh N., Pricing and the development of Competition in UK Telecommunications, paper presented at the AIC Conferencene 2-3 December 1994.

93 Attenborogh N., Pricing and the development of Competition in UK Telecommunications, paper presented at the AIC Conferencene 2-3 December 1994.

94 According to Cave M & Sharma Y, Foreign Entry and Competition for Local Telecommunications Services in the UK after the Duopoly Review, in "The race for European Eminence – Who are the coming tele-service multinationals, edited by Bohlin E & Granstrand O 1994, North Holland, another area where competition was allowed to slowly gain momentum even before the 1991 review was the cable-TV sector. The cable companies of the UK had been given the permission to build combined TV and telephone networks although they could not compete for telephone traffic, and thus potential local competition was nurtured. No one else could invest in their own infrastructure, but the cable companies that anyway were not allowed to interconnect freely with the operators BT and Mercury. In the review they were given freedom to provide voice telephone services either independently on their own account or in conjunction with BT or Mercury. This new won freedom added valuable cash flow revenue possibilities in addition to returns from entertainment, making them versatile and viable competitors in the local market.

95 European Cellular Review, Barclays de Zoete Wedd Research, August 1995.

96 According to Godefroy Dang-N'guyen and Denis Phan, Competition in the British Telephone Market, in The race for European Eminence – Who are the coming tele-service multinationals, edited by Bohlin E & Granstrand O 1994, North Holland, a number of explanations to why there was such a low degree of competition in the British market come up at the doupoly review: it

Hutchinson Telecom's Orange, were contributing to the intensified competition in mobile telephony, challenging the profitable duopoly shared by Cellnet and Vodafone.[97]

In the duopoly review 1991, the government expressed dissatisfaction with the level of competition achieved. Faced with protests from residential customers neglected by BT, the government opened up the UK market to cable operators and international operators.[98] Summarising their view on the duopoly years Mark Armstrong and John Vickers (1995) wrote that:

> ..against the background of a history of vertically integrated nation-wide monopoly, modest progress towards a more competitive and better regulated telecommunications industry in Britain was made during the 1980s. In most respects however, it was a decade of lost opportunities. The decision not to restructure BT, and especially the deliberate restrictions on competition contained in the duopoly policy, acted to preserve the essentially monopolistic character of the old system in the basic area of network operation.[99]

Thus the doupoly years, although in their own way revolutionary, left UK in relative doldrums by the time they were ended in 1991. The UK market had been a comfortable duopoly between 1982 and 1991, especially in the later years. The war between BT and Mercury had been characterised by regulatory wrangling. The regulatory changes in 1991 abolished the BT/Mercury duopoly and the government declared that it would licensee more network operators. It took a couple of years to kick-start the process and make competition take effect, but by 1995 it was prevailing in an increasingly volatile and diverse market, contributing to a quite impressive redistribution of benefits through tariff changes and price reductions. The fields of long distance, regional and local telephony also experienced new entry on a major scale. [100]

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takes time to set up a network; Mercury had to raise funds and train personnel; Mercury targeted big customers mostly – and as a consequence the market penetration of Mercury was low. Other observers have added that the government did not want to threaten the success of BT's privatisation since BT was only one of the many state-holdings that eventually were to be privatised, and therefore made it hard for competition to bite into BT's market share; customers were not really prepared to switch to Mercury, because of their lack of knowledge and trust of this new network, and because of the fact that the price difference was not so high; BT reacted more quickly than foreseen to the treat of entry of Mercury and modernised their network, rebalanced their tariffs, improved their productivity and their relationship to their customers.

97 Public Network Europe, Yearbook 1995 – A comprehensive guide to European telecomms markets, regulation and policy.

98 Godefroy Dang-N'guyen and Denis Phan, Competition in the British Telephone Market, in The race for European Eminence – Who are the coming tele-service multinationals, edited by Bohlin E & Granstrand O 1994, North Holland.

99 Mark Armstrong & John Vickers, Competition and Regulation in Telecommunications, in The Regulatory Challenge, edited by Bishop M. Kay. J and Mayer. C, 1995.

100 In his ITS paper Changing Ownership, Technology and Customer Needs – BT's organisation response, David Cracknell working at BT, performs an interesting analysis of how stakeholder benefits has changed as time has moved on. Allocating the growth in real turnover among shareholder, consumers, employees, suppliers and government he finds that in the period 1985 to 1990 the major beneficiaries of liberalisation were private shareholders and employees, with some quite substantial benefits accruing to consumers as well. In the period 1991 – 1995, after the

Stabilisation. Because of the 1984 privatisation, BT embarked on rationalisation programmes and started to revamp its operations to enhance its competitiveness and defend its market position.[101] In the process, BT become one of the most aggressive and most ambitious operators in the world, fending of Mercury at home while expanding abroad, strengthening its market position before potential competitors could act.[102] Due to the controlled period of transition enjoyed by BT it was able to turn itself around and change culture and direction to assure survival.[103]

In 1994 users could choose from multiple suppliers for all existing and new telecommunications services. The catalyst for growth in the local market was the end of the doupoly. Following the end of the duopoly, the market for interconnection became increasingly competitive as both Mercury and BT interconnected with cable operators across the country. New market entrants started laying national networks and cable telephony operators were free to integrate regional networks and undertake their own switching. But despite the revised policy and increased number of entries usage of new services was not too impressive.[104]

Despite the last round of changes, the UK was still very reluctant in accepting both national and foreign entry.[105] Telia of Sweden had to fight and endure a long process in order to obtain a UK license. Sprint of the US had not yet been granted permission by mid 1995 to compete for international traffic from UK. Mercury had not reached more than 5 percent market share and the price setting was still regulated in great detail.

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doupoly review, this changed dramatically to the benefit of consumers who enjoyed a very strong increase in consumer surplus, while shareholders lost out heavily and employees were strong net losers.

101 See BT, Annual Reports 1991 – 93. According to the ITU 1994, BT reduced its staff from 246 000 in 1983 to 170 000 in 1994, a yearly reduction of 4 percent. During the same period Telia managed a yearly reduction of -1.6%. In Europe the average yearly reduction was -0.8 and among the world high income countries -1.9, setting BT apart from all other countries.

102 "Mercury Seeks a Way Out", Public Network Europe, February 1995, Volume 5, No 2.

103 Competencies and Diversification: The strategic Management of BT since 1984, by Howard Williams and John Taylor, in The race for European Eminence – Who are the coming tele-service multinationals, edited by Bohlin E & Granstrand O 1994, North Holland.

104 OECD Communications Outlook, 1995, Paris, France. In a special box the UK case is examined and the conclusion reached by the OECD is that altough the UK had made advances, the UK did not realise the full potential of liberalisation.

105 See Liadlaw, B. The Evolution of Telecommunications Policy in the United Kingdom, in Implementing Reforms in the Telecommunications Sector, edited by Björn Wallenius and Peter Stern, The World Bank, Washington DC, 1994; both BT and Mercury urged caution in licensing of new competitors. The outcome of these pressures was the doupoly policy. Broadly, Mercury was given the chance to develop its challenge to BT in whatever direction it felt best, supported by the assurance that the government would not license any other competitors until 1990 at the earliest. As part of this, resale opportunities were also deferred.

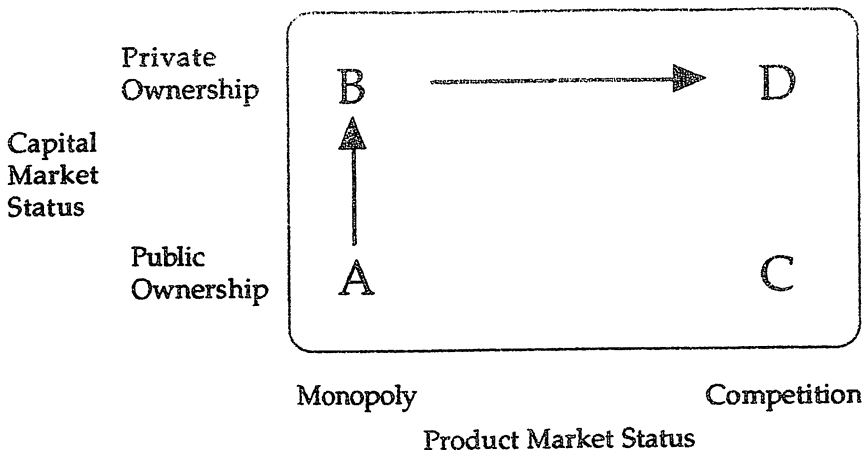

Figure 6. The UK policy route.

Summarising the UK experience, the key process was privatisation of BT as a part of the general privatisation drive by Thatcher led governments. Limited token competition was created in parallel when the privatisation of BT was started, but only after the doupoly review 1991 was competition allowed to become vigorous. Thus, the UK is an example of the privatisation first, competition later route.

The Case of New Zealand

Initiation. There are a number of reasons given why the New Zealand liberalisation process took place at all. New Zealand had for a long time suffered from low growth, high inflation, a lavish welfare system, and a steadily mounting public debt. A new social democratic led government came to power in 1984 under prime minister David Lange. A general redirection of policy was embarked upon, promoted strongly by the Finance Minister Roger Douglas. Whereas earlier, state ownership and control of the economy was strong in most sectors of the economy, the strategy now was to roll back government influence through privatisation and introduce competition in the New Zealand economy. In addition to this general strategy, telecommunications offered an interesting starting point since the rapid selling and privatisation of NZ Telecom would yield sufficient proceeds to reduce outstanding government debt with more than 10 percent. The very rapid action taken by the New Zealand government can also be attributed to its desire to obtain rapid results in order to reap the political benefits before coming elections.[106]

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106 See Massey, Patrick. New Zealand. Market Liberalisation in a Developed Economy, ST. Martin's Press, New York. 1995. for an extensive report on the transformation of the New Zealand economy – of which telecommunications was one part among many

Over a period of two years, from 1987 to 1989, the New Zealand Government completely liberalised the telecommunications industry. In 1987 the government restructured the Post Office to create New Zealand Telecom. The Telecommunications Act provided, in stages, for the liberalisation of the customer premises equipment market. An amendment to the Act in 1988 allowed any person to supply telecommunications services from April 1989.[107] The former state monopoly was renamed Telecom Corporation of New Zealand and privatised by the government in a single transaction on 12 September 1990. NZ Telecom, as it become known in the mind of the public, was created with four regional telephone companies and an international company, with a holding company at the top.[108] NZ Telecom was then sold to a consortium headed by two US based regional Bell operating companies, Bell Atlantic and Ameritech.[109] The purchasing consortium was to 90 percent controlled by subsidiaries of the American participants, whereas the New Zealand based partners in all held 10 percent. [110] The government also set a number of conditions for the sale of NZ Telecom to protect public interests.[111]

Prior to the liberalisation process, NZ Telecom had benefited form a substantial investment programme exceeding 2.5 billion dollars. This programme was undertaken during the 1980s before privatisation and transformed NZ Telecom's network, in four years into one of the most advanced in the world.[112] After liberalisation was carried through, there was first a period of quite impressive changes within the PTO. In anticipation of

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107 Evans, L. The Effect of Telephone Rate Re-Balancing on Residential Access in a De-Regulated Economy: Universal Service in New Zealand, working paper, Department of Economics, Victoria University of Wellington, 1996.

108 Donaldson, H. Telecommunications Liberalisation and Privatisation: The New Zealand Experience. in Implementing Reforms in the Telecommunications Sector, edited by Björn Wallenius and Peter Stern, The World Bank, Washington DC, 1994.

109 Price Waterhouse, Televerket and the Development of the telecommunications market in Sweden against the background of international experience. February, 1993.

110 Price Waterhouse, Televerket and the Development of the telecommunications market in Sweden against the background of international experience. February, 1993. The government retention of one share in the privatised Telecom – the Kiwi share – was meant to allow the government to enforce certain undertakings from Telecom NZ. The new owners of Telecom New Zealand agreed to the: 1) retention of free local calling option for residential customers, and 2) a freeze on the real level of standard residential tariffs, that is a CPI -0% price cap, unless the profitability of the regional companies would be unreasonably impaired, and 3) Equal exchange line rental charges for urban and rural residential customers, with residential service no less available than in 1990

111 According to Telecommunications Information Leaflet No 1. 1) Ameritech had to reduce their joint holding to under 50 percent by September 1993, and 2) At least 500 NZ million worth of shares had to be made available for public offering on the New Zealand market. and 3) retention by the government of a Kiwi share (or golden share) with special voting rights to control maximum share holding of any foreign party and transfers of blocks of shares among parties Quoted from Ferreira, BC. Co-ordination between Network Industry Operators in a Light-Handed Model of Regulation: Application to the New Zealand Telecommunications Industry. ITS Conference paper, Seville, Spain, 1996.

112 The digitalisation rate increased dramatically, and by 1993, more than 93 percent of exchanges were electronic, according to: Evans, L. The Effect of Telephone Rate Re-Balancing on Residential Access in a De-Regulated Economy: Universal Service in New Zealand, working paper, Department of Economics, Victoria University of Wellington, 1996.

competition rather than of competition itself, NZ Telecom started to lay off people and introduce a number of new services. NZ Telecom call revenue fell by 13.8 percent in the six month to September 1992, and international calls by 6.2 percent over the same period mainly because of a generally harsh economic climate.[113]

NZ Telecom was regulated within in the framework of the Commerce Act of 1986, as is any other company in New Zealand. With the exception of residential line rentals, there were no other direct regulation of prices – the promotion of competition was seen as the best means to protect consumers. At the time of its privatisation, NZ Telecom undertook to facilitate development of competition by providing interconnection on fair and reasonable terms. There was no other legal requirement as to the basis of NZ Telecom's interconnection charges, which were intended to be the subject of commercial negotiation in good faith between Telecom NZ and its potential competitors.[114]

Back in 1988, trade and finance ministers gave several reasons for reliance upon the Commerce Act of 1986, which was then enforced by the commerce commission, rather than the establishment of a specific regulatory authority. The Commerce Act was expected to be sufficiently robust and effective in dealing with abuses by the dominating operator. NZ Telecom had also given assurances that it would facilitate the emergence of a competitive market in telecommunications, and in particular that it would provide interconnection on fair and reasonable terms. This was supposed to be assured by NZ Telecom promising to undertake accounting separation of its main activities. In addition, the government at that time wanted a contestable market in telecommunications where NZ Telecom would be subject to the threat of competitive entry, without requiring that competitors actually operate in any particular market.[115]

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113 Price Waterhouse, Televerket and the Development of the telecommunications market in Sweden against the background of international experience. February, 1993. NZ Telecom anyway enjoyed strong revenue growth in mobile services, advanced network services, and directories compensating losses in the core operations. Telecoms performance had also been boosted by reduced operating costs, particularly staff costs. The 1987 peak of 24 500 Telecom staff had been reduced to 14 925 by March 1991, with staff falling another 1 300 during 1992. NZ Telecom introduced billing for national calls by the second from April 1992, rather than rounding of to the nearest minute, and in December 1992, NZ Telecom become the first operator world-wide to offer commercially intelligent network applications

114 This implies that NZ Telecom is not subject to any industry – specific regulation but, as with any business operating in New Zealand, is subject to the 1986 Commerce Act. This act is designed to enlist actual and potential competition to discipline firms. The key section 36 prohibits any firm from using its position to prevent entry, from deterring competitive conduct and from eliminating competitors, and carries company and personal penalties for non-compliance. In another section, No 56, the government is allowed to impose price controls. quoted from: Evans, L. The Effect of Telephone Rate Re-Balancing on Residential Access in a De-Regulated Economy: Universal Service in New Zealand, working paper, Department of Economics, Victoria University of Wellington, 1996.

115 See Price Waterhouse, Televerket and the Development of the telecommunications market in Sweden against the background of international experience. February, 1993, for the reasoning leading the New Zealand government to opt for a light-handed regulatory model: 1) cost, 2) the difficulties in drawing up detailed rule and regulations, 3) the encouragement of the interested parties to continually seek assistance from the regulatory authority rather than solving disputes

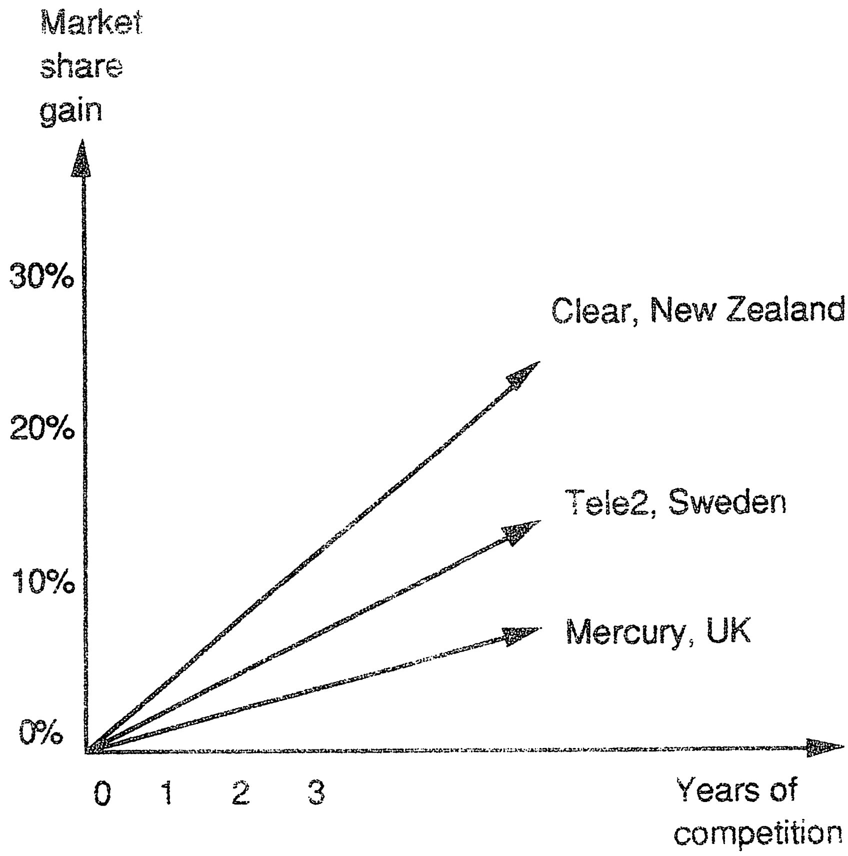

Figure 7. The fate of the challengers in New Zealand, Sweden and the UK.[116]

Transition. Network services competition became possible from April 1989, but it was in October 1990, shortly after the privatisation of NZ Telecom, that Clear Communications Ltd was formed to compete in the network services market. Clear was a joint venture between Bell Canada, MCI Communications, Todd Corporation and Television NZ. After substantial legal wrangling, NZ Telecom signed its first limited interconnection agreement with Clear Communications in May 1991, more than two years from the beginning of negotiations. Clear began to offer private circuit services from January 1991 and national long distance and international services from May 1992. Clear started to negotiate interconnection agreements with NZ Telecom thereafter, but soon negotiations broke down and the parties settled for a limited interconnection agreement, where only limited toll-bypass interconnection was agreed upon.[117]

themselves, 4) the problem of regulatory creep, i.e., the seemingly inexorable tendency of regulatory bodies to grow and get involved in ever greater detail, and 5) the risk of over stimulating investment by new entrants through pro-competitive measures.

116 Based on company reports and JPMorgan estimates in Information Report – Telia: How to Grow Earnings in a Tough Market, London, November 29, 1996.

117 Ferreira, BC. Co-ordination between Network Industry Operators in a Light-Handed Model of Regulation: Application to the New Zealand Telecommunications Industry. ITS Conference paper, Seville, Spain, 1996.

The conditions under which Clear could interconnect its directly connected customers to NZ Telecom's network were not settled. As no regulatory framework for telecommunications had been implemented, Clear had no other option but to take their case to court. The case began in August 1991 and reached a judgement in December 1992. The main concern was to establish an interconnection price level that would take into account Clear's contribution to public service. In parallel, Clear demanded that it should get equal access to the international calls market. NZ Telecom refused to go along with Clears view leading to a dispute that reached an interim half-way award in May 1994.[118]

Through its tariff structure, which cross-subsidised deficits on residential line rentals from surpluses on national and international calls, NZ Telecom was deterring market entry in the local calls market. Eventually, Clear saw no alternative but to build its own more comprehensive infrastructure to bypass NZ Telecom, at least for major corporate customers.[119] Clear also tried to obtain new interconnection terms to enable it to expand its services to include local call services and long distance services to regions which it so far were not serving. While NZ Telecom remained the dominant wholesale and retail provider of all private circuits – local, national and international – competition was at last emerging from Clear and others such as electricity utilities, NZ Railways, the NZ television broadcasting organisations, and international operators such as Telstra, based in Australia. By mid 1995, after 4 years of operation, Clear claimed about 20 percent of domestic long-distance calls and 23 percent of international call made from New Zealand.[120]

Clear's pricing strategy for establishing itself was to discount against NZ Telecom prices on all the services for which it competed. The slogan with which Clear positioned itself on the market was that customers would always save with Clear. The pressure of competition generally reduced NZ Telecom tariffs. In December 1992, NZ Telecom cut

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118 According to Ferreira, BC. Co-ordination between Network Industry Operators in a Light-Handed Model of Regulation: Application to the New Zealand Telecommunications Industry. ITS Conference paper, Seville, Spain, 1996, NZ Telecom's interconnection negotiations with other potential competitors were similarly protracted. As a result NZ Telecom, by mid 1995 still was the only supplier of local calling services for any customer, whether residential or commercial. In national long distance and international calls, Clear became the only serious competitor to Telecom NZ. Other potential markets entrants were delayed or deterred by the difficulty in establishing acceptable interconnection agreements with NZ Telecom. Since there were no published official details on the interconnection charges between Clear and Telecom NZ, the terms of which remain in commercial confidence, no established standards and practices have become generally accepted in the industry. Furthermore, there has been a substantial number of complaints about the delays and uncertainty in the negotiations with NZ Telecom on interconnection from Clear and other actors.

119 According to NZ Telecom's annual report 1995, it still at the end of 1995 had a 100 percent market share in local calls. In national and international calls its market share had gone down from 100 percent 1990 for both categories, to [illegible] percent for national calls and 76 percent for internatinal calls at the end of 1995

120 Bromby, Robin. Blazing a Trail [illegible] Telecommunications, International Edition, October 1995.

selected long-distance and international calls tariffs, in some cases to tariffs that were cheaper than Clear's. This was part of NZ Telecom's strategy to undermine Clear's original market positioning. However, competition forced NZ Telecom to rebalance its tariffs and other prices. In August 1992, it raised residential equipment rental rates by 67 percent and doubled the cost of some peak national calls from public pay phones. At the time of privatisation, NZ Telecom residential customers were not charged for local calls. The charge for local calls was effectively bundled in with exchange line rentals. This deterred market entry by potential competitors such as local electricity distribution companies.[121]

By postponing and stalling competition, NZ Telecom bought time for internal restructuring and dramatic efficiency improvement. In early 1995 the company had a staff of about 9 000 people compared to about 26 000 at the time of privatisation.[122] The consortium also tried to stall the continued devolution of their share holding, indicating the they wanted to keep control as long as possible. In July 1991, Bell Atlantic and Ameritech sold 724 million shares in NZ Telecom to the public and institutions, in a world-wide public offering. By October 1992, around 27 percent of these shares, had flowed back to New Zealand investors. In the original privatisation agreement, the consortium buying NZ Telecom had undertaken to reduce its share holdings in NZ Telecom to a maximum of 49.9 percent within two years. The Bell Atlantic/Ameritech consortium searched an extension by one year, to September 1994, on its obligation to place the second tranche of Telecom Shares which would reduce its stake to 49.9, claiming weak stock market conditions for the postponement. NZ Telecom financial performance was generally strong after the privatisation. NZ Telecom's return to shareholders continued to increase until the present day, making the consortium holders reluctant to off-load their holdings.[123]

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121 Price Waterhouse, Televerket and the Development of the telecommunications market in Sweden against the background of international experience. February, 1993.

122 According to Bromby, Robin. Blazing a Trail in Telecoms, in Telecommunications, International Edition, October 1995, NZ Telecom also actively tried to stall competition by raising the barriers to entry. NZ Telecom has pressed for some time for a policy change so that Clear, and any other competitor, should contribute to NZ Telecom's losses on residential service through interconnect tariffs, citing Canada, Australia, UK and US as countries where competitors are required to contribute. In addition, NZ Telecom also tried to alter content of the privatisation agreement. In March 1992 it asserted that it had ground for breaking the restraints of the Kiwi share agreement, because its regional companies earned a return of 9.95 percent on shareholders equity compared to 15.2 percent for the whole company. NZ Telecom also asserted that government consent for such a move would not be mandatory. Amidst some public furore, NZ Telecom retreated and said that it had no immediate plans to break the KiwiShare restraints, but would instead focus on cutting operating costs and creating revenue.

123 According to Telecommunications Information Leaflet No 5, Mars 1995, NZ Telecom's rate of return on average shareholder funds increased steadily, and had increased every single year during the period of 1989, when it was 10 percent to 1995 when it was over 30 percent.

1986	Government commission study on sector re-organisation.
1987	Telecommunications Act of 1987 implemented for the liberalisation of customer premises equipment. Separation of postal and telecommunications services. New Zealand Telecom to operate on commercial principles.
1989	Implementation of full deregulation, including international services. Competition possible from now on.
1990	The whole of New Zealand Telecom sold to an American consortium. Information disclosure regulations implemented. Clear, the challenger, is formed.
1991	Clear launches national and international switched services.
1992	Commerce inquiry report published finding that New Zealand Telecom in fact was regulating itself.
1993	Bell South launches competing mobile service.

Figure 8. Major policy events in New Zealand.[124]

Stabilisation. The commerce commission produced a report in June 1992 following a telecommunications industry inquiry. NZ Telecom had refused to participate in the inquiry from December 1991. The commission's report already at that time effectively concluded that in the absence of a specialist regulator, NZ Telecom had become the de facto regulator of the telecommunications industry in New Zealand. The report also noted that the legal system was not well-equipped to deal with regulatory and competition issues in a fast – moving industry such as telecoms. The report argued that the Act was designed to promote competition in general, and did not deal well with problems in a quite special industry where a critical input – the public switched network – was a natural monopoly, and in the control of one party. The commission concluded that the disclosure regulations that the government had introduced to assist competitors were of no real value in developing competition, and that the Commerce Act provided help only of a protracted, expensive and uncertain kind, with definite limitations on its effectiveness and scope.

NZ Telecom was markedly reluctant to invest abroad. One particular success story was NZ Telecom's Australian arm, Pacific Star, which provided services on the Australian market. Apart from that, NZ Telecom decided not to proceed with plans to enter other Asian telecommunications projects. During 1994 and 1995, when it actively searched for investment opportunities around Asia, they found no suitable projects. Looking into India, the Philippines and Indonesia, NZ Telecom concluded that they found insufficient profit potential and unattractive regulatory environments. Instead, NZ Telecom turned

124 Quoted from Televerket and the development of the telecommunications market in Sweden against the background of international experience. Price Waterhouse, February 1993

inwards, creating special tariff plans for poor people. In July 1995, a special half-priced line rental was offered to 20 000 low-income households.[125]

NZ Telecom continued to thrive, enjoying strong volume growth both in access lines, call volumes, usage of network services and cellular services.[126] But in the absence of vigorous competition due in part to the limited number of competitors, there were indications in 1995 that NZ Telecom was still earning monopoly profits.[127] Liberalisation, despite these drawbacks, provided substantial benefits to consumers, whose telephone bills had markedly declined in real terms in the 1986 – 1991 period.[128]

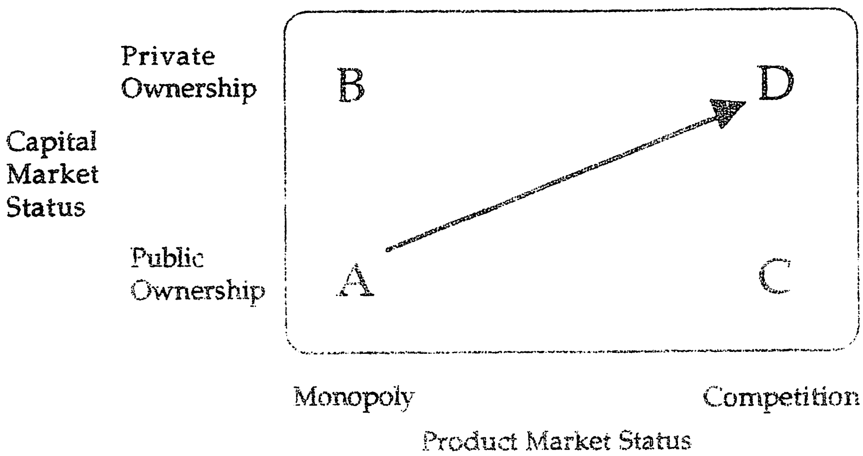

Figure 9. The New Zealand policy route.

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125 Bromby, Robin. Blazing a Trail in Telecoms, in Telecommunications, International Edition, October 1995. Another sector that has been contributing to overall stronger pressure and competition has been the challenge of mobile telephony to NZ Telecom. New Zealand previously had only one mobile network: NZ Telecom's analogue network. Through the establishment of BellSouth New Zealand, majority owned by BellSouth Corporation of the US, a digital GSM network was introduced. As a result competition stiffened substantially. BellSouth NZ invested more than 225 million USD to create a mobile network covering the whole of New Zealand, reaching a coverage rate of over 90 percent. With aggressive pricing, the introduction of new services and subsidised terminals, penetration increased rapidly to about 14 percent of the population by the beginning of 1995.

126 Bromby, Robin. Blazing a Trail in Telecoms, in Telecommunications, International Edition, October 1995.

127 According to Ferreira, BC. Co-ordination between Network Industry Operators in a Light-Handed Model of Regulation: Application to the New Zealand Telecommunications Industry. ITS Conference paper, Seville, Spain, 1996, possible explanations were 1) that there had been limited entry because the market was not so big and therefore deemed not so lucrative, 2) that there had been numerous conflicts between operators and the competitive environment had been very uncertain, and 3) that there had been long delays before disputes have been resolved

128 According to the Department of Statistics and its telecommunications price index, between December 1986 and March 1991 residential telephone rentals had risen in real terms by 23 percent, while residential call charges had fallen by 43 percent. At the same time, greater flexibility in charging had been introduced. In 1985 the average waiting time was 6 weeks, by 1994 there was no waiting list. Quoted from Donaldson, H. Telecommunications Liberalisation and Privatisation: The New Zealand Experience. in Implementing Reforms in the Telecommunications Sector, edited by Björn Wallenius and Peter Stern, The World Bank, Washington DC, 1994.

Summarising the New Zealand case, it produced its own special outcome in its quest for economic performance. Free competition was introduced on paper, but in essence competition more than 7 years after its implementation in 1987 was not very strong, although by 1995 there were strong signs of improvement.[129] Furthermore, New Zealand privatised early and struck a generous deal for the US dominated consortium assuring it of substantial profits. Following the liberalisation path of simultaneity, neither was a strong viable PTO created with a strong home base that could expand internationally, nor was efficiency in the domestic marketplace achieved. Rather, New Zealand got the worst of two worlds.[130]

The Case of Sweden

Initiation. Until 1993, Sweden was almost alone among developed countries in having no statuary policy defining the monopoly or reserved rights of the dominant telephone company. Indeed, in the absence of specific obligations and prohibitions, Sweden theoretically represented the most open and liberal telecommunications market in the world since competing operators were not bound by licences or licence obligations. In practice Telia, the PTO and de facto monopolist, enjoyed a position that was as powerful as any formalised monopoly.[131] Like most other European telecommunications providers, Telia was a 100 percent state-owned company. But, the company had never been integrated with the postal services and since 1984 it had even been responsible for raising its own capital.[132] Until as recently as the early 1990s Telia often acted as its own regulator, for example by setting interconnection rates, assigning radio frequencies and awarding permits for radio transmitters.[133]

The new telecommunications Law for services came into effect in June 1993, and it introduced a system of operator licensing which empowered a new independent regulator – the Post och Telestyrelsen, or PTS.[134] Despite the formalisation of much that was pre-

129 According to Evans, L. The Effect of Telephone Rate Re-Balancing on Residential Access in a De-Regulated Economy: Universal Service in New Zealand, working paper, Department of Economics, Victoria University of Wellington, 1996, there has been a fall in the real price of the basket of residential call since 1986, which is also found by Donaldson above, but Evans also finds that during the period until 1990, the price of residential access increased sharply, which suggests that it took time for competition to take hold, especially in the local loop.

130 Logdin, L. The New Zealand Telecommunications Industry: The worst of two worlds, working paper, University of Auckland, 1995.

131 Telelag – betänkande av Telelagsutredningen, SOU 1992:70. Allmänna Förlaget, 1 Juli 1992.

132 Telia, unpublished seminar documents.

133 Morgan Stanley Investment Research, Global Telecommunications: Sweden. Telia: Into Uncharted Territory, by Michael Armitage, 3 August 1995.

134 In, Co-ordination and Change in Telecommunications, EFI Research Report, February 1994, Claes-Fredrik Helgesson shows that the Swedish market for terminal equipment had been partly liberalised in [illegible]. During the period 1968 to 1989, there was a gradual liberalisation of the market for PBXs.

viously achieved passively, regulation remained essentially pragmatic and consensual. Telia was allowed a large measure of freedom to rebalance its tariffs and to restructure its cost structure. In return, emerging competitors were allowed a modest degree of entry assistance, which was set to largely disappear by 1996.[135] Under the new regime, Telia's obligations were set out in a management contract which operated in parallel with the 1993 Law. The contract guaranteed universal service at uniform prices for basic services, and set an annual price-cap for basic services based on the net-price index – NPI-1 percent, for all basic services to single line customers.[136]

In parallel with the introduction of new legislation, Telia was corporatised in January 1993.[137] It was generally assumed that Telia would be at least be partly privatised in concert with the market opening, despite that a privatisation was ruled out at the time of the incorporation 1993.[138] The conservative-led government at the time had through the Minister of Privatisation, Per Westerberg, committed itself to a sweeping privatisation programme which eventually would encompass most of Swedish state holdings, making the privatisation of Telia seem like a matter of time. A number of estimates were also made, indicating a value of SEK 50 – 60 billion for Telia if it was to be floated on the Stockholm Stock Exchange.[139]

Transition. Telia, which was the responsibility of Mats Odell, Minister of Communications, was however put on hold and not privatised in the first row of companies. The privatisation was delayed, the motive given was the weak economic climate, and Telia would have to wait until the stock market recovered from recession in Sweden. Although Sweden emerged from recession and the stock market rebound, Telia was still not privatised. It was claimed that there was a capital shortage on the Swedish stock market and that Telia could not be absorbed by the stock market – justifying that Sweden would wait even longer. After the new Social Democratic government was elected in the autumn of

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135 Morgan Stanley Investment Research, Global Telecommunications: Sweden. Telia: Into Uncharted Territory, by Michael Armitage, 3 August 1995.

136 Public Network Europe, Yearbook 1995 – A comprehensive guide to European telecommunications markets, regulation and policy.

137 According to Affärsvälden, Staten åderlåter Telia, 16 juni 1993, during the year of 1992, when the new policy was being prepared, Telia had to supply the government with over 5 billion SEK in cash funds. During 1993 it was forced to buy back a loan for 2.2 billion seek – and pay an extra tax of 2.4 billion to the government – tapping Telia for cash. The government had previously not meddled in the financing of Telia. It had let it manage itself since 1984 and had let the profits accumulate in the group. As a consequence the pressure on Telia was increased to rationalise, to compensate for its higher cost of capital. The solidity had gone down from close to 80 percent in the beginning of the 1980s and was at the time of the corporatisation 26 percent. At that time the average in European telecoms was about 35 percent.

138 Telelag – Betänkande av Telelagsutredningen, SOU, 1992:70

139 Public Network Europe, Yearbook 1995 – A comprehensive guide to European telecommunications markets, regulation and policy.

going traffic volume. Telia also tried to improve its customer stock by getting rid of unprofitable and complicated customers. Furthermore, by delaying the introduction of number-portability, Telia guarded its customer base and avoided to lose customers entirely, using the reluctance of customers to change their telephone numbers.[146] Eventually more and more of Telia gimmicks to stall and control competition had to be abandoned as competition deepened and the PTS became more effective in its work.[147]

The government had been encouraging interest among new players and the Swedish system welcomed new entrants into the market. The 1993 Act stipulated that licences would be granted "unless the applicant is obviously not capable to pursue the activity on a permanent basis". Subsequently, there was a flood of new operators.[148] STATTel, the body created in 1991 to procure cheaper and more efficient telecommunications services for various arms of government, had dealt Telia some heavy blows. Its landmark award was a framework contract for national data services to France Telecom Transpac ahead of BT of the UK and Tele2 of Sweden (Sweden's second operator owned by Kinnevik and Cable & Wireless). Telia's bid was found higher and was a clear indication that the government, as a user of telecommunications, would not favour Telia.[149]

1981	Competition allowed in mobile services when Comviq was established.
1985	Competition allowed in terminal equipment.
1988	Competition gradually allowed in switching equipment.
1989	Post and Telestyrelsen established as a separate government body responsible for the telecommunication and postal sector.
1991	Tele2, the first switched network services competitor, was established.
1992	The proposal for telecommunications regulation in Sweden was presented and accepted by Riksdagen in Sweden. Both Comviq and a new operator, Europolitan launched new mobile GSM services.
1993	The new telecommunications act was implemented. Televerket was corporatised and renamed Telia.

Figure 10. Major policy events in Sweden.

146 Sluta Maska, Telia! Dagens Industri, 7 September 1995.

147 In practice Telia still operated almost a monopoly in local access, where other operators were using Telias infrastructure to access customers. Tele2 was Telias main competitor, although according to PTS in 1995 there were eight licensed operators for PSTN services, seven for leased lines, and four for mobile services. New operators have focused on indirect access, utilising Telias local access network, thereby introducing competition fairly quickly without the overhead of building a new physical infrastructure.

148 According to the PTS, the number of applications and granted licenses increased dramatically during the 1993 – 1995 period. According to the National Registration Office for new corporations, the number of actors active in network services increased more than ninefold from the period 1988 to the mid of 1994.

149 Public Network Europe, Yearbook 1995 – A comprehensive guide to European telecommunications markets, regulation and policy.

Stabilisation. Although the new regime had been in place for only two years some early evaluations of the liberalisation process surfaced.[150] Contrary to what could have been expected, mixed effects were reported, showing that although Sweden had achieved good results in terms of absolute economic performance because of Sweden's history as an advanced telecommunications country, Sweden had not reaped substantial gains from the short period when the new regulatory regime had been in place.[151] Furthermore, despite the fact that Telia had been squeezed at home, it had shown considerable effectiveness, especially in its international expansion, confounding those who expected that Telia would be severely hurt by the intensified competition at home.[152] In addition, the adoption of Internet was somewhat slower than could be expected, considering Sweden's rapid absorption of mobile and other new telecommunications services.[153]

Country	1993	1994	1995
Finland	6.56	13.54	42.78
Iceland	6.77	17.41	31.96
Norway	7.16	11.28	19.67
Sweden	4.72	8.53	16.69
Switzerland	4.69	7.21	11.61
Netherlands	2.88	5.66	11.32
Denmark	1.62	3.56	9.78
United Kingdom	1.91	3.89	7.57
Germany	1.39	2.47	5.89
France	0.94	1.45	2.63
Italy	0.29	0.71	1.32

Figure 11. The number of computers connected to the Internet 1993–1995 per 1000 inhabitants.[154]

150 In an industry analysis made by JPMorgan on the Nordic Telecommunications sector, November 1996, revenues per line were compared across the Nordic countries. Suggesting that the strength of competition was indicated by revenues per line (the lower the revenue per line, the sharper the competition), JPMorgan found that Sweden had an average revenue of 840 USD per line, compared to an European average of 847. Finland had 633, Norway had 896 and Denmark 898 USD.

151 Riksrevisionsverket evaluating the 1993 – 1995 period in a report called Två år med telelagen (Two years with the law of telecommunications), found that for fixed telephony the number of operators offering services to households and companies had not increased. The variety of services and packages had increased though. RRV also found that tariffs had increased for local calls, but decreased for all other service categories. The competition was greatest in international calls. Regarding mobile telephony RRV found stiff competition, but noted that prices had been fairly constant while the variety in service offerings had increased. RRV however also pointed out that a number of new operators had just been entering the market or were preparing entry, and predicted that competition eventually would increase substantially.

152 Telia invests in its backyard, Public Network, July/August, Vol 6, No 7, 1996.

153 One possible interpretation of this paradox is that in the mobile services industry there were much stronger producer interests supplying the market. Both Ericsson and Nokia marketed their terminal equipment strongly in co-operation with Telia Mobitel, Comviq and Europolitan, who were pushing for explosive growth in mobile telephone subscriptions.(see Teletjänster och IT-användningen i Sverige, Nutek, 1995)

154 Compiled form RIPE DNS Hostcount/Statistics Finland, Telmo 1996. Quoted from JPMorgan industry analysis of the Nordic Telecom's sector: Tomorrow's world today? November 1996.

In addition to the indications that Telia had fared quite well, while regulation had not been that effective in creating competition, a new threat was projected on Telia and its future effectiveness.[155] A report produced by the Ministry of Finances special department on public studies – ESO – noted that there were important obstacles to the realisation of full competition in Sweden. The report concluded that the pivotal point was that the regulation for interconnection did not work and tilted the balance in favour of Telia. The important policy recommendation in the report was that Telia should be split up in two separate organisations with a common holding company – one for network operations comprising the access network and one offering services in competition with other operators.[156] In parallel, challenging operators, especially Tele2 and TeleNordia, complained loudly that fair competition presently was impossible and that the governments commitment to fair competition was at stake, since the new operators could not compete for access on the same terms as Telia. Telia also started to deliver stellar performance after a couple of difficult years.[157] Amidst great uncertainty among policy makers and a wish on their side to keep Telia united and state-owned, as well as resistance and disagreement within Telia regarding pros and cons of different regulatory models, future policy development became very unpredictable.[158]

155 In the beginning of 1997 it became evidently clear that competition started to bite as never before. In a statement to the press on January 9th 1997, Telia announced the lowering of its prices – between 9 and 40 percent on all international calls. Calls to Sweden's big business partners UK, Germany and the US were lowered by 25 percent.

156 Nästa steg i telepolitiken, ESO Group, Ministry of Finance, 1996.

157 See Telias Internet Service presenting corporate results. For the period jan – sep 1996 revenue was growing by 7 percent, and despite a slowly falling gross margin – from 32.1 to 30.7, Telia's net margin was improving from 11.8 to almost 13 percent of total revenue, thanks largely to cost reductions. During 1993 to 1995, revenue had been falling or constant while profitability had been maintained by staff lay off. In 1996, the staff was increased for the first time since the late 1980s.

158 In October 1996, Ines Uusman, the Swedish Minster of communications, in a sudden move announced that the Swedish government was considering privatisation of Telia, despite previous policy statements issued by the communications department establishing that Telia would remain in government hands for the foreseeable future.(Finanstidningen 1996-10-22: Regeringen överväger privatisering av Telia – Ines Uusman byter fot – börsnotering diskuteras)

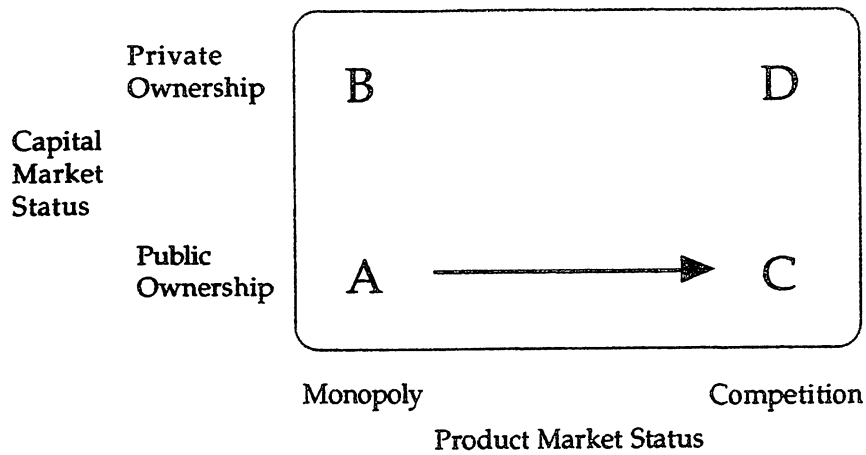

Figure 12. The Swedish policy route.

Summarising the Swedish experience, Sweden first opened its product market for domestic and foreign entry in an unprecedented fashion, as it allowed for early and unilateral entry without reciprocity obtained for Telia abroad, promoting competition unconditionally. The government had by mid 1996 not privatised Telia, leaving the Swedish process regarding competition and privatisation in a rather unique dichotomy – relatively complete market opening with relatively vigorous competition and simultaneously complete state-ownership of Telia.

Chapter 6. PROCESS CHARACTERISATION

The first immediate observation emanating from the cases above is that the three studied countries have taken different paths towards market opening. In this chapter the cases are analysed in order to find out whether the national experiences actually were different and if sequencing mattered.

The National Champion Route

In the UK, the British government restricted competition to entice private investors when privatising. The way to lure private investors were explicit regulation and inexplicit promises that would protect BT and make sure BT's performance would satisfy private investors. By privatising and doing so early, a new powerful interest group was created which had a stake in the stalling of completed liberalisation, and in particular vigorous domestic competition. This is very much in accordance with Jones et al.'s model which predicts that a government may be tempted to sell a firm with the monopoly intact to maximise flotation proceeds.[159]

There was to be some competition, and in a narrow sense the UK process possessed a degree of simultaneity, but Mercury was not allowed to seriously threaten BT. In particular this was so since privatisation was a political project nurtured by the British government. BT was one of many state-asset to be privatised, while competition was a secondary concern. No earlier than in the early 1990s did the British regulator OFTEL abolish the duopoly in place since the privatisation of 1984. The long time before the product market conditions were changed can, in line with the commentators on Jones et al.'s model, be very much attributed to the governments need to safeguard its credibility and keep the BT shareholders content.[160] In the UK, privatisation was implemented early and thus private investors naturally expected a share in future excess profits due to the restricted competition that was to be implemented in parallel. By tying its hands and introducing managed competition, the UK government inflicted costs on the UK society for the benefit of BT's private shareholders, as suggested by Greenwald.[161]

159 Jones, L. Tandon, P. & Vogelsang, I. Selling Public Enterprises, MIT Press, 1990.

160 Jackson, PM. & Price, CM. Privatisation and Regulation – A Review of the Issues, Longman, 1994,

161 Greenwald, BC. Rate Base Selection and the Structure of Regulation. Rand Journal of Economics 15: 85 – 95, 1994. The cost to the UK society is indicated by appendix 3 where a number of performance indicators are presented. For instance, UK mobile penetration was quite impressive by

Privatisation without market liberalisation created a lock on the supply side and conserved the dominant product market position enjoyed by the PTO. Perceiving this risk, the UK government found that they could not simply privatise and corporatise their telecommunications administration without the addition of some regulatory framework and the introduction of at least symbolic competition. The regulation enacted was seldom allowed to pressure the incumbent PTO too hard however, as limits to the scope of competition were introduced – exclusivity provisions in terms of number of competitors, prices and segments exposed to competition were frequent.[162] The UK reviewed its competition policy time after time to mitigate the negative effects springing from PTO domination. The regulation would at times promote BT, at times competition (Mercury) in the process, introducing new distortions.

BT became more efficient and more effective than if it would have been state owned, but relatively little of the surplus accrued to customers or users as showed by Cracknell.[163] The new privatised company tried to maximise the rents that it could appropriate from its operations, to the benefit of its private owners. The UK liberalisation preserved BT's dominance, but the UK may be considered more successful in terms of creating a large tele-service multinational than Sweden. BT's strength is unsurpassed in Europe and it is almost sure to emerge as one of the leading multinationals in telecommunications.[164]

UK competition policy was partial and only reached the most profitable customers, mostly companies, while households still paid relatively much.[165] It is worth noting that the failure to serve its residential customers eventually persuaded the UK regulator and government to let the doupoly go. Residential customers were not satisfied with the liberalisation since prices as well as quality had not changed enough. Thus the neglect of private customers and users eventually created pressure for further liberalisation and in-

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1988, but by 1994 it was only number 10 among OECD countries. Ranking international telephone baskets in 1995, the OECD ranked UK (actually BT) residential tariff level no 15 and for business no 9, with higher ranks given to a number of countries who have not liberalised their telecommunications markets.

162 Not only did Oftel implement the managed competition policy, setting price targets and allowing only Mercury to compete with BT, it also effectively closed the resale market – see Liadlaw, B. The Evolution of Telecommunications Policy in the United Kingdom, in Implementing Reforms in the Telecommunications Sector, edited by Björn Wallenius and Peter Stern, The World Bank, Washington DC, 1994

163 Cracknell, D. Changing ownership, Technology and Customer Needs – BT's organisational response. ITS Conference Paper, Seville 1996.

164 The UK government strategy can also be considered perfectly rational if the BT privatisation is regarded as a showcase, in order to gain creditability for the rest of the privatisation programme that the Tatcher government had committed itself to. The costs pertaining to the managed competition policy may be accounted for, if the UK government managed to privatise other state-holdings at better prices than otherwise would have been the case.

165 This difference between the two user groups is reflected in appendix 3 – performance indicators and the OECD International Telephone Tariff Basket for 1995, which found the residential basket considerable more expensive – ranking the residential tariffs very closely to the OECD average, while the business basket was distinctly more competitive. In relative terms OECD ranked the business basket 9th and the residential basket 15th among OECD countries.

troduction of more vigorous competition. This pressure was also translated into political force as the discontent was well spread. Had BT tried to improve itself earlier visavis its users, it might have avoided or postponed intensified competition.[166]

The crucial point is that allowing for flexibility and transformation of the input side of the PTO, while keeping the output side conditions constant, confers an advantage to the new owners of the PTO. This allows for the new private owners to capture a larger share of the surplus emanating from the market exchange. In conclusion, the privatisation first – or national champion route – tilts the process in favour of the PTO and its new private shareholders – the producer interests – while allocative efficiency is sacrificed. The privatisation first route as a policy route implies the promotion of the Strategic Model of Mansell, where the most important goal is to create a national champion with a viable future in the international arena.[167]

The Laissez-Faire Route

The New Zealand case confirms and substantiates the suggestions that follow from the UK case. New Zealand was probably influenced by the UK, but only partially gained positive benefits in line with its own expectations.[168] The early privatisation of NZ Telecom created the same impediments on the realisation of vigorous competition as it did in the UK, because there were implicit and explicit bindings between the state and the newly privatised NZ Telecom.[169] In addition, the absence of product market regulation weakened and delayed entry from challenging operators. This allowed NZ Telecom to stall the general development of a competitive market.[170] The New Zealand case suggests that going for free competition without a specially designed and devised regulatory regime

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166 In appendix 3, the chart for national price levels shows the impact of limited competition which is indicated by the dramatic turnaround exhibited after the 1991 doupoly review. For the business basket, taking 1990 as the base year the price level barely sunk 1991 – 1993, and then suddenly started to fall and by 1995 prices had fallen with about 20 percent. The residential basket is even more revealing: with 1990 as the base year, the index stood at about 140 in 1992 and then fell dramatically to about 90 in 1995, indicating the swift price fall, but also that private users have benefited the most from the duopoly review.

167 Mansell, R. The New Telecommunications – A political economy of network evolution, Sage Publications, 1993.

168 New Zealand and Australia (which will be shown later) both carry resemblance with the UK process, indicating both the importance of historic connections, and also that liberalisation may not only spread between countries geographically close as Noam (1992) suggest, but also between countries geographically far away, but culturally close.

169 One important aspect was that the American led consortium expected to make a profit from first taking over NZ Telecoms, then restructuring the company and then being able to realise some of the value created through partial divestiture.

170 Relying solely on general legislation is a striking feature of the New Zealand case. It created uncertainty and made life for potential investors unpredictable.

actually reinforces the incumbents grip on the product market since it creates uncertainty among new potential entrants about future market conditions.[171]

The lacking ingredient in the New Zealand case was that the government did not implement effective regulation. New Zealand did not let separation of regulation and operations preclude privatisation and liberalisation, thereby postponing the creation of vigorous competition through effective regulation. (this risk has been pointed out by Smith and Staple in general terms).[172] This mistake led to the failure of restraining the incumbent's ability to control the market, especially in terms of interconnection. Thus New Zealand found itself stuck in the middle; the government had sold NZ Telecom to mainly foreign investors and had given it more freedom to act than the older monopoly ever had. In the process New Zealand sacrificed the effectiveness of its PTO in an international context as it became confined to its own home market (though it became rather innovative at home).[173] Furthermore, efficiency improvement in both allocation and production was achieved, but it was only partly accruing to the domestic users.[174]

Had New Zealand introduced more effective regulation, the positive effects from competition had probably come faster and had had more profound effects. The New Zealand experience suggests that the process should be managed, or otherwise it may lead to market failure and the consolidation of monopoly, albeit this time a private one. The important lesson from the New Zealand case is that laissez-faire, that is cutting the ties as fast as possible, does not automatically translate into satisfactory economic performance, and especially not so in the short run.

Why did it take time for liberalisation of the product market structure to create competition? One answer may relate to the differences in duration of the liberalisation process. New Zealand implemented liberalisation during a very short time period. The process was certainly simultaneous, but it was also very quick. During this period, the capital market could adjust itself much more swiftly as new, strong US owners were brought in, at once enacting implementing staff reductions and other changes within NZ Telecom. In contrast to the rapid change of the capital market, the product market was simply not

171 In this aspect New Zealand is somewhat similar to Sweden, where regulation has been ineffective and the PTS too weak to create and enforce competition with full force, forsaking efficiency in the process.

172 Smith, PL. & Staple, G. Telecommunications Sector Reform in the Asia-Pacific Region: Toward a new pragmatism, second printing, World bank discussion papers 232. The international bank for reconstruction and development/The World Bank, Washington DC, 1994.

173 Bromby, Robin. Blazing a Trail in Telecoms, in Telecommunications, International Edition, October 1995. NZ Telecom reportedly did not find foreign markets particularly interesting. This can be explained by the combination of foreign ownership and the dominant position enjoyed by NZ Telecom. One interesting issue is whether an independent NZ Telecom controlled by New Zealand interests would have reached the same conclusion regarding foreign opportunities.

174 The steadily growing rate of return on average shareholder funds (Telecommunications Information Leaflet No 5, Mars 1995) indicates that NZ Telecom could both cut costs and reduce its customer prices and still increase profitability dramatically. Had competition started to bite earlier, NZ Telecom profits most likely would have been much lower.

capable of developing any competition. The cumbersome process of competition taking hold can be attributed to the product market's inability to change and adjust itself as quickly as the capital market, contributing to the imbalance in the New Zealand telecommunications sector in the period following liberalisation. The reluctance of potential challengers can in turn be attributed to the uncertain regulatory environment. Regulation as such can thus be regarded as a promoter of market opening and a necessary property of a successful process. In addition, there were no clear indications that new challengers would get some favourable treatment to jump-start their operations. The New Zealand process indicates the importance of process duration, and of the fundamental difference between capital and product markets regarding capability for transformation.

With its impeccable swiftness and logic in thought, and paradoxically poor execution, at least initially, the New Zealand policy reform is an indication of the perils of simultaneity.[175] It could be that the parallel introduction of privatisation and competition, instead of offering the best of two worlds, may offer the worst of two worlds. Instead of a strong viable PTO milking the home-market for international expansion, the PTO is transformed to a second tier player. Instead of vigorous competition being implemented, liberalisation is let too much free so that it does not deliver on efficiency either.[176]

The Consumer Interest Route

The Swedish case is different yet from both the UK and New Zealand. In Sweden, Telia has simply remained in state-ownership despite the product market liberalisation. Sweden has been disregarding size and nationality of new entrants. In addition, Sweden has given much greater leeway in terms of pricing, letting competition gradually eliminate excess profits and allowing free pricing for rebalancing in sub market after sub market.[177] In addition, Sweden has in accordance with its generally liberal trade policy treated foreign

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175 The key in the New Zealand case is regulation. The New Zealand case actually underscores the problems associated with simultaniety and a parallel lack of regulation. The New Zealand case says very little about a simultaneous process with a specially designed and implemented telecommunications policy articulated in sector specific regulation. Another interesting aspect is if simultaniety at all can be combined with effective regulation, and if this is the case, under what circumstances. And in particular: can a rapid simultaneous process be associated with sector specific regulation?

176 The special situation of New Zealand regarding geography and market size must however be taken into account when interpreting that case and limits the potential for drawing conclusions. It may very well be that this was a good policy route for New Zealand for breaking the existing stalemate, or that a strong PTO controlled by New Zealand interests never was a viable or feasible alternative.

177 One performance indicator for measuring allocative efficiency is presented in appendix 3: fixed charges as a percentage of total charges quoted from Communications Outlook 1995. Sweden and New Zealand clearly lead the rebalancing league both in business and residential charges. This lead at that time however partly comes about because of more rapidly falling unit charges than falling fixed charges. Strikingly the UK figures are only moderately impressive, for both business and residential charges the UK beats the OECD average by a not too impressive margin.

entrants fairly and without any discrimination.[178] Furthermore, Sweden has through new entry received a diverse telecommunications industry with a wider range of actors, competencies, offers and strategies.[179] Thus, although Sweden started market opening later in telecommunication services, it managed to developed competition much faster.[180] The substantial positive effects that Sweden has gained, compared to both the UK and New Zealand, suggest a rather unexpected route for countries that want to regain or achieve product market competitiveness. It is radical and provocative because it so clearly contradicts much of present EU-policy in telecommunications as well as other industrial sectors.[181] The Swedish case supports the belief that early and unilateral liberalisation is an effective measure to compete for economic activity. In this case, the product market supply is made primary and the overall efficiency and effectiveness of the market is first dealt with, leaving the PTO exposed to the new regulatory regime without a corresponding change in its status. [182]

Making competition vigorous has however not been without risks for the well-being of the PTO – Telia – since massive new entry become possible.[183] As competition stiffened, the potential value of the PTO was reduced as profits were expected to fall, yielding a loss for the state and the taxpayers. The competitive climate forced the PTO to restructure and lay off staff extensively. New entry also challenged Telia to become more

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178 No single applicant for an operating licence had yet been turned down, according to PTS, by mid 1996.

179 In a conference paper, The Transformation of the Swedish Telecom Market, presented at Cotim 1995, by Kaplan, M. Thorngren, B. and Vilgon, M., the number and diversity of new entrants into the Swedish market were reported.

180 Although Sweden started in earnest in 1993, by 1996 its performance indicators in almost all categories were among the strongest – indicating the speed of the transformation. The width and depth of impressive performance across the board – and especially those affecting users like pricing, penetration, usage, service variety and number of service providers – suggests that competition took hold and spread rapidly compared to both New Zealand and the UK.

181 Walter S Baer in Telecommunications Infrastructure Competition – The Costs of Delay, in Telecommunications Policy, Vol 19, No 5, basing himself on a study of long-distance markets in the UK, Japan and the US during the 1980s primarily, claims that the introduction of competition generally brought lower prices, greater variety of services, faster innovation, higher usage and productivity gains, and increased output both in telecommunications and other sectors of the economy.

182 Walter S Baer, in Telecommunications Infrastructure Competition – The Costs of Delay, in Telecommunications Policy, Vol 19, No 5, also suggests that delaying the introduction of competition has the following principal economic costs: 1) higher prices and less innovation in products and services 2) less investment in modernisation of the telecommunications sector 3) slower productivity gains by telecommunications users 4) slower economic growth. In addition to the above quantified effects Baer also adds 5) monopoly PTOs and their suppliers become less competitive in international markets 6) growing friction between monopoly PTOs and large users 7) businesses are stimulated to expand and locate elsewhere 8) isolation from dynamic innovation in other markets, and 9) greater time and costs to catch up when competition finally is introduced.

183 Regarding new entry there is an interesting comparison between the UK and Sweden. The Swedish market enjoyed a lot of new entry just after the new 1993 regime was implemented. The UK received entry more slowly during the whole liberalisation period (from 1984 and onwards), but in the UK a massive flood of new applications emerged only during 1996 when 46 new operators were licensed – 5 years after the doupoly review. See Liberalising Telecoms in Western Europe, by Richard Cranston, Financial Times Telecoms & Media Publishing, 1997.

efficient and effective, or at least exposed its relative weaknesses.[184] Sweden became successful not only because it was a first-mover and liberalised as such, but also in how it embarked on liberalisation. The Swedish government disregarded the dilemma of having multiple roles, foremost that of user and owner and concentrated on usage and users. It put their needs in the forefront and provided a unique real-world experiment in liberalisation strategy. Sweden opened up its own product market to a much larger extent and much more profoundly than any other nation, save New Zealand.[185]

The Swedish market opening process, which in many respects fits the Idealist blueprint outlined by Mansell, however bears one great risk which should not be underestimated.[186] In the Swedish process the government put the short-term and long-term health and survival of Telia and other Swedish domestic operators at risk. Despite owning Telia, the government concentrated on opening up the market for competition and entry, while leaving Telia in government hands. Telia was corporatised, but the question of Telia's future was postponed. Since Telia would remain state-owned, it was assumed by Swedish policy makers that stability was ensured and that the impact of liberalisation would be limited. Also in the New Zealand case was the incumbent exposed to a similar risk, but to a lesser degree since its fate was cleared early on in the process. In addition, the foreign investors would have to bear the losses should NZ Telecom have operated at a loss during the market opening process.

Considering that other early liberalisers, like the UK and New Zealand, made privatisation a main feature of their liberalisation processes, the continued state-ownership of Telia becomes remarkable. Early privatisation of Telia was announced by the conservative government and therefore could have been expected. As a consequence of the turnaround in privatisation policy, the desired outcome of liberalisation as well as the tactics to get there were never adequately explored or analysed, especially when it comes to the connection between opening for competition and privatisation.[187] In hindsight, it becomes evident that this order – liberalisation first, privatisation later, if at all, has had im-

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184 The subsequent reorganisations of Telia accompanied by management declarations indicate that the management of Telia found a need to restructure the company to strengthen Telias competitiveness. One of the most notable successes being Telia MegaCom which was directed solely to major Swedish corporations. Taking a look at Telia's fundamentals reported in the case study also shows strong improvement in Telia performance building up in the late 1995 and 1996, indicating that Telia had become much more competitive compared to 1993 when the new regime was implemented.

185 The New Zealand case in this respect provides a useful contrast to Sweden. Though New Zealand opened up its product market maximally, the evolving product market structure did not become more attractive from a societal perspective. The vacuum created by the withdrawing government was quickly filled by NZ Telecom trying to regulate itself and its challengers.

186 Mansell, R. The New Telecommunications – A political economy of network evolution, Sage Publications, 1993.

187 See Telelag – Betänkande av Telelagsutredningen SOU 1992:70 and Svensk Telemarknad i förändring, Kommunikationsdepartementet, Ds 1992:86.

portant implications for how the Swedish liberalisation has evolved and for what benefits that it has reaped.

By privatising Telia in a co-ordinated fashion early, the realised value on Telia could conceivably have been higher, because Telia was then the monopoly provider, earning monopoly profits. Both BT and NZ Telecom fetched impressive proceeds when they were sold.[188] Since the Swedish market became competitive, it can be argued that Telia probably was worth less to private investors after liberalisation than before. This effect was however mitigated, because Telia has been transforming itself and has become a dramatically more efficient and competitive actor because of liberalisation, again increasing the value of itself.[189] When Swedish policy makers were formulating their policy, they could however not know how the value of Telia would evolve or how Telia would fare in the product market when competition took hold.

The government insured itself and Swedish taxpayers from a possible reduction in Telia's value through its forced capital withdrawals and thereby safeguarded taxpayers.[190] By tapping Telia for funds however, the Social democratic government in power, have probably paved the way for a future privatisation, unless the government wants to put in new state funds to propel Telia's development – or risk Telia's product market capability. Regarding future privatisation, it is also doubtful whether continued state-ownership does not hurt Telia's performance, as private shareholders would probably try to get more out the company and establish clearer priorities for management.

In the case of Telia there is a paradox when it comes to its capital market status. The readiness and embrace of liberalisation from Telia and the promotion of liberalisation by Telia itself, has allowed the government to abstain from privatisation, since the management of Telia anyway to a large extent has chosen to accept and live by usual arm-lengths distance, despite being state-owned. Thus Telia's management has facilitated continued state-ownership, rather than the other way around. Had Telia's management not transformed the company with such force, the ownership status of Telia would have become more of an issue, raising demands for privatisation based on dissatisfaction with Telia's performance. Thus, the fact that Telia has been one of the most successful PTOs and has been able to hold on to the Swedish market fairly well, has made privatisation less important and more difficult to motivate for Telia's management. One explanation for

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188 The UK government has received a total of USD 22.8 billion for selling of BT from 1984 and onwards (making no adjustment for inflation). The New Zealand government has received a total of USD 2.5 billion for selling NZ Telecom. Using 1983 figures, the BT sale represents a price of about 1 000 USD per main line, and in the case of NZ Telecom about 2 000 USD per main line.

189 In their report Telephone Networks – The European Competition Bandwagon – how will it roll? May 1995, Barclays de Zoete Wedd Research found it justified to value PTOs active in competitive markets higher on average relatively to markets not as exposed to competition. This view could be compared with the Carniege valuation which assigned Telia a lower value because of the harsher product market climate.

190 This was a side effect, since the withdrawals were made mainly for budgetary reasons.

Telia's transformation, may be the quite strong monitoring of Telia by private investors and creditors, despite the state-ownership.[191]

By disregarding the duality of its interests in telecommunications – that of owner of Telia and user at large of telecommunications – the Swedish government has chosen a different path than the UK and New Zealand. By not privatising Telia and thus not having to consider private shareholders, the Swedish government has created a very competitive product market in telecommunications in a relative short time period. The Swedish case is an indication that ownership is a secondary issue, compared to liberalisation which is the decisive variable, as claimed by Vickers & Yarrow and Noam.[192] The very formal relationship between Telia and the government, with rather few contacts and arm-lengths distance between the parties, also suggests that the nature of state-ownership is important, rather than the formal state-ownership share. Sweden's strategy offers an interesting suggestion on how to tactically manage the process – first liberalisation, then privatisation – in order to obtain relatively better temporary economic performance. Sweden was the accidental liberaliser, by accident it also managed the process successfully.[193]

The Three Policy Routes

Summarising the three cases, the overall impression of the UK case is that the UK policy contributed to a strong and internationally viable BT – the national champion route. Most of the positive effects of UK policy however, remained with the PTO, at least initially. Consumer interest was sacrificed for the benefit of privatisation and private shareholders. For Sweden, its policy representing the consumer interest route, there were also positive effects, but they accrued to Swedish users of telecommunications services to a larger extent compared to the UK, to the relative detriment of Telia and the Swedish government as a owner. The New Zealand case did not tilt as clearly in any one direction, but indi-

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191 The borrowing by Telia on the capital markets has made it necessary and interesting for investment bankers to follow Telia anyway. In addition, the large interest for Sweden as an early liberaliser has drawn a lot of attention to Telia, making it much more evaluated than state-ownership otherwise would suggest.

192 See Vickers, J. & Yarrow, G. Privatisation – An Economic Analysis, MIT Press, 1988, and Noam, E. Telecommunications in Europe, Oxford University Press, 1992.

193 Whether the Swedish route was intentional or not is an interesting question in itself and no conclusive answer is given in this thesis. The author's impression is that in both the New Zealand case and the UK case, policy makers articulated their visions in various policy documents, suggesting a greater awareness of the tactical implications of their respective policies. The clear separation of Telia's ownership and the product market structure, and the dominating interest in the long-term effects of usage of telecommunications service in society, suggest that Swedish policy makers did not take a particular interest in the domestic tactical aspects. However, there was a strong urge in Swedish policy to promote Sweden as an internationally advanced telecommunications nation and to create domestic product market competition.

cates that the same mechanisms are involved, as found in both the UK and the Swedish cases.

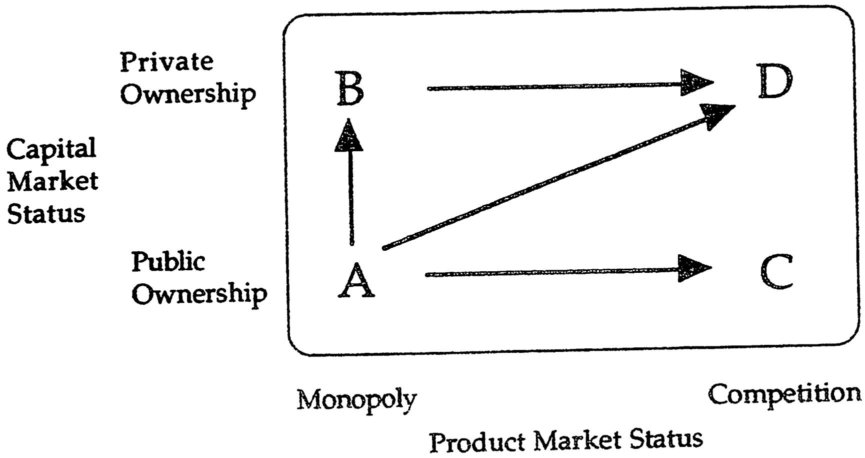

Figure 13. The three policy routes.

The Swedish and the UK cases illustrate two different approaches to liberalisation, since the two processes have tilted in favour of either producer interests or consumer interests. Interpreting the processes as distinct routes with particular consequences as proposed in this thesis, it can be hypothesised that there is a causal link between policy routes and temporary aggregated performance effects. And in particular, that privatisation first implies enhancement of producer interests, and that liberalisation first implies enhancement of consumer interests. Thus, sequencing does matter.

Chapter 7.
PROCESS DECOMPOSITION

Having identified three different policy routes, the question is of course why they are different. Why do different choices regarding sequencing result in different market opening processes? Following the structure of the cases, three critical aspects will be further decomposed and analysed; process initiation, process reversal and process stabilisation. These aspects are further studied and discussed because it is believed that they may offer further insight into the mechanics through which process performance is determined.

Initiation

In chapter 6 it was argued and hypothesised that the sequence in which privatisation and liberalisation are implemented, are causally linked with temporary performance effects emanating from the process. Studying the cases, they indicate that the initial decisions and period of implementation largely decide what character or disposition the process will have. Privatisation first results in the promotion of producer interests over consumer interests, and liberalisation first results in the promotion of consumer interest over producer interests.

The basic argument is that the primary interest groups involved will try to take control of as much resources as possible; if producer interests are allowed more freedom earlier in the process, they will take that opportunity to maximise their proceeds in terms of corporate profit earned by the monopolist PTO. If consumer interests are allowed more freedom early in the process, they will try to maximise their proceeds in terms of lower prices and increasingly attractive services. Thus the sequence in which the policy makers alter the product or capital market conditions tilts the process in favour of some of the interest groups so that they may extract the value added, created mainly in the product market exchange, either through the product or capital market relation with the PTO.

The UK case eminently illustrates how private shareholders extract profits and advantage through their early ownership of BT. The Swedish case illustrates the strong forces that become active when users are free to choose operators and when competition among them is allowed to blossom. The New Zealand case is the most unclear case in terms of actual temporary performance effects coming out of the market opening, but it convincingly and more clearly than Sweden and the UK reveals the mechanics involved. The non-decision as to which interest group to favour, forced both main groups to expose their inclinations in more intense competition with each other. Since the New Zealand government did not decide which way the process should go, user and ownership interests were pitted against each other repeatedly – in court mainly to distribute the proceeds. This competition for resources was not permitted in Sweden or UK, as the process were predetermined from the outset. The New Zealand case suggests that eventually the open struggle will also balance interests groups and distribute the proceeds, albeit much more transparently, and more importantly, less predictably.

Transition

There are signs that once the state monopoly has been questioned and the status quo is challenged, the process will drive itself on. This is indicated by the cases, which all three illustrate how the initial phase is followed by subsequent adjustment and new phases of liberalisation, privatisation and regulation. In the doupoly review the market opening process was rebalanced in the UK, with the government trying to improve the lot of consumers. In Sweden, governments have been toying with privatisation from time to time. In New Zealand, the emerging competition has begun to limit the power of NZ Telecom. It can thus be hypothesised that the initial tilt in any direction can be assumed to subside through compensatory actions by the involved interest groups and the government. Thus privatisation only should not be expected to be an end point, nor can liberalisation only be regarded as an end point; but rather as temporary states, from which new market opening pulse is being derived. Transition thus implies reversal of the initial tilt between producer and consumer interests. Expressed in terms of Dunsire et al.'s framework, liberalisation only, or privatisation only, are not steady states, but will eventually be replaced by fuller market opening.[194]

Thus it may be positively hypothesised that the liberalisation process, once initiated either by liberalisation or privatisation, achieves a momentum of its own and will drive itself further on. Thus, in addition to the processes proposed by Noam whereby liberalisation spreads in terms of functions – from industry to industry within a country – and geographically – from nation to nation – it is suggested that market opening within one country and within one sector is also in itself expansionary in that it creates its own momentum for further privatisation and liberalisation respectively. Using and augmenting the eclectic approach proposed by Noam, it is suggested that the three processes (the

194 Dunsire A. Organisational structure: status change and performance, in K Hartley and A. Ott (eds) Privatisation and Economic Efficiency, Aldershot. 1991. Sweden's present state (state ownership) should thus not be expected to last and the prediction is that Sweden eventually will privatise Telia. The important normative lessons emerging is that policy makers striving to implement liberalisation, should if they have to, satisfy themselves with relatively limited measures, take satisfaction from the fact that the process is likely to gain momentum of its own and create openings for further policy initiatives aimed at achieving more complete liberalisation.

within country process, the process duration, and the between country process) interact in their creation of the future development of an industrial sector. Therefore, it can be normatively recommended that initiating the process as such is more important than assuring or opting for a particular process design. In cases where there is a firm decision on market opening, and there is a choice between waiting and disregarding the issue of sequencing, liberalisation as such should take precedence. Since a country that has chosen a particular policy route – privatisation first or liberalisation first – can readily be expected to complete the process by introducing the other component eventually (that is, privatisation first is likely to be followed by liberalisation, and liberalisation first is likely to be followed by privatisation) – getting started is more important that getting it right.[195]

Stabilisation

The cases suggest that initiation which sets the process in motion, is followed by transition, where the process starts to reverse itself. In transition the compensatory forces set in motion by the reversal will drive the process towards a more stable or more balanced state, where consumer and producer interests are more finely tuned with each other. In the UK, both consumers and producers eventually emerged stronger and more versatile in their respective positions, than before then initiation of the process. In New Zealand, eventually both consumers and producers adjusted to the new arena, learned the new game or terms of trade and focused on prices and services. In Sweden, Telia started to act similar to a private company, holding its own on a competitive market attractive for consumers. The key point with stabilisation is that the steady state emerging is neither a consumer heaven or a producer heaven, but a balanced combination of product and capital market solutions delivering satisfactory economic performance.

If the market opening process will stabilise itself in a more balanced state, anyway retracting from the initial tilt, regardless of which policy route that is taken, why then bother with tactics? Perhaps the simultaneous approach should be considered. Since the involved actors will have to adjust to the new institutional and regulatory reality anyway, it may be more efficient to introduce privatisation and competition simultaneously. By so doing, the correct and complete new product and capital market signals and prices are communicated to actors in the economy, and who otherwise may have to adjust themselves incrementally in at least two steps. Changing and relaxing both the capital and product market working conditions in parallel as in the New Zealand case however shows how difficult and cumbersome it is to achieve impressive economic performance, when the government in essence refrains from directing and managing the process over time.

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195 Noam, E. Telecommunications in Europe. Oxford University Press, 1992.

The New Zealand experience indicates that more freedom for involved actors does not automatically translate into strong economic performance effects in the short term. Instead there appears to be serious risks – in terms of product market domination especially – associated with simultaneous liberalisation.

Analysing the New Zealand case it may be positively hypothesised that taking a singular route, whichever, implies realisation with greater governmental control. Thus from a governmental perspective, it is suggested that it is easier and less risky to start with one over the other (privatisation first or competition first) rather than embarking on the parallel option. It may be normatively recommended that a singular route is preferable to the simultaneous option. Opting for one of the singular policy routes facilitates defter handling of the interest groups involved, as interest groups are co-opted into the process and help drive it towards stabilisation through their self-interest. The key is that the tilting of the process in either direction can be used by policy makers for the overall goal of promoting market opening. But going for the privatisation first route, unsatisfied consumer interest will clearly promote further change; while taking the competition first route does not ensure further change to the same extent (which was the case in Sweden).

Having established the close link between the two processes, the actual mechanism governing the interrelatedness between privatisation and competition can be further elaborated on. All studied cases raise the issue of failure or standstill (where the stabilisation has not yet been arrived at), yielding the question under what circumstances may one or the other policy route be appropriate, in order to avoid a standstill. Following from the cases, and especially the comparison between the UK and the Swedish cases, it may be positively hypothesised that privatisation first contributes to a stronger, more viable, and more effective PTO, than competition first, and thus it may be suggested that starting with privatisation first and leaving competition for later should be the preferred route, when there is certainty that the overall process eventually will be completed and there is time enough to nurture the PTO.

The UK case shows that eventually consumer interest will gain strength if it has initially been side-stepped or neglected. Once it takes precedence because of user pressure, a less than satisfactory competitive market structure will eventually be remedied by government policy and revised regulation. In the Swedish case, where liberalisation was introduced first, there has been very little pressure for privatisation. Consumers have been happy with low prices and new services. Staff have assumed that a private owner would reduce staff even more drastically and have accepted the situation. Investors can either invest in the challenging companies or in telecommunications abroad, and may not perceive that the PTO active in a competitive market place is an especially interesting stock to invest in.

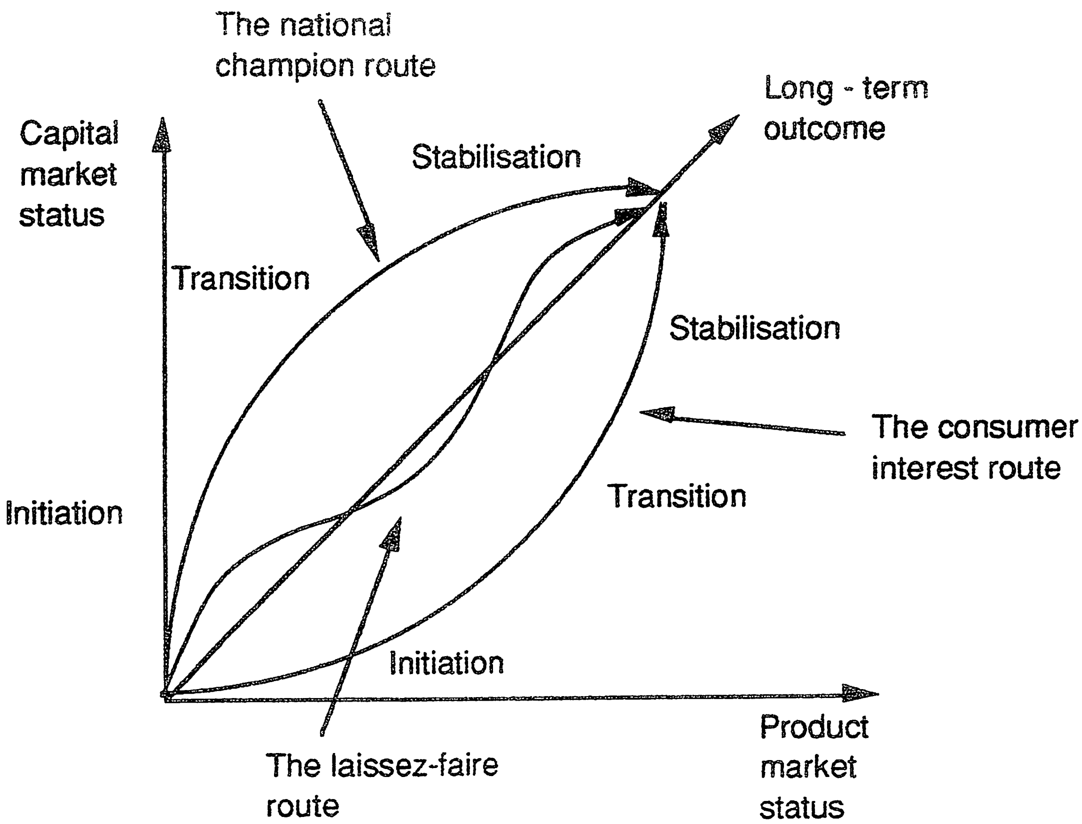

Figure 14. Linking routes and process stages.

Instead, the pressure for privatisation has come almost solely from the management of Telia, who have found themselves in a weak bargaining position, since the government easily could replace the present management team. The weak interest for privatisation has halted the liberalisation process and postponed stabilisation. In the case of Sweden, the losses in terms of profits and survival capability for the PTO are unclear, elusive or non-existent since the management team has acted like a privately owned company. As a result, the ability for policy makers to make sure competition is followed by privatisation is weaker, than the other way around. The government can be expected to attach gradually more importance to usage rather than production as the decoupling between the state and the PTO eventually is further advanced.

Starting with privatisation is however not without risks of stalling on its own, as it implies the creation of a new strong interest group – private shareholders – trying to protect and enjoy the excess profits resulting from the PTOs strong initial monopoly position. Private shareholders however, have much weaker instruments for affecting policy and shareholders are also replacing themselves over time. In the UK case, the gradual shift in policy by Oftel, which signalled that BT was going to face an eventually harsher climate, could thus be gradually absorbed by BT's shareholders. In addition, since BT had seized the moment and expanded abroad thorough Concert and its link with MCI of the US, new opportunities and a generally strong BT facilitated the implementation of the recommendations of the doupoly review.

Thus the risk of not stabilising the process should be weighed against the initial effects from taking one route or another. If the whole process is likely to be stabilised in a balanced fashion, privatisation first may offer the additional attractive feature of creating a strong, internationally active PTO, as the UK case illustrates, where the home market has provided ample resources for international investment and expansion. (BT position is however also a result of its large relative size and thus indirectly its home market size, an asset which neither Sweden or New Zealand can muster.) The UK route also suggests that there are merits to being early, compared to other countries, as the overall time of change can be spread out and the PTO meanwhile can be turned into a national champion.

Summarising the analysis of the market opening process, a more anchored explanation to why the policy routes evolve as distinctly as they do emerges. The national champion route, the consumer interest route and the laissez faire route are all explained by the initial configuration of interests groups and their subsequent actions. The separating or tilting policy action is the initial sequencing of privatisation and liberalisation. The initial tilt – whatever its direction – is then reversed during transition and the market opening process eventually stabilises itself in a more balanced trade-off between consumer and producer interests. Viewing market opening in this way offers a general explanation to why various policy routes come about, and also why they subside, which is independent from contextual factors. This insight into the nature of market opening processes facilitates a few normative suggestions as to how to conduct market opening policy.

A Pecking order of policies

If policy makers do not have the to luxury of building a national champion and regard it as impossible because of the inherited weaknesses of the PTO, the policy makers priorities must by necessity be different. Obviously, the implementation of well designed regulated liberalisation, where especially efficient interconnection is stimulated, implies that a larger share of the positive economic performance results that may come out of the overall process, is locked in. The liberalisation only option is therefore the preferred path, if there is a risk that the whole liberalisation process may not be carried through and eventually stabilise. It may be positively hypothesised that the liberalisation only route yields relatively stronger economic efficiency effects on its own, and that the competition first route should be opted for, when completion is uncertain, since it allows society to lock in the positive economic performance rewards earlier and with more certainty.

The peril however is that the liberalisation first route in itself is more likely to become stalled, compared to the privatisation first route. Liberalisation brings in the most important economic performance effects anyway, and thus inadvertently reduces the need and pressure for stabilisation of the process and full realisation of possible positive benefits. Thus, going for liberalisation first may actually confirm the policy makers expectation that the process would get stalled half-way. As the Swedish case suggests, liberalisation can relatively rapidly be established and effect society within a short time span. Furthermore, liberalisation only reduces governmental complexity and allows it to pursue the consumer interest without having to worry about private shareholders. Thus, in cases where overall completion of the liberalisation process is uncertain or unlikely, and only privatisation or liberalisation may be feasibly introduced, the liberalisation first route is recommendable.

A critical issue following from above is to what extent these claimed temporary performance effects essentially are of a long term or short term nature. In the cases presented in this thesis, there are strong signs of compensatory actions by actors involved in the process, offsetting early choices and driving the process towards a more balanced trade-off between producer and consumer interests, than exhibited in the early phases of the process. In the UK case, revised regulation eventually came to guard consumer interests with greater vigour; in Sweden Telia started to operate like a private company although it was state-owned; in New Zealand eventually both consumer and producer interests were given new attention, leading to adjustments in policy and corporate behaviour. These compensatory forces suggest that temporary performance effects are in essence temporary and do not translate into long-term effects to any greater degree. Firmer answers can however only be delivered by studying liberalisation processes for longer time periods.

Theory, empirical experience and reasoning proposes a pecking order of policies for the policy maker who is aiming at full market opening. If full market opening is expected and readily at hand, privatisation should go first, followed by liberalisation, in order to create a relatively stronger PTO during the process as an extra benefit. Privatisation however, implies the risk that the new private shareholders will stall the process, and in itself prolongs the overall process. If full market opening is deemed not possible or desirable for any reason, then liberalisation only should be opted for and fought for primarily since the major benefits in terms of improved economic performance can be reaped anyway. In addition, the liberalisation first option offers the attractive likelihood of driving the process further on, eventually including privatisation in the process. If the outcome of the process is mired in uncertainty, the simultaneous route should be embarked upon as a powerful means to redraw the whole map for all actors and create the momentum for market opening to take place at all.

Chapter 8.
SCOPE FOR GENERALISATION

There are a number of important questions that emerge as a result of the discussion in chapter 6 and 7. Bringing in a larger number of countries, the following questions will be raised: What routes are countries across the world taking in terms of privatisation and liberalisation? Are there any patterns among those countries that currently are opening up their markets? First, a number of countries who are also early market openers will be briefly related, to see how they have embarked on market opening. They will then be categorised in terms of policy routes, and the scope for generalisation discussed.

Extended Survey

The countries surveyed are a number of developed countries that together with Sweden, New Zealand and the UK, were assigned relatively high ranks by OECD in the liberalisation index presented 1993; Australia, Finland, Japan and Canada and the US were also ranked high by the OECD, but in these countries privatisation was never an issue as the industry was already privately owned.[196] Thus these countries are deemed not to be that relevant in the context of this thesis. In addition to these countries, Denmark is added, since despite that it started its process somewhat later, it had by mid 1996 come relatively far.

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196 In Canada, there were about 850 telephone companies as recently as 1975, which by now mostly have consolidated into a small number of operators. In the US, AT&T held a private monopoly that was ended 1984, and its operations split into a number of regional companies.

Australia[197]

1988	The Australian regulator, Austel is set up in to look after the interests of telephone users and to administer the coming Telecommunications Act.
1989	The new Telecommunications act was accepted and made a law.
1990	In November 1990, the Australian government announced its programme for policy reform in the telecommunications sector. There would be a duopoly in fixed network services until June 1997, after which open competition would be allowed.
1992	AOCT, a wholly state owned company was formed 1 February 1992; a merger between Telecom Australia and OTC, the international carrier, later to be renamed Telstra.
1992	Competing doupoly operator, Optus Communications, was licensed in February 1992, following international tender.
1996	Telstra is still a state-owned enterprise. Competition is gaining momentum, although restricted by the duopoly provision.

An interesting aspect of the Australian process is that it in so much resembles the UK process, albeit with important differences. Australia also opted for a doupoly policy whereby Telstra was supposed to get ready for competition. But in the UK, privatisation was early and primary. In Australia, Telstra has remained state-owned so far in the process (mid 1996), thus making Australia a liberalisation only case, despite its close similarities with the UK The Australian case is somewhat disturbing, suggesting that national policy striving for a strong PTO is feasible, although the PTO is still in government hands. The slow start of liberalisation however, indicates that Telstra has been the main beneficiary of Australian telecommunications policy, and that the government has chosen to promote producer interests in the short and medium term in order to protect and assure survival of Telstra.

197 Compiled from Televerket and the development of the telecommunications market in Sweden, against the background of international experience, Price Waterhouse, February 1993, and Direct foreign investment in telecommunications: a review of attitudes in Australia, New Zealand, France, Germany and the UK, by Richard A Joseph, Telecommunications Policy, Vol. 19, No. 5, July 1995.

Finland[198]

1987	Telecommunications Act allowing for limited competition. Telecom Finland is the dominant operator, but is facing some local competition.
1988	Telecommunications Administration Centre established.
1992	Announcement that more network competition would be allowed from 1994 and onwards.
1994	Competition is gaining strength in local markets, Telecom Finland is however allowed to retain its monopoly over international telecommunications. Telecom Finland is converted into a limited liability company.
1996	Telecom Finland still not privatised despite competition taking hold. New legislation approved by parliament facilitating further intensification of competition.

Finland is a peculiar example, only remotely similar to Sweden regarding the supply side since competition has existed locally for a very long time, whereas in Sweden competition has been theoretically feasible, but did not emerge in earnest until the mid 1990s. The mixture of private ownership, co-operatives and public ownership confuses comparison and makes it less straightforward. The Finnish state is unlikely to ever disconnect entirely as an owner of some parts of the industry because of the municipal influence in the over 50 local companies that are active in the Finnish market. In addition, the product market was divided into local, regional and international sub markets to protect local operators, which slowed down overall transformation. With the new round of legislation which is to take effect on 1 July 1997, number portability is being implemented, access to local network operators customers is allowed, simplified licensing procedure enacted, and controls on prices are to be removed completely. Instead, in order to prevent abuses, the telecommunications sector becomes subject to general competition law, which is closely modelled after the Treaty of Rome. Finland thus seems to arrive to New Zealand's form of regulation, although the path to get there has been remarkably different. The Finnish government has remained involved in the ownership side right through, and strikingly has had vested interests in a number of operators, just not Telecom Finland.[199] Finland thus combines state-ownership in various shapes with an increasingly competitive product market. The fragmentation in Finland, as well as the relatively limited and complex market opening process, makes it difficult to categorise Finland among the other coun-

198 Compiled from Televerket and the development of the telecommunications market in Sweden, against the background of international experience, Price Waterhouse, February 1993.

199 Cranston, L. Liberalising Telecoms in Western Europe. Financial Times Telecoms & Media Publishing, London, 1997.

tries. It is not obvious whether producer or consumer interests have benefited at the expense of each other.

Japan[200]

1985	New Telecommunications Act allowing for competition in long distance. Local competition restricted.
1985	NTT becomes an incorporated company.
1986	Partial privatisation of NTT. Previously a completely publicly owned corporation.
1987	2nd public offering.
1988	3rd public offering.
1996	The government still holds 66 percent of NTT. International and long distance competition is strong, local competition is weak.

Japan's process was not only early as such, but shows that competition and privatisation can go hand in hand, and evolve together. The initial process was rather quick, rendering Japan status as a simultaneous market opener, but since the mid 1980s Japan's pace of change has been glacial. The prolonged state-ownership also sets Japan apart from New Zealand. The close relationship between NTT and the government remains, indicating Japan's reluctance to establish arm-lengths distance between the PTO and the government. Limited local competition has been introduced as a tool to put moderate pressure on the NTT. The government has not been able to seriously question the local dominance by NTT and has created a dual market place with distinctly dissimilar degrees of competition. Japan's path is partial and gradual, and it had by mid 1996 not yet arrived at full liberalisation. Nor was it clear that local competition anytime soon would become much more competitive. Rather, the domestic telecommunications market had joined in with a number of local markets with a low degree of competition. In traditional Japanese manner producer interests have been promoted. Regarding the international liberalisation, this has mainly benefited Japanese producer interests, since they buy most of the Japanese outbound traffic.

200 Compiled from Televerket and the development of the telecommunications market in Sweden, against the background of international experience, Price Waterhouse, February 1993.

Denmark[201]

1987	Four regional local competing network operators were created out of the telecommunications administration of the government.
1991	The policy was reversed and a new holding company, TeleDanmark was created. The aim was to meet international competition.
1992	All regional operators merged into TeleDanmark, which resulted in 8 percent private ownership of the new company.
1992	The new Teleboard was created for regulatory issues.
1992	The government announced that it wanted to sell another 41 percent of the shares in a public offer. The offering was postponed due to the economic recession.
1993	The government agreed to liberalise the market for voice telephony by January 1998.
1994	The public share offering in TeleDanmark was successfully completed and reduced the government stake to 51 percent. TeleDanmark is given operational autonomy.
1994	The government agreed to liberalise the market for network infrastructure by January 1998.
1995	The government reached an agreement with the opposition for further liberalisation, especially strengthening challenging operators.
1996	TeleDanmark loses its monopoly in the provision of voice services. Before only some areas were open for competition, such as customer premises equipment and mobile services.

The Danish case has its own peculiarities, as local telephony was divided into one partly private company per major Danish island, in addition to a 100 percent state owned PTO for long distance traffic. This structure was however eventually disposed of for the sake of national champion considerations. Instead of creating domestic competition, the government opted for an international perspective aimed at strengthening TeleDanmark. This change of mind is interesting, but also makes Denmark rather difficult to classify. The shift in policy can be attributed to the emerging Pan-European market opening process, which shifted the policy objectives. Suddenly a strong internationally viable operator was more important than domestic competition. The Danish case illustrates the trade-off facing policy makers regarding liberalisation and privatisation. Liberalisation constrains privatisation, and privatisation constrains liberalisation. Denmark also provides one link towards understanding the importance of the international context. The Danish case suggests that not only privatisation, but also domestic consolidation, is a more at-

201 Compiled from Televerket and the development of the telecommunications market in Sweden, against the background of international experience. Price Waterhouse, February 1993

tractive policy in a time of general international product market liberalisation, since the product market no longer equals the domestic product market place. The Danish case also suggest that eventually competition will arrive anyway, protecting consumer interests.

The Incrementalist Route

The survey of the cases above suggests that there is little direct scope for generalisation, even within telecommunications in developed countries. Further advancement of these processes described above, and other new national processes, are likely to shed further light on the presented beliefs about the connection between the product and capital market status of the PTOs. This new experience will either disapprove or vindicate the tentative findings and normative policy recommendations presented in this thesis. Somewhat unexpected and unsought for however, there are additional positive hypotheses emerging.

Below, the so far surveyed countries are presented with a policy route assigned to their policies. Augmenting the number of countries, a number of observations can be made. First of all, seldom is the order very clear cut as either privatisation or liberalisation, partial privatisation or partial liberalisation are very frequently employed by policy makers. These small steps may very well be regarded as a policy invention in itself; *the incrementalist route*. The incrementalist route (which no single country exemplifies perfectly – although Japan may be the closest one although it has not completed its process), is in essence a prolonged simultaneous route. It may thus be an viable, attractive alternative to the three possible policy routes identified in this thesis. In particular, it may be contrasted to the New Zealand route, suggesting that simultaneity might be right, provided that the duration is not too short. Breaking the policy routes into pieces may balance the perils and disadvantages of competition only or privatisation only, and at the time makes policy steps seem modest and therefore harmless. The accumulation of these small steps may nevertheless soon be translated into rather full liberalisation, while offering control for the policy makers and a more balanced distribution of benefits derived from liberalisation.

Country	Policy route
Australia	Privatisation first.
Denmark	Part privatisation, part liberalisation.
Finland	Liberalisation first.
Japan	Simultaneity, partial market opening.
New Zealand	Simultaneity, complete market opening.
Sweden	Liberalisation first.
UK	Privatisation first, then liberalisation.

Figure 15. A number of countries and their policy routes.

Following from accumulated empirical experience, long duration may be beneficial for yielding a more balanced and more controlled process. The duration of the process can also be related to when the process should be initiated. Countries that are relatively early have longer time to conduct the market opening effort. Starting early may thus provide the opportunity of a prolonged overall process (allowing for the difficulty in delimiting the start and the finish of the process). Laggards presumably do not have that much time since they need to catch up, especially with international trends that may swallow and strongly effect the internal process. They may therefore limit the scope and potential for manoeuvring and taking care of any interests groups at all. This also points to a potential and inherent weakness with the laggards policy as such. The laggards may end up in a New Zealand case like situation, where to much uncertainty is introduced into the system, prolonging the pain and making the PTO weaker than necessary. Thus, the time between privatisation and liberalisation is being narrowed and thus the duration of the whole process as such is shortened. The external pressure for continued market opening is much stronger, and may be exposed to a higher degree of both international pressure as well as functional pressure. As a result, the internal process becomes much shorter as well as more risky.

The augmented survey also suggests that there should be a clear division between policies and goals. Above, the national champion route and the consumer interest route were two identified bipolar policy routes. Through regulation, a route believed or assumed to be in essence a consumer interest route, may very well include the creation of a national champion, as may a national champion route, possibly lead to improved consumer welfare. Regulation may thus in an alternative way neutralise and offset initial policy routes, and transform and redirect them over time. This seems to be the case especially in the long term, when initial public policies and corporate strategies are reviewed, adjusted and compensated for. Thus policy intentions can be realised not only through privatisation and liberalisation, but also through the deft usage of direct regulation and general legislation directing and redirecting the process. As the process progresses, the studied cases shows that the PTO become less and less of an appropriate vehicle for conducting policy and must thus gradually be replaced by regulation. When this happens, consumer and producer interests are given renewed opportunities to compete for resources. This may tilt the market opening process further in one direction, or more likely rebalance the process, benefiting opposite interests.

Importantly, the variety in approaches also suggests that national policy makers still have very much discretion in creating and conducting policy, and that national priorities actually have much bearing on how the process is set into motion and sustained. Most of the countries studied have not completed their market opening processes. They may never, or eventually. The similarity among countries studied regarding the outcome of their processes however, suggests that the variation in outcomes will be much more limited (i.e. most processes will be leading to full market opening), than the number of variations in processes and temporary stations of stability. This suggests that the outcome is much more deterministically decided than the actual path chosen for going there. As more and more countries embark on and conclude their market opening efforts, this possible pattern of gradual convergence in capital and product market status can be further explored.

Chapter 9
UNRESOLVED ISSUES

In this chapter a number of issues that have not been dealt with or satisfactorily answered, will be discussed in order to access their impact on the present study, but also to identity possible new research ventures emanating from this study. The unresolved issues are in various ways all related to time and context.

The Importance of the International Context

The UK embarked on market opening much earlier than Sweden and New Zealand. Time, technology, political aspects and other circumstances make comparisons difficult and warrant caution in drawn conclusions. Although time is a crucial variable, the three cases are not parallel in time and therefore took place not only in different national contexts, but also in different international contexts. Thus although all three countries in some respect were pioneers in their own right, the circumstances were certainly not the same. It could be argued however, that although the similarities were different in many respects, the processes as such are comparable. The UK, New Zealand and Sweden all went through movement from state-ownership and monopoly to more open national market environments. Confining the study mainly to the national processes reduces the problem of international influences and contexts, but also naturally limits the potential for creating hypotheses about the importance of the international process (between countries) and its connection to the domestic processes.

Regarding the domestic processes, in the beginning of this thesis it was noted that there are actually three issues pertaining to time and liberalisation processes; the process duration, the within country process, and the between country process. Some indications of their interdependence have been suggested so far in this thesis, especially regarding process duration. The means of more rigorously analysing the liberalisation process may be found in game theory, where the game between nations, as well as between regulator and the PTO, may be modelled.[202] Relating the three sub processes to each other, with whatever means deemed suitable or possible, may make it possible to identify how the three categories of processes affect and influence each other. Sequencing between liberalisation and privatisation may for example be determined exogenously, making the

202 For a recent review of game theory, see Hargreaves Heap, SP. & Varoufakis, Yanis. Game Theory -- A Critical Introduction, Routledge, New York and London, 1995

domestic process very much a result of international considerations or restrictions, rather than a well-founded policy devised at home. The study of various policy levels may also reveal further insights into the international and national liberalisation processes and how they interact with each other.

Reregulation Processes and Process Delimitation

One way of understanding the importance of timing may be to study other examples of movement between various capital and product markets. As has been pointed out by Noam (1992), periods of liberalisation have been followed by periods of reregulation, where government ownership once again has come into fashion and where once again the case for the natural monopoly is accepted. The assumption on which this thesis is written, which suggests that all market opening processes reach a end point and there remain, is naive and unrealistic as processes may reverse themselves, or alter course as they evolve, and eventually even if they have stabilised themselves as expected, embark on new process in new directions. The absence of a steady state in Noam's work is interesting because it suggest that the current market opening process, whatever temporary notion of stability that it reaches, will again eventually retract, despite the overwhelming force and scope of the current process in most sectors and countries.

One should not forget, that the motive behind market opening is government failure, and conversely that the motive behind reregulation is market failure. New technology, new institutional structures, new users and new usage of services like in the case of Internet may again make governments or supra-national bodies keen to control telecommunications. New combinations of product or capital market solutions can eventually be deemed more suitable. In what way should the process then be managed? Under the assumption that reregulation was the policy decided upon, for whatever reasons, and that the policy maker would like to transform a competitive market with many operators to a monopoly and single entity industry with one state-owned company. How should the policy maker go about reregulation of an industry? How should the market opening process be reversed? Is it reversible and are there special policy routes with special properties also when market opening is to be reversed?

There may be other mechanisms at work if monopoly and state-ownership are being reintroduced, compared to the market opening process. Studying processes of reregulation may reveal new insights into both the market opening and reregulation phases, offering clues to similarities and differences between the two categories of product and capital market change. In addition, the reregulation phase may occur on the international level, rather than the national one. The issue of reversed processes, both regarding temporary performance effects as well as long-terms ones is very much related to how the studied process is delimited and is connected to the question of process duration. Viewing the market opening process as a whole, involving a delimitable number of interrelated actions and activities, which eventually will or may reverse or change course, is certainly both interesting and important, but has been beyond the scope of this thesis.

Sequencing and Economic Performance

The issue of process duration is also closely related to the issue of economic performance. When measuring economic performance, one important delimitation concerns the process duration. Changing the period of study is likely to yield different economic performance results. This thesis has done some groundwork on preparing for more quantitative studies on the relative efficiency and effectiveness of different policy routes. As of yet, there are few countries that have progressed enough and carried liberalisation through even to some extent, making quantitative studies difficult to pull off within the realms of telecommunications. Even after sufficient time has passed however, it may be difficult to measure how economic performance has developed over time, and yet more difficult to attribute policy to economic performance. Until satisfactory measurement is achieved and the problems adequately resolved, it is difficult to establish the importance that should be assigned to sequencing – is it a minor event and an irrelevant aspect of the liberalisation process, or on the contrary perhaps the pivotal aspect around which the outcome is produced? In essence, sequencing relates to whether form rules content, or vice versa. In the end, is market opening as such more important than how it is done?

A further elaboration on economic performance is to what extent efficiency and effectiveness move in the same direction. Could it be that the two market strategies also imply different preferences for what type of economic performance that is achieved by policy makers? The privatisation first strategy may facilitate the emergence of the effective operator, which have had the time to adjust and prepare on the protected home turf for competition nationally and internationally. Whereas the liberalisation first strategy may facilitate the emergence of the efficient operator in the short term, but which is weakened and pressured too hard domestically to develop a strategy for survival that is also effective in a larger international context. As more and more countries eventually open up their telecommunications markets, quantitative comparisons between a sufficiently large number of countries in terms of liberalisation and privatisation strategy and economic performance become possible. It might then be possible to link liberalisation strategy, achieved regulatory regime, and economic performance into a coherent whole in order to further evaluate different strategies.

Technology and Market Opening Processes

In addition to the issues presented above there is another contextual variable that must be treated in order to advance the study of market opening processes. This issue is technology and in particular the transition from analogue to digital switching technology and the many side-effects that this technological shift has brought about. The UK started its market opening process in the early 1980's at a time when technology most probably was more of a constraint for introducing competition compared to the early 1990's when Sweden liberalised its market. In Sweden Comviq obtained an analogue licence already in the early 1980's, but the license was never fully exploited due to factors including industrial policy restrictions on the use of Ericsson equipment, but also because of technological constraints. This indicates that it was not easy to compete in Sweden at that time. It could be one clue to why real competition could not come to Sweden or the UK so early for that matter, notwithstanding the regulatory regimes in service at that time in the two countries.[203] Sweden had also been a relatively advanced telecommunications nation for the most of the 20th century and was therefore relatively developed compared to the UK when liberalisation was enacted.[204] Furthermore, the market for telecommunications equipment was not open for competition, but it was also gradually liberalised during the 1980s.[205]

The impact of technology is troublesome, since it offers an altogether different arena in which to search for answers to why the processes have evolved differently. As the Swedish experience indicates, perhaps competition could not emerge during the 1980s – regardless of institutional regime. Did technology drive market opening or did market opening drive technology? In this thesis the issue is not satisfactorily answered or explored. The interdependence between technology and markets is an important subject of its own, which has been impossible to resolve in this thesis. Admittedly, technology could offer alternative explanations to why the temporary performance effects were different in the three cases. For instance, perhaps UK consumers could not be the main

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203 In Så byggdes en väldsindustri – Entreprenörskapets betydelse för svensk mobiltelefoni, EFI Research Report, April, 1996, Bengt Mölleryd describes the circumstances under which Comviq – which challenged Telia (then Televerket – in the early 1980s – was established. Comviq had to wrestle with not fully developed technology, Televerket's attempts to strangle it, unavailability of frequencies, and government intervention.

204 See for instance main lines per inhabitants compiled by ITU 1994, that shows large differences between the UK and Sweden. In 1983 Sweden had 60.22 lines per 100 inhabitants, compared to the UK which had 34.70 lines. Despite differences in growth rate during the remainder of the 1980s – perhaps attributable to the early UK deregulation – in 1992 Sweden had 68.10 to UK's 45.25.

205 According to Walter S Baer in Telecommunications Infrastructure Competition – The Costs of Delay, virtually all OECD countries in the mid 1990s had opened competitive markets for customer premises equipment and to a somewhat lesser degree network equipment.

benefactors of the market opening process, simply because the necessary technology was not available when the UK process was initiated.[206]

Path-dependency, Historical and Legal Circumstances

Comparisons are also complicated because of the pre-liberalisation institutional design pertaining to the three countries. Transferring the ideas presented in this thesis to developing countries presents yet new complicating contextual factors that limit the scope for generalisation. Sweden is a small country with a long tradition of free-trade and a regulatory regime based on the Germanic tradition. The UK has a tradition of supremacy as a great power and legislation that is based on the Anglo-Saxon tradition which relies on legal practice rather than codified law – a legal system to which New Zealand also is an adherent. The Swedish legal system usually tries to regulate the not permitted, whereas the British mostly regulates the permitted.[207] As a consequence of different general legal systems, the UK system resulted in extensive legislation and governmental enforcement in the field of telecommunications, compared to a more limited legislation and governmental activity in Sweden.

This also largely explains why Sweden had no legislation regulating telecommunications before 1993, when the UK and most other European countries had legally based monopolies. The non-existence of legislation may thus contribute to explaining why Sweden opted for introducing competition, since introducing a formal protection of the PTO was deemed unrealistic by the involved policy makers. Thus, the preconditions for liberalisation were not the same which may have had considerable bearing on the market opening process studied in this thesis.[208] Recognising and allowing for the many differences in home market size as well as PTO size, and history of national telecommunications sectors in terms of technology, operators, equipment producers, regulatory environments in telecommunications and other related markets – the process resulting from a similarly planned and devised market opening may be strikingly different. The point of

206 In Internationalisation of the Swedish Telecom Services Market, In The Race to European Eminence – Who are the coming tele-service multinationals? edited by Bohlin, E. and Granstrand, O. North-Holland, 1994, Ola Johansson and Ove Granstrand discuss the performance of the Swedish telecommunications network and its attractiveness from a FDI perspective. They argue that a digital network is a prerequisite for the creation of competition, and that the sharing of services in an analogue network is practically very difficult to sustain. The authors also note that cellular services and PBX services with leased lines are alternatives that only recently have developed and which allow PTO by-pass. Another important technology is fiberization which together with digitalisation have fundamentally altered the cost/performance ratio in telecommunications equipment.

207 The Regulation of the Telecom markets in Sweden and UK – A Comparison, August 1995, Coopers & Lybrand.

208 The Regulation of the Telecom markets in Sweden and UK – A Comparison, August 1995, Coopers & Lybrand.