

Comparing governance of network industries

A comparative case study between the
Netherlands, the United Kingdom and Belgium
on governance structures in network industries

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Date: January, 2016
Word count: 39.657 w/o references

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1 Introduction

On October 18th 2013, the Dutch cabinet presented the new policy for state-owned enterprises (SOEs), further endorsing the role of the state as an active shareholder in SOEs (The Netherlands Ministry of Finance, 2013). The decision to do so was already made in 2001 (The Netherlands Ministry of Finance, 2001) and further emphasised in 2007, when the Dutch Cabinet introduced a more active and involved policy on SOEs (The Netherlands Ministry of Finance, 2007). The change is often explained as a shift from a 'privatise, unless' to a 'public, unless' approach on state ownership. The shift meant the Dutch state as a shareholder would no longer focus mainly on privatising SOEs. Instead, it would turn its attention to matters such as investment, strategy and remuneration policies for SOEs (The Netherlands Ministry of Finance, 2013). What is new about the policy paper, in a nutshell, is that each SOE is looked at separately whether or not it should be privatised, based on amongst others its impact on the Dutch economy and its value in safeguarding the public interest (The Netherlands Ministry of Finance, 2013).

In 2013, the Dutch state had 38 SOEs with most of them being active in the financial service, energy, transport and gaming industries. The international airport Schiphol, the railway management ProRail and the electricity power transmission company Tennet are examples of SOEs that play a significant role in the Dutch economy (Algemene Rekenkamer, 2015). The ownership the state has in SOEs can differ between one and a hundred percent with most of them being controlled by the Ministry of Finance, the Ministry of Economic Affairs and the Ministry of Infrastructure and the Environment (The Netherlands Ministry of Finance, 2013). With sixteen of the 38 SOEs being entirely owned by the Dutch state, not to mention the six SOEs in which the state has a majority share (The Netherlands Ministry of Finance, 2013), SOEs in the Netherlands make up for a substantial amount of government revenue being somewhere between three to five billion a year between 2007 and 2013 (Algemene Rekenkamer, 2015).

Research on the governance of SOEs has also received a lot of attention during the last decade on an international level as well. For instance, the Organisation for Economic Co-operation and Development (OECD) has contributed to the topic on a supranational level and in comparing economies with one another and even providing guidelines (OECD, 2005) with more recent ones in the making (OECD, 2014). Over the last decade alone, the motives for state ownership have been subject to change and reform in a wide variety of countries and industries comprising a broad range of commonly social, economic and strategic reasons. The globalisation of markets, technological developments and deregulation of previously monopolistic markets have made it necessary for perceptions on state ownership to change and adapt (OECD, 2010; OECD, 2013; OECD, 2014).

1.1 Problem definition

The abovementioned policy paper of 2013 (The Netherlands Ministry of Finance, 2013) already briefly indicates the Netherlands is no exception in having to adjust its perceptions on state ownership. In 2012, an elaborate parliamentary investigation (POC, 2012) was conducted into the privatisation and corporatisation of public services which, at the very least, suggested a variety of different forms of governance in different (previously) public sectors over the last few

decades alone (POC, 2012). By staying on the international level, this study seeks to add to the discussion surrounding SOEs by looking at how other countries have organised their public services and why they have done so in such manner.

Based on the research performed by the OECD (2014), there is a great overlap between countries in the types of industries in which SOEs are frequently found which is mostly in the utilities and infrastructure industries. Furthermore, as the abovementioned indicates, arguments for SOEs in said industries are also often found similar. However, questions as to why certain countries do have SOEs whereas other countries do not in the same type of industries, and how these differences and similarities in governance structures can be explained, remain relatively unanswered (OECD, 2014).

In order to shed some more light on these matters, this study narrows in on the governance structures of network industries by comparing different countries with each other. Network industries provide important services to the public through the associated infrastructures which are often considered essential theretofore. Infrastructures for the provision of (public) services commonly include those “in the fields of energy (electricity, gas, oil), communication (telephony, internet, postal services), transportation (aviation, railways, maritime transport, public transportation, roads), as well as drinking water and sewerage (Finger & Künneke, 2011, p. 1)”. Herein, processes of liberalising infrastructures over the last thirty years or so have been determinative, as well, for the governance (structures) to change from more often state-owned monopolies to more or less commercialised sectors in network industries in countries all over the world (Geradin, 2006; Finger & Künneke, 2011).

More specifically, the governance structures in the postal and telecommunications industries are taken under closer examination. The industries are both considered to be liberalised, in Europe at least (EC, 2015a; EC, 2015b), in addition to befitting the type of industry described by the OECD (2014) in which SOEs are frequently found (Finger & Künneke, 2011).

1.2 Research goal

The research goal of this study is twofold as 1) it seeks to explain why the country-specific governance structures are similar or different from one another, and 2) how these differences and similarities can be explained from a neo-institutional perspective and through country-specific patterns of governance, in network industries. Hence, the research goal of this study is to *‘to present insights into why governance structures are in place in network industries in different countries and to explain the differences and similarities between countries based on the neo-institutional economics and state-administrative tradition theory’*.

1.3 Research questions

Following the research goal this study aims to answer the following central research question (CRQ):

CRQ: How can the differences and similarities in country-specific governance structures in network industries be explained from the neo-institutional economics theory and state-administrative tradition theory?

In order to answer the central research question the following four theoretical and empirical sub-research questions (SRQ) are asked to give structure to the study. Sub-research questions one to three have a more theoretical nature, whilst sub-research question four has more of an empirically explanatory nature.

Describing governance structures:

SRQ 1: What are the possible governance structures for organising public services?

Explaining governance structures in network industries:

SRQ 2: Which arguments from the neo-institutional economics are related to the governance structures in network industries and where does the emphasis lie on?

Explaining similarities and differences in governance structures in network industries in different countries:

SRQ 3: Which arguments from state-administrative tradition theory are related to country-specific governance structures in network industries?

Comparing governance structures in different countries:

SRQ 4: What are the actual governance structures in place in network industries in different countries?

1.4 Scientific relevance and relevance to society

The academic contribution of this study is twofold. First, this study aims to present insights into how the neo-institutional economics and state-administrative tradition theory can explain the governance structures in network industries across European states. Secondly, this study also makes a contribution to science by showing how both theoretical perspectives can explain the differences and similarities between countries. Furthermore, a contribution to the existing academic literature on comparing countries based on politico-administrative country profiles (Esping-Anderson, 1990; Hood, 1998; Loughlin, Hendriks, & Lidström, 2010; Painter & Peters, 2010; Pollitt & Bouckaert, 2011) is made by focusing specifically on governance structures in network industries. However small, the comparison between countries focused on governance structures in network industries, highlights certain aspects on the national level that could possibly be used for future academic research using neo-institutional economics and foremost state-administrative tradition theory (Loughlin & Peters, 1997; Painter & Peters, 2010).

In addition to the scientific relevance, this study also has its relevance to society. The introduction already briefly touched upon the actual discussion whether or not to privatise SOEs that has been going on for a while now in the Netherlands (The Netherlands Ministry of Finance, 2001; The Netherlands Ministry of Finance, 2007; The Netherlands Ministry of Finance, 2013). This discussion can be placed within a broader context of the privatisation and agencification of the Netherlands, of

which the starting point is often set somewhere in the 1980s, along the emergence of transnational public management reform tendencies such as the new public management (NPM) (POC, 2012). Looking abroad gives insights into how other states deal and have dealt with such tendencies. Especially the UK is often seen as a predecessor to the Netherlands when it comes to these areas of public management reform (Pollitt, Van Thiel, & Homburg, 2007).

1.5 The object of analysis

Preliminary to the theoretical approaches used in this study this small section introduces the main object of analysis: key-governance structures. Following Pollitt and Bouckaert (2011), the two main forms of coordinating public services are hierarchies and markets although there are many different forms in between which are often described as 'hybrids' (Pollitt & Bouckaert, 2011). The traditional hierarchic form of (government) coordination is authorised from the top and works its way down the organisation whilst being controlled by staff units supported by top administrators in order to make sure that everything is in line with the proposed strategy and is not contradicted at the bottom of the hierarchy. Within hierarchies, regulations are very important as these are the main tools used by the central management to coordinate. If something changes, new regulations are made or existing ones adjusted to fit the existing body of (public) law as well as procedures meant to instruct the rest of the organisation (Pollitt & Bouckaert, 2011). The market as a form of coordination does not have a central authority to coordinate. Instead, the 'hidden hand' of supply and demand coordinates the organisation as well as everything else. Explained by Pollitt and Bouckaert (2011) as the miracle of the market, the price mechanism within it allows producers and sellers as well as consumers and buyers to come up with prices based entirely on supply and demand (Pollitt & Bouckaert, 2011). In the next chapter, the concept of key-governance structures is elaborated by looking at how public services can be organised as well as giving a categorisation of the possible key-governance structures within the bigger picture of organisational forms of coordination.

1.6 Theoretical approaches

The theoretical framework applied in this study consists of two parts in order to answer the two folded research question. The first theoretical perspective is based on the neo-institutional economic (NIE) school of thought and focuses on transaction cost economics (TCE). Although TCE's founding father Oliver E. Williamson (1985) developed the theory mainly for commercial use, TCE also has its merits as an economic organisation theory for explaining why economic activities are organised the way they are as opposed to other NIE theories such as property rights and principal-agent theory (Mol, Verbon, & De Vries, 1997). Accordingly, in considering and comparing governance structures in network industries across different countries, TCE is useful for explaining why the governance structures these are in place. Additionally, TCE makes it possible to determine where the emphasis is on in governance structures in network industries following its three characteristics asset specificity, uncertainty and frequency. Chapter three gives a brief overview of the NIE along with its underlying behavioural assumptions in order to narrow in on TCE more specifically (Williamson, 1985).

The second theoretical perspective adopted is state-administrative tradition theory (Loughlin & Peters, 1997; Painter & Peters, 2010), which is used to describe the politico-administrative context in the Netherlands, the UK and Belgium. 'Putting it into context', as explained by Pollitt (2013), is a

missing link “which enables us to make sense of the vital relationship between the general and the particular (Pollitt, 2013, p. 10)”. Filling in what Pollitt (2013) so eloquently put; the NIE can explain the general as well as some of the particular arguments for governance structures in network industries but the politico-administrative context is what truly explains the particulars of countries and the differences and similarities between them. Chapter four elaborates the perspective of state-administrative traditions by starting with a general introduction into the concept and the several ways of grouping ‘families’ of politico-administrative thought (Esping-Anderson, 1990; Hood, 1998; Painter & Peters, 2010; Pollitt & Bouckaert, 2011). By using the five dimensions of state-administrative tradition theory the politico-administrative context for the Netherlands, the UK and Belgium are presented which form the basis for explaining the differences and similarities in governance structures in network industries (Loughlin & Peters, 1997; Painter & Peters, 2010).

1.7 Methodological approach

In order to answer the research question, this study is methodologically structured as a qualitative comparative case study. As the aim is to both describe and explain the governance structures in network industries, in order to make the comparison between countries, the nature of this study can be considered both descriptive and explanatory for which the comparative case is used as a means to achieve this aim (Van Thiel, 2014, p. 16). The choice was made to opt for a limited number of cases as well as taking on an in-depth research approach by mainly analysing (policy) documents supported by (academic) literature. Herein, the emphasis is on qualitative data analysed through content analysis (Verschuren & Doorewaard, 2010, pp. 155-157; Van Thiel, 2014, p. 108). Part of the choice to limit the number of cases was to limit the number of countries to the Netherlands, the UK and Belgium as each country belongs to a different state-administrative tradition (Loughlin & Peters, 1997; Painter & Peters, 2010). Herein, the focus is on ‘key’ governance structures as only the top governance structures are looked at and not the underlying details.

1.8 Reading guide

The next chapter picks up where the introduction left off in regard to the ‘object of analysis’, or rather, the possible key- governance structures in network industries as a typology chapter. Within the two following chapters, the theoretical framework is discussed. As this study uses two theories, the theoretical framework is divided into two parts. Chapter three gives a broad description of the NIE and its main elements PR, PA and of course TCE. The politico-administrative regimes of the Netherlands, the UK and Belgium are each separately discussed based on state-administrative theory in chapter four. In chapter five the key variables of both theories are operationalised as well as the methodological framework elaborated. As an introduction to the analysis, chapter six presents the elements similar in each looked at country to avoid overlap beforehand. Chapters six (the Netherlands), seven (the UK) and eight (Belgium) present the main findings on both the postal and telecommunications industry per country. Within the final chapter, comparisons between countries are made as well as conclusions drawn by answering the central research question. In addition, a brief reflection of this study is presented as well as recommendations for future research.

2 Key-governance structures

As the main 'object of analysis' in this study, key governance structures are a central concept that needs to be defined beforehand. Therefore, this chapter sets out to give a brief conceptual overview of the different types of key governance structures for the delivery of public services and in particular the relationship of those governance structures in regard to the (private) market.

2.1 Organisational forms and trajectories of change

Organisational change within the public sector has received a lot of (academic) attention over the years. Developments regarding topics such as privatisation (Von Weizsäcker, Young, & Finger, 2005) and especially agencification during more recent years (Verhoest, Roness, Verschuere, Rubecksen, & MacCarthaigh, 2010; Verhoest, Van Thiel, Bouckaert, & Lægreid, 2012), have led to a wide spectrum of different types of public sector organisations in between the more traditional forms of coordination of the hierarchy and the market (Pollitt & Bouckaert, 2011). In their work, Pollitt and Bouckaert (2011) also notice an overlapping trajectory of organisational change amongst countries. Even though traditional hierarchies have remained in place, the majority of countries have witnessed an alteration in the instruments of hierarchical coordination towards these becoming more market based.

The organisational shift perceived here can be described as moving from "control and coordination by rationing inputs and regulating procedures" to a "greater emphasis on coordination by targets and output standards (Pollitt & Bouckaert, 2011, p. 101)". Underlying these organisational changes, and the big familiar reforms models such as the 'New Public Management', the 'Neo-Weberian-state' and the 'New Public Governance' to which these changes are often attested to, was an overall increase in demand for more efficiency within the public domain (Pollitt & Bouckaert, 2011).

The abovementioned reform models signalled among many (foremost Western) countries (Pollitt & Bouckaert, 2011) can also be associated with the general increase in organisations at arm's-length of the government, or quasi non-governmental organisations (quango): "the quango concept is a catch all concepts for all kinds of organisations somewhere in between private entities and government units (De Kruijf, 2011, p. 49)", do not attest for the great diversity of public-sector organisations out there on their own. However, they do show why there is a supposed overlap between countries in types of public-sector organisations (Pollitt & Bouckaert, 2011).

It might therefore be even impossible to give a clear cut cross-sector and cross-country framework or typology of possible key governance structures out there. As this study is not the place to discuss these matters to a full extent, nor does it have the intention to do so, the next section presents an overview of the typology used in this study of possible governance structures for organising public services based on the categorisation of public-sector organisations by Van Thiel (2012).

2.2 Categorising public-sector organisations

Within her work, Van Thiel (2012), puts together the answers provided by experts through an expert survey into agencification held in 2008 and 2009 in 21 different countries spanning 25 different

public tasks in order to provide a categorisation system for the comparison of the different (legal) types of public-sector organisations. The survey was mostly performed within a European context with the addition of Australia, Tanzania and Israel. Furthermore, the survey only covered agencies at the national and federal level thereby also excluding the agencification of regulatory tasks (Van Thiel, 2012). The processed results of the survey are displayed in the table below.

Table 1 Categorisation of public-sector organisations (Van Thiel, 2012, p. 20)

Type	Definition	Examples	Number
0	Unit or directory of the national, central or federal government (not local, regional or state)	Ministry, department, ministerial directorate/directorate general	104 (20%)
1	Semi-autonomous organisation, unit or body without <i>legal independence</i> but with some managerial autonomy	<i>Examples:</i> Next Steps Agencies (UK), contract/executive agencies (NL, B, AUS, IRL), state agencies (Nordic countries), Italian Agenzia, service agency (A), state institutions (EST), central bureaus (HUN), direct-agencies (GER)	142 (27%)
2	Legally independent organisation/body (based on <i>statutes</i>) with managerial autonomy, either based on public law (2a) or private law (2b)	<i>Examples:</i> Public establishments (IT, POR), ZBO (NL), NDPB (UK), parastatal bodies (B), statutory bodies or authorities (not corporations: A, EST, AUS, IRL, POR), indirect agencies (GER)	106 (20%)
3	Private or private-law based organisation established by or on behalf of the government like a foundation or corporation, company or enterprise (government owns majority or all stock, otherwise category 5)	<i>Examples:</i> commercial companies, state-owned companies (SOC) or enterprises (SOE), and government foundations	62 (12%)
4	Execution of tasks by regional or local bodies and/or governments (county, province, region, municipality)	<i>Examples:</i> Länder (GER), regions (B, I, UK), states (AUS), cantons (CH)	54 (10%)
5	Other, not listed above	Contracting-out to private companies an privatisations with government owning minority or no stock	28 (5%)

The range from 0 to 5 in type indicates the amount of government influence with type 0 having the most and type 5 having the least. The latter type could be commonly referred to as private businesses. Type 1 organisations are closely linked to the government having no unit or body with legal independence but possessing some managerial autonomy. Examples are Next Steps agencies in the UK or contract/executive agencies in Belgium and the Netherlands (Van Thiel, 2012).

Type 2 organisations have a separate legal status based on public or private law and possess managerial autonomy. More generally referred to as '(statutory) bodies', examples of type 2 organisations are the non-departmental public bodies or 'quangos' in the UK, the so-called '*zelfstandige bestuursorganen (ZBOs)*' in the Netherlands and parasatal bodies such as the Agency for Foreign Trade (ACE/ABH) in Belgium (Van Thiel, 2012). The difference between type 2a (public law

based) and 2b (private law based) organisations can be explained based mainly on their political accountability by following the more clear cut distinction made by the OECD (2002) between public law administrations (PLA) and private law bodies (PLB). Institutionally type 2a organisations or PLAs, in functioning mostly under public law, are either in part of in total separated from their respective ministry or political department. Control in this type of organisations is usually devolved to a governing body, meaning that ministerial control is often more indirect yet still present. Type 2b organisations or PLBs, in functioning mostly under private law, enjoy more limited political accountability as they typically have an entirely separate legal status with respect to the state. However, control from the state is still present although to a lesser degree than with type 2a organisations and being even more indirect as type 2b organisations often have control devolved to governing boards and such (OECD, 2002, pp. 17-19) . This distinction is similar to the ZBOs in the Netherlands regarding ministerial authority towards the two types of ZBOs (De Kruijf, 2011, p. 57). Both type 1 and type 2 organisations are the most frequent consisting of 47 per cent of the public tasks included in the survey and are most commonly known as the types for agencification (Van Thiel, 2012).

Type 3 organisations are private or private-law based organisations that are created on behalf of the government. It is important not to confuse these organisations with privatisations as that would mean that the entire company or shares previously owned by the government in the company need to have been sold to the market. Type 3 organisations are therefore often understood as forms of corporatisation, meaning the government still owns these organisations but through a corporate form. SOEs belong to this type or public-sector organisations, but only if the government holds the majority of the shares else they would belong to type 5 organisations, as well as commercial organisations and state-owned companies (hereafter – SOC) (Van Thiel, 2012). SOCs, on the one hand, are companies run like private companies that are meant to do specific public tasks but are still part of the government and can be perceived as more of a special type of agency. SOEs, on the other hand, are considered to be legal entities on their own (De Kruijf, 2011, pp. 55-56). In the Netherlands SOEs are defined as limited or private companies in which the government has shares, be it a majority or minority (POC, 2012). However, as a type 3 organisation the government must have all or a majority of the shares because else it would not have full control over the company. It should be noted though that ownership of the government in SOEs is about legal and economic aspects rather than the operational activities which are governed on the basis of supply and demand through the market (De Kruijf, 2011, pp. 55-56).

Lastly, type 4 organisations are about the execution of policies at the regional and local level and as such are not included in the categorisation because of the focus on the national and federal level. This type of organisations are more often the result of decentralisation, delegation or devolution (Van Thiel, 2012, pp. 19-21). In the next section the non-public sector, as opposed to the public sector, is discussed to complete the picture of what is understood by public sector organisations in this study.

2.3 The non-public sector

Aside from the many abovementioned different kinds and types of public-sector organisations there is also the non-profit sector, or rather non-public sector, that needs to be taken into account to set it apart from the public-sector in this study on key governance structures. Over the years the terminology regarding the non-profit sector has become immense, each term emphasising a

different facet of the social reality of the sector (Anheier, 2014, p. 60). In order to set this sector apart, the following terms and their foci are considered not to be part of public-sector organisations. As there are so many, a few are picked out and highlighted that give a general overview of what is meant by the non-profit sector here (Anheier, 2014).

First, “Charity” organisations have their emphasis on helping the needy through funds they receive from charitable donations. Anheier (2014) notes that these non-profit organisations are often not as ‘charitable’ as they pursue other special interests or those of their members. Second, “voluntary” organisations stress their non-compulsory nature even though often much of the personnel is paid for and in many cases there is no membership base anyhow. Third, “non-governmental” organisations (hereafter – NGO) emphasise their international and transnational nature in an often much professionalised setting. Fourth and lastly, even the “non-profit sector” itself only accounts for more or less one aspect of the entire non-profit sector by following economic theory in having its emphasis on the fact that these organisations do not generate any surplus, which is sometimes not even true (Anheier, 2014, pp. 60-61).

Linked to the categorisation of Van Thiel (2012), the non-public sector would fit in somewhere roughly between a type 2 and type 3 organisation in the spectrum of government influence in not being “subject to ministerial responsibility (De Kruijf, 2011, p. 50)” but can be private- or private law based (Anheier, 2014; De Kruijf, 2011, pp. 49-50). Although seemingly in the middle, these organisations are not directly part of the public-sector and therefore also not part of the scope of key-governance structures in this study. The next section narrows in on network industries and what type of (public-sector) organisation one is to expect there.

2.4 Network industries

Over the last three decades network industries have been significantly restructured by governments in numerous countries all over the world. In the past, governance in these industries was usually directly supervised by governments through special arrangements in order to make certain that the provision of the (essential) services they provide(d) to society was ‘under politically acceptable conditions’ (Finger & Künneke, 2011, p. 1). This was often done through means of ‘public ownership’ and ‘regulated monopolies’ (Finger & Künneke, 2011, p. 1), essentially organising public-sector organisations of network industries as ‘state monopolies’ (Geradin, 2006, p. 2). At present, network industries are more often organised as commercial economic industries that need to provide their services through means of efficiency in having to compete with others on the market. Thereby redefining the role and responsibility of the government in these industries.

Commonly referred to as the liberalisation of network industries, on which a vast amount of academic literature has been written (Finger & Künneke, 2011, p. 1), this defines a fundamental alteration in the governance (structures) of network industries (Finger & Künneke, 2011, p. 1). The liberalisation process first took off in the US at the end of the 1970s and was followed by the UK in the 1980s as well as the European Commission in the late 1980s. The latter was one of the main initiators of the liberalisation reform processes throughout the EU in a wide range of network industries, as we shall see later on, in wanting to create an internal EU market (Geradin, 2006, p. 1).

The downsizing of the public enterprise in a more general fashion was also observed by the OECD in 2000. They estimated that more than half of the public enterprises owned by governments in OECD countries at the beginning of the 1980s was either privatised or corporatized at the time of publishing the rapport. Also confirmed by the OECD (2000) is the increased liberalisation in the

telecommunications and air transport industries regarding the decrease in the amount of public ownership in network industries versus the energy and railway industries, which experienced a lot less changes regarding public ownership (OECD, 2000).

In accordance with the liberalisation of network industries (Finger & Künneke, 2011) and the general downsizing of the public enterprise (OECD, 2000) such as labelled in the big public management reform models (Pollitt & Bouckaert, 2011), the following prediction regarding the type of public-sector organisation likely to be found in network industries is made. In the case that the respective network industry in a country has not been privatised the likely key-governance structure found would be a “private or private-law based organisation established by or on behalf of the government like a foundation or corporation, company or enterprise (Van Thiel, 2012, p. 20)”, or in other words, a type 3 public-sector organisation based on the categorisation by Van Thiel (2012).

2.5 Conclusion

The aforementioned developments such as the big reform models, the trends of privatisation and agencification going alongside them and even the liberalisation of network industries have led to a broad array of public-sector organisations. These organisations, in a mostly European context, were categorised by Van Thiel (2012) by which she also determined their place in between the two traditional forms of coordination typically described as hierarchies and markets. The amount of government influence is determined by the type, ranging from 0 being (traditional) hierarchical governments to 5 being (private) market mechanisms. In addition to this the non-profit, or rather, non-public sector was also discussed in order to set these sector(s) apart from the public-sector. Lastly, the network industries were considered and a prediction regarding what type of organisation would likely be found in these industries was made. The expectation is to find is to find mostly type 3 organisations in network industries as they likely fit the pattern of liberalisation that has occurred in these industries. Concluding this chapter, the remainder of this study uses the term ‘governance structures’ out of convenience to refer to the in this chapter discussed ‘key-governance structures’.

3 Theory | part one: transaction costs economics

This chapter elaborates the first part of the theoretical framework. It looks at what arguments from the NIE are related to the governance structure in network industries and where the emphasis is on.

3.1 Neo-institutional economics

Starting off, the focus of the NIE the focus is on institutions in which economic activities take place. Institutions are broadly interpreted as both the rules and conditions to which economic actors in their actions have to conform to, as well as the settings and markets in which actors organise their actions (Mol, Verbon, & De Vries, 1997). In a nutshell, the NIE aim to answer the following question: “which organisational forms are optimal in certain situations, i.e. which organisational forms lead to maximum economic efficiency?” (Ter Bogt, 1997, p. 45). In order to answer this question, neo-institutional economists turn the neoclassical ideal kind assumptions around saying individuals experience uncertainty as they do not have access to all the information needed to determine what will happen and what the possible outcomes are. The link between individuals and institutions in the NIE is found in the explanatory direction which departs from individuals moving towards institutions. Hence, as Van Genugten (2008) argues: “the new institutional economics rests on two propositions: i. institutions matter and ii. they are susceptible to analysis by the tools of economic theory” (Van Genugten, 2008, p. 16). Therefore, the main reason as to why institutions are created according to the NIE is to minimise risks, lower transaction costs and to present a level of control over the situation or rather the environment they are in (Van Genugten, 2008, p. 16)

Within the NIE there are three main elements that can be discerned: TCE, property rights theory (PR) and principal-agent theory (PA). In general, TCE is about transactions within the production process and the costs going along with these transactions. PR is about the discernible property rights and PA about the relationship between the principal and the agent (Mol, Verbon, & De Vries, 1997). PR and PA are addressed briefly in the sections below before moving on to TCE as the main theory used in this study.

3.2 Property rights theory

Extensively discussed by Künneke (1991) in his dissertation, the main question PR seeks to answer is: ‘how does the distribution of property rights influence, or rather stimulate economic actors to do certain activities?’ Property rights (in an economic sense) are given a very broad context within all of this, encompassing all legal incidentals accompanying economic activities. Property rights are thus perceived from an economic point of view in which they are not only determined by their physical properties but also by the category in which economic actors can place them (Künneke, 1991).

Property rights are divided into three categories. The first being the right to use a good, the second being the right to earn income from the good and the third and last the right to change the contents of the good or to transfer it to others (Künneke, 1991). To elaborate, Künneke (1997) mentions two main distinguishable forms of property: private and collective property. When talking about private property all three of the abovementioned categories belong to individual actors, be it one individual actor or several. Collective property is seen when the first two categories are only

available to a closed community of actors. The third category could be designated to the group as a whole although it is sometimes a bit loosely defined.

In addition, a third form of property can be discerned called government property. It is different from the other two forms as both private and collective property can be present together here at the same time, which is why it is perceived as an intermediate form by Künneke (1997). In the case of government property, the government would own all three categories of property rights but it would also be possible for the government to delegate or hand over the first two categories to third parties (Künneke, 1997).

3.3 Principal-agent theory

In PA the focus is on the individual, or rather, the decision-making process the individual has to go through as the unit of analysis. Within the principal-agent model the general thought is there is an actor (the agent) that takes decisions on behalf of another actor (the principal) in return for payment or a certain reward. For example regarding companies, the relationship between the management (the agent) and the shareholder (the principal). According to PA¹ the relationship between the principal and agent is characterised by two conditions which gave the theory its synonym 'the principal-agent dilemma'. The first condition is the difference in interests between principal and agent. What are perceived desirable actions by the principal performed by the agent could be seen as a disutility by the agent? The second condition is the information-asymmetry that exists between the principal and agent. The agent always has more information than the principal as the principal is never able to perfectly monitor the agent and its actions. As a result the principal is not certain whether or not the agent is always acting in the principal's best interest (Neelen, 1997).

3.4 TCE and the neo-institutional economics

Following Williamson (2000) there are four levels of social or rather institutional analysis (displayed in Figure 1) that can be discerned (Williamson, 2000). The four levels of institutional analysis are used by Williamson to explain where TCE fits within the NIE. The top level is called the *social embeddedness* level and is about informal institutions such as customs, traditions, norms and religion (Williamson, 2000). These are not really predetermined or specifically thought of rules find their origin in the ideas, goals and decisions made by individual actors and are therefore also not easily altered (Van Genugten, 2008). The second level or the *institutional environment* is about the formal 'rules of the game' that usually have a legal basis (Williamson, 2000). Even though the general structures on this level usually evolve over time, they can also be consciously designed (Van Genugten, 2008). The third level or *governance structure* is about institutional arrangements made up by trading partners in order to guide their, following Williamson's (2000) terminology, economic partnerships based on either cooperation or competition. This level is about getting the governance structures right, the 'play of the game' or rather how governance structures are aligned with transactions (in often

¹ This is the economic approach to principal-agent theory as described by Neelen (1997), which is different from the public administration (or institutional) approach to principal-agent theory. Within the latter approach, the focus is more on the relationship between the principal and the agent, and less on the possible costs incurred when the principal fails to monitor the actions of the agent. This is due to a lack of self-interest of the principal (through political legislature) in the public administration approach, given that the incurred costs will probably for the most part transfer to the general public instead of the principal (Mitnick, 1974).

contractual relationships) are the primary focus of analysis at this level (Van Genugten, 2008). The fourth and bottom level is about *resource allocation and employment* which is basically about, as Williamson (2000) also puts it himself, neoclassical economics and agency theory (Williamson, 2000). The top levels cost the most time to change whilst the lower levels the least, ranging from centuries at the top to continuously at the bottom. Also, higher levels enforce constraints on the level below them whilst the lower levels provide feedback to the level above them (Williamson, 2000, p. P. 596). TCE fits into the third level in having its emphasis on governance structures and institutional arrangements as TCE is also about ‘getting the governance structures right’ (Williamson, 2000, p. p. 597).

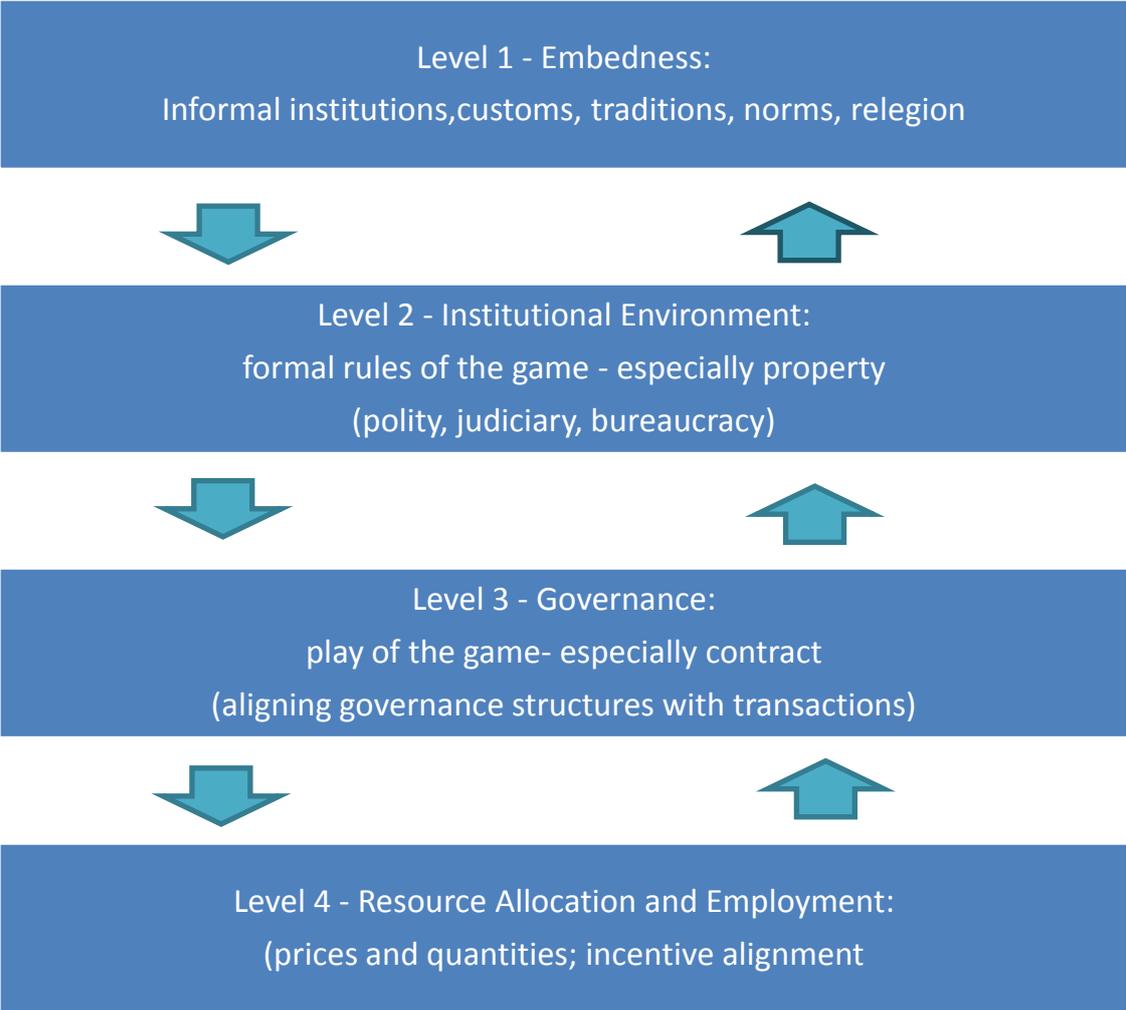


Figure 1: Four levels of institutional analysis (Williamson, 2000, p. 597)

To sum up one could say that the first level of institutional analysis in the NIE is about social theory, the second level is about the economics of property and property rights/positive political theory, the third level is about TCE and the fourth level is about neoclassical economics and agency theory (Williamson, 2000, p. 597). The next sections narrow in on TCE as a third level category institutional analysis but first the underlying behavioural assumptions are discussed before moving on to the basics of TCE.

3.5 Behavioural assumptions

In line with the NIE and building on the works of in particular Coase (1984) and Simon (1978), Williamson (1985) names two behavioural assumptions underlying TCE. The first being bounded rationality and the second opportunism. At the base of these assumptions lies the notion that TCE “recognises human nature as we know it” (Williamson, 1985, p. 44) following the work of Coase (1984, p. 231) in which he says that NIE “should study man as he is, acting within the constraints imposed by real institutions” (Coase, 1984, p. 231).

First, *bounded rationality* states that economic actors have the intention to act rationally but are limited in doing so as, for example, they are not able to oversee all possible alternatives which in turn could be because they do not possess all the necessary information. Following Simon (1978) bounded rationality is considered a semi strong form of rationality and comes down to the following question being asked: “Given limited competence, how do the parties organise so as to utilise their limited competence to best advantage?” (Williamson, 1985, p. 46). The costs resulting from bounded rationality regarding the planning, adapting and monitoring of transactions thus need to be accounted for (Van Genugten, 2008).

Second, *opportunism* states that there is always a certain amount of self-interest seeking present for the economic actors involved. It should be noted though that what Williamson (1985) means by self-interest seeking is through trickery and deceit, although subtle. All forms are included, be it active or passive forms or beforehand or afterward types of self-interest seeking. Generally speaking opportunism can point to “the incomplete or distorted disclosure of information, especially to calculated efforts to mislead distort, disguise, obfuscate, or otherwise confuse” (Williamson, 1985, p. 47). The idea is that even though economic actors will not always act opportunistically, there is always the possibility. The opposing party or parties should always take this into account and take precautionary measures beforehand rather than afterwards (Williamson, 1985).

These measures can be formulated as safeguards against the moral hazards posed by opportunistic actors. Since it is impossible to know whether or not these are needed, opportunism is more of a prudential assumption rather than bounded rationality which is a more realistic assumption (Van Genugten, 2008). Opportunism, in turn, leads to higher transaction costs as safeguards have to be thought of beforehand.

3.6 Basics of TCE

TCE was mainly developed by Oliver E. Williamson in 1985 as an economic organisation theory (Williamson, 1985). As the two behavioural assumptions mentioned in the previous section point out, there are hazards that are inherent in exchange relationships against which contracting partners have protect themselves. The protection needed against these hazards is created by organising or choosing the appropriate governance structure depending on the characteristics of the exchange relationship and if possible, lowering transaction costs (Van Genugten, 2008). Therefore, as Van Genugten (2008, p. 21) puts it, TCE can also be seen as a study of alternative institutions of governance (Van Genugten, 2008). Basically, TCE looks at how transactions are organised by using transactions as the main unit of analysis. Transactions are understood as an exchange of goods or services that takes place on the market or within an (hierarchical) organisation (Ter Bogt, 1997). Whether it takes place on the market, within an organisation or something in between such as

hybrids is discussed in the next sections (Ter Bogt, 1997). Regarding network industries, transactions are understood as contracts between the government and network organisations, and not as contracts concerning individual (public) services for citizens (Spiller, 2011, pp. 12-13).

Transaction costs are referred to as the costs that go along with these transactions that involved actors (trading partners) have to make (Ter Bogt, 1997). According to Williamson (2000) there are transaction costs incurred before as well as after the transaction is actually executed (Williamson, 2000). Transaction costs beforehand are for instance the costs of gathering information, negotiating terms, safeguarding agreements and drafting up contracts. More important are the transaction costs incurred afterwards. These include three broadly defined costs. First, the costs that have to be made to keep the governance structure meant to monitor the observance of the agreement as well as the governance structure that handles any possible conflicts or disturbances up and running. Second, the costs incurred for responding and restoring when something goes wrong as a result of a misalignment in the carrying out of the contract such as possible 'gaps, errors, omissions and unanticipated disturbances' (Van Genugten, 2008, p. 28). Third and lastly, the costs made for guaranteeing a safe commitment (Van Genugten, 2008).

In essence, the emphasis in TCE is on achieving the most efficient organisational form (given the production characteristics). With transactions being the main unit of analysis, organisational efficiency is achieved by minimising both production and transaction costs (Ter Bogt, 1997). Or as Van Leerdam (1999) puts it, organisational efficiency or rather transaction efficiency could also be explained as the degree to which institutions fit the relevant environment (Van Leerdam, 1999, p. 78). In order to use transactions as a unit of analysis, the next section elaborates on the characteristics which are determinative for the governance structure based on Williamson (1985).

3.7 Characteristics

Williamson (1985) mentions three main dimensions or characteristics of transactions in which they differ and that are determinative for which governance structure is chosen. These are *asset specificity*, *uncertainty* and *frequency*. Asset specificity is the most important as this is what sets TCE apart the most from other theories on economic organisation, even though frequency does not play a role in other theories either (Künneke, 1991; Neelen, 1997), but the other two characteristic are also very much relevant (Williamson, 1985). The assumption in TCE is that the manner in which transactions are organised can be explained by rational economic reasons. As such, transactions are considered distinguishable units of analysis if the three characteristics mentioned by Williamson (1985) in which transactions differ can be determined (Van Genugten, 2008).

3.7.1 Asset specificity

Asset specificity refers to the degree to which a transaction requires specific knowledge or specific technical skills which are hard to come by through others means (Ter Bogt, 1997). Following Williamson (1985, p. 54) it is possible to discern between assets that serve a general or a specific purpose. General assets are often more easily cancelled or redeployed without losing much of the production value. With specific assets this is less easily done for opposite reasons. This is also why the latter assets are called 'idiosyncratic', emphasising the uniqueness or even irreplaceability of such assets (Williamson, 1985). For instance, a manufacturing plant producing specific goods for which the presence of nearby water is need would be costly to move or to be adapted by someone

else as it is assets are specific. Whereas, an office building in the centre of town would be easier adapted by another company as it is not specific to a good and therefore less asset specific (Van Helden, 1997). As a result the more specific an asset is the more dependent partners will be on one another (Van Genugten, 2008). This brings problems with it for both sides because of the behavioural assumptions, bounded rationality and opportunism, as both partners have become increasingly dependent on one another. Consequently, this could lead to the pricing mechanism first agreed upon by the partners not being adequate any longer, which could lead to new (more complicated) contracts that have to be drawn up, and in turn leading to higher transaction costs. In general, transactions costs go up the higher the asset specificity gets (Van Helden, 1997, p. 40).

3.7.2 Uncertainty

The second characteristic *uncertainty* refers to both the environmental as well as the behavioural uncertainty to which transactions are subject to. Environmental uncertainty is about the unexpected changes that can occur during an exchange. This can range from the unpredictable nature of the external environment such as political risks to the complexity of the environment as would be the case with many involved stakeholders (Van Genugten, 2008, p. 25). Behavioural uncertainty has its foundation in the behavioural assumptions of TCE (Williamson, 1985, p. 58), referring to the possibility of one of the trading partners in an exchange relationship behaving opportunistically afterwards. However, not having enough information about the possible outcomes due lack of communication between trading partners in exchange relationships, can also lead to this (Van Genugten, 2008; Van Helden, 1997). As a result, higher uncertainty leads to higher transaction costs as the pricing mechanism gets distorted (Van Helden, 1997).

3.7.3 Frequency

Third and last is the *frequency* in which transaction take place. The higher the frequency the less likely it will be to make simple agreements during negotiations as would be the case when a transaction takes place only once. In such cases it is probably more beneficial from an efficiency point of view to enter into long-term contracts. These are often more complicated as well, suggesting they would be more costly. However not entering into long-term contracts to avoid constant negotiation would most likely be even more costly. As a result transaction costs go up as the frequency goes up (Van Genugten, 2008; Neelen, 1997). However, a high frequency can also be a reason for organising transaction vertically by doing it by oneself as then the costs for negotiating (long-term) contracts would be avoided entirely (Williamson, 1985). This is briefly explored in the next section before moving on to how the characteristics should be interpreted in explaining the organisational form, or rather, governance structure.

3.8 Supply and demand

It is important to note that Williamson (1985) first intended his theory of TCE mainly for commercial organisations. The general idea behind this was that strong competition requires organisations to come up with the best possible, most efficient governance structure (Williamson, 1985). As opposed to commercial organisations, non-profit and government organisations often experience significantly less competition and have other factors to include as well as to why a certain governance structure is chosen instead of efficiency alone. Examples of these other factors could be the distribution of power or more lenient measurement of results (Ter Bogt, 1997). The closer to the market, the more

individual the demand gets and the less important it becomes who 'buys', be it an institution or a natural person. The 'buy'-decision, discussed in the next section, is almost always present in the commercial sector whereas it is not in the public sector. Within the public sector or within an organisation itself, supply and demand is not as straightforward as manifested in literature on the NIE. Despite the lack of attention, it is important to take note of this when analysing governance structures in the public sector (De Kruijf, 2011). To clarify, supply and demand are especially relevant in the railway industry as new tracks are costly and risky investments that need to be made in order to meet the demand. As there are fewer costs and risks involved in increasing the supply in for instance the postal and telecommunications industries, these are less vulnerable to increases in demand.

3.9 Make-or-buy decision

Recapping, one can say that the most important aspects of TCE are its behavioural assumptions bounded rationality and opportunism of which the characteristics determinative for the governance structure are asset specificity, uncertainty and frequency (Williamson, 1985). Transactions costs will be high when there is a high degree of asset specificity, the amount of uncertainty is large and when the transaction occurs with a high frequency (Ter Bogt, 1997). According to Williamson (1985) the market is the most efficient way in most cases to handle transactions. Alternative institutional arrangements are only preferred when a high degree of asset specificity, opportunism and bounded rationality are present simultaneously (Ter Bogt, 1997). In such cases other steering mechanisms or governance structures such as the hierarchical organisations would be good alternatives (Williamson, 1985). However, as bounded rationality and opportunism are almost always present the degree of asset specificity often remains the most important distinguishing characteristics for transactions (Ter Bogt, 1997). For instance, as the sole contractor of the cleaning services company the Dutch government recently decided to make them state officials by insourcing them to minimise political (risk) instead of going through the market. In doing so, the Dutch government avoids working with specific contracts of which the draft would have presented the Dutch government with high transaction costs (Government of the Netherlands, 2015a).

The decision the Dutch government had to make can be formulated as the question that lies at the core of TCE: 'why do certain transactions take place within a hierarchical organisation and others through the market?' The answer to this question is based on the notion that different transaction costs are the result of different organisational forms. TCE would argue that for each kind of transaction the most fitting, meaning most efficient and cost-effective, governance structure should be found (Ter Bogt, 1997). This can also be understood as what is formulated by Van Genugten (2008), based on Williamson (2000), as the 'make' or 'buy' decision. The 'make' decision would be to incorporate the entire production process such as through a hierarchical organisation, whereas the 'buy' decision would be to buy each stage of the production process on the market. However, the choice is not as two-sided as there are many (hybrid) forms of governance structures in between. (Van Genugten, 2008). It should be noted here that hybrid organisations are often very frequent. This is due to only small companies being truly capable of organising everything through vertical integration simply because producing a small product makes it easier to make everything yourself. Larger companies typically are divided up into several subsidiaries. For instance, the Dutch company Philips is divided into three main divisions by focusing on electronics, healthcare and lighting

(Philips, 2015). In the next section the link is made between TCE and where the emphasis is on in network industries.

3.10 Network industries

Discussed to some extent already in the previous chapter, network industries had been structured as 'state-monopolies' for a long time until advantages of (partial) liberalisation began contesting such forms of governance (Finger & Künneke, 2011; Geradin, 2006). One of the main reasons for structuring network industries as state monopolies was that they were perceived to be 'natural monopolies', meaning "that there was only space for one undertaking in the market (Geradin, 2006, p. 2)". The general perception was that such industries would be susceptible to "large economies of scale" as well as the networks difficult to "duplicate" (Geradin, 2006, p. 2). As a result of the network being difficult to duplicate by others, the owner of the network would likely be inclined to still monopolise the network if the industry was liberalised. However, part of the motivation to liberalise network industries was that some portions of the market could be made competitive. An example hereof is the provision of services on the network made possible by the removal of the exclusive rights to use the network of the owner, almost always being the incumbent of the former state-monopoly, as part of the liberalisation process in order to promote competition in network industries (Geradin, 2006, pp. 2-3).

Therefore, a distinction needs to be made between the *ownership* and *use* of the network of the incumbent in regard to the degree of asset specificity of the network. On the one hand, as the provision of (public) services requires a network, the ownership of the network would imply a tendency for the owner to monopolise the network. On the other hand, the use of the network does not without a doubt imply a monopolistic tendency. As users other than the owner can use the network for the provision of (public) services without ownership of the network following abovementioned removals of exclusive rights of the owner to use the network, ownership is not necessarily needed in order to compete (Geradin, 2006).

The expectation is that, when the degree of asset specificity regarding either the ownership or use of the network is considered high, the likely governance structure found in network industries would be a SOC/SOE (Van Thiel, 2012). On the one hand, the government would then still want to retain the network as it is asset specific for the provision of (public) services. On the other hand, the government would in a way want to keep it competitive following abovementioned as well as international arguments of liberalisation (Finger & Künneke, 2011; Geradin, 2006). Therefore, reducing the amount of government influence to a type 3 public-sector organisation but retaining the asset specific network in order to safeguard the provision of (public) services (Van Thiel, 2012).

3.11 Conclusion

As a third level institutional analysis within the NIE, the emphasis in TCE is on governance structures by aligning them with transactions to get in order to 'get the governance structures right' (Williamson, 2000). Hence, transactions are the main unit of analysis within TCE and as Williamson (1985) points out: "Any problem that can be posed directly or indirectly as a contracting problem can be usefully studied in transaction cost economizing terms (Williamson, 1985, p. 41)". By studying the manner in which transactions are coordinated and governed, TCE seeks to explain the reason why

economic activities are organised the way they are in order to achieve the most efficient organisational form given the production characteristics (Ter Bogt, 1997). Whether the provision of (public) services in network industries should be organised through the market (competition) or a hierarchical (government) organisation (coordination) is thus dependent on the transaction costs. Aside from the behavioural assumptions which need to be taken into account, the three characteristics *asset specificity*, *uncertainty* and *frequency* are determinative for the transaction costs (Williamson, 1985). Herein, the emphasis regarding network industries is on the asset specificity of the network required for the provision of (public) services (Geradin, 2006). Transaction costs will high when there is a high degree of asset specificity, a large amount of uncertainty and a high frequency regarding the network. When the transaction costs in the network industry are high, it would be preferred to organise the industry through coordinative forms of governance by integrating the network (more) towards a hierarchical (government) organisation. Otherwise the transaction can be left to the market to deal with through competition (Williamson, 2000).

4 Theory | part two: politico-administrative traditions

This chapter elaborates the second part of the theoretical framework. It looks at how arguments from state-administrative tradition theory explain country-specific governance structures.

4.1 Political and administrative systems

The comparative analysis of political and administrative systems can be perceived as an accessible way of explaining the differences and similarities of public sectors between countries (Hendriks, Loughlin, & Lidström, 2010, p. 716). The organisation of public administrations as part of political systems is for instance almost always bureaucratic, with the implementation of policy as well as giving policy advice often resting with the public administration. Yet, apart from apparent similarities in organising institutions of public administration, there are also many differences between countries in the structure and behaviour of public bureaucracies (Peters, 2008, p. 118). Consequently, there is a growing amount of evidence on national public bureaucracies maintaining their distinctiveness as opposed to supposed patterns of convergence such as NPM (Pollitt, Van Thiel, & Homburg, 2007; Pollitt & Dan, 2011; Pollitt, 2013, p. 15). The analysis of different responses of national politico-administrative systems to a broad array of (contemporary global) reform movements has also led to the development of grouping countries together into patterns, or rather, 'families' of politico-administrative thought (Painter & Peters, 2010). Hereof, some of the major theories or perspectives are briefly addressed in the next section in order to make the step towards choosing the most appropriate one for this study.

4.2 Grouping 'families' of politico-administrative thought

First introduced by Dyson in 1980, the concept of state traditions was further elaborated by Loughlin in 1994 and subsequently by Loughlin and Peters in 1997 (Loughlin & Peters, 1997). The typology of state traditions was based on philosophical and cultural traditions within states to organise them into groups. According to their typology there are four main Western state traditions: the Anglo-American minimalistic type of the state, the French Napoleonic type of embodying the nation type of state, the Germanic organic type of state and the Scandinavian type of state that stands somewhere in between of the Germanic and Napoleonic types of the state (Loughlin & Peters, 1997; Loughlin, Hendriks, & Lidström, 2010).

According to Pollitt and Bouckaert (2011), differences in administrative cultures are identified by their 'normal beliefs' or what is deemed normal and acceptable within an organisation or administration. Distinguishing between two models, the *Rechtstaat* model perceives the state as the main driving force for the integration of society in which administrative law takes up a large and important position. As opposed to the *Rechtstaat*, within the 'public interest' model the state takes up a much smaller role in which accountability is more important than (public) law. Pollitt and Bouckaert (2011, p. 61-63) do acknowledge that the two models are not the only possible classifications and that the model might be getting outdated. States such as the Netherlands, Finland and Sweden would more likely fit a combination of two or lean towards an entirely different model (Pollitt & Bouckaert, 2011).

In his well-known work *The Three Worlds of Capitalism* Esping-Anderson (1990) distinguishes three clusters of welfare-state regimes based on the degree of decommodification and the type of social stratification and solidarities. The degree of decommodification is about the degree to which social services are considered to be a right and the degree to which people can sustain themselves without relying on the market. The type of social stratification and solidarities is determined by which social stratification system is in place and how broad the definition of solidarity in the welfare state is. Within the liberal cluster there is a low degree of decommodification and a strong belief in the idea that individuals should be self-reliant. The social-democratic cluster is described as somewhat the other way around, having a high degree of decommodification and a strong belief in universalism by also including the middle classes. Lastly, the corporatist cluster stand somewhere in between by having a modest degree of decommodification as well as an average type of social stratification and solidarity (Esping-Anderson, 1990).

Christopher Hood (1998) also makes a categorisation of the different cultural types of public management based on Grid/Group Cultural Theory. Within this there are two main dimensions called *grid* and *group*. Grid refers to the degree in which rules and conventions influence peoples' lives, and group refers to the belief of people in how much they feel like being part of a collective group. The degree of grid (high or low) and group (high or low) is used to generate four ideal types of social environments. These four ideal types or 'ways of life' are 'the fatalist way' (high grid and low group), 'the hierarchist way' (high grid and high group), 'the individualist way' (low grid and low group) and 'the egalitarian way' (low grid and high group) (Hood, 1998).

According to Hajnal (2003) there are three different clusters of countries based on their public administration education programs. Within the corporate cluster the education program has a strong emphasis on business-like management techniques. The public cluster emphasises a distinct approach is needed to address problems inherent to the public-sector. Lastly, the legal cluster excessively emphasises law in education programs (Hajnal, 2003).

Last but not least, Hooghe (2001) made a categorisation of countries based on their 'Weberian bureaucratic tradition'. Her categorisation was based on four dimensions developed by Edward Page in 1995 being cohesion, autonomy from political control, caste-like character and non-permeability of external interests in order to show how much the bureaucracy in a country resembles the Weberian bureaucratic tradition (Hooghe, 2001, p. 225).

The table below presents an overview of all six perspectives for the countries looked at in this study based on the aforementioned authors. A selection of which perspectives to follow is made in the next section.

Table 2 Families of administrative thought in different countries (Esping-Anderson, 1990; Hajnal, 2003; Hood, 1998; Hooghe, 2001; Loughlin & Peters, 1997; Pollitt & Bouckaert, 2011)

Country	State tradition	Administrative cultures	Welfare state regimes	Grid/Group Cultural Theory	Public administration Education	Weberian bureaucratic tradition
Belgium	Napoleonic (until 1988) Germanic (after 1988)	<i>Rechtstaat</i>	Corporatist	Hierarchist	Public	Weak Weberian
Netherlands	Germanic	Originally very legalistic but has changed to pluralistic/consensual	Corporatist but with social democratic-elements	Egalitarian	Corporate	Medium Weberian
UK	Anglo-American	Public interest	Liberal	Individualist	-	Strong Weberian

4.3 Determining the legacy of the past

Regarding the abovementioned perspectives there is no clear model of how ‘families’ of politico-administrative thought should be grouped. Of the six perspectives, three are about governance structures or ‘how the state deals with matters of governance based on the model of the state’. These are state tradition theory (Loughlin & Peters, 1997), administrative cultures (Pollitt & Bouckaert, 2011) and Weberian bureaucratic tradition (Hooghe, 2001). Welfare state regimes (Esping-Anderson, 1990) and Grid/Group Cultural Theory (Hood, 1998) are more about the policy style of the state, whereas public administration education (Hajnal, 2003) has more of an emphasis on explaining future changes which does not make it relevant for explaining current governance structures. Hence, a choice needs to be made between the three perspectives that emphasise governance structures.

At first glance, the model for administrative culture used by Pollitt and Bouckaert (2011) only differentiates between the *Rechtstaat* and the public interest models which makes it less explanatory than the other two perspectives to begin with. Furthermore, the model is also considered outdated by the authors themselves (Pollitt & Bouckaert, 2011, p. 63). Upon closer examination, it appears state tradition theory also includes connotations of several Weberian aspects mentioned by Hooghe (2001) as well (Loughlin & Peters, 1997). Added with the more recent work of Painter and Peters (2010) on administrative tradition theory, building on the work of Loughlin and Peters (1997) in which Peters was a co-author in both works (Loughlin & Peters, 1997; Painter & Peters, 2010), the Weberian bureaucratic traditions mentioned by Hooghe (2001) are implied to a fairly great extent by looking at amongst others the “relationship with society and relationships with political institutions (Painter & Peters, 2010, pp. 6-8)”. Therefore, and to avoid unnecessary overlap, the choice was made to focus on both state and administrative tradition theory by combining them following the notion that administrative tradition theory is often perceived as complementary to state tradition theory (Painter & Peters, 2010, pp. 5-6). Within the next sections, elements from both theories are first described in order to operationalise and measure state-administrative traditions in governance structures in network industries.

4.4 State-administrative tradition theory

State tradition theory was ultimately developed by Loughlin and Peters in 1997, in which the understanding of state traditions is broadly defined as the relationship between “sets of institutions and cultural practices that constitute a set of expectations about behaviour (of the state) (Loughlin & Peters, 1997, p. 45)”. Hereto, five comprehensive features were developed to describe the four main Western state traditions which are shown in the table below. As the traditions are ideal typical descriptions, and in lumping states together, they contain generalities which can also overlap between traditions (Loughlin & Peters, 1997). Although the descriptions were ‘refined’ in 2011, the four Western state traditions remained approximately the same as those in the initial categorisation of 1997 which is why these are mainly used in explaining each tradition separately (Loughlin, Hendriks, & Lidström, 2010, p. 13).

Table 3 State traditions (Loughlin, Hendriks, & Lidström, 2010, p. 12)

Features	State tradition			
	Anglo-Saxon	Germanic	French	Scandinavian
Is there a legal basis for the ‘State’	No	Yes	Yes	Yes
State – society relations	Pluralistic	Organicist	Antagonistic	Organicist
Form of political organisation	Union state/limited federalist	Integral/organic federalist	Jacobin ‘one and indivisible’	Decentralised unitary
Basic policy style	Incrementalist ‘muddling through’	Legal corporatist	Legal technocratic	Consensual
Form of decentralisation	‘State power’ (US); devolution/local government (UK)	Cooperative federalism	Regionalised unitary state	Strong local autonomy
Dominant approach to discipline of public administration	Political science, sociology	Public law	Public law	Public law (Sweden); organisation theory (Norway)
Countries	UK; US; Canada (but not Quebec); Ireland	Germany; Austria; Netherlands; Spain (after 1978); Belgium (after 1988)	France; Italy; Spain (until 1978); Portugal; Quebec; Greece; Belgium (until 1988)	Sweden; Norway; Denmark

Similar to state traditions theory, administrative traditions is defined as a “historically based set of values, structures and relationships with other institutions that defines the nature of appropriate public administration within society (Peters, 2008, p. 118)”. Herein, the focus is more on traditions of administrative systems but as part of the bigger picture of state traditions (Painter & Peters, 2010, pp. 5-6). As the implementation of policy within the state often rests with the public bureaucracy as an institution, it plays a very large role in the general capability of the state. For that reason, there is an almost constant relationship between the entity of the state and the character of the public bureaucracy as it, as well as its servants, are basically created to support the state. The tradition of implementing public policy within the state by the public bureaucracy, as a result, also reflects a lot on the tradition of the state (Painter & Peters, 2010). Therefore, the concept of administrative tradition is perceived as a combination of several features of administrative systems, based on the past as well as the present, that fit together to produce more or less coherent institutions (Peters, 2008; Painter & Peters, 2010). Akin to state tradition theory, the five main features of administrative tradition theory are shown in the table below for the four main Western administrative traditions (Painter & Peters, 2010).

Table 4 Administrative traditions (Painter & Peters, 2010, pp. 20-23)

Features	Anglo-American	Germanic	Napoleonic	Scandinavian
Legal basis for the state?	No	Yes	Yes	Yes
State and Society	Pluralist	Organicist	Interventionist	Organicist / Welfarist / 'Open Government'
Organisation of government	'limited government'; UK: unitary, with weak 'local self-government'; US: 'compound republic'	Integrated; cooperative federalism and interlocking coordination	The indivisible 'Jacobin' Republic; hierarchical and centralised (Spain: semi-federalised)	Decentralised through administrative and/or political decentralisation
Civil service	UK: quite high status, unified, neutral, generalist, permanent; US: upper ranks temporary, politicised	Very high status, permanent; legal training; upper ranks permanent, but can be openly partisan	France: Very high status, permanent specialised elite training; segmented 'corps'. (S. Europe: lower status, politicised)	High status; professional, non-politicised (Sweden: segmented and decentralised)
Principal countries	The United Kingdom, Ireland, the United States, Australia, (British) Canada and New Zealand	Germany, Austria, Switzerland and the Netherlands	France, Spain and other Southern European countries	Denmark, Sweden, Norway and Finland

Noticeable from the overlap between both tables, state and administrative traditions are intertwined with one another to say the least. As none of the countries examined in this study belongs to the Scandinavian tradition, only the Anglo-Saxon, Germanic and Napoleonic are included in the remainder of this chapter. The features of administrative systems are understood as part of the bigger picture of the features at the state-level to create ideal typical descriptions of (families of) politico-administrative systems. Within this, the features 'form of decentralisation' (Loughlin & Peters, 1997) and 'organisation of the government' (Painter & Peters, 2010) have been purposely left out as the degree of decentralisation is not relevant because there is never more than one organisation, that of the incumbent, considered in network industries. Next, each of the relevant state-administrative traditions are discussed (Loughlin & Peters, 1997; Painter & Peters, 2010).

4.4.1 Anglo-Saxon tradition

The Anglo-Saxon (Loughlin & Peters, 1997) or Anglo-American (Painter & Peters, 2010) tradition is predominantly found in the United States, the United-Kingdom, Ireland, Australia, New-Zealand and the British parts of Canada (Painter & Peters, 2010). The most notable difference between this tradition and the other two traditions is that the relationship between the state and civil society is considered more separable with countries being described as 'stateless societies'. The conceptualisation of the state as a greater entity of which the state and civil society are part of is not at all clear defined, nor the boundary between them. The entity of the state in this tradition can best be described as being created from a contract between members of the civil society resulting in a more bendable boundary between the state and society as the foundation for state arrangements is in contracts rather than through natural law (Loughlin & Peters, 1997). The contractual-basis and general adherence of the minimalistic role of the state has also made way for the market and civil society to take up a prominent role in this tradition (Painter & Peters, 2010).

The minimalistic role of the state is linked to the legal tradition in Anglo-Saxon countries in being different from the continental traditions as "the common law system is based on an inductive and procedural approach through the accumulation of case law, as distinct from the Roman law tradition with its deductive and substantive philosophy and detailed codification (Painter & Peters, 2010, p. 20)". In turn, the process of accountability in the Anglo-Saxon also has the tendency to focus on political instead of legal procedures (Painter & Peters, 2010). Furthermore, the law does not hold such a prominent position in the execution of public administration as a profession in the

Anglo-Saxon tradition as it does in the continental traditions. Instead, the focus has for the most part been on policy and management in public administration (Painter & Peters, 2010).

The civil service as an institution is not as clearly identified either when compared to the continental traditions. It does not have a constitutional status for a permanently residing civil service which is accompanied by a general reluctance in accepting the legitimacy of the civil service as an institution culturally in Anglo-Saxon countries. The separation of the 'political' and the 'administrative' has received a lot of attention as a result of the civil service lacking constitutional status. This is especially the case in the US when regarding issues of politicisation but also to a lesser extent in the UK (Loughlin & Peters, 1997; Painter & Peters, 2010).

4.4.2 Germanic tradition

Within the Germanic tradition the state is viewed as a 'transcendent entity' in the way that whoever is in power, which party is in the government, is just one of the many in the bigger picture of a permanent state that will always remain even when they are gone. In line with this is the perception that the authority of the state is not something that can be broken up or negotiated about. Still, the political environment within the Germanic tradition is characterised by a federal structure in which the division of government is often seen delegated to multiple levels of government and numerous departments and agencies (Loughlin & Peters, 1997). The type of governance is often perceived as statist in having a strong emphasis on a large body of public law that is at the base of all public administration. Countries belonging to the Germanic tradition are Germany, Switzerland, Austria and the Netherlands (Painter & Peters, 2010). The relationship between the state and civil society is characterised by its organicist-like nature in which citizens are considered more like members instead of individuals as is the case in the Anglo-Saxon tradition. The organic society in the Germanic tradition is reflected in the corporatist pattern of representation and governance (Loughlin & Peters, 1997; Painter & Peters, 2010). Especially in Germany, non-state corporations are involved in a big part of the public activities through processes of cooperation (Painter & Peters, 2010, p. 22).

The law takes up a central position within the Germanic tradition as it is considered to be a legal state, a *Rechtstaat*. In a way the state is limited by the law which it has to uphold even though the state in this tradition holds considerable authority and power which is especially true when compared to the Anglo-Saxon tradition. The emphasis on law in all aspects of its politico-administrative culture and the deep relationship between the state and civil society are what give states in the Germanic tradition the description of being 'semi-sovereign'. This emphasis on the law can even be described as becoming a "tangible manifestation of the state and is the central expression of the authority inherent in that state" (Loughlin & Peters, 1997, p. 49). The significance of the law is also apparent as a way of attaching or increasing legitimacy in for instance the implementation of policy (Loughlin & Peters, 1997).

Correspondingly, legal training for civil servants within the Germanic tradition is considered to be an almost absolute requirement (Painter & Peters, 2010). Civil servants are the embodiment of the importance of the central state and its power rather than being just being someone employed by the state for which they have to play their part by expressing a strong legal and moral bedrock. The civil service often enjoys a constitutional status in countries of the Germanic tradition, also ensuring the continuity of the civil service when shifts in power take place (Loughlin & Peters, 1997). All this tends to make civil servants in this tradition believe that only they know what is best or "what constitutes the public interest" (Painter & Peters, 2010, p. 22).

4.4.3 Napoleonic tradition

The Napoleonic tradition is based on the model of the state of France and is also seen in other Southern European countries such as in Spain and Belgium although the latter only until 1988 (Loughlin, Hendriks, & Lidström, 2010, p. 12). However, as Wayenberg, De Rynck, Steyvers and Pilet (2010, p. 74) explain: “the current Belgian state form derives from a type that is often termed Napoleonic or ‘Southern’”, and still has very strong remnants of the Napoleonic tradition to this day. Belgium can therefore be considered more a Napoleonic state even though it possesses some hybrid characteristics such as its corporatist-like structures (Wayenberg, De Rynck, Steyvers, & Pilet, 2010, p. 72). Similar to the Germanic tradition, Napoleonic states perceive the state unitary and indivisible. The structure of Napoleonic states is very centralised and the government often played a central role in the building of the nation or the ‘nation-state’ during its creational history and often still does so today although only France was successful in doing so whereas Spain and Belgium were not (Loughlin & Peters, 1997). Also related to its nation-building history is the technocratic nature of the decision-making process within countries of the Napoleonic tradition. Key in all of this is the uniformity of the administrative, emphasised to an even greater extent than within the Germanic tradition in which the focus is more on legal and political aspects to create uniformity (Painter & Peters, 2010, p. 22).

Therefore, (public) law is very important within the Napoleonic tradition as an instrument for the government to intervene in society as opposed to the Anglo-Saxon tradition in which the law is mostly a method to settle conflict (Painter & Peters, 2010). Even though the Napoleonic and Germanic tradition share a similar perception on the state as a unitary and indivisible authority of power, they differ from each other in the relationship between the state and civil society. Whereas the Germanic tradition promotes the governance of federalism through cooperation whilst having its basis in the authority of its legal framework, the Napoleonic tradition displays more of a direct form of governance by imposing the authority of the state over the inhabitant of the state through (public) law. The relationship between the state and civil society in the Germanic tradition can be described as ‘inter-penetrable’ whereas the Napoleonic tradition has a more ‘antagonistic-like’ nature (Loughlin & Peters, 1997, p. 52).

The role of the state as a central actor in the Napoleonic tradition is also present in the socio-economic development of the state (Loughlin & Peters, 1997, p. 52). First, especially in France but also in other Napoleonic states, the management class of the civil service is perceived as something very exclusive and is often described as the ‘politico-administrative elite’ of the country with most of these administrative elites only being enlisted from certain specific high end schools. Furthermore, switching between the ‘administrative’ and the ‘political’ is nothing out of the ordinary for these elites. Nor is it considered a contradiction as it would be in the Anglo-Saxon tradition and more specifically in the UK. It can therefore be thought of as another instrument for the political to intervene in the administrative and to exert and maintain influence in administrative spheres (Painter & Peters, 2010). A second aspect of the manner in which the state acts as a central actor in Napoleonic states is through its industrial policy by intervening in and planning the development of the private-sector economy and, at least in the case of France, by for instance asserting the influence the state has through its state owned companies. This is different from the Germanic tradition in which the state keeps up more of a distinction between the public and private sector (Loughlin & Peters, 1997, p. 52). A third and last aspect of the centralised Napoleonic state is the dramatic manner in which constitutional regime changes take place, as opposed to the Anglo-Saxon tradition in which changes often take place more gradually and incrementally (Loughlin & Peters, 1997, p. 52).

4.5 Conclusion

Following an overview of the major perspectives on grouping families of politico-administrative thought, state and administrative tradition theory were combined to create comprehensive descriptions of the relevant state-administrative traditions in order to present arguments for country-specific patterns of governance. Herein, five key features of state-administrative traditions can be distinguished, based partly on the variables used by Painter and Peters (2010, p. 6-8), of which four proved relevant and are mentioned here and summarised in the table below.

Table 5 Key concepts of state-administrative traditions (Loughlin & Peters, 1997; Painter & Peters, 2010)

State-administrative traditions	
State and civil society	The conceptualisation of the state by civil society, the nature of the relationship of the state and civil society as well as the relationship between the state and social actors in the state-administrative tradition
Legal tradition	The legal basis for the state, the general position of (public) law and if the focus is on (public) law or on management in the state-administrative tradition
Civil services	The relationship between the 'administrative' and the 'political' and whether or not these are separated from each other by looking at if the civil service is politicised in the state-administrative tradition
General policy style	The involvement of the state in the process of policy making as well as the implementation of policy, whether small and incremental or dramatic rigid and dramatic, in the state-administrative tradition

The first and most important feature is the relationship between the state and civil society which is closely linked to the other features. It envelops how the state is conceptualised by civil society i.e. in being pluralistic, organicist or antagonistic; the nature of the relationship between the state and civil society i.e. contractarian or organic; and the nature of the relationship between the state and social actors i.e. corporatist patterns of representation and governance. Second, the relationship between the state and civil society is often augmented in the legal tradition of a state-administrative tradition. The legal tradition is about whether there is a legal basis for the state as opposed to 'stateless societies' such as in the Anglo-Saxon tradition; the importance of (public) law in the political as well as administrative spheres; and the type of governance by differentiating whether the focus is on (public) law or management. A focus on (public) law reflects a more centralistic and controlling legal tradition of intervention through law by the state, whereas a focus on management reflect a less centralistic and more market orientated legal tradition of less intervention by the state. Third, the civil services tradition as a feature of state-administrative tradition can be named. Here, the major issue is whether the political and administrative spheres are perceived as separated or politicised. An important implication of this distinction is that traditional Weberian thought on the administrative bureaucracy, as an objective and separate institution, are undermined if there is less separation between the political and administrative spheres. In turn, this is related to the relationship between the state and civil society as it is also the perception of the civil society on how the relationship between the political and administrative spheres should be construed. Fourth and last, the general policy style within a state-administrative tradition is distinguished as a key feature. The involvement of the state on the process of policy making as well as implementing it is often related to the state-administrative tradition as it can be small and incremental as opposed to more rigid and dramatic (Loughlin & Peters, 1997; Painter & Peters, 2010). Within the next chapter, the key concepts of both theoretical constructs are operationalised as well as the research methodology elaborated.

5 Research methodology

This chapter outlines the methodological framework of this study. Within it the key concepts of the theoretical framework are operationalised as well the research methods accounted for.

5.1 Research model

Starting off, the research model is based on the key concepts of both theoretical constructs elaborated in the previous chapters. The key concepts can be divided into a) economic organisational arguments based on TCE, and b) country-specific arguments based on state-administrative tradition theory for institutional arrangements in network industries. Although the premise in this study is that both theories explain variations in institutional arrangements, TCE becomes applicable only if the government considers the network (industry) to not be of strategic importance. The proposed causality means that if the government considers the network (industry) to be of strategic importance and chooses to retain it, TCE becomes irrelevant as an explanatory theory for the actual governance structure in place to determine the most economically efficient organisational form as the government will not part from it. In that case, the explanation for the actual governance structure in place is presumably found in the state-administrative tradition. The key concepts of both theoretical constructs are presented schematically below and are operationalised next.

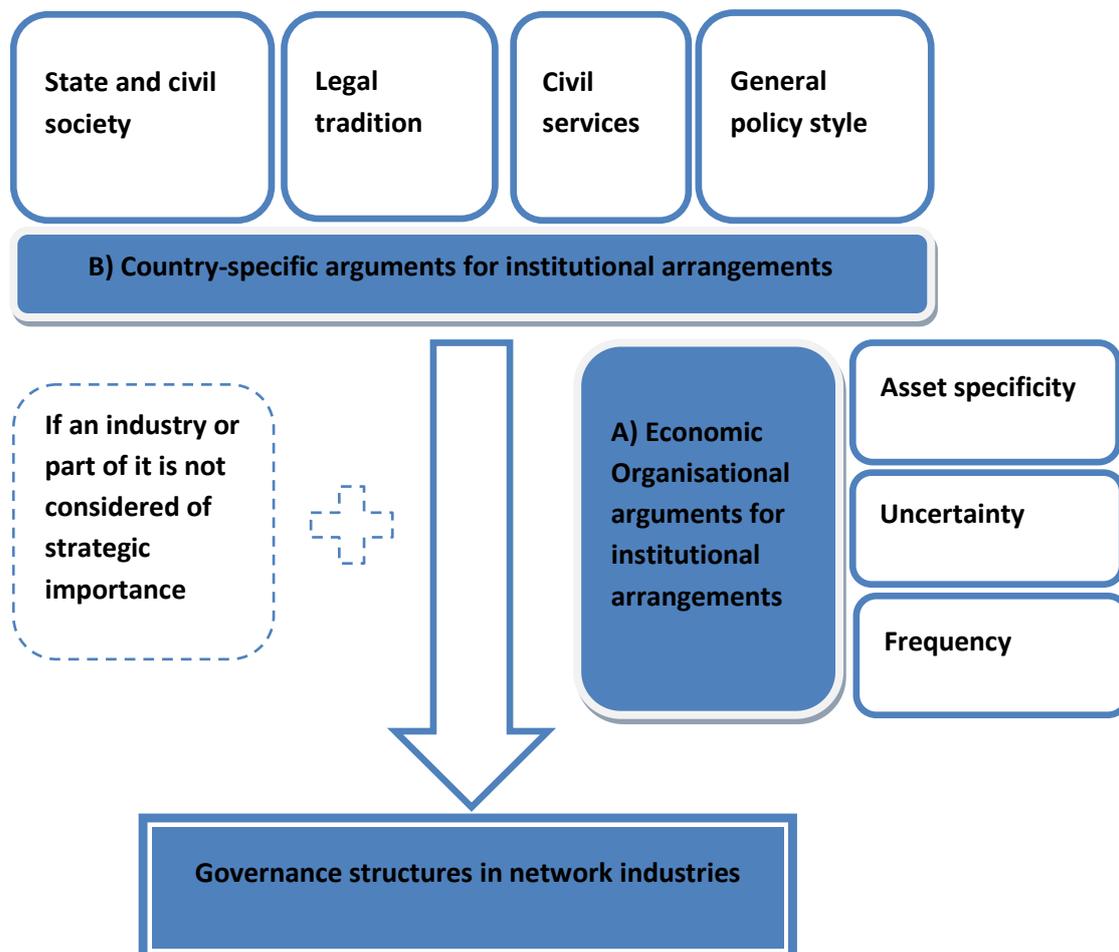


Figure 2: Research model

5.2 Operationalisation

Within the operationalisation section the key concepts displayed in the research model are translated into measurable units, or indicators of what is out there in the real world. First, each (key) theoretical concept, the variable, is defined as what is understood by it in this study. Second, an indication is added of how these actually occur. Third, some variables are added values to establish what link there is between them and the original theoretical construct (Van Thiel, 2014, pp. 43-44).

In operationalising each variable the definition, the indicators (what) and the methods (how) are given in the tables below. First, the variables of TCE are based on the three characteristics determinative for the transaction costs. These were attached a value in order to be able to determine the overall transaction costs as well. The higher the degree of asset specificity, uncertainty and frequency, the higher the transaction costs and the likelier the most efficient organisational form is through integration in a hierarchical (government) organisation as opposed to through competition on the market as would be the case the other way around. Herein, the emphasis is on the degree of asset specificity. Second, the variables of state-administrative tradition theory are based on the four key features which are operationalised for each separate tradition. These are also attached a value which is linked to the appropriate state-administrative tradition in order to make the comparison between countries. Third, although more on a side note, a possibly very interesting variable that was not included due to limitations of scope would be to measure the amount of times the word ‘intervention’, as this indicates state involvement, is used parliamentary papers and the response of the appropriate minister. Within the next sections the methodological choices made in this study are addressed.

Table 6 Operationalisation of governance structures (dependent variable)

Variables	Definition	Indicators (what)	Methods (how)
Governance structures	The manner in which the top structure in a (network) industry is governed, understood as a categorical type of public-sector organisation based on the typology made by Van Thiel (2012) ranging from type 0 (hierarchy) to 5 (market) depending on government influence, with each type varying in definition (Van Thiel, 2012).	Ministerial responsibility and authority over the top structure	Content analysis (documents/literature)
		General policy strategy for top structures	Content analysis (documents/literature)
		Approval procedures of top structures	Content analysis (documents/literature)
		Appointment procedures of management in top structures	Content analysis (documents/literature)
		The golden share (or veto-rights) in top structures	Content analysis (documents/literature)
		Supervisory councils in top structures	Content analysis (documents/literature)

Table 7 Operationalisation of the neo-institutional economics (transaction cost economics)

Variables	Definition	Indicators (what)		Value	Methods (how)
Asset specificity	The degree to which a transaction requires specific knowledge or specific technical skills which are hard to come by through other means (Ter Bogt, 1997), whilst differentiating between the ownership and use of the infrastructure(s) of the network (Geradin, 2006).	Ownership of infrastructures	Nonspecific investments (low degree of asset specificity): general assets that are more easily redeployed without losing much of the production value (Van Genugten, 2008).	-	Content analysis (documents/literature)
		Use of infrastructures			
		Ownership of infrastructures	Idiosyncratic investments (high degree of asset specificity): specific assets that are unique or even irreplaceable and therefore not easily redeployed elsewhere (Van Genugten, 2008).	+	Content analysis (documents/literature)
		Use of infrastructures			
Uncertainty	The amount of both environmental as well as behavioural uncertainty to which transactions are subject to (Van Genugten, 2008).	Low uncertainty: when there are almost no unexpected changes occurring during an exchange (transaction)		-	Content analysis (documents/literature)
		High uncertainty: when there are almost always unexpected changes occurring during an exchange (transaction)		+	Content analysis (documents/literature)
Frequency	The frequency in which transaction take place. The higher the frequency the less likely it will be to make simple agreements during negotiations as would be the case when a transactions takes place only once. High frequency makes entering into long-term contracts or integration more beneficial from an efficiency point of view (Neelen, 1997; Van Genugten, 2008).	Low frequency: the less often a transaction occurs		-	Content analysis (documents/literature)
		High frequency: the more often a transaction occurs		+	Content analysis (documents/literature)

Table 8 Operationalisation of state-administrative tradition theory

Variables	Tradition	Definition	Indicators (what)	Value	Methods (how)
State and civil society	Anglo-Saxon	Contractual basis for governance structures (the state takes up a partner position in agreements)	The degree of centralisation measured by the shares held by the state in organisations in network industries (i.e. the degree of ownership of public-sector organisations by the state)	Lower than 20 to 25 percent of the shares (low to no majority shares)	Content analysis (documents/literature)
	Germanic	Organic basis for governance structures (the state is more than a partner in organising governance structures in being a 'transcendent entity')		Not always higher than 75 percent of the shares (often majority shares but can be lower)	
	Napoleonic	Antagonistic/interventionist basis for governance structures (the state plays a central role)		Always higher than 75 percent of the shares (always majority shares)	

Legal tradition	Anglo-Saxon	Management and policy are emphasised arguments for governance structures (instead of law in)	Whether the issue of (public) law is addressed by looking at 1) laws directed at the service level (regulatory) and 2) laws directed at the level of governance structures(arrangements). Within this, the second type of law has more weight to it as it emphasises governance structures directly.	More regulatory law (emphasis on management)	Content analysis (documents/ literature)
	Germanic	Arguments for governance structures have a strong backing in (public) law		Both type of laws can be present but to a lesser extent (emphasising both but more towards (public) law)	
	Napoleonic	Arguments for governance structures have a strong backing in (public) law and is considered an instrument for intervening and regulating governance structures		Both types of law are present (emphasising (public) law)	
Civil services	Anglo-Saxon	(Upper) Management of governance structures such as boards of directors are not politicised in principle	A) The number of (ex-)politicians and/or top civil servants employed in the top management of a (network) industry to get an understanding of the degree to which (upper) governance structures in network industries are politicised over the period of 2005-2015 in order to present the current situation of both the board of management and the supervisory board (if present) . In addition, (ex-)politician and/or top civil servant presidents of executive or non-executive boards have more weight to them. B) Signalled trends in shifts between the public, (ex-)politicians and/or top civil servants, and the private, businessmen, in the top management of a (network) industry.	Low (not politicised)	Content analysis (documents/ literature)
	Germanic	(Upper) management of governance structures such as boards of directors can be politicised or rather openly biased regarding political affinity		Medium (openly politicised)	
	Napoleonic	(Upper) management of governance structures such as boards of directors are often politicised, resulting in the direct involvement of the government in managing governance structures		High (politicised) when half or more of both boards are politicised, including the president	
General policy style	Anglo-Saxon	Changes to governance structures are incremental with the government taking up a 'reserved' position in organising governance structures (like an impartial referee in the middle)	The involvement of the state ('industrial policy') in network industries through intervening over the period of roughly 1980-2015, especially regarding processes of liberalisation (Finger & Künneke, 2011) and, if present, (partial) privatisation	Low involvement and favouring incrementalism	Content analysis (documents/ literature)
	Germanic	Changes to governance structures require lots of legal adaptations as well as through processes of consultation and cooperation between involved parties. The state takes up a more involved position in organising governance structures by ensuring cooperation and consultation between involved parties		Medium involvement but quite high due to requiring lots of legal adaptations	
	Napoleonic	Changes to governance structures are strongly directed from the state level (the 'above') and are subject to dramatic constitutional regime changes of the politico-administrative elite. The state is actively involved in organising governance structures through its central authority and power, actively planning and intervening in the development of the public as well as the private sector economy		High involvement in being strongly directed from the state	

5.3 Research strategy

The research strategy represents the coherent entirety of all decisions regarding the manner in which the research is conducted (Verschuren & Doorewaard, 2010, p. 155). Following the three key decisions mentioned by Verschuren and Doorewaard (2010, p. 155-157) the appropriate research strategy is chosen. First, the decision was made to opt for an in-depth approach in limiting the number of cases used. Second, the decision was made to conduct a qualitative research as opposed to a quantitative research based on the availability of data. The third decision, which research technique to take, was made based on the researcher's preferences to look at existing data but also on matters such as the availability of data as well as the type and number of units analysed as explained in the next sections. The first decision is elaborated in the next section whereas the second and third decisions are elaborated in the subsequent section under 'research method' (Verschuren & Doorewaard, 2010, pp. 155-157).

The limited amount of cases and the desire to go into depth rather than breadth make the (comparative) case study the logical choice of research strategy in addition to being well suited for qualitative research. Other research strategies such as the survey require large numbers of cases to be analysed for which this study does not have the intent nor the scope (Verschuren & Doorewaard, 2010, pp. 162, 178-179). Furthermore, as Yin (2014) acknowledges, research questions taking on the form of a 'how' and 'why' are typically suited for case study research (Yin, 2014, pp. 9-14). The next section elaborates the selection of cases.

5.4 Case selection

The selection of cases, the selected countries and network industries, resembles that of a strategic choice (Verschuren & Doorewaard, 2010, p. 180). The first demarcation is that the focus is on 'key' governance structures, meaning that only the top governance structures are considered and not the details.

Second, the countries examined being the Netherlands, the UK and Belgium, were also a strategic choice as 1) governance structures can differ greatly between these countries, i.e. the UK having privatised its railway industry in the past whereas the Netherlands and Belgium have never; 2) each country belongs to a different state-administrative tradition with the Netherlands following the Germanic, the UK the Anglo-Saxon and Belgium the Napoleonic tradition (at least until 1988 and afterwards the Germanic although still possessing strong remnants of the Napoleonic tradition); 3) all countries are subject to European Union Policy. Although the Scandinavian state-administrative tradition is not included for reasons of scope, this would make for an interesting opportunity for future research.

Third and last, the decision to focus on the postal and telecommunications industries was also a strategic one as 1) both industries are network industries; 2) they are considered liberalised in all three countries; 3) both industries have likely high degrees of asset specificity following arguments from TCE as explained in section 3.10; and last but not least 4) the expectation is that, based on the aforementioned, the common governance structure found in network industries is likely a SOC/SOE which was part of the initial motivation for conducting this study as explained in the introduction. Next, the research methods are discussed.

5.5 Research method

Following the choice of research strategy there are several manners in which the data can be collected, or rather, the methods of research (Van Thiel, 2014). However, in having to deal with limitations of scope and issues of accessibility when looking abroad, the research methods were somewhat limited in performing a comparative case study between countries. Although methods such as interviewing could have presented interesting notions, the choice was made to focus on the analysis of (policy) document supported by (academic) literature. Due to foremost reasons of scope but also of accessibility in conducting a comparative case study between different countries, as well as a wide availability of (policy) documents, such research methods were not included. Hence, the research method used is called content analysis in which existing data sources are used and analysed, such as written materials or documents, in order to gain the relevant information needed for the research project (Van Thiel, 2014, p. 108). The types of (policy) documents (data sources) as well as the research methods used to analyse these are displayed schematically below for each separate sub-research question (Verschuren & Doorewaard, 2010, p. 234). Within the next section, the attention is turned to the research quality or the measures taken to counter issues of reliability and validity (Van Thiel, 2014).

Table 9 Data sources and research methods per sub-research question

Sub-research question	Data sources	Research method
What are the possible governance structures for organising public services?	Theory/literature on public sector organisations	-
Which arguments from the neo-institutional economics are related to the governance structures in network industries and where does the emphasis lie on?	Theory on the neo-institutional economics emphasising transaction cost economics	-
Which arguments from state tradition theory are related to country-specific governance structures in network industries?	Theory on state-administrative traditions	-
What are the actual governance structures in place in network industries in different countries?	Key documents: <ul style="list-style-type: none"> - Company year reports - Corporate statutes - Relevant general (public) law papers - (If present) strategy report of the state on the network industry - (If present) company strategy reports 	Content analysis

5.6 Reliability

The reliability of the study consists of the accuracy and consistency of the variables measured. The higher these are, the more weight they carry as explanatory factors (Van Thiel, 2014, p. 48). The first is about the accuracy of the measurement instruments used. In order to counter issues of accuracy, the variables for each theoretical construct were defined based on which indicators, displayed in the operationalisation, were formulated to accurately determine what to look for in the (policy) documents (Van Thiel, 2014, p. 48). On the one hand, in using only content analysis as a research method as well as in regard to the interpretative nature of qualitative research, this study is aware of the limitations in regard to its reliability. On the other hand, this partly countered by following a systematic approach (Van Thiel, 2014, p. 92).

The second, the consistency, concerns the repeatability of the research project. It is imperative that when another researcher decides to perform the same research, this leads to the

same or similar outcomes (Van Thiel, 2014, pp. 48-49). In maintaining a systematic approach consistency issues can be countered and the reliability of the research increased. This was done by setting up an operationalisation of the variables this study intended to measure as well as according indicators in order to compare each case in a consistent manner. Furthermore, the (policy) documents used can be perceived as objective and should present consistent outcomes taken into account the interpretative nature of qualitative data analysis (Van Thiel, 2014).

5.7 Validity

Regarding the validity of the research, there are also two aspects to be considered which are the internal and external validity. The first is about the researcher actually measuring what he or she set out to measure (Van Thiel, 2014, p. 49). In order counter issues of internal validity, the theoretical constructs were defined as clearly as possible as well as to what indicated them within the empirical data in the operationalisation section. In addition, the relationship between what (the independent variables) would explain variations in governance structures (the dependent variable) was also explained in the operationalisation (Van Thiel, 2014, p. 49). In doing so, confusion about what was researched was avoided to the best of this study's capacity and the link between the dependent and independent variables made clear in order to measure what this study set out to measure.

The second aspect, the external validity, is about whether the study can be generalised to other situations and to what extent (Van Thiel, 2014, p. 49). First, TCE is not country-specific and the framework used in this study could therefore be used on other countries as well. Second and more importantly, state-administrative tradition theory was used to explain the variations between the Netherlands, the UK and Belgium because all three countries belong to different traditions. As other countries also belong to these traditions, the variables of state-administrative traditions used in this study could be transferrable to other belonging countries. The latter can also be seen as a form of theoretical or analytical generalisation by which the further development of theory is meant (Van Thiel, 2014, p. 92). As certain features of state-administrative traditions theory are used and elaborated on in specific empirical cases, they could possibly also be applied to other network industries in other countries belonging to the same state-administrative tradition or at least be used a possible theoretical framework to start from.

5.8 Conclusion

This chapter discussed the methodological approach taken by starting at the research model in which the key concepts of both theoretical constructs were schematically presented. The research model showed a causal relationship in TCE becoming applicable only when the government does not consider the network industry to of strategic importance and therefore does not necessarily wants to retain it. Subsequently, the key concepts were operationalised per theoretical construct and separately for each state-administrative tradition. In comparing two different network industries over three different countries, the comparative case study proved the most appropriate research strategy. The research strategy, the selection of cases and general limitations of scope more of less pushed this study to focus on content analysis as a research method. In this sense this study could be considered as an initial, more on the surface, research project in comparing governance structures in network industries in different countries. Concluding, the systematic approach taken was used in order to counter issues of reliability and validity of the study.

6 Introduction to analysis

This chapter serves as a preliminary to the analysis by giving an overview of the processes of liberalisation in a European context following EU directives as these apply to each of the countries for both the postal and telecommunications industries. In addition, this chapter serves as an introduction to the general focus, the infrastructures of the networks and the structure of the analysis within both industries at the country level.

6.1 European context

6.1.1 Postal industry

Mid-1990s the European Commission (EC) presented its first thoughts on wanting to liberalise the national postal industries in the European Union's member states (Morton, 2011, p. 3). Through three directives in 1997, 2002 and 2008 the national postal industries were eventually liberalised in 16 of its member states, including the Netherlands, the UK and Belgium, since the 1st of January 2011 (EC, 2015b).

In 1997 the first postal directive the "Directive 97/67/EC of the European Parliament and of the Council of 15 December 1997 on common rules for the development of the internal market of Community postal services and the improvement of quality of service (EC, 1997)" was released by the EC. It contained the initial presentation to establish separate national regulators for the postal industry which were to regulate the 'universal service providers (USPs)' on their 'universal service obligations (USOs)' (Morton, 2011, pp. 3-5). In general the 'universal postal service (UPS)' comes down to: "The guaranteeing of citizens that postal services remain accessible everywhere and to everyone under the same conditions (EC, 2015b)". As the understanding of the UPS and the responsibilities for the USPs as well as the extent of their USOs differ per country, these are addressed separately per case in the analysis. In addition, the 1997 postal directive opened up the private market to letter-post and parcels above 350 grams which, according to Morton (2011, p. 4), accounted for only three percent of the entire postal market in Europe at the time. Everything below that belonged to the 'reserved area' which was reserved for the incumbents, the historical operators that 'formerly' held the monopoly, since then called USPs (Morton, 2011, pp. 3-5).

The further process of liberalising the postal industries in the EU's member states proved very gradual. In 2002 the "Directive 2002/39/EC of the European Parliament and of the Council of 10 June 2002 amending Directive 97/67/EC with regard to the further opening to competition of Community postal services (EC, 2002c)" the 1997 postal directive was amended by opening the market for letter-post and parcels above 100 grams which, again accounting to Morton (2011, p. 4), accounted for still only sixteen percent of the entire postal market at the time (Morton, 2011, pp. 3-5). In 2008 the "Directive 2008/6/EC of the European Parliament and of the Council of 20 February 2008 amending Directive 97/67/EC with regard to the full accomplishment of the internal market of Community postal services (EC, 2008)" further amended the postal directive of 1997 by proposing to fully liberalise the postal industries of EU member states which meant the entire removal of the reserved area for USPs and the general postal industry to be open to complete competition from the private market in 2011 for most EU member states (EC, 2015b; Morton, 2011, pp. 3-5).

6.1.2 Telecommunications industry

Concerning the telecommunications industries, in 1987 the EC released the “Green Paper on the development of the common market for telecommunications services and equipment (EC, 1987)”, in which the first step was to open up the market to competition at the ‘service level’ even though this meant that state monopolies over telecommunication infrastructures were still allowed to persist (Van der Wee, Verbrugge, & Lemstra, 2012, p. 8). Following was that, in a nutshell, the EC realised in the early 1990s that this would not be sufficient to truly make the telecommunications competitive. In turn, this led to the decision to fully liberalise the industry by gradually opening up infrastructures of telecommunications networks to the market during the 1990s. On the 1st of January 1998 the telecommunications industries were liberalised in all EU member state (Van der Wee, Verbrugge, & Lemstra, 2012, p. 8).

In general the liberalisation of the telecommunications industry in the EU member states since 1998 included three main aspects. First, state monopolies over fixed telephony provision markets and the belonging infrastructures were entirely liberalised. Second, these infrastructures were opened up to other operators to access the network of the historical operator at ‘cost-oriented prices’ by obligating the historical operator through EU frameworks such as the ‘Open Network Provision (ONP)’. Third, overarching EU regulations regarding the liberalised part of the telecommunications market were set up in order to promote competition and limit dominant positions of, often the historical, operators (Liikanen, 2001, p. 2).

There are quite a few EC legislative pieces regarding the telecommunications industries of which the most important for this study are the “Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive) (EC, 2002a)” as “article 7 is the main EU regulatory instrument governing electronic communications. Under this Directive, the national regulatory authorities must analyse their national electronic communications markets in consultation with the industry and propose appropriate measures to address market failures that might be hampering competition (EC, 2015c)”. The other is the “Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users’ rights relating to electronic communications networks and services (Universal Service Directive) (EC, 2002b)” as the universal service provision entails much of the public interest domain, discussed in the next section. Albeit to a lesser extent than in the postal industries, the responsibilities for the USPs as well as the extent of their USOs are addressed separately per case as well as they differ per country.

6.2 Analysis at the country level

The analysis takes place at the country level by looking at the postal and telecommunications industries separately for the Netherlands, the UK and Belgium between the period of roughly 1980 and 2015. In comparing countries, the basic structure of the analysis is the same for each industry (case) within each country (chapter) based on the research model. This comes down to the following being done for each separate case in the same manner.

6.2.1 Public interest domain

Considering both industries the focus is on the infrastructures of networks for the provision of individual services on the public interest domain. Herein, the public interest domain is understood as

the delivery of services at the household of citizens. Or rather, the 'transaction' in terms of TCE for which the government, as these services are part of the public interest, is committed into contracts with network organisations in order to safeguard the public interest. Network organisations being foremost the historical operators as the providers of such services through their networks (Spiller, 2011). In others words, this entails 'the provision of postal and telecommunications services to the end-user, the citizen, for which the historical operator used to be responsible through a legal monopoly before the liberalisation of network industries in the EU' (see for instance: (Finger & Künneke, 2011; Geradin, 2006; Morton, 2011).

Regarding the postal industry the public interest domain is defined as 'the network of the historical operator for the delivery of letter-post, concerning both the private and business sectors as this includes items such as bank statements, to the end-user and the impact other networks, if present, have on the historical operator's network'. The delivery of parcels is not considered part of the public interest domain as this is an entirely different (market) segment of the postal industry in which the delivery to the end-user is less dependent on the network of the historical operator (see for instance: (Verhoest & Sys, 2006).

As to the telecommunications industry the public interest domain is defined as 'the fixed-line network of the historical operator consisting of commonly copper cables for the delivery of private sector telecommunications services and the impact other networks, such the television cable, fibreglass and mobile networks (since the 2000s), have on the network of the historical operator'. Herein, the business sector is not included as part of the public interest domain as this does not concern the provision of individual telecommunications services at the household of citizens (see for instance: (POC, 2012). Furthermore, telecommunications services include the provision of fixed as well as mobile telephony, broadband internet and (digital) television. Next, what constitutes these networks is discussed.

6.2.2 Infrastructures of postal and telecommunications networks

Regarding the postal industry, to begin with, the infrastructure of the network does not consist of a physical nature as is the case in other network industries. Instead, the postal network relies on other infrastructures such as "road, rails and air transport (Verhoest & Sys, 2006, p. 1)" for the provision of services. It is, however, a network industry as for the provision of services a network is set up, albeit not of a physical nature, which can be divided up into three main segments. First, the 'front office' serves as the central delivery point for collected letter-post which is usually in the form of a post-office or a service-point. Second, the 'collection- and distribution-centres' refer to the letterboxes and deliverers, such as postmen, of letter-post. Third, the 'back-office' entails the sorting-centres in which all collected letter-post is sorted in order to be distributed. As a result of the non-physical nature of the postal network and the reliance on other more physical networks, the postal industry is not as dependent on investments into a physical network as is the case in other network industries. Although there is no clear natural monopoly in the postal network itself, "there is a natural monopoly in the delivery segment (Verhoest & Sys, 2006, p. 1)". The natural monopoly intended here is mainly in regard to the back-office segment of the postal network from whence the distribution and delivery of letter-post is staged. It is also the reason as to why the regulations mentioned in the previous section are in place in spite of the infrastructure of the postal network not consisting of a physical nature (Verhoest & Sys, 2006).

Different from the postal industry, the infrastructure of the network in the telecommunications industry does consist of a physical nature. Infrastructures of fixed-telecommunications networks generally consist out of copper (telephone), copper coaxial (cable) or fibreglass cables for which they rely on for the provision of services. As these cables need to run all the way up to people's homes, the entire network is required for the provision of services, and is of a physical nature, so that it cannot be divided up in the way the postal network can be divided up. Hereto, the emphasis within infrastructures of telecommunications networks might be mostly on the local network that connects to the end-user but, because as good as the entire network is needed for the provision of services, it cannot be divided up and is therefore considered as one network throughout this study. As a result of basically needing the entire network for the provision of services, ownership of, infrastructures of telecommunications networks are considered natural monopolies. In turn, this is also why the regulations mentioned in the previous section are in place (Geradin, 2006; Liikanen, 2001; Van der Wee, Verbrugge, & Lemstra, 2012). Within the next section the generalities in basic structure for each case briefly discussed before moving on to the actual analysis.

6.2.3 Economic organisational and country-specific arguments

Based on the research model the cases within the subsequent chapters are each structured in the same manner by looking at the economic organisational arguments for institutional arrangements following TCE, and country-specific arguments for institutional arrangements following state-administrative tradition theory. Each case is introduced by a brief timeline of the major events in regard to the current governance structure and the general institutional setting, such as processes of liberalisation and privatisation, as well a sum up of the most important legislative piece(s) of the network industry. Although EU deadlines for liberalising both industries were the same for each country discussed in this study, each country responded differently in its own manner in following national legislative procedures and different timeframes. Hereto, it is critical to consider whether or not there is a strategic importance from the state in regard to the network (industry) as, if there is a clear strategic importance from the state, it becomes irrelevant to look at the economic organisational arguments for institutional arrangements as explained in the previous chapter. Furthermore, each country has a regulator in place to oversee and control the compliance of (EU) regulations, as part of the aforementioned processes of liberalisation (Liikanen, 2001; Morton, 2011), for the postal and telecommunications industries. As the emphasis of this study is not regulatory in nature, the regulators are not elaborated in the subsequent chapters.

The economic organisational arguments for institutional arrangements are discussed based on the three characteristics of TCE which were operationalised in the previous chapter. Underlying the operationalisation, the degree of asset specificity is indicated by competition on the market within the industry by asking the following two questions based on section 3.9 (Geradin, 2006). First, to what degree is the ownership of the network of the historical operator asset specific for the provision of (public) services? In other words, is there competition between networks? Second, to what degree is the use of the network of the historical operator asset specific for the provision of (public) services? In other words, is there competition on the network(s)? The amount of uncertainty is indicated by 1) whether there are indications of uncertainty in regard to the supply and demand, as well as 2) the number of legislative changes within the industry as a high amount of legislative changes would also indicate uncertainty, both over the period of roughly the last five years and concerning the network for the provision of services on the public interest domain. The frequency in

which the transaction takes place is indicated by how often the requisites for safeguarding the provision of services regarding the public interest domain, foremost legislated through the aforementioned 'universal service provisions' (Liikanen, 2001; Morton, 2011; Van der Wee, Verbrugge, & Lemstra, 2012), change from a government perspective (Williamson, 1985).

The country-specific arguments for institutional arrangements are discussed by looking at the state-administrative traditions. These are indicated by the operationalised variables and corresponding values, schematically displayed in the previous chapter, which are looked at per network industry in order to determine the state-administrative tradition within each industry (Loughlin & Peters, 1997; Painter & Peters, 2010). Lastly, each chapter is concluded by a thematic summary of the outcomes of both theoretical constructs in that country.

7 The Netherlands

7.1 Postal industry

Until 1989, the postal services in the Netherlands were part of the SOC *Posten, Telegrafie en Telefonie* (PTT) which enveloped all postal, telegraphy and telecommunications services. In 1989, the SOC was transformed into a limited company, a SOE, with transferable shares for which the sale started in 1994 and ended in 2007 when all shares were fully privatised. In 1998, the company then called KPN was divided up into two companies with one focussing on telecommunications and continuing under the name KPN, and the other on postal services under the name TPG and since 2011 PostNL (POC, 2012). The most important piece of legislation today is the Dutch Postal Act of 2009.

The privatisation of the postal industry is considered the result of the desire to privatise (parts) of the telecommunications industry as they were formerly combined. It was never discussed as a separate case in parliament during the time, nor were there objections made by parliament to not privatise the industry. In addition, the decision to privatise was accompanied by the desire from the EC to liberalise the postal industries at the time. Between 1990 and 2010, the government proved eager to liberalise its postal industry but encountered reluctance from other member states. After postponing the liberalisation of the industry several times, for fear of unfair competition in comparison to other member states, the Dutch postal industry was fully liberalised on the first of April 2009 (POC, 2012).

Both the privatisation and eagerness to liberalise the postal industry attest the industry to not be of strategic importance to the government as it did not want to retain it. Consequently, making TCE applicable as there is no clear intent from the government to retain it out of strategic importance.

7.1.1 Economic organisational arguments for institutional arrangements

7.1.1.1 Asset specificity

As a result of the privatisation, the ownership of the infrastructure of all three segments of the postal network still reside with PostNL (OPTA, 2010, p. 39). It has a national coverage along with the smaller post company Sandd, with PostNL delivering five days a week since 2014 following the removal of Mondays (ACM, 2013b, p. 6). PostNL has an overall market share of 80 to 90 percent in all letter-post services in the Netherlands. Within this, the private letter-post market made up for eight percent, whereas the business market covered almost 92 percent of the postal services in the Netherlands in 2012 (POC, 2012, p. 20). The market shares are shown schematically below.

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The UPS envelops the services, in this case PostNL, must provide in order to safeguard the public interest. Everything not included, which therefore does not fall under parliamentary supervision, is left to the market (POC, 2012, pp. 20, 74-76). The UPS is regulated in the Dutch Postal Act of 2009 which says that PostNL is the DUSP for an undetermined period of time in Article 5 of the Act. There are no indications regarding the process of giving the concession to PostNL to be an open one other than there being no other postal companies having been given the concession so far (POC, 2012, pp. 74-76). The UPS encompasses, amongst others, the letterbox density, the delivery frequency and how many service points there must be within a certain area (POC, 2012, p. 20). It also includes delivery requisites such as the delivery of letter-post weighing at most two kilograms according to Article 16 paragraph 2 of the Act. In addition, the Postal Act Article 23 also includes some obligations towards the regulator such as the presentation of a yearly statistical report on the execution of the UPS.

Even though the postal industry is liberalised, there remains little room for competition on most segments of the letter-post market. According to the evaluation report made by the regulator in 2010 into the (liberalised) Dutch postal market, the infrastructures of the postal network are too much of an investment for competitors to organise themselves which is why PostNL practically maintains its ‘former’ monopoly (OPTA, 2010). The monopoly is mainly due to the back-office of the infrastructures being too much of an investment for competitors such as Sandd, being limited in having only one sorting centre (ACM, 2012, pp. 5-7), to organise themselves on a scale that rivals that of PostNL as it not lucrative to build additional ones. In turn, this also affects the other two segments of the infrastructures as the postal network of PostNL can practically be considered as a whole (OPTA, 2010). On the one hand, the business segment of the letter-post market has proven more open to competition as it is less dependent on the infrastructure. On the other hand, PostNL is also dominant in this segment of the market (POC, 2012, p. 64). In addition, the monopoly is also partly due to USOs (see textbox) associated with the delivery of letter-post for which the concession is given to PostNL as only PostNL can provide for it through its network (POC, 2012, p. 20).

Table 10 Actors and ownership (ACM, 2012; ACM, 2013a)

Postal industry Netherlands (ownership/use and market share) on the public interest domain in 2012 (the information for 2013 and 2014 was not available due to being confidential)

Company	Market share	Ownership	Use
PostNL	80-90% (2013a)	(ACM, 2012, pp. 5-7)	Able to collect and distribute six days a week through its own infrastructure with national coverage (ACM, 2012, pp. 5-7)
Sandd	10-20% (2013a)	(ACM, 2012, pp. 5-7)	Enlists third party distributors in postcode areas it does not have its own distributors (ACM, 2012, pp. 5-7)

Consequently, the degree of asset specificity is high regarding both the ownership and use of the postal network of PostNL, foremost in regard to the back-office, for the provision of services on the public interest domain. Other than the much smaller postal company Sandd, which accounts for 10-20 percent of the market share, there are no other networks to compete with. Therewith, there is also no real competition on the network of PostNL as the only competitor Sandd mostly relies on its own network for the provision of services. Hence, in having an 80-90 market share, PostNL still practically retains its ‘former’ monopoly over the Dutch letter-post market (ACM, 2012; ACM, 2013b; POC, 2012).

7.1.1.2 *Uncertainty*

The uncertainty in regard to the supply and demand is strongly tied to new technological developments such as the rising use of e-mail. As the business market for letter-post has been declining rapidly over recent years due to, amongst others, banks and tax authorities turning to digital alternatives, this also affects the provision of services on the private market as PostNL is dependent on the business market for the majority of its incomes (ACM, 2013b, pp. 2, 9).

The abovementioned was also part of the initial motivation to privatise PostNL. However, the general shrinkage of the letter-post market has led to discussions in parliament during the last

decade regarding the decision to privatise (POC, 2012, pp. 68-70). Then and more recently, as can be understood from the postal market file on the website of the Dutch government (Government of the Netherlands, 2015c), the emphasis is on safeguarding the public interest by ensuring the UPS to each citizen. In addition, there is also a bulk of documents on the need to keep the postal market flexible and modern in order to keep it competitive (Government of the Netherlands, 2015c).

Combined, the general shrinkage of the (letter) post market and high amount of legislative changes on the Dutch government's website indicate an overall high degree of uncertainty. Even more so, if one takes into account that many of these changes concern the UPS.

7.1.1.3 Frequency

The requisites for the provision of services regarding the public interest domain are recorded in the Dutch UPS which is legislated through the Dutch Postal Act of 2009. Firstly, the designation of the postal company for the universal service is for an undetermined period of time according to Article 15 of the Act. This already attests a low frequency of changes in itself as, if changes would occur more often, entering into a 'management' contract for an undetermined period would be an unlikely option due to the contract needing to be adapted every time something changes.

Secondly, aside from the fairly recent change to reduce the number of delivery days from six to five days a week (ACM, 2013b, p. 6), there are no further indications the requisites for the Dutch UPS have changed over the last five years (ACM, 2015a; OPTA, 2010). In addition, the change to reduce the number of delivery days can also be considered to be in favour of the public interest as the shrinkage of the postal market forces PostNL to compensate. In this respect, the reducing of the number of delivery days might be more beneficial for the public interest instead of others means such as raising tariffs (ACM, 2013b; POC, 2012, p. 65).

Both the undetermined period for which the concession is given to the USP PostNL and the absence of many changes actually occurring in the Dutch UPS over the last five years attest a low frequency for the requisites for safeguarding the provision of services regarding the public interest domain to change in the Dutch postal industry.

7.1.2 Country-specific arguments for institutional arrangements

7.1.2.1 State and civil society

As PostNL was fully privatised in 2007 it is classified a type 5 organisation (Van Thiel, 2012) in which the government holds no shares. Consequently, the degree of centralisation is low which resembles the Anglo-Saxon state-administrative tradition (POC, 2012, p. 20).

7.1.2.2 Legal tradition

Within the Dutch Postal Act of 2009 there are mainly 1) laws directed at the service level following the UPS such as the delivery frequency saying the DUSP is obligated to deliver letter-post at least five days a week weighing at most two kilograms following Article 16 Paragraph 2 and 5 of the Act. It does not include 2) laws directed at the level of governance structures. Anything not included in the Dutch Postal Act of 2009 is not considered to be of public interest and is therefore left to the market (POC, 2012, pp. 74-76).

As only the first type of law is present in the Act, the emphasis is on regulatory law and does not include specific arrangements for governance structures. For that reason, the legal tradition for the Dutch postal industry resembles that of the Anglo-Saxon state-administrative tradition.

7.1.2.3 *Civil services*

The state and/or administrative tradition in civil services is measured by looking at the appointment of former politicians and/or civil servants in the top management of the two tier board of the main postal company of the Netherlands: PostNL. The board of management of PostNL consists of two or more members of which one is chosen as president. The members of the board of management are appointed by the supervisory board (PostNL N.V., 2013, pp. 8-9). In turn, the supervisory board is appointed by the general meeting of shareholders (TNT/PostNL, 2005-2014). The board of management is supported by an executive committee that consists of five additional members in 2014 (PostNL, 2014). Based on the descriptions of the boards of management and their previous career paths in the annual reports of PostNL, and before that TNT, between 2005 and 2014 there are no indications of (former) politicians and/or top civil servants. Most, such as the CEO between 2001 and 2012, have long career paths at PostNL with previous business-like backgrounds. Consequently, there are neither indications of shifting trends between the public and private in the board of management of PostNL (TNT/PostNL, 2005-2014).

The supervisory board of PostNL has a minimum of three members (PostNL N.V., 2013) and had seven in 2014 (PostNL, 2014). Based on the descriptions of the members of the supervisory boards over the period of 2005-2010 and their previous career paths, there appears to be a shifting trend from members having a clearly defined political or public administration background to a more private and business-like background. In 2005, there was still a supervisory board member (R.J.N. Abrahamsen) appointed by the Ministry for Public Works and Water Management in 2000 who was reappointed for another four years in 2004. In addition, W. Kok, a former prime-minister, was also part of the supervisory board in 2005 (TNT, 2005). However, in 2014 there were still two former politicians and/or top civil servants with clear previous political and/or administrative career paths. The first is vice chairman J. Wallage, who was a former state secretary for Education and Sciences and Social Affairs and Employment during the late 1980s and early 1990s. The second is A. Jongerius, a former Euro parliamentarian during the 2000s and former president of the Dutch Trade Union FNV (PostNL, 2014).

Consequently, there are no indications of politicised members on the board of managements but some for the supervisory boards. Yet, with only two out of seven members of the supervisory board in 2014 having a former career as a politicians and/or top civil servant whilst being appointed by the general meeting of shareholders, the degree of politicised top management for the Dutch postal industry is considered low. In turn, this resembles the Anglo-Saxon state-administrative tradition.

7.1.2.4 *General policy style*

The process of privatising and liberalising the postal industry in the Netherlands has been gradual and with clear intent spanning a period of roughly two decades. The separation and eventual privatisation therefore show a foremost incremental decision-making process (POC, 2012, pp. 21-25). As a result of the privatisation the influence and involvement of the government in safeguarding

the public interest in the postal industry appears fairly limited besides regulatory instruments such as the Dutch Postal Act of 2009 (POC, 2012, p. 19).

The incremental process of privatisation and liberalisation, in addition to the limited influence of the Dutch government, in the Dutch postal industry resembles the Anglo-Saxon state-administrative tradition of low involvement.

7.2 Telecommunications industry

Already partly discussed in the previous chapter, this section focuses on the telecommunications industry in the Netherlands and the formerly state owned historical operator KPN. KPN was fully privatised one year earlier than TPG in 2006. The industry was liberalised in 1998 following EU guidelines (POC, 2012, pp. 20-25). Its most important piece of legislation today is the Dutch Telecommunications Act of 1998.

During the process of privatisation in 2001 KPN almost risked bankruptcy due to some bad investments which was overcome by selling some of the shares, part of which back to the Dutch government. Although the bankruptcy sparked the interest of the parliament on the strategic importance of the network, buying back the network was not an option at the time as this would seriously hamper an already (financially) instable KPN (POC, 2012, pp. 53-54). The issue of strategic importance of the network was more or less dismissed by the government and parliament until in 2013 América Móvil, a major international telecommunications company of Mexican origin, tried to take-over KPN. Although the attempt was thwarted by a protection construction, it stirred up political debates on public interests involved with the network such as regarding the national-security fixed-network. However, as KPN was fully privatised by then, the decision to do so lay with the shareholders of KPN as the Minister for Economic Affairs explained towards parliament in late 2013 (The Netherlands Ministry of Economic Affairs, 2013b; The Netherlands Ministry of Economic Affairs, 2013a, p. 4).

Admitting the Dutch state does consider the telecommunications network (industry) of strategic importance, it is now too late as it does not retain KPN nor its network. Therefore, making TCE applicable as it no longer retains it.

7.2.1 Economic organisational arguments for institutional arrangements

7.2.1.1 *Asset specificity*

Along with the privatisation of the Dutch telecommunications industry, the ownership of the telecommunications infrastructure was also transferred to KPN (POC, 2012, pp. 60-61, 78-79). The main competition for KPN comes from the cable company UPC which has nowadays merged with Ziggo, continuing under the latter (ACM, 2015b). Ziggo has its own network of, as good as, national coverage for the provision of telecommunications services that runs through the television cable to the end-user (POC, 2012, p. 28). A possible 'third' infrastructure would be the fibreglass network which is owned by KPN under the name Reggefiber (ACM, 2014), of which the network to the end-user is still partly in the making with Reggefiber aiming on providing 80 percent of the Netherlands with 'Fiber to the Home' by 2020 (A.T. Kearney & Telecompaper, 2011, p. 36).

DUTCH UNIVERSAL TELECOM SERVICE

The Dutch UTS is similar to the Dutch UPS (POC, 2012, pp. 73-75). It is regulated in the Dutch Telecommunications act which says that KPN is the DUSP for a period of maximum 10-years, following Articles 9 and 20 of the Act, for telecommunications services which the Dutch government considers to be of public interest. Again, everything not included, which therefore does not fall under parliamentary supervision, is left to the market (POC, 2012, pp. 20, 74-76). The Act is mostly regulatory such as in requiring the universal service provider to connect every household, regardless of their geographical location, having a certain quality and at an affordable price with a fixed (telephony) connection according to Article 9.2 of the Act. It is also developing in the sense that an internet connection is nowadays considered a public interest following EU guidelines (POC, 2012), which are also included in the Dutch Telecommunications Act Article 9.1a.

In 2015, KPN is the biggest provider (40-45%) of telecommunication services in the Netherlands together with Ziggo (40-45%) based on their rough market shares revenues (ACM, 2015b). A third competitor is TELE2 which accounts for a small share (0-5%) of the market (ACM, 2015b), but is still dependent on the network of KPN for the provision of independent fixed telephony (POC, 2012, p. 28). Together, KPN and Ziggo, account for about 80 to 90 percent of the overall provision of telecommunication services in the Netherlands aside from the mobile market (ACM, 2015b). Mobile telephony is considered a competitor for the fixed telephony network as more and more services can also be provided through these networks. The four providers of mobile telephony since 2012 are KPN (15 frequency licenses), Vodafone (9 frequency licenses), T-Mobile (15 frequency licenses) and TELE2 (2 frequency licenses). The first three already have their own networks in place for the provision of mobile telephony. TELE2 is a relative newcomer here but has the option to start its own network now that it has frequency licenses (Radiocommunications Agency, 2015). The market shares are shown schematically below but do not include the mobile market shares as these are not available as part of the general market shares for reasons such as consisting out of different actors than in the other segments of the telecommunications market (ACM, 2015b).

Table 11 Actors and ownership (ACM, 2015b)

Telecommunications industry the Netherlands (ownership/use and market share) on the public interest domain at the start of 2015						
Market share						
Company	Market share based on revenues					
KPN	40-45%					
Ziggo	40-45%					
TELE2	0-5%					
OLOs*	5-10%					
Ownership and use of the network						
	Copper		Cable		Fibreglass	
Ownership	Use	Ownership	Use	Ownership	Use	
KPN	KPN	Ziggo	Ziggo	KPN	KPN	
	TELE2				TELE2	
	OLOs				OLOs	

* Other Licensed Operators (OLOs) that use the network of other operators

Consequently, on the one hand, the degree of asset specificity is medium regarding the ownership of the telecommunications network of KPN as there are two, those of KPN and Ziggo, networks for the provision of services on the public interest domain. On the other hand, the degree of asset specificity regarding the use of the network of KPN is high as there is hardly any competition on the network other than TELE2 (0-5%) and OLOs (5-10%). Since KPN and Ziggo dominate the telecommunications market for 80 to 90 percent, having a practical duopoly, there is mainly competition between networks. For the moment, there are no clear indications mobile networks are able to compete with fixed networks. Yet, the number of fixed connections is decreasing whereas the number of mobile connections is increasing. Furthermore, considering the market shares of KPN and Ziggo are about the same, it could be perceived as an unequal treatment by the regulator that only KPN is obligated to open up its network to OLOs whereas Ziggo is not (ACM, 2015b; POC, 2012).

7.2.1.2 Uncertainty

The uncertainty in regard to the supply and demand on the telecommunications networks is most likely strongly tied to the rapid technological developments made in the industry. This is attested by, on the one hand, the construction of a 'third', fibreglass, network owned by KPN in order to supply

the increasing demands for higher internet speeds (A.T. Kearney & Telecompaper, 2011). On the other hand, the decrease in number of fixed connections suggest otherwise as well as the potential competition from mobile networks. These could put strings on KPN's network as they could lead to lowering demands in fixed connections (ACM, 2015b).

The degree of uncertainty is also reflected in the amount of legislative changes occurring in the industry. Over the past five years alone there have been numerous issues that needed tackling by the government as visible on the telecommunication file on the government's website. Most of these are in regard to safeguarding the public interest in a rapidly developing industry (Government of the Netherlands, 2015d). An example of such an issue is the recurring topic of malfunctions on the network of the telecommunications provider(s) (Government of the Netherlands, 2015d) for which the government has put forward a proposal to alter the Dutch Telecommunications Act of 1998 to "strengthen the position of subscribers at network malfunctions (Government of the Netherlands, 2015b)".

The supply and demand side of the Dutch telecommunications industry does not appear to be uncertain at the moment with a 'third' network in the making. However, the decrease in the demand for fixed connections and the increasing competition from mobile networks could change this in the future. The amount of legislative changes occurring in the industry do indicate uncertainty on the network as the provision of services on the public interest is often put under strain. Combined, the low degree of uncertainty on the supply and demand side and the high degree of uncertainty on the amount of legislative changes, indicate at the least a medium degree of uncertainty.

7.2.1.3 Frequency

The requisites for safeguarding the provision of services on the public domain are recorded in the Dutch UTS which is legislated through the Telecommunications Act of 1998 Article 9. Firstly, the designation of the telecommunications company as the USP is for a maximum of ten years following Article 9.2 of the Act. The maximum period for designating a service provider is fairly long, as is shown in Article 9 of the Act, which indicates a low frequency of changes in itself.

Secondly, changes to the UTS have only happened on occasion such as in 2007 when KPN removed public phone booths as they were no longer required as part of the public interest because mobile telephony made them become obsolete (POC, 2012, p. 76). Another such a change is that for the requisite to connect each and every one independent of their geographical location, KPN has been allowed since 2012 to offer mobile telephony services instead of fixed telephony services (POC, 2012, p. 76).

The maximum period of ten years for which the concession is given to the DUSP as well as changes only happening on occasion indicate a low frequency. The two of the more significant ones over the last ten years mentioned here do not appear to have had a great of impact on the public interest domain as either the services were longer part of the public interest or they can be taken care of by other technological means. Therefore both points indicate a low frequency for the requisites for safeguarding the provision of services regarding the public interest domain to change in the Dutch telecommunications industry.

7.2.2 Country-specific arguments for institutional arrangements

7.2.2.1 *State and civil society*

As KPN was privatised in 2006 it is classified a type 5 organisation (Van Thiel, 2012) in which the government holds no shares. Consequently, the degree of centralisation is low which resembles the Anglo-Saxon state-administrative tradition (POC, 2012).

7.2.2.2 *Legal tradition*

Within the Dutch Telecommunications Act of 1998 there are 1) laws directed at the service level regarding the safeguarding of the public interest domain through the USO highlighted in the textbox in Article 9 of the Act. There are no 2) laws directed at the level of governance structures as the liberalisation of the industry and the privatisation of KPN resulted in organisational arrangements being left to the market as they do not constitute the public interest (POC, 2012, pp. 20-21).

As the Dutch Telecommunications Act of 1998 does not contain laws directed at the level of governance structures but does contain laws directed at the service level, the emphasis is on regulatory laws. This resembles the Anglo-Saxon state-administrative legal tradition.

7.2.2.3 *Civil services*

The state and/or administrative tradition in civil services is measured by looking at the appointment of (former) politicians and/or civil servants in the main telecommunications company of the Netherlands: KPN. KPN has a two-tier management consisting of the board of management and the supervisory board. The board of management of KPN consists of two or more members appointed by the supervisory board of which one is chosen as president (Koninklijke KPN N.V., 2015).

Based on the descriptions of the boards of management and their previous career paths in the annual reports of KPN between 2005 and 2014 there are some indications of (former) politicians and/or top civil servants. The most striking is the current CFO J.C. de Jager who was a member of the Dutch cabinet as State Secretary for Finance between 2007 and 2010 and later as Minister of Finance between 2010 and 2012 (Koninklijke KPN N.V., 2014). However, one could also consider J.C. de Jager to be more of an exception rather than the rule as he does not have a long career in politics prior to his career at KPN in having spent most of his career life in the business sector (Parlement en Politiek, 2015). Most of the other members of the boards of management between 2005 and 2014 have long career paths at KPN, often having joined even before the privatisation during the 1980s, such as the current CEO E. Blok who joined KPN as early as 1983 (Koninklijke KPN N.V., 2014). Furthermore, there are no indications of (shifting) trends between the public and private in the top management of KPN other than the board of management during 2005 and 2014 having always consisted out of one or more members that had a long career at KPN or before the privatisation. In this regard these members of the board could be considered as former civil servants as KPN was back then still part of the government (Koninklijke KPN N.V., 2005-2014).

The supervisory board consists of five to nine members which are appointed by the general meeting of shareholders (Koninklijke KPN N.V., 2015). There are no indications of (former) politicians and/or top civil servants present in the supervisory board of KPN since 2005 based on the descriptions. During the years 2005-2014 all supervisory board members hail from long careers in the business

sector. As a result, there are also no distinguishable patterns of shifts between the private and public sector for the supervisory board (Koninklijke KPN N.V., 2005-2014).

Consequently, there are possible indications of the board of management being politicised due to one or more over the last ten years having a long career at KPN or before the privatisation. Their initial positions could suggest some form of politicised appointment would they not be appointed by the general meeting of shareholders as KPN is currently fully privatised. Rather, it would seem more appealing they worked themselves up the ladder through their long career at KPN. Hence, with no indications of politicised members on the supervisory board, and no clear ones on the board of management, the telecommunications industry in the Netherlands is not considered politicised which resembles the Anglo-Saxon state-administrative tradition.

7.2.2.4 General policy style

The process of privatising and liberalising the telecommunications industry in the Netherlands has been, like the postal industry, gradual and with clear intent in also spanning a period of roughly two decades. In most aspects it was even clearer than the postal industry as the focus during the period of privatisation was in fact on the telecommunications industry. Therefore, the privatisation and liberalisation resemble that of an incremental decision-making process (POC, 2012, pp. 25-28). As a result of the privatisation, the influence and involvement of the government in safeguarding the public interest in the telecommunications industry appears the same as the postal industry in being fairly limited currently. The Dutch state has the ability to introduce regulatory measures through the Dutch Telecommunications Act of 1998 of which the supervision of compliance is dealt with by the ACM (POC, 2012, pp. 74-75).

The incremental process of privatisation and liberalisation in addition to the limited influence of the Dutch government in the telecommunications industry, being more supervisory nowadays (POC, 2012, p. 73), resembles the Anglo-Saxon state-administrative tradition of low involvement.

7.3 Sub conclusion: the Netherlands

This chapter analysed both the economic organisational and country-specific arguments for institutional arrangements in the postal and telecommunications industries in the Netherlands. The preliminary conclusions of these findings on both perspectives are mentioned here and summarised schematically below.

Table 12 Summary of the outcomes of both theoretical concepts

The Netherlands				
	Post		Telecommunications	
Economic organisational arguments for institutional arrangements				
	<i>Ownership</i>	<i>Use</i>	<i>Ownership</i>	<i>Use</i>
Asset specificity	High	High	Medium	High
Uncertainty	High		Medium	
Frequency	Low		Low	
Country-specific arguments for institutional arrangements				
State and civil society	Anglo-Saxon		Anglo-Saxon	
Legal tradition	Anglo-Saxon		Anglo-Saxon	
Civil services	Anglo-Saxon		Anglo-Saxon	
General policy style	Anglo-Saxon		Anglo-Saxon	

The economic organisational arguments for institutional arrangements were assessed following the three characteristics of TCE. Considering the Dutch postal industry and the network of PostNL, both the ownership and use attested a high degree of asset specificity. Within the industry, PostNL accounts for 80-90 percent of the market share with some competition between networks but only from Sandd and no competition on the network of PostNL. Due to the shrinking letter-post market and the high number of legislative changes, the amount of uncertainty was considered high. The frequency was found low due to changes affecting the requisites of the UPS hardly ever occurring, which was attested by the long-term period of assigning a DUSP. Notwithstanding the low frequency, alternative institutional arrangements should be considered for the Dutch postal industry as overall transaction costs regarding the provision of services on the public interest domain are fairly high.

Considering the Dutch telecommunication industry and the network owned by KPN, the ownership of the network showed a medium degree of asset specificity as there is also the network of Ziggo for the provision of telecommunications services. However, the use of the network attested a high degree of asset specificity as there is hardly any competition on the network of KPN. Therefore, competition mainly exists between the networks of KPN and Ziggo. As a result of digital alternatives for fixed-connections but with these being, not yet, up to par with fixed-connections, the amount of uncertainty was considered medium. Similar to the postal industry, the frequency was found low. Hence, alternative institutional arrangements could be considered for the Dutch telecommunications industry as overall transaction costs regarding the provision of services on the public interest domain would be somewhere in between medium and high. Albeit to a lesser extent than in the postal industry, as there are two networks in the telecommunications industry whereas there is only the network of PostNL in the postal industry. Yet, this has essentially created a duopoly between KPN and Ziggo on the Dutch telecommunications market.

The country-specific arguments for institutional arrangements were assessed by looking at the variables of state-administrative tradition theory. Both the Dutch postal and telecommunications industries have a clear fit on all four variables of the Anglo-Saxon tradition. As not one of the variables fits the 'belonging' Germanic tradition it appears that, as privatisation of SOCs and SOEs is generally associated with the Anglo-Saxon tradition, a shift has occurred from the Germanic to the Anglo-Saxon state-administrative tradition. The degree of decentralisation marked a starting point to which tradition either industry belonged to. In turn, this also influenced other variables such as the civil service variable for which both the postal and telecommunications industries show no clear indications of politicised top management in having been 'decentralised' or rather privatised. The clear intent of the Dutch government in privatising KPN and liberalising the telecommunications market following EC guidelines, for which a similar intent was seen in the postal industry, might attest for the lack of need for laws directed at the level of governance structures as there are regulations in place to counter such issues. In addition, the clear intent of privatisation and liberalisation could also make up for the general policy style resembling that of the Anglo-Saxon state-administrative tradition for both industries.

8 The United Kingdom

8.1 Postal industry

The postal industry in the UK became a separate industry in 1981 when it was split off from the telecommunications industry which is really early in an EU context. During the 1990s, talks about liberalising the postal industry started with the postal industry being fully liberalised in the UK since January 2006 (Pond, 2006). Between 1969 and 2001, the postal industry was considered a 'nationalised industry' (SOC) and before that a government department (Pond, 2006). After 2001 the nationalised industry was combined in, what was first named Consignia plc but later in 2002 renamed, Royal Mail plc as a limited company of public law (SOE) which was owned entirely by the government (Pond, 2006, p. 1). Between 2010 and 2015 the postal industry underwent major reforms with Royal Mail (RM) being privatised since the 13th of October 2015 (UK Government, 2015d). The most important pieces of legislation today are the Postal Services Act 2011 and still somewhat the Postal Services Act 2000.

The privatisation was motivated by the need to safeguard the British UPS (see textbox), the uncertainty on the postal market and RM risking financial instability. To address these issues the government found that it would need to "1) reform the regulatory framework, with responsibility for postal regulation transferring to the regulator; 2) remove RM's historic pension deficit; and 3) provide a strategic private sector partner for RM (Department for Business Innovation & Skills, 2013, p. 2)". The latter was considered the main reason for privatising RM (NAO, 2014). Moreover, the decision was made to maintain government ownership of the Post Office Counters as, on the one hand, the Post Offices would face different challenges as well as being "more than a commercial entity and serves a distinct social purpose (Department for Business Innovation & Skills, 2010, p. 3)". On the other hand, 97 percent of the post offices were already in private possession which are now managed by the government through Post Office Ltd as a more or less umbrella organisation. The relationship between RM and Post Office Ltd is set in a commercial contract spanning 10 years which includes the transitional separation aspects as well as the Post Offices serving as a delivery and pick up point for RM (Department for Business Innovation & Skills, 2010; Department for Business Innovation & Skills, 2013, pp. 8-9).

As the only recent privatisation of RM suggests, the government did not want to retain the major company in the postal industry. Consequently, there is no clear intent from the government saying the network (industry) and RM are of strategic importance to the state, making TCE applicable.

BRITISH UNIVERSAL POSTAL SERVICE

As required by the EU Postal Services Directives the UK's "universal postal service - the 6-days-a-week, 1-price-goes-anywhere service to addresses in the UK" is implemented in the Postal Services Act 2011 and Postal Services Act 2000 for which the safeguarding is the responsibility of the regulator (Department for Business Innovation & Skills; The Shareholder Executive, 2015; Ofcom, 2015c). According to the Postal Service Act 2011 Article 35 Paragraph 1, the regulator has the authority to designate one or multiple companies that operate on the postal market as USP(s). Since March 2012 the DUSP is RM for the period of maximum 10-years (Royal Mail Group, 2015). The minimum requisites include, for instance, the abovementioned 6 day delivery of letter-post as well as picking up letter-post from access points in the UK once a day from if not exceeding 20 kilograms following Articles 31 and 33 of the Postal Services Act 2011. It requires the USP to grant access to its network as well as present information concerning the UPS to other postal service providers (Ofcom, 2015a).

8.1.1 Economic organisational arguments for institutional arrangements

8.1.1.1 Asset specificity

The main infrastructures of the postal network, including the collection- and distribution-centres, the back-office as well part of the front-office such as service-points but excluding the actual post-offices, are now owned by RM following the privatisation (Royal mail, 2015). Most of the competition on the UK postal market for RM comes from other providers collecting letter-post and dropping this off at RM, as they are dependent on the back-office of the network of RM to deliver letter-post to the end-user (Ofcom, 2014c, p. 4). More recently, there have been developments in the competition of delivering letter-post up to people's homes from Whistl which was formerly known as TNT Post UK and is owned by the Dutch company PostNL. In 2013, Whistl announced that it would be able to collect and deliver letter-post up to people's homes for about 42 percent of the UK by 2017 without relying on the network of RM (Ofcom, 2014c, p. 8). In 2014, Whistl delivered to about 7 percent of the UK all the way up to people's homes. Delivering about 0,5 percent of the total letter-post market volume to the end-user, with the rest taken care of by RM (Ofcom, 2014c, p. 8). In total, only 0,6 percent was delivered by operators other than RM in 2014 (Ofcom, 2014c, p. 2).

Regarding the competition on the UK letter-post market, there are basically two forms of competition. The first, the competition of delivering letter-post to the end-user or 'end-to-end competition' between networks makes up for only a very small part (0,6%) of the total letter-post market volume. The second, the competition between providers that use the network of RM or 'access competition' is far greater with over 50 percent of the total letter-post market volume being taken care of by providers other than RM (Ofcom, 2014a, pp. 54-62). However, as RM is allowed to ask compensation for the use of its network, providers other than RM only made up for 4 percent of the total market revenue in 2014 with RM retaining 96 percent of the revenues for letter-post (Ofcom, 2014a, pp. 55-56). Hence, the front-office as well as the collection- and distribution-centres of the network of RM are not asset specific as over 50 percent of the total-letter post market volume comes from access competition. However, the back-office of the network of RM is asset specific as RM delivered 99,4 percent of all letter post volumes in 2014. In addition, RM made up for 96 percent of the market revenues in 2014 through compensation for the use of its network (Ofcom, 2014a, pp. 6-7, 54-62; Ofcom, 2014c, p. 2). The market shares are shown schematically below.

Table 13 Actors and ownership (Ofcom, 2014a, pp. 6-7, 54-62)

Postal industry UK (ownership/use and market share) on the public interest domain in 2014 (market share of the incumbent and competitors, based on the type of competition as no postal company holds more than five percent of the market share)				
Company type	Market share total market volume	Market share total market revenue	Ownership	Use
RM 'end-to-end'	43,4%	61% (RM)	Able to collect and distribute six days a week through its own infrastructure with national coverage as obligated to through the universal service	-
RM 'access'	56%	35% (RM)	Owned by RM, accessible for other licensed postal companies for which RM retain most of the revenues	Licensed postal companies, of which the vast majority is being handled by Whistl and UK mail, that use the network of RM
Other 'end-to-end' (including 'access' for revenue)	0,6%	4% (other)	End-to-end: Whistl (0,5%) through its own network which it seeks to expand to cover 42% of the households UK in 2017	Access: the same as the above

Consequently, the degree of asset specificity is high regarding both the ownership and use of the postal network of RM for the provision of services on the public interest domain which is predominantly in regard to the back-office of the network of RM. There is (upcoming) end-to-end completion, such as from Whistl, but this only makes up for 0,6% of the total market volume in 2014 with the national coverage of Whistl being lower than that of RM's network at that time. Although there is ('access') competition on the network of RM, the total market revenues mainly go to RM (96%) with only a small percentage (4%) going to other providers using the network of RM as well as including revenues from end-to-end competitors. Hence, the overview of the UK letter-post market confirms the still dominant position of RM despite of the government retaining the post offices and the present 'access competition' (Ofcom, 2014a, pp. 6-7, 54-62).

8.1.1.2 *Uncertainty*

The uncertainty in regard to the supply and demand on the network for the provision of services on the public interest domain is indicated by the declining letter-post market volumes in the UK since the early 2000s (Department for Business Innovation & Skills, 2013, p. 2). Between 2009 and 2014 letter-post volumes have declined as much as 21 percent with no indications of a changing trend (Ofcom, 2014a, pp. 9-10). This is especially true for business letter-post with a decline of 4,5 percent compared to an overall decline of 5,2 percent between 2013 and 2014 (Ofcom, 2014a, p. 12). The decline in business letter-post volumes is mostly due to digital alternatives for large businesses, governments and banks for sending out letter-post such as statements. In turn, this has a large impact on the letter-post market in general as it makes up for vast majority of letter-post market in the UK (Postal & Logistics Consulting Worldwide, 2015, pp. 11-13).

As a result of the 2010-2015 postal reforms there were a high amount of legislative changes taking place during recent years (UK Government, 2015a). Although many of these changes do not directly affect the work processes in the postal industry, the postal reform was in response to the already present uncertainty in the industry. In addition to the declining mail volumes the financial instability of RM had also come in jeopardy during the last decade. Combined, they posed a risk to the provision of the UPS according to the government (Department for Business Innovation & Skills, 2013, p. 2). Consequently, the government decided it needed to "secure the UPS for the benefit of all users by securing Royal Mail's future through the introduction of private sector capital and associated disciplines (Department for Business Innovation & Skills, 2013, p. 5)".

The declining letter-post market volumes with no indications of a changing trend attest a high degree of uncertainty on the supply and demand side of the British postal industry. Combined with the 2010-2015 postal reforms and according legislative changes, that were (partially) in response to this uncertainty, clearly indicate a general high degree of uncertainty in the postal industry in the UK.

8.1.1.3 *Frequency*

The requisites for the provision of services regarding the public interest domain are recorded in the British UPS, which is legislated through the Postal Services Act of 2011 Part 3. The designation of the postal company for the UPS is for a period of 10 years which is maximum possible time under British law. Currently, RM has been the DUSP since the instalment of the Postal Services Act of 2011 and will remain so up to at least 2021 (Royal Mail Group, 2015). In itself the long period of 10 years

indicates changes to the British universal service provision do not happen often as it would otherwise be unlikely to enter into a contract for such a long time.

Confirmed also by the low number of changes between 2010 and 2015, the UPS witnessed only one large amendment in regard to improving RM's financial position by "granting RM pricing freedom coupled with key safeguards to ensure that it would have strong incentives to improve efficiency and to ensure that it would have strong incentives to improve efficiency and to protect vulnerable consumers (Ofcom, 2012, p. 1)". Other than that there are no indications of changes made to the UPS (Ofcom, 2012; Ofcom, 2015c).

The long period of 10 years for which the concession is given to the DUSP and the lack of changes, other than the one mentioned above, having occurred in the requisites for the universal service over the last five years attest a general low frequency.

8.1.2 Country-specific arguments for institutional arrangements

8.1.2.1 *State and civil society*

As RM has been fully privatised since the 13th of October 2015, the government no longer holds any shares (UK Government, 2015d). Classified a type 5 organisation (Van Thiel, 2012), the degree of centralisation is low and resembles the belonging Anglo-Saxon state-administrative tradition.

8.1.2.2 *Legal tradition*

Within the British Postal Services Act of 2011 there are 1) laws directed at the service level (regulatory) following the UPS. An example of such a law is the delivery frequency saying that the USP RM is required to deliver once a day six days a week from Monday till Saturday (see textbox) following Article 31 of the Act. There are no 2) laws directed at the level of governance structures (arrangements) in Part 3 of the Postal Services Act of 2011 as a result of the liberalisation of the British postal industry as everything not included in the UPS is left to the market. Although the recent privatisation of RM separated the post offices from RM, the Postal services Act of 2011 does neither contain laws directed at organisational arrangements regarding Post Office Ltd.

As only the first type of laws are present, the emphasis is more on regulatory laws. Accordingly, the legal tradition in the postal industry in the UK resembles that of the Anglo-Saxon state-administrative tradition.

8.1.2.3 *Civil services*

The state-administrative tradition in civil services is measured by looking at the appointment of (former) politicians and/or top civil servants in the top management of the main postal company of the UK: RM. The top management responsibility of RM lies with the board of directors which usually consists of the chairman, CEO, CFO and six non-executives although this may vary between years. The appointment of members of the board of directors normally goes through a nomination committee that consists of members of the board of directors and is completed by a vote at the 'general meeting of the company' by the shareholders (Royal Mail plc, 2005-2014).

Based on the descriptions of the boards of management and their previous career paths in the annual reports of RM between 2005 and 2014 there are almost no indications of (former) politicians and/or top civil servants. All but two board members hail from a business background with only some having been appointed as a member of the board of directors from before the privatisation but these also hail from a long business career elsewhere than at RM (Royal Mail plc, 2005-2014). The two no longer appointed members of the board of directors that did have a political career were firstly Baroness Margaret Prosser, appointed from 2004 to 2010 as non-executive director, who joined the House of Lords in 2004 for the Labour Party (BBC, 2015; Royal Mail Holding plc, 2005). The second was Lord David Currie, appointed in 2009 and no longer in 2014 as non-executive director, who was also in the House of Lords but as a 'crossbench member' meaning he did not associate himself with any one party (Royal Mail Holding plc, 2011, 2014; UK Government, 2015b).

Based on the aforementioned, there were two members having a (former) career as a politician and/or top civil servant but do not appear to have been appointed for that reason with Lord David Currie not even being associated with a political party. As the privatisation transferred authority of appointment to the board of management and the shareholders, the degree of a politicised top management is considered low which resembles the Anglo-Saxon state-administrative tradition.

8.1.2.4 *General policy style*

Both the processes of liberalising the industry as well as privatising RM show an incremental decision-making process in which the state gradually distanced itself by reducing its involvement in the industry and with clear intent. Aside from 'managing' the network of post offices through Post Office Ltd, of which the government owns all the shares but with most (97%) of the post offices already being privately run (Department for Business Innovation & Skills, 2010, p. 25), the government is left mostly with regulatory instruments through (public) law (Department for Business Innovation & Skills; The Shareholder Executive, 2015; Pond, 2006).

The incremental process of privatisation and liberalisation in addition to the limited influence of the British government in the postal industry resembles the Anglo-Saxon state-administrative tradition.

8.2 Telecommunications industry

The same as the postal industry, the telecommunications industry in the UK became a separate industry in 1981, continuing under the name British Telecom plc (BT) and structured as a SOE. In 1984, the Thatcher government sold 51 percent of the shares to private investors. The privatisation of BT was completed in 1997 with the government withdrawing its Special Share (British Telecom plc, 2015). During the process of privatisation the British telecommunications market was also opened up already in the early 1990s way ahead of EU guidelines. Making the British telecommunications industry a predecessor both in regard to privatising and liberalising the industry in comparison to other (EU) countries (Liikanen, 2001). The main legislative piece is the British Communications Act 2003 and somewhat the British Digital Economy Act 2010.

UNIVERSAL SERVICE OBLIGATION

Since 2003 the DUSPs are BT and KCOM in the UK, although KCOM only handles the Hull area and BT the rest. The universal service conditions are defined in the Communications Act 2003 Article 65 to 72 by the Secretary of State for Trade and Industry for which no set period is given. It is the responsibility of the regulator to preside over the USO (Ofcom, 2005). The USO is a regulatory means for providing each citizen in the UK with "basic fixed line services" (Ofcom, 2005, p. 6). It for instance includes that the USP needs to provide "A connection to the public telephone network at a fixed location, following a reasonable request, which includes functional internet access" (Ofcom, 2005, p. 7). As with other universal services the UK UTS is in line with EU guidelines (Ofcom, 2005).

Recent developments show that competition in the British telecommunications industry is still an issue. One such a development in particular was the separation of the 'first mile' of BT's network in a separate company called Openreach, although still under control of the parental company BT, in 2006 through an agreement between BT and the regulator. The separation of Openreach from BT meant to give other telecommunication operators equal access to BT's local network connection between people's homes and businesses and the network of OLOs (the 'first mile'), by separating the management of the network with Openreach (Ofcom, 2015d, pp. 1-2).

As BT was privatised as well as the market liberalised for over two decades now, there are no clear indications of the industry being of strategic importance to the state aside from abovementioned issues of competition. Even so, the state no longer retains BT nor its network, therefore, making TCE applicable.

8.2.1 Economic organisational arguments for institutional arrangements

8.2.1.1 *Asset specificity*

Along with the privatisation of BT the infrastructure of the telecommunications network was transferred to BT as well (UK Institute for Government, 2011, p. 50; Ofcom, 2015b). The competition on the UK telecommunications market is mainly between providers using the network of BT as it is too expensive, or rather, idiosyncratic to duplicate. Hence, OLOs rely on the local network of BT for the connection to the end-user. However, and despite there is mainly competition on the network of BT, there are two main types of network that can be distinguished. The first is that of BT, spanning almost all of the UK and consisting of copper cable telephone lines. The second is the television cable network, owned by Virgin Media, that runs through copper coaxial cables covering roughly fifty percent of the homes in the UK (Cabinet Office, 2011; Ofcom, 2014b). The provision of high speed connection as a possible 'third' network, such as fibreglass up to people's homes, is provided by both BT and Virgin Media with BT covering 68 percent of UK through Openreach and Virgin Media

44 percent of UK (Ofcom, 2014b, p. 21). To get an impression of the coverage of both networks, regarding the provision of fixed high speed connections, the total coverage of both abovementioned networks is 78 percent of the households in the UK. Herein, the network of BT covers 34 percent whereas the network of Virgin Media covers 9 percent of the UK by themselves (Ofcom, 2014b, pp. 20-22). Hence, 'only' 35 percent of the UK has access to two different networks for the provision of high speed connections (Ofcom, 2014b, p. 21).

In 2014 BT was still the biggest provider of telecommunications services in the UK, having a 45,1 percent market share based on revenues. Virgin Media is the second biggest, accounting for 10,7 percent. The rest (44,2%) is covered by OLOs which include, amongst others, BskyB and TalkTalk that rely on BT's local network for the provision of services to the end-user (Ofcom, 2015f; Ofcom, 2015g; Ofcom, 2014b). In 2014, there were four mobile network operators: EE, O2, Three and Vodafone. Between these operators EE and Three have an agreement to share their infrastructure, the same way as O2 and Vodafone do. Although BT formerly owned O2 it was sold to the Brazilian company Telefónica and now uses the network of EE for its provision of mobile telecommunications through BT Mobile (Ofcom, 2014b). The market shares are shown schematically below and again do not include mobile market shares for reasons explained in the previous chapter.

Table 14 Actors and ownership (Ofcom, 2015f; Ofcom, 2015g, p. 4; Ofcom, 2014b)

Telecommunications industry UK (ownership/use and market share) on the public interest domain in 2014					
Market share					
Company	Market share based on revenues				
BT	45,1%				
Virgin Media	10,7%				
OLOs	44,2%				
Ownership and use of the network					
Copper		Cable		Fibreglass	
Ownership	Use	Ownership	Use	Ownership	Use
BT	BT	Virgin Media	Virgin Media	BT	BT
	TalkTalk				TalkTalk
	Sky				Sky
	EE				EE
	OLOs				OLOs

* Other Licensed Operators (OLOs) that use the network of other operators

Consequently, the degree of asset specificity is high regarding the ownership of the telecommunications network of BT as there is essentially only one network for the provision of services on the public interest domain that covers the entire UK. The degree of asset specificity regarding the use of the network of BT is medium as there is a high amount of OLOs (44,2%) using the network of BT. Therefore, there is mainly competition on the network of BT with the only other owner of a network, Virgin Media, having a 10,7 percent market share. As BT and Virgin Media, the owners of the networks, make up the majority market share of the telecommunications market (55,8%), it seems the separation of BT's network in Openreach by the regulator could have been sensible to say the least. Either way, the separation attests the high degree of asset specificity regarding the ownership of the network of BT. Concerning the competition from mobile networks, as of yet, there are no clear indications of these competing on the scale of fixed networks (Ofcom, 2015f; Ofcom, 2015g; Ofcom, 2014b).

8.2.1.2 *Uncertainty*

The uncertainty in regard to the supply and of the telecommunications network of BT is tied to the technological developments made in the industry. Hereof, the increase in the number of mobile-network connections and the decrease in the number of fixed-network connections are likely the most significant developments as mobile connections pose alternatives, or even replacements, for fixed connections (Ofcom, 2015g). Yet, the ongoing investments in higher speed connections, such as through fibreglass cables by BT and through the television cable by Virgin Media, also indicate less of decrease in dependency and demand for fixed connections (Ofcom, 2014b)

Measured also in the amount of legislative changes, the uncertainty in telecommunication industry is most certainly there. The need to (re)-regulate the industry with regard to, amongst others, the safeguarding of public interests and to promote equal competition in a fully liberalised market is reflected in the amount of policy papers and legislative change over the last five years on the website of the UK government (UK Government, 2015c). Although the policy paper is not (yet) a legislative change, the challenges mentioned here could lead to new uncertainties which in turn can lead to investments falling behind (UK Government, 2015c).

The decrease in demand of fixed-connections, the increasing competition from mobile network for fixed-connections and the need to (re)-regulate the industry attest a high degree of uncertainty in the UK telecommunications industry. These arguments are countered, in part, by the actual ongoing investments in faster fixed-network connections by both BT and Virgin Media. Hence, the uncertainty does not appear that high at the moment although this could change in the future. Combined, the uncertainty in the British telecommunications industry would be somewhere between medium and high.

8.2.1.3 *Frequency*

The requisites for safeguarding the provision of services on the public domain are recorded in the UTS which is legislated through the British Communications Act 2003 Articles 65 to 72. The Act does not specify what period of time the concession is given to the DUSPs for which current ones, BT and KCOM, have granted the concession since 2003 (Ofcom, 2015e). With no changes in DUSPs since 2003, and no specific period of time, it seems the UTS does not change frequently as changes would need the consent of each party involved in the contract based on Articles 65 to 72 of the Communications Act 2003. Hence, it would be less likely to maintain such long-term contracts if it did change frequently.

The latter is attested by the low number of changes actually occurring. Since the instalment of the British Communications Act 2003 only three amendments were made to the UTS which were mostly in response to the evolving telecommunications industry. These amendments included changes made to definitions such as that of 'Data Protection Legislation' but also to further open up fixed and mobile networks to other providers to promote equal competition (Ofcom, 2015e).

The unspecified period of time for which the concession is given to the DUSPs as well as the long period of time the DUSPs have not changed in itself attests a low frequency. Added with the low number of actual changes, three in over ten years, the requisites in the universal services appear to hardly ever change. Accordingly, both attest a low frequency for the requisites for safeguarding the

provision of services regarding the public interest domain to change and therefore a low frequency in the UK telecommunications industry.

8.2.2 Country-specific arguments for institutional arrangements

8.2.2.1 *State and civil society*

As BT was privatised already in 1997, it is classified a type 5 organisation (Van Thiel, 2012) in which the state holds no shares. Consequently, the degree of decentralisation is low which resembles the belonging Anglo-Saxon state-administrative tradition (British Telecom plc, 2015).

8.2.2.2 *Legal tradition*

Within the Communications Act 2003 Articles 65 to 72 there are 1) laws directed at the service level regarding the public interest such as the USO which is highlighted in the textbox. There are no 2) laws directed at the level of governance structures as these are left to the market to decide following the liberalisation of the industry. For instance, the establishment of Openreach was through a mutual agreement between the regulator and BT rather than being enforced by the regulator (Ofcom, 2015d).

The presence of laws directed at the service level and absence of laws direct at the level of governance structures in the British telecommunications industry matches the Anglo-Saxon state-administrative legal tradition as regulatory laws are emphasised.

8.2.2.3 *Civil services*

The state and/or administrative tradition in civil services is measured by looking at the appointment of (former) politicians and/or top civil servants in the top management of the main telecommunications company in the UK: BT. The top management responsibility of BT lies with the board of directors that usually consists of: “the Chairman, the Chief Executive, the Group Finance Director and six non-executive directors (British Telecom plc, 2014, p. 77)”. The same as in the UK postal industry, the appointment of members of the board of directors goes through a nomination committee and is completed by a vote at the ‘General meeting of the company’ by the shareholders (British Telecom plc, 2014, p. 114).

Based on the description of the boards of directors and their previous career paths in the annual reports of BT between 2005 and 2014 only two of its board members have a former career as a politicians and/or top civil servant (British Telecom plc, 2005-2014). The first is RT Hon Baroness Jay of Paddington PC who had quite an extensive political career before joining BT in 2002 as non-executive director as, amongst others, Minister for Women and Minister of State for the Department of Health for the Labour Party (British Telecom plc, 2005; UK Parliament, 2015). RT Hon Baroness Jay of Paddington PC was no longer a member of the board of directors in 2008 (British Telecom plc, 2008). The second is RT Hon Patricia Hewitt who joined BT in 2008 as a non-executive director and had been a member of parliament for the Labour Party until 2010, was Secretary of State for the Health department between 2005 and 2007 and before that as Secretary of State for the Trade and Industry department (British Telecom plc, 2010; UK Institute for Government, 2015). RT Hon Patricia Hewitt was no longer a member of the board of directors in 2014 with no other member having a former career as a politician and/or top civil servant in 2014 (British Telecom plc, 2014). The other

members of the boards of directors hail from careers at BT or other private companies (British Telecom plc, 2005-2014).

In being privatised since 1997, and already for its majority share in 1984, one could say it is not surprising the top management of BT is not politicised. The two abovementioned exceptions do not appear to have been appointed because of political affinity. Both hail from the same political party (Labour) and were not members of the board of directors at the same time. Therefore, as there are no clear indications of a politicised top management, the civil services tradition of British telecommunications industry resembles the Anglo-Saxon state-administrative tradition.

8.2.2.4 General policy style

As the British government was a predecessor compared to other (EU) countries in both privatising and liberalising its telecommunications industry, the involvement of the government is fairly low in it as well. Both the processes of privatisation and liberalisation reflect the government to gradually and with clear intent wanting to distance itself from the industry by organising it through means of competition on the (private) market (British Telecom plc, 2015; UK Institute for Government, 2011). Several steps were taken in between to promote the competition on the market which is now considered to be one of the most competitive in the world by its government (UK Government, 2015c).

The incremental process of privatisation and liberalisation as well as the government's limited involvement in the telecommunications industry of the UK resembles the Anglo-Saxon state-administrative tradition of general policy style.

8.3 Sub conclusion: the United Kingdom

This chapter analysed both the economic organisational and country-specific arguments for institutional arrangements in the postal and telecommunications industries in the UK. The preliminary conclusions of these findings on both perspectives are mentioned here and summarised schematically below.

Table 15 Summary of the outcomes of both theoretical concepts

The United Kingdom				
	Post		Telecommunications	
Economic organisational arguments for institutional arrangements				
	<i>Ownership</i>	<i>Use</i>	<i>Ownership</i>	<i>Use</i>
Asset specificity	High	High	High	Medium
Uncertainty	High		Medium to high	
Frequency	Low		Low	
Country-specific arguments for institutional arrangements				
State and civil society	Anglo-Saxon		Anglo-Saxon	
Legal tradition	Anglo-Saxon		Anglo-Saxon	
Civil services	Anglo-Saxon		Anglo-Saxon	
General policy style	Anglo-Saxon		Anglo-Saxon	

The economic organisational arguments for institutional arrangements were assessed following the three characteristics of TCE. Regarding the British postal industry and the network owned by RM, the ownership as well as the use attested a high degree of asset specificity. Although a second network owned by Whistl could be in the making, the current situation in which RM almost entirely responsible for the delivery of all letter-post as well as maintaining a very high market share, point towards a (current) high degree of asset specificity. The high amount of uncertainty was due to declining letter-post revenues as well as the recent postal reforms. The frequency was found low due to changes affecting the requisites of the UPS hardly ever occurring, which was attested by the long-term period of assigning a DUSP. Notwithstanding the low amount of frequency, alternative institutional arrangements should be considered for the British postal industry as overall transaction costs regarding the provision of services on the public interest domain are fairly high.

Different from the postal industry, the British telecommunications and the network owned by BT had a high degree of asset specificity for the ownership of the network but a medium degree of asset specificity for the use of the network. As the network of BT is the only one covering the entirety of the UK, the ownership was very asset specific as there are no real alternatives aside from the network owned by Virgin Media which does not cover all of the UK. The use of the network was less asset specific as it is used by many OLOs which, in 2014, accounted for almost half of the market share on the public interest domain. The uncertainty in the UK telecommunications industry was also a little less than in the UK postal industry but still showed developments that could lead to more uncertainty in the (near) future. Similar to the postal industry, the frequency in the telecommunications industry in the UK was also considered low for the same reasons. Altogether, alternative institutional arrangements could be considered for the British telecommunications industry as overall transaction costs regarding the provision of services on the public interest domain would be somewhere in between medium and high. Albeit to a lesser extent than the British postal industry, this was mostly due to there being competition on the network of BT whereas there is almost none on the delivery segment of the network of RM.

The country-specific arguments for institutional arrangements were assessed by looking at the variables of state-administrative tradition theory. Both the UK postal and telecommunications industries fit their 'belonging' tradition on all four variables although it should be noted that the postal industry and its main company RM have been privatised only recently. Otherwise the postal industry would have likely showed a different picture of state-administrative tradition theory as the degree of decentralisation (civil services) strongly affects the other variables. Another possible explanation for the UK to resemble its belonging tradition is the overall early processes of liberalisation in both industries and the very early process of privatisation in the telecommunications industry in regard to other EU member states.

9 Belgium

9.1 Postal industry

The postal industry in Belgium was originally organised as a legal monopoly granted to the *Regie der Posterijen*, which was owned and directly supervised by the central government (Verhoest & Sys, 2006, p. 8). In 1991, the name was changed to De Post (DP) and its governance structure to an “autonomous state enterprise (Verhoest & Sys, 2006, p. 8)”. In 2000 the legal form was altered into a ‘limited company of public law’ with the possibility of involvement from (private) investors since 2005 (Verhoest & Sys, 2006). This was under the condition that the Belgian state has to maintain more than 50 percent of the shares and these shares would always give the state 75 percent of the shareholder votes of the company (Verhoest & Sys, 2006). Since 2013 Bpost, as the name was changed from DP to Bpost in 2010, the Belgian state owns 51,04 percent of the shares and the rest is left to the ‘free float’ on the exchange. The postal industry in Belgium was fully liberalised in 2011 and its most important legislative piece the Act of 21 March 1991 (BIPT, 2015d; Bpost, 2015b).

The limited company of public law, as a legal form, appears more specific to Belgium. Based on the work of Cornelis, De Keyser, D’Hooge and Vandendriessche in 2000 on the ‘*NV van publiek recht*’, Van Den Berghe (2010, pp. 28-33) explains the legal form is a complicated one with no real clear definition. Without divulging into specificities the typical feature(s) of limited companies of public law, in comparison to those of private law is that laws applying to limited companies of private law only apply when the statutes of the limited company of public law do not specify otherwise (Van den Berghe, 2010, pp. 28-33). Such specifications, which in limited companies of private law commonly go through the general meeting of shareholders (Van den Berghe, 2010, pp. 30-31), for instance include: the appointment of a number of members of the board of directors by the state; the minimum of 75 percent of the shareholder votes, which the government always possesses (Verhoest & Sys, 2006), needed for strategic decisions such as mergers and acquisitions; or the adoption of the yearly financial statement by the appropriate Minister (Bpost N.V., 2013). Hence, as an autonomous state enterprise that enjoys legal independence to some extent based on public law but with transferrable shares, Bpost resembles a SOC/SOE and is categorised a type 3 organisation (Van Thiel, 2012).

In being ‘only’ partially privatised, the majority ownership of the Belgian state would attest a strategic importance from the state as it still retains it (Bpost, 2015b; BIPT, 2014a). However, more

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The Belgium UPS is extensive and encompasses not just single pieces of letter-post but “the clearance, sorting, transport and delivery of letters, periodicals and direct mail up to 2 kg; postal parcels up to 10kg within Belgium and postal parcels coming from other EU member states up to 20kg” legislated through the Act of 21 March 1991 (BIPT, 2015g). Bpost is the current DUSP until 2019 (BIPT, 2015g) as the period is given for a maximum of ten years (WIK-Consult, 2015, p. 17). The DUSP is required to deliver at least five days a week (WIK-Consult, 2015, p. 20) and the USO includes the upkeep of a network that covers each of the 589 municipalities with access to a post-office or service-point (WIK-Consult, 2015, p. 20). If other operators want to provide UPS, which seems a necessary prerequisite as the scope of the UPS is so extensive, they have to obtain a license from the regulator (BIPT, 2015g). However, the scope of the UPS is currently under consideration by the regulator following the WIK-Consult (2015) investigation into the Belgium postal market. One of the outcomes was that the scope is very extensive in comparison to other EU member states for which WIK-Consult (2015) made the recommendation to reduce it to single pieces of letter-post only (BIPT, 2015a, pp. 16-17) as well as reducing the USO in regard to the upkeep of the post-office network (BIPT, 2015a, pp. 38-39).

recently in May 2015, the Belgian cabinet approved a proposal to change the Act of 21 March 1991 regarding the government ownership in ‘listed autonomous state enterprises’ in the postal and telecommunications industries (Belgian Council of Ministers, 2015). The legislative change includes the possibility to reduce the percentage of government ownership to lower than 50 percent plus one share, essentially removing the legal barriers for the full privatisation of Bpost and Proximus (telecommunications industry) (Belgian Council of Ministers, 2015).

Although the Belgian government still retains the majority share in Bpost, the removal of the legal barriers for the possible further privatisation of Bpost in the future does not indicate a clear strategic importance from the state assuming that no control is meant. Therefore, making TCE applicable.

9.1.1 Economic organisational arguments for institutional arrangements

9.1.1.1 Asset specificity

The ownership of all segments of the infrastructure of the postal network resides with the main postal company Bpost, which is also the dominant operator on the Belgian letter-post market in accounting for 99 percent of the total market share based on revenues. The remaining one percent is filled by a relatively new postal operator called TBC-post since 2013 which has been granted the only other license (see textbox) to provide letter-post services in Belgium as part of the UPS (WIK-Consult, 2015; BIPT, 2015a). TBC-post focuses mainly on business letter-post and says it is able to cover up to 85 percent of Belgium for the delivery of registered mail for which it uses its own network to deliver up to people’s homes (BIPT, 2015a, p. 23). Although the postal industry was liberalised since 2011, access to the network of Bpost as the DUSP and dominant operator is not obligated through law nor is the regulator mandated to impose such obligations on Bpost (BIPT, 2015a, pp. 27-28, 66).

The monopoly position of Bpost is also confirmed by the regulator due to the idiosyncratic nature of the infrastructure of the network to the end-user. Although TBC-post has its own network in place, this is not sufficient to cover all of Belgium for which the idiosyncratic nature of Bpost’s network presents an economic barrier, in addition to the abovementioned regulatory barrier, for other operators to enter the Belgian letter-post market. In order to more competitive and live up to its license obligation, according to the regulator, TBC-post would need access to Bpost’s network as constructing a second network would not be lucrative (BIPT, 2015a, pp. 23-24). Herein, the emphasis is on the back-office of the network of Bpost as other competitors such as TBC-post would be able to collect and deliver through their own network albeit on a much smaller scale than Bpost. However, constructing additional back-offices would not be lucrative due to the idiosyncratic nature of the investment. Yet, in order to compete on a similar scale as Bpost, other competitors would need to be able to access the network of Bpost as whole to begin with (WIK-Consult, 2015). The market shares are shown schematically below.

Table 16 Actors and ownership (WIK-Consult, 2015, pp. 2-6; BIPT, 2015a, p. 23)

Postal industry Belgium (ownership/use and market share) on the public interest domain in 2014			
Company	Market share	Ownership	Use
Bpost	99%	Able to collect and distribute five days a week through its own infrastructure with national coverage	
TBC-post	Less than 1%	Has its own network that consists of about a 125 service-points run by third parties in agreement with TBC-post and about 150 letterboxes. Able to distribute to 85% of the country through its own network but focuses mainly on business post	

Consequently, the degree of asset specificity is high regarding both the ownership and use of the postal network of Bpost for the provision of services on the public interest domain. The asset specificity is mostly in regard to the back-office of the network of Bpost, but also in regard to the entire network as it can practically be considered as a whole in not having to allow other operators to access it. Aside from TBC-post, which accounts for less than one percent of the market share, there is no other postal operator granted a license. As of yet, there is no 'real' network to compete with for Bpost, nor is there any competition on the network of Bpost for which it is no obligated by law to do so anyway. Thus, in having a 99 percent market share, Bpost practically retains its 'former' legal monopoly over the Belgian letter-post market (WIK-Consult, 2015, pp. 2-6; BIPT, 2015a, p. 23).

9.1.1.2 *Uncertainty*

The uncertainty in regard to the supply and demand on the network for the provision of services on the public interest domain is indicated by declining (letter) post volumes. Between 2008 and 2012 these volumes have declined by ten percent. As about sixty percent of the revenues generated by Bpost came from letter-post in 2013, this has a significant impact on both Bpost as a company as well as the industry and letter-post market in general. The main reasons for the declining volumes on the postal market are the digitalisation of the industry and the growing use of electronic communications such as e-mail as a substitute for letter-post (WIK-Consult, 2015, pp. 2-7).

In addition, and although the Belgium postal industry has not seen that many legislative changes since its liberalisation (WIK-Consult, 2015, pp. 16-24), the outcomes of the WIK-Consult (2015) research and the response of the regulator (BIPT, 2015a) could indicate incoming uncertainty as a result of the changes necessary in regard to promoting competition on the postal market (see also textbox). Furthermore, the recent removal of the legal barriers for fully privatising Bpost is one that could have a potentially large impact as it could lead to the full privatisation of Bpost as well as lead to new (political) uncertainty in the future (Belgian Council of Ministers, 2015).

The declining (letter) post volumes as a result of the growing use of electronic substitutes indicate a high degree of uncertainty in regard to the supply and the demand of the network. Added by the outcomes of the WIK-Consult (2015) research and the response of the regulator (BIPT, 2015a), the industry could be facing uncertainty in regard to promoting competition as a result of incoming legislative changes as well. Combined, the degree of uncertainty in the Belgian postal industry for the provision of services on the public interest domain is considered high.

9.1.1.3 *Frequency*

The requisites for the provision of services regarding the public interest domain are recorded in the Belgian universal postal service which is legislated through the Act of 21 March 1991. The designation of the USP is done by the regulator through an open mechanism for a 10-year period (BIPT, 2015). Bpost is the current DUSP at least until 2019 (BIPT, 2015) through a management contract between the state and Bpost (WIK-Consult, 2015, p. 17). The long period of 10 years in itself indicates changes to the Belgian universal service provision likely do not occur often as it would otherwise be unlikely to enter into a contract for such a long time.

Although the scope of the Belgian universal postal service is currently under consideration by the regulator following the WIK-Consult (2015), there have been no alterations to the requisites over the

last five years (BIPT, 2015g). Possible upcoming alterations could include the, already mentioned in the textbox, reducing of the scope to single pieces of letter-post only (BIPT, 2015a, pp. 16-17) and the reducing of the number of post-offices the DUSP has to maintain (BIPT, 2015a, pp. 38-39).

Both the 10-year period for which the concession is given to the designated universal service provider as well as the absence of changes having occurred to the requisites of the universal service over the last five years attest a general low frequency in the Belgian postal industry at current.

9.1.2 Country-specific arguments for institutional arrangements

9.1.2.1 *State and civil society*

The Belgian state has a majority share of 51,04 percent in Bpost, that according to the statutes of Bpost always has to be higher than 50 percent (Bpost N.V., 2013, p. 9). Classified a type 3 organisation, but under public law in which the government has the majority share but not 75 percent of the share, the degree of centralisation is medium and resembles the Germanic state-administrative tradition (Bpost, 2015c).

9.1.2.2 *Legal tradition*

Within the Act of 21 March 1991 there are both 1) laws directed at the service level (regulatory) and 2) laws directed at the level of governance structures (arrangements). An example of the first is the delivery frequency saying the DUSP has to deliver letter-post at least once a day five days a week according to Article 142 of the Act. A clear example of the second is the requirement for the DUSP to keep up a delivery network that covers each of the 589 municipalities in Belgium with access to a post-office or service-point according to Article 141a of the Act.

As both types of (public) law are present, the instruments of the government are both regulatory in nature as well as in having the possibility to prescribe organisational arrangements. Accordingly, the postal industry in Belgium resembles that of the Napoleonic state-administrative legal tradition as both type of laws are present.

9.1.2.3 *Civil services*

The state and/or administrative tradition for civil services is measured by looking at the appointment of (former) politicians and/or civil servants in the top management of the two tier board of the main postal company in Belgium: Bpost. During the period of 2005-2014 the board of directors consisted out of 12 members in 2014 (Bpost N.V., 2014) and of 11 members in 2010 and 2005 (Bpost N.V., 2005, 2010). As Bpost is still for its majority share owned by the Belgian state, half of the members of the board of directors including the CEO are also appointed by the state (Bpost N.V., 2005, 2010). In 2014, six members were appointed by the state as the board of directors consisted of an even number (Bpost N.V., 2014). The appointed members of the board of directors by the Belgian state can only be discharged by the Belgian state whereas other members can be discharged through a majority of votes from the shareholders (Bpost N.V., 2013). As the annual reports of Bpost do not contain any descriptions of the members of the board of directors and their career paths, a Google-search was conducted into the profile of each member. The search yielded mostly long career paths at Bpost or at other government companies such as the railway company NMBS for the members of

the board of directors appointed by the state. Those members not appointed by the state hail almost exclusively from the business sector.

During the same period the supervisory board consisted out of four members of which half (two) members are appointed by the Belgian court of audit which are also, high ranking, employees of the court of audit (Bpost N.V., 2005-2014). In addition, there is also a government commissioner appointed by the Belgian government that watches over the compliance of Belgian laws, the statutes and the management contract between the Belgian state and Bpost that contains the obligations for the universal postal service. The government commissioner reports directly to the concerning minister (Bpost, 2015a).

As at least half of the board of directors, including the CEO, as well as the board of supervisors are appointed by the Belgian state based on its majority share there is a high degree of politicised upper management present in the Belgian postal industry. Added with the mostly government based career paths of those members of the board of directors and the presence of a government commissioner, the civil services tradition resembles the Napoleonic state-administrative tradition of a politicised top management.

9.1.2.4 General policy style

Although during the process of liberalising the Belgian postal industry DP (now Bpost) was granted more autonomy from the state (Verhoest & Sys, 2006, p. 10), the government still holds the majority of the shares today (Bpost, 2015c). In addition, in liberalising its postal industry the government followed European guidelines to the letter and no faster, with Belgium liberalising its postal industry at the latest time possible following the third EU postal directive as well having delayed the liberalisation several times before that (EC, 2015b; Verhoest & Sys, 2006, p. 2).

The, what is seems, reluctance from the government to liberalise the postal industry as well as the partial privatisation of Bpost attest a high degree of involvement by the state. This resembles the Napoleonic state-administrative tradition of high involvement in being strongly directed by the state.

9.2 Telecommunications industry

Similar to the postal industry, the telecommunications industry in Belgium was originally organised as a legal monopoly granted to the *Regie voor Telegraaf en Telefoon* (RTT) which was fully owned by the central government and fell under its direct supervision. In 1991 the name was changed to Belgacom and its governance structure to an “autonomous state agency (Vanhoucke, 2007, p. 130)”, resembling a type 2 organisation (Van Thiel, 2012). Prior to the postal industry Belgacom was altered into a limited company of public law in 1994, explained in the previous chapter, with the possibility of involvement from (private) investors through partial privatisation of 50 percent of the shares minus one (Vanhoucke, 2007; Proximus Group, 2015a). As of June 22nd 2015 Belgacom changed its name to Proximus, the name of its former mobile phone subsidiary, in which the government nowadays holds 53,51 percent of the shares (Proximus Group, 2015a). The Belgian telecommunications industry was liberalised in 1998 following European guidelines (Vanhoucke, 2007) and its most important legislative piece the Act of 13 June 2005.

The same as in the Belgian postal industry, the legal barriers for the full privatisation of Proximus were also removed on the 8th of May 2015 through changing the Act of 21 March 1991 (Belgian Council of Ministers, 2015). Therefore, the state does neither indicate a clear strategic importance in the telecommunications industry assuming that no control is meant in Proximus. Hence, making TCE applicable.

9.2.1 Economic organisational arguments for institutional arrangements

9.2.1.1 Asset specificity

The ownership of the infrastructure of the telecommunications network in Belgium resides with the main telecommunications company Proximus (Proximus Group, 2015a). The competition on the Belgian telecommunications market is mostly between networks. Hereof, the copper and cable networks as good as cover the entirety of Belgium’s households (BIPT, 2013). The copper network is owned by Proximus whereas Telenet owns all of the cable network in Flanders and some in Wallonia (Van der Wee, Verbrugge, & Lemstra, 2012). VOO and Numericable, two other cable operators, also have their own cable networks and cover the remainder of Wallonia but are much smaller than Telenet. Although the coverage of cable networks in Belgium is not entirely owned by a single party, as good as every household in Belgium has access to both copper and cable fixed-network connections. As the vast majority of the connections through the cable in Belgium are handled by Telenet, being about 77 percent based on the market revenues (BIPT, 2014b; Broadband TV News,

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The Belgian UTS is legislated through the Act of 13 June 2005 Title 4 Chapter 1 and is supervised by the regulator (BIPT, 2014c, p. 3). Until the 1st of August 2013 Proximus, then Belgacom, was the DUSP (BIPT, 2014c, p. 3). However, during 2012 and 2013 a series of reforms took place regarding the USOs of the DUSP (BIPT, 2014c, p. 3). Some of the general USOs were lifted such as having to provide for public payphones and telephone directories (BIPT, 2014c, p. 3). The provision of such services are divided into two aspects in Belgium called the ‘social element’ and the ‘geographical component’ (BIPT, 2014c, p. 3). The social element applies to all telecommunication operators that have a revenue of 50 million euro or higher (BIPT, 2014c, p. 3), which for instance includes special tariffs for specific groups elaborated in the Act of 13 June 2005 (BIPT, 2015f). The geographical component following the Act of June 2005 Articles 70 for instance include the obligation to connect each household to the network regardless of the location. For the provision of the geographical component a DUSP (previously Belgacom) is selected through an open mechanism, following the Act of June 2005 Articles 71, but on the 5th of November 2014 there was no DUSP selected (BIPT, 2014c, p. 15) with no indications at present, November 7th 2015, that this has changed for reasons not specified by the regulator (BIPT, 2015h).

2015), it is considered the main provider of telecommunications services in Belgium through the cable (DigiWorld Institute, 2013). The increasing demand for faster internet services has led Proximus to also invest in a fibreglass network in order to remain competitive with cable operators such as Telenet, as the available bandwidths through the cable are higher than through copper networks (Van der Wee, Verbrugge, & Lemstra, 2012, pp. 18-19). Furthermore, as the telecommunications market has been liberalised following European guidelines, the historical operator Proximus is obligated to interconnect other operators by allowing them to use its infrastructures to the end-user (Van der Wee, Verbrugge, & Lemstra, 2012). Recently, the Court of Brussel decided cable operators such as Telenet are required to do the same to other operators, including Proximus, according to the Belgian newspaper *De Standaard* (De Standaard, 2014).

The competition between networks is also shown in the market shares based on the revenues for the last quarter of 2014. Herein, Proximus (38,5%) and Telenet (40,5%) are the biggest players on the telecommunications market. Combined, VOO and Numericable made up for about 12 percent of the market share with Mobistar accounting for about 1 percent in 2014. The rest of the market is handled by OLOs (8%) (BIPT, 2014b, p. 11; Broadband TV News, 2015). In 2014 there were three mobile network operators which include Proximus (40,2%), KPN Group Belgium NV (23%) and Mobistar NV (23,1%) based on their market shares in the number of active SIM cards. The rest of the mobile market (13,7%) is handled by mobile virtual network operators (MVNO), which use the network of one of the mobile network operators for the provision of services as they do not own a license themselves (BIPT, 2014b). The market shares are shown schematically below and again do not include mobile market shares for reasons explained in the previous chapters.

Table 17 Actors and ownership (BIPT, 2014b, p. 11; Broadband TV News, 2015; DigiWorld Institute, 2013, pp. 15-21)

Telecommunications industry Belgium (ownership/use and market share) on the public interest domain in 2014						
Market share						
Company	Market share based on revenues					
Proximus	38,5%					
Telenet	40,5%					
VOO and Numericable	12%					
Mobistar	1%					
OLOs*	8%					
Ownership and use of the network						
Ownership	Copper		Cable		Fibreglass	
	Use	Ownership	Use	Ownership	Use	
Proximus	Proximus	Telenet	Telenet	Proximus	Proximus	
	Mobistar	VOO	VOO		Mobistar	
	OLOs	Numericable	Numericable		OLOs	

* Other Licensed Operators (OLOs) that use the network of other operators

Consequently, the degree of asset specificity is medium regarding the ownership of the telecommunications network of Proximus as there are two networks, those of Proximus and Telenet, for the provision of services on the public interest domain. Although the network of Telenet does not have national coverage on its own, as good as every household in Belgium has access to both copper and cable connections with the vast majority being handled by Telenet. Furthermore, there is also a more or less level playing field between owners of different types of networks as cable operators must also allow other operators to use their networks. However, the degree of asset specificity regarding the use of the network of Proximus is high as there is hardly any competition on

the network other than a small percentage of OLOs (8%). Therefore, Proximus and Telenet dominate the Belgian Telecommunications market through a practical duopoly (BIPT, 2014b, p. 11; Broadband TV News, 2015; DigiWorld Institute, 2013, pp. 15-21). The mobile networks, as competitors for fixed networks, are not yet considered up to par to compete on the same market in addition to not having the same degree of national coverage as the copper and cable networks do for the provision of services (BIPT, 2013, p. 25). Nor is there a possible 'third' fibreglass network present in Belgium as Proximus, in already owning the copper telephone network, is constructing the fibreglass infrastructures to the end-user (Van der Wee, Verbrugge, & Lemstra, 2012, pp. 18-19).

9.2.1.2 *Uncertainty*

The uncertainty in regard to the supply and of the telecommunications network of Proximus is tied to the industry rapidly (technologically) developing. The industry shows a decrease of revenues of minus 3,3 percent compared to the year before although there was also a high amount of investment made in upgrading telecommunications infrastructures in 2014 (BIPT, 2015e, p. 1). The investments are mostly concerning the expansion of the mobile network to upgrade the speed and capacity from 3G to 4G in addition to increasing speeds of fixed (internet) connections (BIPT, 2015e, p. 1).

The number of legislative changes over the past five years in the industry is quite substantial looking at the 'basic legislation' on the website of the regulator (BIPT, 2015c). These for instance include three legislative changes made to the main legislative piece the Act of 13 June 2015 twice in 2012 and once in 2013 as well as other acts (BIPT, 2015c). Added with the reforms to the universal service during 2012 and 2013, the amount of legislative changes in the industry can be considered as high. However, these legislative changes could be considered a result of the industry still catching up to other (EU) countries which, in turn, could mean future legislative changes are to be expected to a lesser extent if the situation stabilises (BIPT, 2014c).

The declining revenues, upcoming competition from mobile networks and the substantial amount of legislative changes indicate a high degree of uncertainty in the industry. However, the high amount of investments as well as the idea that the industry might be catching up lessen the high amount of uncertainty. Therefore, the uncertainty in the Belgian telecommunications industry is most certainly present but, at least for the moment, considered medium.

9.2.1.3 *Frequency*

The requisites for safeguarding the provision of services on the public interest domain are recorded in the UTS which is legislated through the Act of 13 June 2005 Title 4 Chapter 1. Partly discussed in the textbox, in 2014 there was no DUSP according to the regulator for which it does not give a reason why (BIPT, 2014c, p. 15). As of 2015, there are no indications of a DUSP according to the website of the regulator (BIPT, 2015h). Nor does the Act of 13 June 2005 specify the current DUSP or the period of time the universal service provider is designated other than it should be specified in 'full calendar years' and that the DUSP is selected through an 'open mechanism' in Article 71 of the Act of 13 June 2005. Until the 1st of August 2013 the DUSP had always been Proximus with no changes made to the DUSP before that time (BIPT, 2014d, p. 3).

Based on the evaluations of the regulator between 2007 and 2014, the requisites for the UTS have hardly changed during this period aside from the reforms during 2012 and 2013 (see textbox) (BIPT, 2009; BIPT, 2011; BIPT, 2014c). The reforms mostly concerned the removal of USO such as regarding the upkeep of public pay phones and telephone directories for which the need to use these services has rapidly declined over recent years and no longer concerns the public interest (BIPT, 2014c).

Although the frequency of changes made to the UTS has recently gone up a bit, the changes were of little impact as the use of the services was already declining (BIPT, 2014c). Therefore the frequency of changes made to the UTS is considered as low. As there is no information available on how long the DUSP is usually assigned in the Act of 13 June 2005, this aspect is disregarded for the frequency of changes made to the UTS.

9.2.2 Country-specific arguments for institutional arrangements

9.2.2.1 *State and civil society*

The Belgian state has a majority share of 53,51 percent in Proximus, that according to the statutes of Proximus must always be high than 50 percent (Proximus N.V., 2015, p. 7). Classified a type 3 organisation, but under public law in which the government has the majority share, the degree of decentralisation resembles the Germanic state-administrative tradition as the percentage of shares is not more than 75 percent (Proximus Group, 2015b).

9.2.2.2 *Legal tradition*

Within the Act of 13 June 2005 there are 1) laws directed at the service level regarding the public interest such as the USO to connect each household to the network regardless of the location according to Article 70 of the Act. The provisions do not include 2) laws directed at the level of governance structures as these are left to the market with the industry being fully liberalised (BIPT, 2015b). Therefore, the Belgian telecommunications industry appears more attuned to European legislation than the postal industry with no type 2 laws present in the Act of 13 June 2005. However, the legal form of Proximus as a limited company under public law suggests the Belgian state had to comply to European legislation but in terms of governance still retains most of its influence (Van den Berghe, 2010; Proximus N.V., 2015).

Despite the lack of type 2 (public) laws, the legal form of Proximus as a limited company under public law indicates the Belgian state still has a strong legal grip on the Belgian telecommunications industry. Therefore, the telecommunications industry is considered to resemble the Napoleonic state-administrative legal tradition.

9.2.2.3 *Civil services*

The state and/or administrative tradition for civil services is measured by looking at the appointment of (former) politicians and/or civil servants in the top management of the two tier board of the main telecommunications company in Belgium: Proximus. The board of directors can consist out of a maximum of sixteen members of which the Belgian state appoints half of the members, including the CEO (Proximus N.V., 2015, pp. 8-14). The other half of the board of directors is appointed by the board of directors themselves through the general meeting of shareholders (Proximus N.V., 2015, pp. 8-14). The appointed members of the board of directors by the Belgian state can only be

discharged by the Belgian state whereas other members can be discharged through a majority of votes from the general meeting (Proximus N.V., 2015, pp. 8-14). The same as the annual reports of Bpost, the annual reports of Proximus between 2005 and 2014 neither contain any descriptions of the members of the board of directors and their career paths (Belgacom N.V., 2005-2014). For that reason, a Google research was conducted into the profile of each member. Again, similar to Bpost the results of the search yielded mostly long career paths at Proximus or other government companies for about half the members of the board of directors appointed by the state. Some also had former career paths as politicians. Those members not appointed by state in some cases also had former career paths as a politicians or civil servant but foremost hailed from the business sector.

The supervisory board of Proximus consists out of at least four members, which was always the case during 2005-2014 (Belgacom N.V., 2005-2014), of which two members are always appointed by the Belgian court of audit (Proximus N.V., 2015, pp. 15-16). In addition, there is also a government commissioner appointed directly by the concerning ministry to watch over compliance of Belgian laws, the statutes and the management contract for which he directly reports to concerning minister (Proximus N.V., 2015, pp. 14-15).

As at least half of the board of directors, including the CEO, and the board of supervisors are appointed directly by the Belgian state, the degree of government involvement in the appointment of the upper management of Proximus can be considered as high. Added with almost half of the board of directors having a career as a (former) politicians and/or civil servant, including the CEO, the civil services in the Belgian telecommunications industry bears a strong resemblance towards the Napoleonic state-administrative tradition.

9.2.2.4 General policy style

The process of liberalising the Belgian telecommunications industry was no different from the postal industry in following European guidelines almost to the letter (Vanhoucke, 2007, p. 131). The partial privatisation of Belgacom, which today is still owned for its majority shares by the Belgian state (Proximus Group, 2015b), can be considered to be more out of necessity in response to the need to liberalise instigated by the EU (Vanhoucke, 2007, p. 133). Only the recent removal of the legal barriers for full privatisation of Proximus shows differently (Belgian Council of Ministers, 2015).

Although it has been almost twenty years since the partial privatisation, and a little bit less time in regard to the liberalisation, the Belgian government has retained a fairly high degree of involvement in the industry to this day. Therefore, the general policy style in the Belgian telecommunications industry resembles the Napoleonic state-administrative tradition of high involvement by the state.

9.3 Sub conclusion

This chapter analysed both the economic organisational and country-specific arguments for institutional arrangements in the postal and telecommunications industries in Belgium. The preliminary conclusions of these findings on both perspectives are mentioned here and summarised schematically below.

Table 18 Summary of the outcomes of both theoretical concepts

Belgium				
	Post		Telecommunications	
Economic organisational arguments for institutional arrangements				
	<i>Ownership</i>	<i>Use</i>	<i>Ownership</i>	<i>Use</i>
Asset specificity	High	High	Medium	High
Uncertainty	High		Medium	
Frequency	Low		Low	
Country-specific arguments for institutional arrangements				
State and civil society	Germanic		Germanic	
Legal tradition	Napoleonic		Napoleonic	
Civil services	Napoleonic		Napoleonic	
General policy style	Napoleonic		Napoleonic	

The economic organisational arguments for institutional arrangements were assessed following the three characteristics of TCE. Regarding the Belgium postal industry and the network owned by Bpost, the ownership as well as the use of the network attested a high degree of asset specificity. Although a second network owned by TBC-post is present, 99 percent of the market is covered by Bpost meaning it is almost entirely responsible for the delivery of all letter-post in Belgium. The amount of uncertainty in the Belgian postal industry was also considered high due to declining letter-post volumes. Due to few adaptation made to the UPS as well as the long period for giving the management contract to Bpost, the frequency was considered low. Notwithstanding the low frequency, alternative institutional arrangements should be considered for the Belgian postal industry as overall transaction costs regarding the provision of services on the public interest domain are fairly high.

Different from the postal industry, the telecommunications industry and the network owned by Proximus show a medium asset degree of specificity for the ownership of the network and a high degree of asset specificity regarding the use of the network. The first is mainly due to there being another network, owned by Telenet, which is also able to cover almost the entire country. The second, the use of Proximus' network was found very asset specific as almost all competition comes from the two owners of the networks, Proximus and Telenet, which would attest ownership is needed in order to compete. The amount of uncertainty in the Belgian telecommunications industry was considered medium as the supply and demand did not indicate uncertainty but the high amount of legislative changes did. As this could change in the future, possibly due to the high amount of legislative changes in the industry, the amount of uncertainty was considered as medium. Similar to the postal industry in Belgium the frequency was also considered low for similar reasons. Altogether, alternative institutional arrangements could be considered for the Belgian telecommunications industry as overall transaction costs regarding the provision of services on the public interest domain would be somewhere in between medium and high. Furthermore, Belgium has created more of a level playing field between

fixed-connection networks by obliging cable network owners to also open up their network(s) to OLOs.

The country-specific arguments for institutional arrangements were assessed by looking at the variables of state-administrative tradition theory and yielded similar results between the postal and telecommunications industries. As within both industries the state still owns the majority of the shares in both historical operators, the state and civil society variable was the same in being Germanic. Here, the Germanic state-administrative tradition for the civil services variable did not serve as a herald for the other variables. Although the legal tradition in the telecommunications industry appeared somewhat further ahead than the postal industry, in being more attuned to EU legislation, the state still holds a strong legal grip over the Belgian postal as well as the telecommunications industry. The same as the legal tradition, the civil services and general policy style variables were also considered Napoleonic even though the degree of decentralisation fitted the Germanic tradition. Concluding, the postal and telecommunications industries in Belgium mostly resembled the belonging Napoleonic state-administrative tradition.

10 Comparisons and conclusions

This study proposed to give insights into what governance structures are in place in network industries in different countries and how these can be explained. Therefore, the main research goal was twofold as this study 1) sought to explain why the country-specific governance structures are similar or different from one another, and 2) how these differences and similarities can be explained from a neo-institutional perspective and through country patterns of governance in network industries in different countries. Hence, this study aimed to answer the following research question:

How can the differences and similarities in country-specific governance structures in network industries be explained from the neo-institutional economics theory and state-administrative traditions theory?

To that end, the focus was on the postal and telecommunications industries in the Netherlands, the UK and Belgium. In following European guidelines both industries in each country have been liberalised. Within each country both industries originated from one single-state unit for the provision of services, possibly differing from other network industries which might have been organised differently before processes of liberalisation. Although sharing a common (EU) regulatory framework, governance structures are not necessarily similar in both industries.

The categorisation of public-sector organisations by Van Thiel (2012) was adopted as a typology for the possible governance structures for providing public services. Based on this categorisation, the likely governance structure found in network industries would be a type 3 organisation provided the respective network industry has not been privatised. Due to (partial) privatisations, only the Belgian industries could be categorised as a type 3 organisation.

Consisting out of two parts, the first part of the theoretical framework elaborated on the neo-institutional economics theory whereas the second part elaborated on state-administrative traditions theory. First, within the neo-institutional economics, the focus was on TCE as it emphasises economic organisational arguments for governance (structures) by using transactions as the main unit of analysis. Determinative for the level of transaction costs are the degree of asset specificity, the amount of uncertainty and the frequency of the transaction. If the three characteristics are high in regard to the ownership and use of the network for the provision of public services on the public interest domain, transaction costs are high. Alternative institutional arrangements through cooperation are preferred such as the hierarchical (government) organisation. If transaction costs are low, the transaction can be left to the market to deal with through competition. The perceived 'make' (cooperation) or 'buy' (competition) decision for governance structures in network industries is most dependent on the asset specificity of the network for the transaction, followed by the uncertainty and frequency although there are many (hybrid) forms of governance structures in between.

Second, state-administrative tradition theory was used to elaborate on country patterns of governance and how these provide arguments that explain varieties in governance structures in network industries in different countries. Based on state-administrative tradition theory four key

dimensions were distinguished: the ‘state and civil society’, the ‘legal tradition’, the ‘civil services’ and the ‘general policy style’. These were elaborated for the Netherlands (Germanic), the UK (Anglo-Saxon) and Belgium (Napoleonic) to explain how the state deals with matters of governance based on the model of the state.

The variables from both theoretical concepts, the three characteristics of TCE and the four key dimensions of state-administrative traditions theory, were operationalised. For each variable, the indicators were presented schematically as measurable units for what to look in the ‘real world’. Hereof, the main findings are given schematically below and are discussed next. Within both industries, the focus was on the provision of services to the end-user on the public interest domain. In the postal industry, the public interest domain compromised the provision of both private and business letter-post. In the telecommunications industry, the public interest domain enveloped the fixed-line network of the historical operator and the impact other networks have on this network.

Table 19 Summary of outcomes of both theoretical concepts in each country

	The Netherlands				The United Kingdom				Belgium			
	Post		Telecom		Post		Telecom		Post		Telecom	
Economic organisational arguments for institutional arrangements												
	Ownership	Use	Ownership	Use	Ownership	use	Ownership	Use	Ownership	Use	Ownership	Use
Asset specificity	High	High	Medium	High	High	High	High	Medium	High	High	Medium	High
Uncertainty	High		Medium		High		Medium to high		High		Medium	
Frequency	Low		Low		low		low		Low		Low	
Country-specific arguments for institutional arrangements												
State and civil society	Anglo-Saxon		Anglo-Saxon		Anglo-Saxon		Anglo-Saxon		Germanic		Germanic	
Legal tradition	Anglo-Saxon		Anglo-Saxon		Anglo-Saxon		Anglo-Saxon		Napoleonic		Napoleonic	
Civil services	Anglo-Saxon		Anglo-Saxon		Anglo-Saxon		Anglo-Saxon		Napoleonic		Napoleonic	
General policy style	Anglo-Saxon		Anglo-Saxon		Anglo-Saxon		Anglo-Saxon		Napoleonic		Napoleonic	

10.1 Comparison of economic organisational arguments

10.1.1 Postal industries

Comparing the economic organisational arguments for institutional arrangements for the postal industries, all three countries yielded mostly similar outcomes concerning the provision of services on the public interest domain. The high degree of asset specificity was mainly in regard to the postal network which predominantly concerned the back-offices, the sorting centres, of the postal network in each country. These specifically were found to be idiosyncratic investments as it is not lucrative to build additional back-offices next to the already existing ones. In turn, the high asset specificity of the back-offices also affects the rest of the postal network. The latter includes the front-offices, being the delivery points such as post-offices or general post service-points, and the collection and distribution centres such as letterboxes and postmen. These are not idiosyncratic on themselves as they can be replaced, replicated and re-used by other parties in not having a strong physical nature as opposed to telecommunications networks. In retaining the ownership over the post-offices in the UK, it appears the British government has therefore not retained the ‘crucial’ part of the postal network for the delivery of letter-post services as the front-offices were not found idiosyncratic investments. Institutional requirements to the infrastructure of the postal network, including but not

specific to the asset specific back-offices, were only found in Belgium. However, even without these requirements, the asset specificity would be considered high.

Overall, the ownership of the main postal network in each country resides with the historical operator. With no real competition aside from some small companies sometimes possessing their own small networks, such as Sandd in the Netherlands and TBC-post in Belgium, the degree of asset specificity was found high regarding the ownership as well as the use of the network based on the letter-post market shares of the historical operators. In each country, the historical operator dominates the letter-post market with no real competition between networks. Nor is there any real competition on the network of the historical operator except for in the UK but even there almost all letter-post revenues go to the historical operator RM. Therefore, the high degree of asset specificity of the postal networks is essentially due to practically only one network, that of the historical operator, being available for the provision of services on the public interest domain.

The large amount of uncertainty in regard to the market was mainly the result of plummeting (business) letter-post volumes. In addition, the political uncertainty was also found high in the postal industries in each country. Although these are no absolute indicators of uncertainty as the situation could stabilise afterwards, the postal industries are more likely to be susceptible to forced reorganisations from outside than the telecommunications industries in which 'only' an overall medium degree of uncertainty was found. Furthermore, in comparison to the telecommunications industries, competition has not emerged between nor on the network(s) in the postal industries which could lead to the EU getting involved. In turn, this could result in forced reorganisations such. Notwithstanding the common low frequency in each country, as the requisites for the provision of services on the public domain rarely changed, the overall transaction costs in the postal industries are considered fairly high. More specifically, the emphasis on the asset specificity of the postal network and mainly the back-offices is what counts the most.

Concluding, the postal industries in the Netherlands and the UK have been (fully) privatised which, from a TCE point of view, would be less economically efficient and, therefore, does not explain the actual governance structures in place as the industries are left to the market to deal with. More specifically, it was found that the asset specificity of the postal networks for the provision of letter-post services in each country is particularly in regard to the back-offices and to some extent in the impact hereof on the other two components of the postal network. Considering these findings, the back-offices should be integrated by making them accessible for all parties on the letter-post market, or other providers of services on the public interest domain, as it is not lucrative for them to build their own back-offices. Possible alternative institutional arrangements in organising the back-offices as part of the network more 'hierarchically', or rather to make them more integrated, are to manage them directly by the government or to regulate the accessibility through the regulator. Although these are mere speculations for which further research would need to be done as elaborated in the next sections, the governance structure in the postal industry in Belgium can be explained to a greater extent from a TCE perspective. In being 'only' partially privatised, as the historical operator Bpost is owned by the state for the majority share, the postal network including the back-offices in Belgium are somewhat more organised towards a hierarchical government organisation than in the Netherlands and the UK. As to the question why Belgium does have specific institutional requirements to its postal network, whereas the Netherlands and the UK do not,

remains unanswered by arguments from TCE as the postal industry in each country yielded almost the same outcomes. What does seem apparent is the lack of a level playing field in the postal industries in all three countries as not all parties have access to the postal network for the provision of letter-post services as the back-offices are retained by the historical operators.

10.1.2 Telecommunications industries

Comparing the economic organisational arguments for institutional arrangements for the telecommunications industries, the outcomes yielded slightly different outcomes concerning the provision of services on the public interest domain. Although the telecommunications industry in each country shows a medium to high degree of asset specificity regarding the network, there are variations between countries. In any case, it should be emphasised that the network in the telecommunications industry cannot be separated as opposed to the network in the postal industry. The telecommunications network as a whole is needed for the provision of services on the public interest domain to the end-user. In that way, telecommunications networks were found to be idiosyncratic as it is not lucrative to build additional separate networks. The idiosyncratic nature of telecommunications networks is confirmed by the notion that the ownership presents the owner with economies of scale as shown by the high market shares of network owners in each country.

To begin with, and on the one hand, the presence of two networks (copper and cable) in the Netherlands and Belgium for the provision of services on the public interest domain having a national coverage is what sets them apart from the postal industries and also the UK in regard to the degree of asset specificity of the ownership of the network. Therefore, competition between networks mainly exists in the Netherlands and Belgium as opposed to the UK. Here, a noteworthy difference between the Netherlands and Belgium is that Belgium has required cable operators to also open their network to other operators in the same manner. In doing so, Belgium has created a more level playing field between the owners of networks for the provision of services on the public interest domain. The Netherlands have not, which means the only operator having to open up its network to other operators in the Netherlands is that of the historical operator KPN.

On the other hand, and likely related to the aforementioned as to the reason why the network of the cable operator was also opened up to other operators, the presence of two networks showed the use of the network to be more asset specific as the market is dominated by the two owners of the networks in the Netherlands as well as in Belgium. In the UK the situation was found the other way around as the presence of just one network indicated a high degree of asset specificity regarding the ownership of the network. However, the use of the network owned by the historical operator BT was found less asset specific as ownership of the network is not required in order to compete as is the case in the Netherlands and Belgium based on the high market share of OLOs using the network of BT in the UK. Therefore, the telecommunications network in the UK can be considered more integrated as OLOs have access to the network of the historical operator through which they are able to compete on the market. Although the historical operators in the Netherlands and Belgium are required to allow OLOs to use their network as well, with Belgium also requiring cable operators to do so, competition on the network(s) is hardly the case whereas OLOs in the UK make plentiful use of the network of BT in the UK.

Overall, one could say that in the Netherlands and Belgium there is mainly competition between networks whereas in the UK there is mainly competition on the network based on the market shares in the telecommunications industries in each country. This is different from the postal industries in which there almost no competition and the historical operator often still retains a practical monopoly. Consequently, the degree of asset specificity in the telecommunications industry was overall considered medium to high in all three countries but differing between the degree of asset specificity regarding the ownership and use of the network.

The low amount of market uncertainty and high political uncertainty was also different from the postal industries and resulted in a general amount of medium uncertainty in the telecommunications industries in each country. Hence, the susceptibility for outside forced reorganisations appears less than in the postal industries. Yet, technological developments such as competition from mobile networks for the fixed networks could increase and eventually result in forced reorganisations. However, as of now, mobile network are not (yet) up to par with fixed networks in each country. Again, it should be noted that these are no absolute indicators of uncertainty as the situation could stabilise which can also be true for the political uncertainty.

The same as in the postal industries, the frequency for the telecommunications industries was found low based on the requisites for the provision of services on the public interest domain to hardly ever change. Combining all three characteristics, the transaction costs for the telecommunications industries in all three countries would end up being somewhere in between medium and high. Within this, the emphasis is on the degree of asset specificity as in each country the network proved idiosyncratic as it is not lucrative to additional separate networks.

Concluding, the telecommunications industries in the Netherlands and the UK have been (fully) privatised which, from a TCE point of view, would be less economically efficient and, therefore, do not explain the actual governance structure in place. The governance structure in Belgium can be more explained from a TCE point of view as the only partially privatised historical operator, to some extent, is more organised towards a hierarchical government organisation. However, and although the arguments differed for the degree of asset specificity, the outcomes from TCE based on the aforementioned were the same for each country. Albeit to a lesser extent than in the postal industries, it could be preferred to organise the telecommunications industry in each country in a (more) integrated manner by making the network(s) (more) accessible to all parties through cooperation in a hierarchical (government) organisation. More specifically, the dependency on what is mainly only one network in the UK would make it interesting to organise the network in a more integrated manner to ensure the provision of services on the public interest domain. The market dominance of two networks in the Netherlands and Belgium would make it interesting to organise the network(s) in a more integrated manner as this would promote competition and create less of a dependency on the owners of the network(s) for the provision of service on the public interest domain. Whereas Belgium has created a more level playing field between operators by opening up the television cable network, this could also be an option for the Netherlands. As to the question why competition on the network has emerged in the UK, as opposed to mainly between networks in the Netherlands and Belgium whilst having similar (EU) regulations in place regarding the accessibility of the network, remains unanswered by arguments from TCE.

10.2 Comparison of country-specific arguments

Comparing the country-specific arguments for institutional arrangements for governance structures in both the postal and telecommunications industries, the outcomes for each of the four key dimensions proved the same for each industry within each country. First, the UK matches its belonging Anglo-Saxon state-administrative perfectly. As a result of the privatisations, the degree of centralisation of the British state in both industries and the historical operators was found low, attesting the minimalistic role of the state and the contractual basis for governance structures in the Anglo-Saxon tradition. The lack of laws directed directly at the level of governance structures also confirmed the Anglo-Saxon legal tradition of not emphasising public law. Also, the low amount of former politicians and/or top civil servants in the top management of both RM and BT proved the top management to not be politicised. Attested again by the Anglo-Saxon general policy style, in which the state takes up a 'reserved' position regarding changes in governance structures, the actual governance structures in place in the postal and telecommunications industries can be explained to the fullest in fitting the belonging Anglo-Saxon state-administrative tradition.

Second, almost the same can also be said for both industries in Belgium, which almost perfectly fit the belonging Napoleonic state-administrative tradition. Although the Belgian state 'only' holds the majority share in its main postal and telecommunications companies Bpost and Proximus, which indicates the Germanic state-administrative tradition, the three variables pointed towards the Napoleonic tradition. In also resembling the Napoleonic legal tradition of emphasising both types of laws by using public law as an instrument for intervening and regulating, state-administrative tradition theory does present explanatory arguments as to why Belgium does have institutional requirements to its networks in place whereas the Netherlands and the UK do not in belonging to different traditions. In being partially privatised, both industries in Belgium also proved politicised as the state is directly involved with at least half of the appointments of the top management which included half of the supervisory board as well. Changes to governance structures in both industries also showed a high degree of state involvement in being strongly directed by the state, attesting the general policy style of the Napoleonic tradition. Furthermore, the overall high degree of involvement by the state could also be understood as explanatory for Belgium being the only country out the three countries analysed that 'manages' both industries and the networks somewhat more as a hierarchical government organisation.

Third and last, it appears that the Netherlands is the only exception to the rule as it seems to have shifted from its belonging Germanic tradition to the Anglo-Saxon tradition. However, it could also be said that the lessened amount of state involvement in the Netherlands is the result of privatising both industries which in way implicates less involvement from the state anyway. On a more general note, one might even say that privatisation of network industries is strongly linked to the Anglo-Saxon tradition to begin with. It can, therefore, be said that state-administrative tradition theory does provide us with some arguments for explaining the actual governance structures in place and why they are similar in the UK and the Netherlands and why they differ in the Belgium.

10.3 Conclusions

Arguments from the neo-institutional economics following TCE do not explain the differences and similarities in governance structures between countries for the postal industries. As all results were the same but the governance structures differed between the Netherlands and the UK respectively, in having fully privatised their industries, and Belgium having only partially privatised its industry, TCE only partially explains the governance structure in the postal industry in Belgium but not the difference with the other two. The same can be said for the difference between the telecommunications industries albeit to a lesser extent.

Although TCE proved little explanatory for this study in explaining differences and similarities in governance structures, state-administrative tradition theory did prove more explanatory. As the UK and Belgium fitted their belonging traditions this explains the differences in governance structures between them in being mostly due to how the state deals with matters of governance based on the model of the state. Also, it explains why the governance structures of the Netherlands and the UK are similar in having both their industries privatised as the Netherlands has shifted from a Germanic to an Anglo-Saxon tradition.

On a more general note, it appears the old state-monopolies in the postal industries are a lot harder to let go based on the high transaction costs involved with the postal networks. Although the postal networks are less asset specific than before as a result of the many (digital) alternatives for (letter)-post services. In turn, the high transaction costs are mainly the result of the high degree of asset specificity of the network and the large amount of market uncertainty in comparison to the telecommunications industries. Within the latter, competition has emerged both on the network such as in the UK, and between networks such as in the Netherlands and Belgium. In presenting alternatives to the network of the historical operator for provision of services on the public domain, the overall transaction costs in the telecommunications industries were lower than in the postal industries for which the main reason is most likely found in the telecommunications industry lending itself to be more competitive. At least in the current situation.

10.4 Reflections and recommendations for future research

This study sought to present insights from both the NIE and state-administrative tradition theory to explain the differences and similarities in governance structures in network industries in different countries. On the one hand, arguments from state-administrative tradition theory proved more explanatory for this than arguments from the NIE in which the focus was on TCE. On the other hand, arguments from TCE did present us with insights into where the emphasis is on regarding the network within the postal and telecommunications industries concerning the provision of services on the public interest domain. As to the postal industries, the back-offices proved asset specific for integrating the postal networks with no competition on a scale similar to that of the historical operator having emerged in any of the countries analysed here. Different from the postal industries, the network in the telecommunications industries proved asset specific in its entirety but with variations between countries in the type of competition having emerged.

Regarding both industries, future research could thus be directed at why 'real' competition has not emerged in both industries and what stands in the way? How is it competition on the network has emerged in the British and not in the Dutch and Belgian telecommunications industries when the conditions are theoretically very similar? Belgium for instance, has required cable operators to open up their network to OLOs, as opposed to the Netherlands and the UK, which could be seen as a step in the direction of creating a more level playing field. Therefore, future research could also focus on the specific obstacles that stand in the way of 'real' competition emerging in both industries such as does the state set too high standards for operators to enter and compete on the market? Or is it the regulator, or even the owner of the network that sets too high standards for OLOs to use its network? Perhaps it could also be a combination of factors?

Considering the methodological approach taken, this study was limited in the number of cases analysed as well as the research methods used being only content analysis. As a result, this study was limited in its reliability in using only one research method. Hence, future research could elaborate by extending both the number of countries and the kind of network industry analysed in addition to adding more research methods to increase the research quality. In extending the scope to other network industries, the framework set up in this study for applying state-administrative tradition theory to network industries could also be used on countries belonging to the same state-administrative traditions. Although the network industries in this study yielded fairly similar results, other industries might be more different within and between countries.

As a final remark, going back to the initial introduction, this study has shown that networks essential to the provision of services on the public interest domain, such as those of the SOEs ProRail (railways) and Tennet (power) in the Netherlands, should be secured regardless of country-specific preferences. One could, therefore, say that the new Dutch policy of 2013 for SOEs addressed in the introduction chapter, which further attested the shift initiated in 2001 and endorsed in 2007, from 'privatise, unless' to 'public, unless' seems sensible concerning essential network (industries) to say the least.

11 List of abbreviations

BT	British Telecom
EC	European Commission
DP	<i>De Post</i>
DUSP	Designated universal service provider
MVNO	Mobile virtual network operators
NIE	Neo-institutional economics
NPM	New Public Management
OLOs	Other licensed providers
PA	Principal agent theory
PLA	Public law administrations
PLB	Private law bodies
PR	Property rights theory
PTT	<i>Posterijen, Telegrafie en Telefonie</i>
OECD	Organisation for Economic Co-operation and Development
QUANGO	Quasi non-governmental organisation
RM	Royal Mail
RTT	<i>Regie voor Telegraaf en Telefoon</i>
SOE	State-owned enterprise
SOC	State-owned corporation
TCE	Transaction cost economics
UPS	Universal postal service
USO	Universal service obligation
USP	Universal service provider
UTS	Universal telecommunications service

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