

Private Equity Leveraged Buyout: Exposing a Flaw in the Governance of the Telecommunications Sector?

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Abstract

Governance regimes are typically sector specific, taking into account the peculiarities of the subject matter. However, failures of governance in some sectors have a wider bearing on the economy than in others; the banking sector is a current example. This also holds for the energy and telecommunications sectors, albeit to a lesser degree.

Nonetheless, the network industries show a high degree of similarity in the governance regimes deployed, and the sector reforms being applied. In the telecommunications sector, the expectations of successful reform were based on three main assumptions: growing demand, technological developments and participation of the financial sector.

In this contribution we will discuss how the safeguarding of public values in the telecom sector has become subject to the rules-of-the-game in the financial sector and hence of its governance.

As a consequence of the reform new phenomena have emerged: Telecom firms have become subject of trade, to realise short-term financial gains; and significant levels of debt and a lack of sufficient cash flow have led to bankruptcy. While these phenomena can be considered to be outcomes of a market-based regime, to be off-set by the gains the regime provides, this does not apply to the new 'asset class' of Private Equity backed Leveraged Buyouts.

PE-LBO firms make offers that cannot be refused by shareholders, boards and management. Hence, there is no check-and-balance in the form of corporate governance operative. As governments have relinquished control, the targeted firm is left to the 'forces of the financial market'. The outcome is predictable: financial engineering aimed at a major redistribution of capital, totally contrary to the public interests.

We will argue that depending on the role perception of governments we are confronted with a flaw in sector specific governance, which need to be fixed, or alternatively governments will need to accept – once again – the role of 'lender of last resort'.

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Table of Contents

1	Introduction.....	5
2	Safeguarding of public values	6
3	Development of the telecommunications sector.....	7
3.1	Historical development, sector performance and public values	7
3.1.1	Telecom industry development in The Netherlands.....	7
3.1.2	Governmental intervention in The Netherlands	8
3.2	Public values to be safeguarded.....	9
3.3	Telecom Reform in Europe	10
3.4	Industry developments and public value considerations	10
3.5	Introduction of competition and public value considerations.....	11
3.6	New Rules of the Game.....	11
4	The increasing role of the financial sector	11
5	Governance of the telecom firm.....	12
5.1	Principle – agent relationship and personal gains.....	12
5.2	The role of ‘checks and balances’ within the firm.....	13
6	The telecom firm in the aftermath of the Internet/telecom bubble	13
6.1	Foreclosures and bankruptcies.....	14
7	Summary public interests in relation to the telecom sector	14
7.1	Public values identified and to be safeguarded.....	15
8	The role and operation of private equity	16
8.1	Infrastructure funds	17
8.2	Private equity – leveraged buyouts.....	18
9	Private equity leveraged buyout case studies – telecom.....	22
9.1	Case study “eircom”	22
9.2	Case study “TDC”	26
9.3	Conclusions from the Case Studies	31
10	Economic performance and private equity leveraged buyout funds.....	32
10.1	Governance and private equity funds	32
11	Private equity lbo and the safeguarding of public values	33
11.1	Assessment in the perspective of a ‘regulatory state’	34
11.2	Assessment in the perspective of a ‘developmental state’	35
11.3	Assessing the impact of telecommunication firm failure	36
11.4	Instruments in the perspective of a ‘developmental state’	37
11.5	Reflecting on the current economic climate	38
12	Conclusions and recommendations	39
	References	40
	Notes	41

1 Introduction

The relationship between the financial sector and the telecommunications firms has changed dramatically through the privatisation and liberalisation of the sector, in Europe initiated in the 1980s. The euphoric period in the late 1990s has revealed the growing influence of the financial sector on the developments in the economy in general and on the telecommunication industry in particular. There has been a general trend from savings to spending and borrowing. The development of the telecom sector¹ shows a changing perception of risk, first as a result of the ownership change of incumbent operators (from government to public ownership), and secondly from the increased use of leverage.

Moreover, this period has shown that not all stakeholders are necessarily involved in the telecom sector for the long-term or for the well being of the telecom firm. This raises the issue of safeguarding the public values associated with telecommunications as an sector vital to the economy and society at large.

The more recent involvement of private equity leveraged buyout funds in the telecom sector, notably the incumbent operators in Ireland and Denmark, increases this concern.²

Typically the restructuring practice of the more aggressive private equity leveraged buyout firms shows a myopic short-term focus on cash management for maximum payouts to the firms. There is no attention to the factors that drive market growth, productivity improvements and economic growth. There is hardly any room left for infrastructure build-out, innovation, building human capital by new skills and professional development, research on changing consumer demands and new market developments. The private equity leveraged buyout firms are not concerned with earning returns from investment in expanding the productive capacity for providing goods and services in the real economy. Their activity can best be described as financial engineering aimed at a major redistribution of capital in favour of the investors in and the managers of the private equity leveraged buyouts.

The theory as well as the empirics from recent cases in the telecommunication sector raise the question as to whether the involvement or rather the outcome of the involvement of private equity leveraged buyout firms in the telecommunication sector is deemed acceptable in the light of the public values associated with a proper functioning of the telecommunication sector.

To address this question a 'systems' approach is applied, whereby the developments in the telecommunication sector are considered in relation to the developments in the financial sector and both are placed in the broader context of policy and regulatory developments. By applying this systemic approach this contribution aims at providing the insights that may inform government policy makers and firm strategists to respond appropriately to the developments and the outcomes that may be anticipated in order to safeguard public values.

Important to recognise is that in the recent decades the role of the government in the development of the telecommunication sector has diminished significantly. This is the result of the Reform process, which has led to the privatisation of the incumbent operators (in Europe) and the liberalisation of the market. Thereby the managerial

control by governments of the incumbent operator has been replaced by *ex-ante* regulation and *ex-post* oversight of the sector. This places the government at ‘a distance’ from the firms in the telecommunication sector and this has changed the options for intervention if and when deemed necessary to safeguard public interests, both in terms of the instruments being available and the lead times being involved.

This contribution is structured as follows: in Section 2 the safeguarding of public values is introduced. In Section 3 the developments in the telecommunications sector are discussed, in particular the implications of the Reform process. From the historical account in this Section we will derive the public values that need to be safeguarded. In Section 4 the increasing role of the financial sector in the development of the telecommunication industry is addressed. This covers the change in regime from state enterprise to private firm in a competitive market affecting the position of the management vis-à-vis the owners and has led to a change in behaviour; this dimension is the topic of Section 5. In Section 6 a new phenomenon is addressed, the bankruptcy of telecommunication services firms. In Section 7 we return to the topic of safeguarding public values for a summary. In Section 8 the role and operation of private equity, in particular the leveraged buyout variant is introduced and discussed. In Section 9 two case studies of recent private equity leveraged buyout activities in the telecommunications sector are reviewed, Eircom in Ireland and TDC in Denmark. In Section 10 private equity is discussed in relation to its contribution to economic performance and in relation to governance. In Section 11 the impact of private equity leveraged buyouts on the safeguarding of public values is addressed and potential avenues for mitigation of these effects are introduced using a ‘regulatory’ and a more ‘developmental’ perspective. In Section 12 the conclusions are presented.

2 Safeguarding of public values

Whether the role perception of the state is ‘regulatory’ or ‘developmental’ the proper functioning of the market is considered of prime importance.³ Hence, having opted for a market-based economy, the proper functioning of the market can be considered one of the more fundamental ‘public values’ to be safeguarded through governmental monitoring and when necessary governmental intervention. The intervention will typically be *ex-post* based on competition law, and under special circumstances the intervention may be *ex-ante*, through sector specific laws and regulations.

This applies in particular to the category of public utility industries which provides the basic infrastructure for the economy and a variety of social services, e.g., telecom, energy, road, rail, water, waste, health. In characterising the public utility industries Melody distinguishes five dimensions in which firms in these industries are different from firms in general (Melody, 1997; 2007a):

1. The largest “incumbent” firms in the public utility sectors in any country typically have significant monopoly power in their respective sectors over the provision of essential public services;
2. They carry important public service responsibilities (e.g., universal service obligations);
3. They are very capital-intensive requiring significant and continuing long-term investments in physical infrastructure assets, their maintenance and expansion;

4. They make extensive use of public rights-of-way and other public resources that require special grants from the state. In most cases these have been granted at minimal or no cost, not at market value.

As a consequence firms in these industries were subject to special government oversight with respect to their delivery of the public services, today this role is typically performed by industry-specific regulatory authorities, which closely monitor the development in the sector, and may intervene *ex-ante* based on powers being granted through specific legislation.

Whenever a certain sector transitions from a monopoly or quasi-monopoly state to a more competitive market-driven situation, i.e. becomes subject of a reform process, this can be qualified as a special circumstance and, hence, such transitions will typically invoke strong governmental involvement to establish a so-called 'level playing field'.

Recognizing the interdependencies among economic sectors, the more fundamental the sector the more important the proper functioning of that sector is to the economy at large.

3 Development of the telecommunications sector

Looking back in time we can discern a typical pattern in the development of a new industrial sector, starting with a high degree of entrepreneurial activity in a competitive setting that evolves to maturity and hence to consolidation.

'Public interests' evolve with the development of an industry. Hence, the involvement of governments in the safeguarding of public values can not be static, but needs to adapt to the dynamics of the sector. At certain points in time the market may be the best mechanism to assure the public interest, at other points in time the market may need to be guided to generate the appropriate outcome. While the profit objective of entrepreneurs is a relative constant, ongoing technological change will require policies to be evaluated on a regular basis as to their necessity and their effectiveness.

3.1 Historical development, sector performance and public values

In this Section we explore from a historical perspective the development of telecommunications sector, with a special emphasis on: (1) the emerging 'public interests'; (2) the role the government has assumed; and (3) for the more recent period- the role of the financial sector.

We have chosen to focus on the developments in the Netherlands to illustrate the developments. To provide the broader context we will touch upon the developments in Europe and the role of the European Union.

3.1.1 Telecom industry development in The Netherlands

Originally, the provision of a telephone service to the general public was left to private initiative. As an example, the City of Amsterdam selected from a number of applicants IBTC, whereby the Nederlandsche Bell Telephoon Maatschappij (NBTM) was to build a telephone network under license from IBTC. NBTM was for 40% owned by IBTC, the remainder was provided by financiers from Amsterdam, mainly as private equity. The network was placed into service in 1881. The company established networks in 18 more cities, while other firms built networks in other towns. In 1888 permission was granted to the NBTM for the interconnection of local networks. For the NBTM

networks this process was completed in 1894. The interconnection of non-NBTM networks was not enforced by the license and hence only effectuated if operators were willing to pay high fees.

3.1.2 Governmental intervention in The Netherlands

As the telephone was considered a variation on the telegraph no new legislation was deemed required and hence the Telegraph Act of 1852 would apply. This Act provided the central government with the powers to grant the required permission to install telegraph lines and hence now also telephone lines. This did not exclude municipalities from requiring additional permissions as the installation and exploitation of a telephone network would involve, for instance, the rights of way of the municipality. In practice the granting of permission by the central government was a formality. The municipalities would set the conditions.⁴ In the case of Amsterdam the municipality granted to IBTC the sole right to the installation and exploitation of a telephone network provided the company would honour all request for a connection within its licensed area of operation.

In 1883 the Amsterdam Court ruled that the telephone was distinctly different from the telegraph and hence the Telegraph Act could not be applicable.

In 1898 the last networks were completed based on licenses being granted to private parties. From 1898-1906 licenses were granted only to municipalities. In 1896 upon the expiry of the NBTM license, the City of Amsterdam decided based on public interest considerations (quality and not-for profit objectives) to assume the exploitation of the local telephone network. In the following years other cities would follow this example of ‘municipalisation’. The expansion of the inter-local network stimulated other municipalities to apply for a license to build local networks.

The mixture of private and public interests in the inter-local service and the unsatisfactory network build-out led to the decision to transfer the inter-local network from NBTM to the state, which was effectuated in 1897.

Also in 1897 a governmental committee investigated the role the state should assume in the installation, the use and the exploitation of telephone communication. The committee considered the telephone as a service in the public interest and hence in principle should be supplied by the state. The indivisibility of local and inter-local service was considered important to provide fast and reliable service. The need to serve also the remote parts of the country and the service to be available for domestic use were being emphasized. However, this position was not shared by all stakeholders involved, arguing that a local telephone network was primary serving a local interest and hence could be best served on a municipal level. The investments required for the inter-local network by the state and the costs involved in taking over the networks from the municipalities led to the continuity of the status quo. In 1904 a new law was enacted the ‘Telegraaf en Telefoonwet’, with as main principle the municipal exploitation of telephone networks, but with the option for the state to assume future ownership in the ‘public interest’. The law clarified that telephone operation required a license from the central government and operation would have to satisfy its standards. The licenses would be granted for an indefinite period, but with a cancellation period of one year.

The new law created the opportunity for the state to build and exploit local networks under three conditions. Firstly, if the licensee failed to comply with the license conditions, e.g. by not completing the network or by providing low quality service, the state could step in and assume ownership. As a second condition, potential telephone

users living in areas not being served by a local network could request a connection to the inter-local network. A third condition was related to the requirement in the law that all old licenses had to be replaced by new ones. Under the new license the valuation of the network had to be agreed upfront, being applicable in case the state would assume ownership in the future. In 1908 a special committee was formed to prepare the renewal of the licenses. However, the private network owners and the committee disagreed about the valuations to be applied, and hence the Minister decided to gradually assume the exploitation of the local networks. The NBTM networks transitioned in ownership as of January 1913 based on a fixed amount per subscriber. This process of 'nationalisation' of privately owned networks would be completed in 1924. From 1917 to 1927 the municipal networks transitioned into state ownership, initially upon request of the municipalities, with three exceptions. The networks in the three major cities, Amsterdam, Rotterdam and The Hague, received new licenses in 1921 resp. 1925 and remained under municipal control until 1940 (De Wit, 1998; Schuilenga et al., 1981).

From the 1930's the state operation is profitable while tariffs can be reduced as a result of continuous growth of the number of subscribers, cost reductions through automation, and an increase in the number of calls per subscriber. The resulting profits were for the state; the state was also the financier of the investments. As the demand grew the waiting list expanded requiring more investments from the state. After World War II until 1973 the investment level exceeded the level of profits. On a cumulative basis the returns to the state have been positive for the post war period up till 1980 (Schuilenga et al., 1981).

3.2 Public values to be safeguarded

In the combination of the obligation imposed by municipalities to connect within the local serving area, and the state providing for connections to the inter-local network upon request, one could argue that the issue of 'universal service' was being addressed in the early period, at least in principle. The rationale of state ownership emerging from 1910 onward reflects explicitly this objective in the intend of expanding the telephone service to the remote and less profitable parts of the country.

In 1910 the rationale for the concentration and centralisation of the telephone service into a state enterprise was stated as: (1) the telephone network is an 'organic whole', the local networks are the 'veins' and the inter-local network the 'arteries'; (2) the network being a 'whole' this calls for 'unity in management and exploitation', for a central entity that can assure the quality of the 'whole'; (3) a national widely extended network is a matter of national economic interest, facilitating transactions, reducing travel costs, allowing the opening of new markets and the industrialisation of the rural areas. Moreover, as a state run enterprise was not profit driven it was expected to offer service at low tariffs. Furthermore centralized operation would allow the surplus of city networks to be used to support less profitable parts of the network (De Wit, 1998).

Interconnection of local networks was pursued by the major private network owner (NBTM). However, the interconnection of non-NBTM networks was only established against high fees and hence remained incidental. With the state assuming responsibility for the inter-local network this interconnection issue was resolved.

For the new technology to be deployed new rules with respect to the 'rights of way' had to be arranged to allow for the construction of overhead wires, and later underground cables. This aspect of 'public interest' was addressed in the Telephone and Telegraph Law of 1904.

One other dimension of ‘public interest’ the confidentiality of the messages being conveyed transitioned almost automatically from the postal service to the telephone service, but remained a concern during the period of manual operation of the telephone networks.

3.3 Telecom Reform in Europe

In Europe telecommunications services had remained firmly in the hands of the national operators, but this would change with the 1987 landmark document “Green Paper on the development of the common market for telecommunications services and equipment” (EC, 1987). The first and politically acceptable step in the process of liberalization was aimed at introducing competition in terminal equipment and at the services level, while the infrastructure could remain under monopoly control.

But, “[t]he Commission recognised that the gains in innovation, productivity improvements and price re-structuring would only come about through competitive entry in infrastructure, be it at a local level by up-grading cable networks or building new ones, or more immediately through alternative backbone investments.” (Bangeman Group, 1994). Following the publication of the *Bangeman Report* addressing the implications of the ‘information society’, the European Council by the end of 1994 officially recognized the principle that telecommunications infrastructures should be liberalised and it set January 1st, 1998 as the date “by which all remaining restrictions on services competition would be lifted” (Cawley, 2001).

By 1998 all formal legal barriers to enter the telecom services market had been removed and many new players did emerge.⁵ Regulation was put in place to assure a ‘level playing field’ for new entrants, i.e., an *ex-ante* regime to prevent the use of the ‘significant market power’ that incumbents had obtained during the monopoly period. The principle of ‘unbundling’ was introduced to open up network access to new entrants, to allow business models to develop based on a ‘mix and match’ of own and leased infrastructure elements.

CATV networks were considered as one of the few if not the only alternative infrastructure that would provide for ‘infrastructure based’ competition. In the EU in general the CATV networks remained local monopolies, with a strong linkage between network operation and content provisioning.

3.4 Industry developments and public value considerations

In the early stage of the telephone industry development entrepreneurship and competition had prevailed and ‘private firms in a competitive market’ had become a good economic governance regime to allow the benefits of a new technology to be exploited. In the 1920s and 1930s the telephone network became to be perceived as a ‘natural monopoly’ and considered best centrally managed, either as a private monopoly under tight regulation as in the USA, or as a state enterprise in Europe. From the 1970s new technologies emerging inside and outside the field of telephony increasingly challenged the appropriateness of the monopoly and through a process of reform a gradual erosion of the monopoly power had occurred, essentially leaving the ‘public interests’ unaffected. The ‘universal service obligation’ remained with the incumbent operators, and interconnection had become engrained in the telephone engineer’s paradigm. Through the reform of the 1980s and 1990s competition would be re-introduced as an alternative mode of economic governance to serve the ‘public interest’, with the expectation that competition would increase consumer benefits.

Technological advancements and prospects were considered to be powerful enough to enable competition, provided regulation would arrange for a 'level playing field'. The demand for communication services were in part untapped and increasing, and hence would facilitate the introduction of competition. Moreover, it was expected that the financial sector would be interested in participating by funding investments in network and service development, the emergence of new market entrants, and the incumbents 'going private' in Europe.

3.5 Introduction of competition and public value considerations

The idea behind the introduction of competition is that competitive markets will lead to an increase in consumer choice, lower prices, and improved service quality. These aspects when realised are in the interest of the public at large. Hence, the introduction of competition can be considered a means of serving 'public interest' objectives. However, there is no *ex-ante* guarantee that the goals are realised through the market. What can be concluded is that 'managerial control by government' is being replaced by the 'competitive market ideology' in realising 'public interest' objectives. In effect, while the state enterprise can be considered an instrument of the 'developmental model' of the state with the possibility to control outcomes, a transition to the regime of the competitive market implies a shift towards the 'regulatory model'.

With the change in ownership, governments have relinquished direct control of the enterprise.⁶ Hence, all 'public interest' objectives that are not 'naturally' met through (1) the profit seeking behaviour of the entrepreneur, or (2) through the forces of competitive markets, or (3) through the disciplining of financial markets, need to be 'externalized' through legislation and or regulation. The safeguarding of 'public interests' was arranged through sector specific regulation.

3.6 New Rules of the Game

The privatisation and introduction of competition have resulted in a new reality for the incumbent operator. The new (financial) owners require stock value appreciation next to dividends, while at the same time the monopoly position is eroding. This forces the management to find new opportunities for growth, hence moving into new product/service markets and/or into new geographical markets. The former may be beneficial for the national market and hence serve the 'public interest', the latter implies a diversification of the business away from the national market. Although, both are aimed at continuity of the enterprise and hence serve in that respect the 'public interest' at large. Nonetheless, if investments abroad are perceived to yield a better return than investment in national projects, this may imply that cash flows are diverted away from national investment opportunities.

4 The increasing role of the financial sector

As the Reform process proceeded, the telecommunications sector had become an interesting new market opportunity for the financial sector. Privatisation of the telecom operators implied in most cases a listing at the stock market and hence trading in shares, and sometimes an IPO. With the transition from a public entity to a private entity, financing of investments would involve a call upon financial markets, providing the banks with underwriting fees, etc. The need to demonstrate continuous growth also triggered a growing opportunity in mergers and acquisitions. To meet the growing

demands the investments needed to be financed. Lowenstein observed: “The cumulative investments marked the greatest binge in the history of private finance. In the half-decade after deregulation, telecom companies borrowed US\$ 1,600 billion from banks and enlisted Wall Street to sell \$ 600 billion in bonds. They raised billions more in stock sales.” (Lowenstein, 2004). The telecom sector became a very important client segment, the investment banking fees (including debt, convertibles, and equity-related issues) for the telecom sector increased from \$ 1.06 bln in 1996 to \$ 4.14 bln in 2000 (Malik, 2003). Lowenstein observed that Wall Street’s fees for selling telecom stocks and bonds totalled more than US \$ 20 billion, which was vastly more than the bankers’ take on the dot-coms (2004). In commenting on the role of analyst cum investment bankers (e.g. Jack Grubman of Salomon Smith Barney and Henry Blodgett of Merrill Lynch) Shiller quoted Grant, a market commentator, as saying: “Honesty was never a profit center on Wall Street, but the brokers used to keep up appearances. Now they have stopped pretending. More than ever, securities research, as it is called, is a branch of sales. Investors beware” (Shiller, 2001). Grubman alone would help raise US\$ 190 billion for WorldCom, Qwest, Global Crossing, and 78 other telecom companies (Jeter, 2003).

The impact of this support of the financial sector for the expansion of the telecommunications sector became clear in, for instance, the CLEC crisis in the USA⁷ and later in the general collapse of the industry following the crash of April 2001, see the following Sections.

5 Governance of the telecom firm

During the euphoric period, but also in general, the fear of falling stock has forced companies to show earnings growth on a quarter-over-quarter basis. This has led to an earnings management game, whereby reported earnings and analysts’ expectations closely match (Collingwood, 2001).⁸ While showing attractive growth rates was relatively simple for the small high-tech start-ups, the large established companies that liked to mirror their behaviour, had far more difficulty in meeting these expectations. Growing through acquisitions provided an attractive path given the ‘buying power’ of appreciating shares.⁹ Telecom equipment providers also used acquisitions extensively, in particular in the race to market with new innovative products.¹⁰ The underlying growth principle was: “When a CEO of a company with a large sale and distribution capability bought a small company with a promising technology, the market assumed that the sales of that product would skyrocket. This caused the stock price of the larger company to rise sharply... ..Armed with this higher stock price, the process could be repeated, buying ever-larger companies with ever-more-inflated P/E multiples...” (Endlich, 2004).

Towards the end of the boom in the 1990s, the promises made to Wall Street became more and more difficult to keep. Hence, being in a bind the companies fostered many forms of ‘creative accounting’.

5.1 Principle – agent relationship and personal gains

The Telecom bubble is showing that entrepreneurs in telecom were not necessarily in business for the long run, to supply society with the means to communicate. While in the case of the early competitive entries, such as MCI, the primary purpose could still be perceived as improving communications, the emergence of e.g. LDDS – later

WorldCom – is an example of how deal making and personal gain moved to the forefront, and the provision of competitive, good quality telecom services faded into the background. Global Crossing is a salient example of where a shrewd financial dealmaker grabs the opportunity offered by apparently insatiable appetite of investors.¹¹ The approach to bandwidth trading by Enron moved financial transactions and financial engineering to the centre stage, telecommunications being considered just another commodity.

Through contagion the prospect of huge financial rewards moved from the Internet arena to affect the telecom industry, in particular in the optical and data communications field. As Malik observed: “It took Rockefeller 25 years to make his first billion; Winnick [CEO of Global Crossing] made six times as much money in two years. It took Bill Gates 15 years to make that much money! But, unlike Rockefeller or Gates, Winnick made his fortune from a house of cards” (Malik, 2003).

With respect to personal gain history repeats itself. The account of (mal-)practices deployed by Ebbers as CEO of WorldCom reads as an almost direct copy of the account of the (mal-)practices deployed by Hudson, as Board Member of the Midlands Railway in the UK, in the 1840’s. See also *Rail Road Mania in the 19th century* in Lemstra (2006).

5.2 The role of ‘checks and balances’ within the firm

In the ‘normal’ mode of business operation the enthusiasm of the entrepreneur and his/her willingness to take risks is typically balanced by the ‘conservative’ nature of the parties that provide funding. The availability and cost of funding is typically based on the risks and returns perceived. The result is reflected in, e.g., the ‘cost of capital’. Within corporations the ‘cost of capital’ is translated in an internal rate of return that is used for the evaluation of projects, and in the creation and maintenance of a portfolio of investments, products or services.¹² The recent bubble has shown that the competition between banks made their interests to become aligned with the interests of the entrepreneurs.¹³ Hence, making the process of ‘check and balance’ inoperative.

In this respect the combination of reform in the financial sector, in particular the repeal of the Glass-Steagal Act in 1999, removing the separation between investment banking and retail banking, and the reform in the telecom sector, in particular the Telecom Act of 1996, provided in the USA for an ‘explosive combination’. It is ironic to note that the Glass-Steagal Act was enacted in 1933 in response to the 1929 crash to avoid some of the excesses that had occurred in the preceding boom period, to be repealed at a point in time that it may have been of utmost relevance.¹⁴

6 The telecom firm in the aftermath of the Internet/telecom bubble

In the aftermath of the crash telecom operators and equipment makers are struggling to survive. The immediate actions included downsizing and financial restructuring. The Financial Times reported a total of 506,229 job cuts being announced between July 2000 and April 2002, the equipment industry being among the hardest hit. The financial ratings of the telecom operators have dropped implying more difficulty in obtaining loans and higher costs. In 2001, KPN required financial support by the state for a €5 bln share issue to stay away from the danger zone.

6.1 Foreclosures and bankruptcies

Most of the ‘old-world’ companies survived based on existing revenues streams that were built before the bubble. Many new-starts, specially those emerging in the final days of the bubble, had to seek bankruptcy protection; in the US this means filing for protection under ‘Section 11’. Over the period 1998-2003 a total of 125 filings for bankruptcy protection can be identified for the USA, of which 2 in 1998, 6 in 1999, 6 in 2000, 43 in 2001, 57 in 2002, and 11 in 2003. A total of 38 (30% of the total) companies discontinued operations; 38 (30%) were acquired; 7 (6%) more were subject to the sale of company assets; 31 (25%) re-emerged under their own (brand)name, including WorldCom now renamed to MCI (Main sources used: Bankruptcydata.com, 2006; Crandall, 2005; FCC, 2006; SEC, 2006).

Figure 1 shows the telecom operator defaults as reported by the OECD, involving a total of 142 entities and an amount of US\$ 183 bln. (OECD, 2005)..

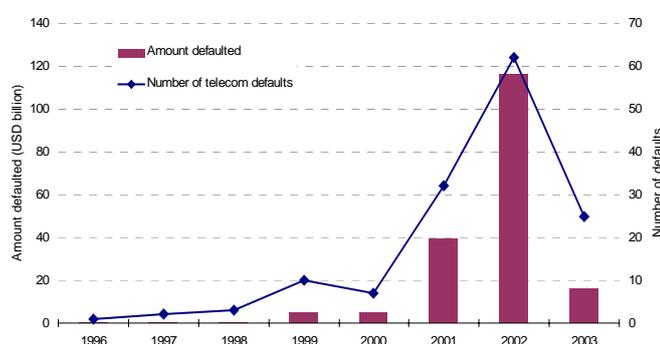


Figure 1. Telecom operator defaults, 1996-2003

The defaults on telecommunications corporate bonds represents the largest cycle of defaults on bonds since the 1930’s. Telecommunications represented 56.4% of the US\$ 163 billion defaults worldwide (Lennin and Paltridge, 2003).

Shiller, in the second edition of *Irrational Exuberance* appearing in 2005, suggested that in many parts of the world there is still overconfidence in the stock market and the housing market, which could lead to instability. Significant further rises could lead to significant declines, which in turn could result in an increased rate of personal bankruptcies, which subsequently could lead up to a string of bankruptcies of financial institutions (Shiller, 2005).

7 Summary public interests in relation to the telecom sector

From the account provided in Sections 3 through 6 a number of observation can be made with respect to the development of the telecom sector, the governance of telecommunications firms, and the increasing role of the financial sector; all as a precursor to the emergence of ‘private equity’ to be discussed in the following Section:

- After privatisation and liberalisation telecommunications firms have become part and parcel of the broader economic system, and subject to the financial market regime as any other (publicly listed) corporation.
- Proper governance of the financial sector is critical to the performance of the telecommunications industry. Early detection and eradication of unlawful practices is an imperative.

- There is no reason to believe that telecom executives and managers behave differently given opportunities for personal gain.
- Invariably humans will seek out the limits of rules and regulations and explore the ‘grey zone’ between lawful and unlawful practices.
- Every (new) rule or regulation will have a (unforeseen) side effect.
- Given the interconnectedness of our economy high yield financial practices will be copied, sooner or later.
- Technology and competitive markets are instruments that can address and resolve ‘public interest’ objectives under certain circumstances.
- Technological developments as well as market developments raise new ‘public interest’ issues.
- The organisational purpose of the telecommunications firm or its reason for existence may not be perceived by all stakeholders as the creation of economic value by providing telecommunications services.

7.1 Public values identified and to be safeguarded

As an example, for the Netherlands the following conclusions can be drawn with respect to the ‘public interests’ to be safeguarded, the list evolves (in large part) from the exploration in the previous Sections and is not intended to be exhaustive:¹⁵

- KPN, the incumbent fixed line operator has been charged with the Universal Service Obligation (USO). The ‘public interest’ of available, accessible, and affordable (AAA) basic services has in effect been resolved as each customer premise is connected to the PSTN, providing telephony service. In effect the success of mobile telecommunication has improved the universal service outcome as virtually every individual is now connected to the telecommunications network. However, what is considered ‘basic’ is subject to changing perceptions and needs in society. The AAA of Internet at a reasonable data rate and fair price is considered a next evolutionary step, but no legislation has been formally enacted or proposed.
- The ‘public interest’ of interconnection of competing (sub-)networks has re-emerged through unbundling and has been addressed through regulation. The interconnection of applications, such as the Internet, implemented on top of a fully interconnected transmission infrastructure has been resolved through self organising within the Internet community (ISPs). However, competing and incompatible application-based networks have emerged on an international level (e.g. VoIP). No legislation has been enacted or proposed to force interconnection at this level.¹⁶
- The ‘public interests’ associated with the effective management of public resources, the radio frequency spectrum, and rights-of-way has been retained by the government.
- Recent case histories suggest that the ‘public interest’ of ‘security of supply’ is expected to be resolved through resilience build into the infrastructure and through the competitive market being responsiveness to a firm’s ‘failure to supply’. The financial strength of the telecom firms that have survived has improved since the crash, however, the risk of financial failure remains, as is the

risk of a ‘black-out’. The severity of this risk is directly related to the position of the affected telecom operator in the market and the ability of competitors to assume the service within a reasonable amount of time. The risks associated with firms becoming subject to new and ‘aggressive’ forms of ‘private equity’ is subject of Section 8 and 9.

- The ‘public interests’ in the proper performance of the telecommunication network has increased with the introduction of the Internet, which has become an integral part of today’s business models and an important element in society in general.
- New ‘public interests’ have emerged in relation to the content of electronic communications networks, in particular the Internet. These include issues of privacy, security, spam, protection of minors, harassment, and fraud.¹⁷
- The re-emergence of a ‘natural monopoly’ with respect to fibre optic networks, in particular Fibre to the Home is subject of regulatory attention.
- The consequences of ‘convergence’ of communications and media into the electronic communications sector has consequences for the safeguarding of ‘public interests’ related to content, historically being resolved on the basis of infrastructure or service specificity.
- The recognition of unique resources as ‘public interest’ items, e.g. identifiers (telephone numbers, internet domain names), as they are transferring from having only engineering relevance to obtaining economic and political relevance has become a new topic of ‘public interest’ associated with telecommunications.
- The protection of the consumer becomes a ‘public interest’ item that requires more attention in competitive markets aimed at profit maximisation by firms.

8 The role and operation of private equity

The firm is the organisation where capital and labour come together to create economic value. The capital required in a firm can be provided either internally, i.e. from the cash flow being generated in the production process, or provided externally.

In the start-up phase of a firm, when there is no cash flow, private equity is often the only source of capital available, at first instance provided by the founders, family and friends. A wealthy individual investing capital in entrepreneurial firms may provide for a first round of so-called ‘angel funding’ to allow the innovators to turn their ideas into reality. In a more structured form Venture Capital (VC) firms channel capital from institutional investors, e.g., pension funds, university endowments and wealthy individuals, into privately held companies with a high-growth potential. This is called ‘seed funding’, the first level of early stage venture capital.

Venture capital (VC) is cyclical in the sense that a particular VC fund exists for a specific period of time, typically 10-13 years, involving a period of fund raising, of selecting target firms and investing, of monitoring and adding value to these firms, to be concluded by exiting and returning capital to the investors. Because venture funds make long-run illiquid investments in firms, they need to secure funds from their investors for periods of a decade or more. They are often organised in the form of a limited partnership. In return for committing their capital, the VCs demand from the firm preferred stock with numerous restrictive covenants and representation on the board of

directors. VCs typically take the most successful firms in their portfolio public, accounting for the bulk of venture returns.¹⁸ The partners in the VC firm typically retain 20% of the proceeds, as variable compensation, plus the base compensation through fixed management fees as a percentage of the committed capital, between 1.5 and 3% or 15-19% in NPV terms (Gompers and Lerner, 1999).¹⁹

In the 1980s in the USA the limited liability partnership (LLC) became the dominant organisational form in the VC industry; with the institutional investors as the Limited Partners and the VC professionals as the General Partners. In order to retain the limited liability status the investors (e.g. pension funds) cannot become involved in the fund's day-to-day management. This type of structure has the advantage compared to corporations that income is only taxed once, as it flows to the partners. Moreover, 'carried interest' is taxed as capital gains (with a maximum federal rate of 15% in 2007, rather than ordinary income with a max. of 35% in 2007 (Cendrowski et al., 2008)).²⁰

As firms mature and start to generate steady streams of revenue and income, the related cash flows can be used to attract capital in the form of debt, mostly provided for by the banks. When publicly listed, firms may attract additional capital by issuing stock.

The more traditional form of private equity, not using a defined short investment cycle, but taking strategic interest in a firm applying a long term investment perspective is for instance represented in The Netherlands by the "Participatie Maatschappijen", such as NPM Capital, HAL, Rabo Participaties, and ABN AMRO Capital (Wester, 2008).

While pension funds are traditionally being considered as the providers of long term capital, it appears that institutional investors in pursuing higher returns have been the main engines behind the increased role of private equity funds pursuing high yields through relatively short term investment cycles. Moreover, the association of pension funds with 'patient capital' is inappropriate as turnover rates of pension funds appear to be around 70% per year.

8.1 Infrastructure funds

More recently PE funds have been set up to buy stakes in companies operating in infrastructure industries, including water, electricity, gas, toll roads, ports and airports. These funds facilitate the privatisation process of utility firms. The utility industry is attractive for investment funds because of the stable returns, for instance in the electricity sector providing index-linked regulated cash streams, long-term interest rates of 3-4%, cash yields of 9-10% and internal rates of return on capital of 14-16% (as quoted in: Hall, 2006). Until 2005 €700 bln was said to have been privatised with another €300 bln left, to which may be added wholly-owned state enterprises and public infrastructure assets. These funds expect long-term returns and are not likely to apply the same strategies as the private equity leveraged buyout funds, see below. In 2006 PE investors assumed €7 bln of the €22 bln worth of assets offered by European governments, which included for instance 4.5% of Deutsche Telekom (2006). Figure 2 reflects the amounts of privatization in the enlarged Europe for the period 1977-1H2008 (Megginson, 2008).



Figure 2. Privatization in the enlarged Europe, 1977-1H2008

In the USA the 1935 Public Utility Holding Company Act requires public utilities for regulatory purposes to be incorporated in the state in which they operate or to be regulated by the Securities and Exchange Commission (SEC) if they operate in more than one state. This Act prohibited non-public utility companies, such as investment banks or oil companies, to own public utilities. The 1935 Act was repealed by the Energy Policy Act in 2005 and replaced by the Public Utility Holding Company Act of 2005. This Act moved jurisdiction over public utilities from the SEC to the Federal Energy Regulatory Commission (FERC) and opened the door to investments in public utilities, and as Cendrowsky observed: “...PE firms struck quickly” (Cendrowski et al., 2008).

8.2 Private equity – leveraged buyouts

One particular type of private equity funds is concerned with leveraged buyouts (PE-LBO). In the 1980s investments in the buyout funds surpassed the investment in venture capital funds, at an annual investment level of US\$ 5 bln. “With some equity investors earning as much as 60 to 100 percent per year on their investments, the buyout binge was borne.” Institutional investors began allocating large portions of their portfolio to private equity to both diversify and achieve higher rates of return than available in public markets (Cendrowski et al., 2008).

Buyout funds have large similarities with the venture capital funds discussed above, in terms of structure and remuneration for the Limited and General Partners. However, they target mature public or private companies that often have experienced a short term set-back in earnings, which the buyout team believes they can remedy. Potential buyout targets are firms with strong and stable cash flows, market leadership, a well-seasoned management team, and a low debt-to-equity ratio relative to the industry average. With these qualities banks will be more likely to lend large amounts of debt to the target firm, which is essential as the control of the company is assumed by buying out the current shareholders with capital derived from a combination of debt from the banks and equity from the private equity fund. The average leverage multiple dropped from 9.8x in 1987 to 6.0x EBITDA²¹ in 1992, following the Savings & Loan crisis. Multiples increased in the late 1990s to drop to a low of 3.7x with the 2001 recession (2008).

According to the OECD the “...business model of private equity funds and ‘activist’ hedge funds can be summarized as seeking to increase the market value of their pooled

capital through active engagement with individual public²² companies. The engagement may include demands for changes in management, the composition of the board, dividend policies, company strategy, company capital structure and acquisition/disposal plans, which are normally regarded as corporate governance issues. The investor may also take a public company private for a period of restructuring before either returning it to public ownership or by selling it to another company” (OECD, 2007).

With the growth in PE investments came the growing antipathy for the structure of PE-LBO transactions. Recognizing their vulnerability companies started to take protection against hostile takeovers by raiders, such as T. Boone Pickens, “Chainsaw Al” Dunlap, and Carl Icahn. The role of leveraged buyouts became exemplified by the acquisition of RJR Nabisco by Kohlberg, Kravis Roberts & Company (KKR) in 1988. Despite the disinclination toward the methods applied by buyout firms, defenders of the buyout practice argue that many firms otherwise may have gone out of business.

In the period 1985-1989 the five year average returns for PE-LBOs had been 35 percent, which has dropped to levels of less than 13 percent for the period 1989 to 1993. With the economic recovery the investments in buyout firms increased from US\$ 6 billion in 1995 to \$ 56 billion in 2000, see also Figure 3 for the capital inflows by quarter to venture capital and buyout investments in relation to the S&P500 index (Cendrowski et al., 2008).

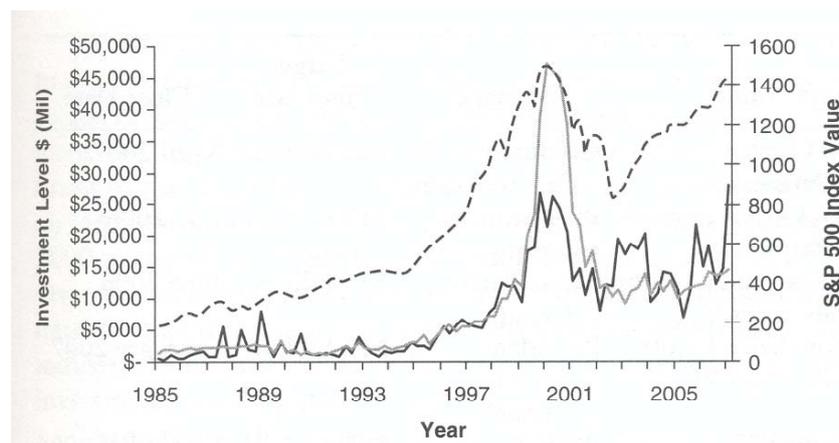


Figure 3. Investment levels in Venture Capital and PE Buyout deals, 1985-2007

Legend: — VC; - - - Buyout; S&P500

In 2005 the funds managed by the major US private equity firms totalled US\$ 227.7 bln., being led by Goldman Sachs, followed by the Blackstone Group, Carlyle Group, Warburg Pincus, Kohlberg, Kravits, Roberts (KKR), Apax Partners, Apollo, Harbourvest, Oaktree, and CVC. In 2005 €57 bln was raised in Europe, up from €38 bln in 2001, the capital contributed by banks was approx. 30 %, pension funds 25 % insurance companies 12 % and corporate investors 7%. In 2005, the USA pension funds allocated around 7.5% of their managed capital in PE, compared to 4% in Europe.

As a result of PE-LBO public companies are being de-listed of which the size increased significantly over the years: 2001 128 firms at average US\$ 145 mln to 67 firms in 2005 at US\$ 992 mln. The total amount surged to US\$ 120 bln in the USA in 2006, or 20% of total mergers and acquisitions and about 1.5% of GDP (Thomson Venture Economics c.a. as cited in Hall, 2006; OECD, 2007).

In the period 2005 to 2007, 15 out of the 15 largest buyout funds have been raised, which include a US\$ 20 billion fund by Goldman Sachs Capital Partners, \$15.6 bln by Blackstone Capital Partners, and \$ 15 billion by Texas Pacific Group Partners. As of July 2007 there were 132 buyout funds actively raising funds in the USA. Compared to 1995 when less than 3 percent of all mergers and acquisitions were buyout transactions, over 20 percent of deals closed within the first half of 2007 were related to buyouts. However, amassing large quantities of cheap debt for leverage buyouts has become tough, as credit markets are tightening in response to mortgage defaults, and as a consequence the deal pace has slowed during 2008. Typical examples of large to extremely large PE firms are the Blackstone Group, with total assets under management of approx. US\$ 888 billion; Kohlberg, Kravis Roberts & Company (KKR); and the Texas Pacific Group (Cendrowski et al., 2008).

To consummate the buyout, typically the PE firm initiates a new legal entity operating under a holding company established in a tax-friendly jurisdiction. This new entity takes out the loan from the bank, with the cash flows of the firm as the collateral. With the loan amount the shareholders are paid and the firm moves as a subsidiary company under the holding, which assumes ownership of the firm. Current (public) share holders typically accept the buyout offer made by the PE firm as the offer tends to be valued above the current market price (Wester, 2008).

As part of the PE transaction, firm managers are given large equity stakes for their participation in the buyout deal. Thereby they are highly incentivised to improve the performance of the company in order for it to achieve a successful exit event within three to seven years. In these buyouts 'cash is king' as cash payments are used to service the debt raised in the deal. To generate or improve cash flow, the General Partners will divest unprofitable business lines, sell non-core assets, stretch out payables, reign in receivables, and cut R&D and capital expenditures. Cash-hungry operations will be closed or sold. Without such actions the company may not survive or be able to meet its liquidity constraints imposed by the high leverage ratios. "This 'discipline of debt' acts in concert with management equity stakes to impose a culture of strict cash discipline." The finite life of the Private Equity fund stimulates managers to act in a manner that is swift and deliberate (Cendrowski et al., 2008).

PE firms are considered to present a strong governance model that helps eliminate some of the principle-agent problems associated with public-company boards. The General Partners of the PE fund represent a fully independent board of directors who closely monitor the day-to-day operations of the firm. Moreover, PE funds are not bashful about instituting leadership changes. All interests are focussed on creating shareholder value, the General Partners being heavily incentivised by large equity stakes granted to them by their PE firms (2008).

With unilateral control the PE funds can optimise the financial flows towards the PE firm ahead of the 'exit'. Typically target firms pay for the transaction costs involved. Moreover, they compensate the PE fund for advisory and management services being rendered. Sometimes the target firm takes out a loan at the PE fund to facilitate the leverage buyout or shortly following the buyout; the loan is often deferred and the interest rate being determined well above market rate.²³ The payment of 'super dividends' is another mechanism being applied. To illustrate this point: According to ratings agency Fitch 50% of the €25 bln of debt raised in the first half of 2005 was used to pay dividends.²⁴ The sale and lease back of real estate provides another vehicle to advance repayment to the PE firm (Hall, 2006; Wester, 2008).

As the cost of debt is linked to market interest rates, it influences directly the level of private equity investment activity. The declining interest rates since the beginning of the early 1980s contributed to the feasibility of leverage buyouts (Cendrowski et al., 2008).

The PE buyout funds have a limited lifetime, typically 8 to 12 years. PE firms typically raise funds every three to four years. As time is crucially important in generating high returns PE firms try to realise their investments as soon as feasible, the ownership period is typically 3-5 years. The prevailing ‘harvest’ or ‘exit’ scenario’s for PE managed firms are initial public offerings (IPOs), mergers and acquisitions. M&A deals permit managers and investors to achieve liquidity for their investments without waiting for a ‘lock-up’ period to expire as associated with IPOs. In a reverse takeover a company becomes publicly traded without raising additional capital and hence with less stock dilution than is necessary in an IPO. M&A has become the preferred exit strategy for buyout firms: with 119 against 66 cases in 2006 (2008).

The process cycle of a Private Equity Leveraged Buyout is summarized in Figure 4 (based on: Cendrowski et al., 2008).

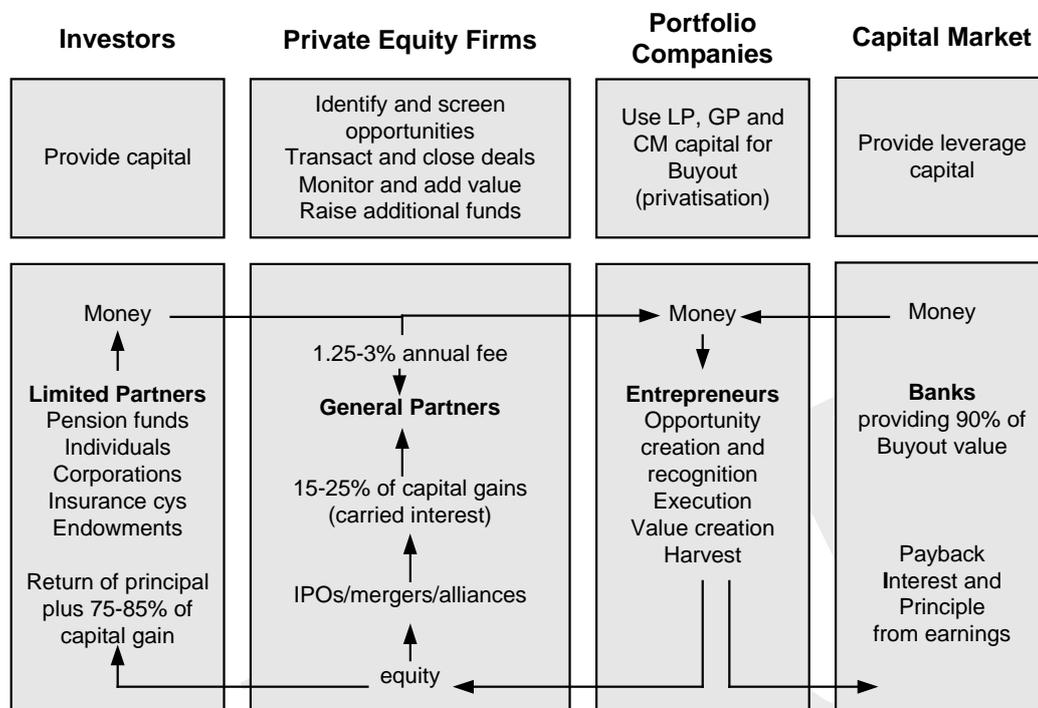


Figure 4. Extended Private Equity Leveraged Buyout cycle

The cycle begins with (1) investment capital commitments are being obtained from a select group of major investors, who become the Limited Partners in the Limited Liability Company (LLC); (2) opportunities for investment are identified and screened by the fund managers, who become the General Partners (GPs) in the LLC; (3) a target firm is selected by the GPs; (4) a proposal is made to the shareholders of the target firm using a significant market premium; (5) upon acceptance the deal is closed, the investment capital is ‘called’ and new debt from the capital market (banks) is assumed to consummate the transaction, the debt is taken on the books by the acquired company; (6) the company is taken private, to become a subsidiary under a holding company managed by the General Partners; (7) returns for the General Partners are optimized as the acquired company assumes all costs involved in the transaction; (8) the business is streamlined and the cash flow optimised; (9) freed-up cash flow is used to payout a (super) dividend; (10) the General Partners are compensated for management

involvement through annual fees; (11) the company is divested through an IPO or direct sale, the later often to another PE-fund; (12) the General Partners take 15-25% of the capital gains, the so-called 'carried interest', the Limited Partners receive 85-75% of the capital gains; (13) the LLC is resolved, this ends the cycle.

The operating principle of private equity leveraged buyout funds as described above suggest the initiative is always in the hands of the PE firm, which selects the most attractive targets. Empirics show that private equity firms are also invited by firms to invest and take over a particular part of the business or a particular division. The 1988 RJR Nabisco case, the largest PE-LBO at the time, is a case in point.²⁵ Some more recent examples of private equity leveraged buyouts are: Hertz Car Rental, Chrysler, ISS Industrial Cleaning, and Copenhagen Airport.

9 Private equity leveraged buyout case studies – telecom

Considering the impact of the leveraged buyout, the streamlining and restructuring following the acquisition of targeted firms, the financial position of the acquired firms is seriously impacted, hence it is important to assess the effects on the ability to fulfil the expectations placed on these firms from a public interest perspective. Two case studies are presented, Eircom and TDC. These represent PE-LBOs cases of the more aggressive kind. The case narratives were originally compiled by Melody and with permission included in this contribution, with editorial rearrangements and updates including recent developments (2007a; 2007b).²⁶

9.1 Case study "eircom"

Eircom is the privatized and in 1999 renamed former national operator Telecom Eireann of Ireland.

Following a long period with a national focus and with major involvement of the state in industrial activities, the Irish government policy changed in 1987 towards an emphasis on competitiveness within the European Union and participation in a wider global economy. The wave of privatization in the United Kingdom had raised much interest in Ireland, where the privatization process started in 1990, in the areas of agriculture, insurance and shipping.

As cited by Barrett, the Dargan Report²⁷ of 1979 found the state telephone company to be underperforming, being 'overmanned' by a factor three compared to Britain and a factor four compared to the USA. The Culleton Report of 1992 reported that telecom revenues in Ireland at 2.7% of GDP were by far the highest of any EU country in 1989, ranging from 1.3 to 1.8% of GDP. Moreover international charges were higher than in competitor countries (Barrett, 2004).

In 1995, Telecom Eireann was the principal provider of telecom services, with approximately 1.6 million fixed-lines and an estimated 100 thousand mobile subscribers and it is the designated universal service provider. See also the table at the end of Section 9.1.

Considerations for privatization started in 1995 to be effectuated starting 1998. In the five years before privatization (1990-1995) the company already shows significant improvement in average annual rates of growth of labour productivity (8.18), but hardly any growth in profitability (PBIT at 0.41) and a modest growth in the return on capital employed (ROCE 2.61) (Palcic and Reeves, 2008).

The chronology of key events relating to the changes in ownership is shown in Table 1:

Year	Event	Transaction data	Related data
1995	Start of privatisation process		
1996	KPN and Telia become strategic partners with initial 20% share extended to 35%	Total proceeds of privatization for the government €6.1 bln	Through Comcourse
1998	Government offers 49% of shares on the public stock market, retains 1.1%		ESOT obtains 14.9% of shares, valued at €363 mln
1999	KPN and Telia intend to sell 35% stake		
2001	Eircell, the mobile division of Eircom, sold to Vodafone	Share swap value approx. €4.5 bln	
2001	Private Equity based purchase by Valentia Consortium	€2.8 bln, with enterprise value of €3.1 bln. Through debt facility of €2.2 bln and €900 mln in equity	KPN/Telia sells stake as part of the PE buy out; ESOT increases share to 29.9% for €202 mln
2003	Refinancing of Valentia debt	€1.4 bln bank facility and €1.05 bln bonds issue	Re-organised as UK Holding, distributing €512 mln to shareholders
2004	Dividend pay-out to Valentia and ESOT	€446 mln	Employees benefit through 29.9% share owned by ESOT
2004	Valentia exits through public share offering	IPO for 70 % of shares Company market cap €1.15 bln, enterprise value €3.4 bln	Debt stands at €2.1 bln Dividend at fiscal year end March 2005 forecasted to be 7.1 %
2005	Acquisition of Meteor Mobile	€420 mln	Third largest mobile operator in Ireland
2005	Babcock and Brown acquires 12.5% stake	€250 mln	Debt stands at €1.8 bln
2006	Eircom acquired by Private Equity branch of Babcock and Brown	€2.4 bln. Through €1.9 bln in debt and €480 mln in equity	ESOT increases stake to 35% stake.
2009	STT buys Eircom Holding, owner of Eircom	€140 mln	Debt stands at €3.97 bln

Table 1. Time line of ownership change of Eircom, Ireland, 1995-2009

First IPO

When Eircom was privatised by the government in the period 1996-2001 through a combination of a trade sale and an IPO, it was relatively inefficient in comparison to incumbent operators in leading countries in Europe, and in need of significant investment. Ireland assumed position 24 in the list of 30 OECD countries based on number of subscribers per 100 inhabitants.

The share offering was taken up by KPN and Telia who obtained 21% resp. 14% through their investment vehicle Comsource. As part of the privatization process the Employee Share Option Trust (ESOT) obtained 14.9%. The remaining 49% of shares were furthermore purchased by a wide cross-section of Irish citizens. The total proceeds

for the Irish Government were € 6.1 bln (Irish Pst. 4,824.1 mln) equivalent to 2.7x revenues in the year 1999 of US\$ 1.9 bln and US\$ 1,573 per access path.²⁸

Telecom industry ownership

Strategic participation by other telecom operators lasted only 4 years, in late 1999 KPN and Telia decided to sell their stakes in Eircom. KPN intends to reduce its debt and to focus on its majority shareholdings, while Telia having become part of the Telia/Telenor Group is forced by the European Commission to reduce its share holding, as it now owns through Eircom 14% of Eircell and 49.5% of Esat Digifone, the first respectively the second largest GSM operator in Ireland. As Telia becomes part of a privatization process it decides to hold on to the Eircom stake. In the end game KPN and Telia dispose of their stakes in Eircom as part of the next ownership change.

First PE-LBO

In late 2001, followed the private equity leveraged buy-out by the Irish Valentia consortium, backed by US-based Goldman Sachs, George Soros Equity Fund and Providence Equity Partners, in competition with another Irish and PE-backed group – the eIsland consortium.²⁹ As part of the transaction ESOT increased its share holding to 29.9%.

The acquisition was financed through €2.2 bln in debt and €900 mln in equity. After the acquisition, Eircom repaid Valentia debt by issuing bonds which increased debt from about 25% to 70% of its capital structure.

Under PE-Fund ownership Eircom capital expenditures declined from €700 mln per annum in 2001 to €300 mln in 2002 and €200 mln in 2003 and 2004. In 2001, before the takeover, Eircom invested its internally generated capital from depreciation allowances plus another €275 mln. Between 2002 and 2004, it reduced its investment dramatically. Investment was more than €450 mln less than its internally generated capital from depreciation allowances. This enabled payment of a special €446 mln cash dividend to Valentia and ESOT.³⁰ Net assets fell from €812 mln in March 2002 to €297 mln at the end of 2003.

The company turned from a profit of €104 mln in 2000 to a loss of €104 mln related to a drop in revenues from €2.2 bln to 1.8 bln. This reflects the reduced prices through government intervention and competition (Barrett, 2004). In the first five years after privatization (1997-2002) the average annual rates of growth in labour remained relatively high (5.67), the growth in profitability improved (PBIT 2.1) albeit from an depressed level, and growth in return on capital became significantly negative (ROCE – 5.82) (Palcic and Reeves, 2008).

Second IPO

In 2004, three years after the acquisition, Valentia used a public stock offering as its exit strategy. The company was successfully floated at a market value of €1.15 bln, which yielded €569 mln for the exiting shareholder Valentia. The enterprise value of €3.4 bln represents 5.7x EBITDA. Debt stood at €2.1 bln. Moodys gave the group shares a junk rating.

During the 2004-2006 period of publicly held stock ownership, the 70% debt ratio remained unchanged. Capital expenditure stayed low at €200 mln in 2004 and 2005 and increased only slightly to €250 mln in 2006. In all years capital expenditure remained less than internal capital generated from depreciation allowances.

Second PE-LBO

In 2005 Australia-based Babcock and Brown acquired 12.5% of the shares in Eircom for €250 mln. In 2006 Babcock and Brown purchased the remaining floating shares of Eircom, taking the firm private for a second time; again through debt finance to the amount of approx. € 1.9 bln and equity of approx. € 480 mln. Through a complex holding company structure, ultimate ownership is traced to the Cayman Islands. After this takeover, Eircom debt has risen to €3.8 billion supported by assets of €3.1 billion, providing a debt/assets ratio of 117%. Although the new owners have announced their intention to invest in upgrading the Eircom network to European broadband standards, Eircom's capacity to invest significant amounts seems virtually straight-jacketed. The new owners have begun exploring whether government will provide funds to support universal service investments, and have indicated that price increases for basic services will soon be needed. Early 2009 the company applies a write down of €720 mln in goodwill.

In March 2009, Babcock and Brown submitted to voluntary administration, i.e., seeking bankruptcy protection. BCM the investment vehicle, which owns 57% of Eircom, has recently broken all ties with the former parent and has been rebranded as Eircom Holdings Limited.

According to newspaper reports Eircom Holdings had become the subject of a takeover bid of €95 mln from a consortium called Taemas Bridge.³¹ The Taemas Bridge bid is being opposed by Eircom management and unions. Eircom Holdings said that it regarded the bid as hostile, and that it had received approaches from a number of other potential bidders. The Eircom Share Ownership Trust (ESOT) could increase its stake in the former state telecoms firm as the company gears up to help fight off an unsolicited offer. ESOT, which is made up of thousands of former and current employees at the telecoms firm, already owns 35% of Eircom. Eircom's acting chief executive Magee said the Eircom board is attempting to shape a solution that underpins the long-term future of the company. For example, the Taemas offer document contains no plans for Eircom's future and focuses on extracting value for BCM shareholders who have been burned by their investment in the fund. "The challenges facing the company now are significant -- we have net debt of €4 bln and a deficit in our pension scheme, We have a cost structure that is no longer sustainable and a market which is contracting. We also have a requirement to invest significantly in next generation networks that are vital to the future of the company and the economy." Mr. Magee said there were no easy solutions and tough decisions would be required. A restructuring plan is already under way at the firm which will include over 1,200 job losses (down from 7,000) and savings of up to €150 mln per annum.

After three years of Babcock & Brown involvement, Magee and others senior executives and board members at Eircom are keen that it takes control of its own destiny rather than having it decided in Australia. Eircom has already made it clear that the Babcock model has failed. Eircom doesn't wish to repeat that 'trick' with Topfer's latest Taemas plan.

Foreign sovereign equity

During June of 2009 it appeared that Singapore Technologies Telemedia (STT) was preparing a bid for Eircom Holdings.³² STT was founded in 1994 as a unit of Singapore's sovereign fund Temasek Holdings. The bid received support from ESOT³³, which retains its 35% share in the company. The bid was finalized with a shareholders

approval in December 2009 valued at €140 mln, a 20% premium on the closing price of June, to be effectuated through Cayman Island based Emerald Communications. STT will be facing refinancing of Eircom debt of €1.2 bln in 2014 and another €1.2 bln in 2015.

9.1.1 Assessment and outlook

Since the initial writing of the case study, Eircom has petitioned the government for rural subsidies. Moreover, prices for basic services have increased, the basket of residential telephone charges are the highest in the OECD (OECD, 2009). In an overview of monthly household expenditures on ICT in 20 OECD countries Ireland ranks as the highest (OECD, 2009). In terms of broadband prices per megabits per second of advertised speeds Ireland ranks 16th (OECD, 2009). By 2008 the broadband penetration in Ireland stands at 20% of households, assuming a 20th position in the OECD. See also Table 2 (OECD, 2009), According to TeleGeography a report commissioned by the European Union had described Eircom's core services as 'expensive and unreliable', prompting the call for re-nationalisation.

Ireland (US\$)	1995	2000	2005	2007	2008-6	Rank
Telecom revenues (x1000)	1759	2249	5049	6214		
Access paths (x1000)	1577 ⁱ	3658	6243	7475		
Revenue per access path	1115	615	816	831		6
Revenue as % of GDP	2.08	2.34	2.51	2.38		26
Access paths per 100 pop	36.5	96.3	150.5	175.8		11
Broadband subs per 100		0.01	6.61	18.05	19.58	20
Invest/revenue	24.0	31.3	15.1	17.7		9
Investment as % GFCF ⁱⁱ	2.27	3.16	1.42	1.60		24

ⁱ Interpolated 1993-1996.

ⁱⁱ GFCF: Gross Fixed Capital Formation.

Table 2. Communications statistics Ireland, 1995-2008

Thus, Ireland remains a contradiction in information society development. It is the "Information Technology Celtic Tiger" for its leadership on the computing side of information/communication convergence. But it is having enormous difficulty establishing the telecom infrastructure needed to realise the benefits throughout Irish society. While the financial position of the present owner is significantly better than of the former owner, with the present amount of debt it is difficult to see how the situation is likely to improve significantly for either Eircom or Ireland in the foreseeable future.

9.2 Case study "TDC"³⁴

In 1990 TeleDanmark is created to become a holding company to own the four regional telephone companies in Denmark and Telecom A/S, being responsible for international communications.

In 1994, TeleDanmark was the principal provider of telecom services, with approximately 3.2 million fixed-lines and an estimated 600 thousand mobile subscribers and it is the designated universal service provider. Moreover, TeleDenmark is the leading CA-TV provider. See also the table towards the end of Section 9.2.

The chronology of key events relating to the changes in ownership is shown in Table 3:

Year	Event	Transaction data	Related data
1994	Start of privatisation process with IPO	US\$ 3 bln	49% of shares are floated
1996	TeleDanmark starts international expansion, with share in Belgacom 16.5%,		Jointly with Ameritech 17.5 %
1997	Ameritech becomes strategic partner with 34.4% of shares purchased from the state	US\$ 3.2 bln	
1998	TeleDanmark buys remaining shares from government, increasing Ameritech share holding to 42%	US\$ 1.5 bln	State share from 17.3% to zero.
1999	SBC and Ameritech merge into SBC Communications		
2000	TeleDanmark changes name to TDC, acquires sunrise and diAx in Switzerland		
2003	TDC announces intention to sell stake in Belgacom		
2004	SBC Communications announces intention to withdraw from Europe and sell a 32.1% stake in TDC	US\$ 2.36 bln	Private placement and buyback of shares by TDC, in November and June 2005
2005	PE based purchase of TDC by consortium Nordic Telephone Company Holding, effectuated January 2006	US\$ 15.3 bln. Debt facility \$12 bln, equity US 3 bln. Market value US\$ 12 bln.	Acquiring 88% of shares at 5.5% market premium. Pension fund ATP retaining 5% share.
2006	Special dividend pay-out	US\$ 7.3 bln	Approx. 50% acquisition price
2007	International divestments: Bite (Latvia & Lithuania), Talkline (Germany). Sunrise acquires Tele2 in Switzerland		
2008	International divestments: Polkomtel (Poland), Invitel (Hungary)	Polkomtel US\$ 1 bln	Debt stands at approx US\$ 6.4 bln
2009	Swiss subsidiary Sunrise merged with Orange	US\$ 625 mln	TDC retains 25%, with exit strategy
	Dividend payout	US\$ 1.1 bln	
	Merger TDC and NTC into TDC		Goodwill amortization
	Capital restructuring	€750 mln	Notes due in 2012 exchanged for notes due 2015
	PE Fund owners prepare for public offering of part of TDC in 2010	Market value US\$ 8.4 bln	

Table 3. Time line of ownership change of TDC, Denmark, 1994-2009

First IPO

In 1994 the privatization process of TeleDanmark started with an IPO involving 49% of the shares, the remainder of the shares stayed with the state. At that time TeleDanmark was a relatively efficient company in comparison to incumbent operators in Europe; TeleDanmark required 4.3 employees per US\$ 1 mln in revenues, while Deutsche Telekom had 4.6 and BT and France Télécom 5.6. Through TeleDanmark the country had obtained the #3 position in the OECD league table in terms teledensity, after the USA and Switzerland.

Telecom industry ownership

In 1996 TeleDanmark started its international expansion strategy by assuming a 16.5% share in Belgacom, the incumbent operator in Belgium, through an investment consortium in which US-based Ameritech³⁵ assumed a stake of 17.5% in Belgacom.

In 1997 Ameritech becomes a strategic partner in TeleDanmark, by buying a 34% share in TeleDanmark from the state for US\$ 3.2 bln, In 1998, as TeleDanmark buys the remaining shares from the government for US\$ 1.5 bln, the Ameritech share rises to 42%.

The privatization process has yielded proceeds for the government of US\$ 7.7 bln, or 2.1x revenues in 1996 of US\$ 3,641 mln or US\$ 1,685 per access path.³⁶

Over the period 1992-1997 TeleDanmark shows a steady increase in revenues and profits, with an average annual growth of 10.5% in revenues and 12.0% in profits. It steadily expands its international position mainly through mobile interests. In 2000 TeleDanmark changed its name to TDC.

In 1999 SBC and Ameritech merge and as a consequence SBC Communications assumes the shareholding in TDC. In 2001 merger talks between Telia and TeleDanmark failed.

In 2004 SBC Communications announces its intention to withdraw from Europe and to sell its TDC shares, which is effectuated in 2004 and 2005 by private placement and a buyback of shares by TDC. As a result all TDC shares are on the open market again.

Second period public ownership

In contrast to Ireland, Denmark always has been a European leader in the provision of efficient telecom services over a technologically up-to-date network with universal service coverage. TDC's corporate vision was stated in 2005 as "to be the best provider of communication solutions in Europe." As well as continuing dominance of the Danish market, where it owns both the major telecom and cable TV transmission and distribution networks, the company has expanded its portfolio to include significant holdings in nine other European countries, as well as Oman. In 2005 TDC purchased additional operations in Hungary, Sweden and Switzerland. Switzerland is the its most important foreign market, with activities in fixed, mobile and Internet. In addition, it is co-owner of several international partnerships covering services in other countries. Revenue in 2005 stood at €6,245 mln while net income was just under €1,000 mln. International operations contributed nearly half of the TDC revenues. Capital expenditures were about €800 mln. The 2005 Annual Report noted the company expects "to be able to deliver excellent financial performance and solid cash flows in future."

TDC stock was widely held by institutions and retail investors in Denmark, Europe and North America. It has paid a regular quarterly dividend since privatisation. In 2003, the company provided special incentives for employees to purchase shares. In recent years TDC has been able to fund its growth and new acquisitions primarily with internally generated cash, while steadily reducing its debt. Since 2001 its net interest-bearing debt has been cut in half, declining from 38% to 18% of total assets, and from 50% to 27% of debt plus equity.

First PE-LBO

The private equity fund offer was announced on December 2, 2005, being supported by the TDC Board, and completed on February 1, 2006 with the purchase of 88.2% of outstanding shares. TDC was taken over by a group of five foreign private equity firm specialists – Apax Partners; Blackstone Group; Kohlberg Kravis Roberts; Permira; and Providence Equity – in the largest takeover in Europe to that date for just under €12 bln. It was financed by slightly more than 80% in debt. The holding company owning TDC became Nordic Telephone Company ApS (NTCH), its subsidiary NTC holds the shares in TDC.

The 2005 Annual Report notes significant downgrading of the TDC credit rating by Standard and Poor and Moody Investor services as a result of the leverage buyout.³⁷ The acquisition increased TDC's net debt to total assets ratio from 18% to more than 90%, at interest rates substantially higher than those for the previously established debt.³⁸ The new owners have been deliberately vague about why they have taken over TDC and what their plans are, stating only that they expect to own TDC for about five years.

On April 5, 2006, two months after the takeover, TDC declared a special dividend of DK 219.50 per share. The total payout was DK 43,481 mln (€5.9 bln), about half of the share price paid by the new owners, about 47% of TDC total assets, and about twice the equity investment of the takeover partners. It was funded by TDC sales of some of its investments in other countries, additional debt, and the cash reserve TDC had built up in prior years, presumably in anticipation of making long-term investments.

The new owners changes the mission of TDC from 'Best in Europe' to "Focus on Denmark and the Nordic Market". TDC has been selling its companies in other countries, leading to a 23% drop in revenues from 2005 to 2009, as well as hundreds of buildings to be leased back for 30 years. Moreover, it has outsourced its international voice business to iBasis, a subsidiary of KPN, and outsourced the management of its mobile network to Ericsson. Staff reductions continue at 7% per annum. The quality of service standards are reduced. Investments have fallen to less than 80% of depreciation allowance, and are at 60% of the 2001 level.

The evidence to date suggests that the TDC takeover has little or nothing to do with improving the efficiency of TDC. The immediate cash payout of almost half TDC's assets suggests a pretty clear case of 'asset stripping'. This is short-term disinvestment, not long-term investment.

Assessment and outlook

Private equity buyout investment in target companies can have either beneficial or detrimental effects, depending on the type and purpose of the investment. Unfortunately, the evidence to-date suggests that the TDC leveraged buyout is directed to short-term cash generation for the new owners, advisors and managers, at the expense of long-term development of the company implementing its former vision. The

benefits arise from cash payouts, running up TDC debt, selling TDC investments and assets, and minimising operating expenses.

On the short term Denmark's position in the OECD league tables has not deteriorated significantly, which may be attributed to the strategic focus of TDC on Denmark and the Nordic countries, see Table 4 (OECD, 2009). Denmark moved from position #3 to #6 in terms of teledensity and it assumes position #6 in terms of the ratio of investments to revenues. In 2008 the country had the leading position in broadband subscribers density. TDC's share in broadband has grown modestly from 60% at year-end 2004 to 63% at year-end 2009. TDC's cable infrastructure expanded from 38% homes passed in 2005 to 55%, in 2009, with 77% of the homes passed able to receive data rates of 50 Mbit/s. TDC increased its share in cable networks from 40% in mid-2005 to 64% at year-end 2009. Through the acquisition of DONG Energy's fiber network, TDC now operates the largest fiber network in Denmark, with 37,586 km of fiber and 390,000 homes passed. In 2009 TDC's market share in mobile broadband stood at 32%.

Denmark (US\$)	1995	2000	2005	2007	2008-06	Rank
Telecom revenues (xmln)	3730	4173	6574	8162		
Access paths (x1000)	4235 ⁱ	6640	9485	10629		
Revenue per access path	881	628	693	768		9
Revenue as % of GDP	2.07	2.61	2.55	2.63		21
Access paths per 100 pop	62.0	124.4	175.0	194.7		6
Broadband subs per 100		1.26	24.92	35.64	37.04	1
Invest/revenue	21.6	26.7	17.3	20.6		6
Investment as % GFCF ⁱⁱ	1.96	3.45	2.24	2.37		12

ⁱ Interpolated 1993-1996.

ⁱⁱ GFCF: Gross Fixed Capital Formation.

Table 4. Communication statistics Denmark, 1995-2008

However, generation of cash from international and national assets have largely been completed and TDC remains burdened with an unsustainable long-term financial risk that mortgages both its present and future cash flows from operations, and severely impairs its long-term investment capacity. In its present state TDC has no long-term future as a significant player in European markets, and the new owners will have no long-term responsibility for managing the TDC debt mountain they have created that may require crisis management for refinancing in 2014. This suggests that the most profitable option for NTCH in selling off the residual TDC is likely to be returning it to the public share market.

The most significant long-term implications relate to the fundamental limitations being placed on TDC's capabilities for investing in the continued development of Denmark's communication infrastructure for its future economy and information society. TDC's capacity for implementing its universal service and other public service responsibilities for the future is being impaired, as is its capability for playing a role in implementing the IT and telecom sector objectives of the Lisbon Agenda in completing the European market.

Certainly other telecom firms will expand their operations in Denmark to try to fill the gap left by TDC's decline. But as TDC is the provider of the vast majority of telecom facilities infrastructure in Denmark, upon which virtually all other service providers

must rely in order to reach their customers, this is likely to be a lengthy, difficult and costly transition associated with the financial haemorrhaging of TDC, the decline of Denmark's international standing as a leader in the sector, and the removal of an enormous amount of capital from the Danish economy.

Recent developments

By the end of 2009 news emerged that the PE owners are preparing for a public share offering in 2010,

9.3 Conclusions from the Case Studies

The telecom sector case studies of PE-LBO investments in incumbent infrastructure providers in Europe, of which two were discussed in the previous Sections, suggest the following:

- 1) Fund investments can be attracted to incumbent telecom operators that are efficient (Denmark) and inefficient (Ireland);
- 2) Fund ownership does not foster a demonstrable efficiency improvement of a relatively inefficient operator (Ireland), nor has it yet demonstrably impacted the (national) leadership of one of Europe's more efficient operators (Denmark), however it put an end to its international activities;
- 3) Long-term investment in network development is not an evident priority of the Fund owners in any of the countries. Short term gains from cash payouts, disinvestment and resale of the operator are the priorities;
- 4) The levels of debt forced upon the operators after the leveraged buyouts severely constrained the long-term investment capabilities, and established financing structures incompatible with efficient long-term investment;
- 5) Fund ownership has been an exercise in disinvestment and the removal of capital, not new investment in growth and development;
- 6) The managements of the utilities were presented with a serious conflict of interest. The personal rewards were greatest if management facilitated the takeovers and shared in the very substantial payouts. This conflicts with their stewardship responsibilities to the government and the public for developing and managing important infrastructure assets and services.
- 7) The case of Ireland shows that employees can benefit through employee share ownership, if and when they side with the PE fund managers they can ride the bandwagon and enjoy the dividend pay-outs being made.
- 8) The impact of the Fund ownership becomes most clearly visible when the exit strategy is being executed; Eircom was once a firm valued at €6 bln when privatized by the government most recently it was acquired for €140 mln, while carrying debt of €3 bln; the preparation for the IPO of TDC will reveal the equivalent values in due course.

The empirics suggest furthermore that a private equity leveraged buyout is 'an offer one cannot refuse', neither the shareholders, the board of directors, nor the managers; the terms offered are simply made too attractive.

In a leveraged buyout the target company resumes full ownership of the firm by borrowing money from banks to pay-off current share holders. In the process the

ownership and thereby the control of the firm is transferred to the private equity fund. At 'exit' the capital gains, i.e., the full proceeds flow to the PE fund, the valuation of the firm being subject to the debt outstanding.

Assuming debt to reassume full ownership of the firm runs counter to the 'normal operation' of a firm, whereby equity stakes are issued to the private or public investors to obtain external capital to grow the business.

The operational measures employed by PE funds to improve cash flow, such as stretching out payables, reign in receivables, as well as excess spending would have been beneficial to the firm also under 'normal' operating conditions, at least to a certain degree. The measures to divest unprofitable business lines, and sell non-core assets would also have been beneficial *if* they were in line with the strategic long-term development of the firm. The 'PE pressure' may have accelerated the decision making process. However, the cut in R&D expenses, forfeits the future of the firm in curtailing its ability to renew its product portfolio, develop new markets and improve operations. The reduction in capital expenditure may affect its competitiveness due to delayed plant renewal and restricting its growth opportunities.

Through pooling and leveraging the take-over of even the biggest firms has become feasible.

10 Economic performance and private equity leveraged buyout funds

With a fair degree of understatement Melody observes: "It is striking that this myopic short-term focus on cash management for maximum payouts to investors allows for virtually no attention to the dynamic factors that drive market growth, productivity improvements and economic growth. There is no room here for infrastructure investments, innovation, R&D, new technological developments and applications, building human capital by new skill and professional development, research on changing consumer demands and new market development. Thus these private equity leveraged buy-out investments are not directly concerned at all with earning returns from investment in expanding the productive capacity for providing goods and services in the real economy" (Melody, 2008).

Melody argues that: "The case experience suggests that most private equity leveraged buy-outs are overwhelmingly concerned with the financial engineering of a major redistribution of capital. It has been made possible by historically low interest rates, including low premiums for extraordinary financial risk, the tax deductibility of interest expenses, and the opportunity to impose increased financial risk on target firms. The targeted firms are forced to adopt the largest capital debts that can be sustained by cutting operating costs and long-term investments in productive capacity. The capital generated from this activity, and the cash generated from operations and tax savings, the sale of assets and the residual firm is distributed partly to the public shareholders who were bought out and the rest to the investors in and managers of private equity funds" (Melody, 2008).

10.1 Governance and private equity funds

Cendrowski observes: "Though private equity appears to float under the regulatory radar of the US Securities and Exchange Commission, it is not entirely unregulated"

(2008). The Limited Liability Corporation as the primary choice for a PE investment organisation has a number of benefits to their owners over and above the favourable tax regime mentioned above. These LLCs are not required to possess boards of directors or hold annual meetings. The LLCs restrict the number of investors in order to qualify for disclosure exemption available under the Securities Act of 1933. The LLCs also seek exemption from the Investment Company Act of 1940 to avoid registering as investment companies. Moreover, General Partners commonly maintain exemption from registration as investment advisors under the Investment Advisors Act of 1940, by advising fewer than 14 clients. With the enactment of the Tax Reform Act of 1986 the requirement for General Partners to put up 1 percent of the total capital in the fund had also been removed (Cendrowski et al., 2008).

Melody in analysing the PE activity in relation to telecommunications concludes that private equity raises traditional financial market governance issues in a new setting, including: (1) the nature of the principal-agent relation between investors and PE fund managers; (2) market transparency on PE fund activities and performance; (3) the investor understanding of the risks they are assuming; and (4) the implications for taxation (2007a).

11 Private equity lbo and the safeguarding of public values

As Melody observes “Public utilities provide the important infrastructure foundations for all economies and societies. The efficiency of the entire economy and its social relations is heavily influenced by the efficiency, quality and universality of these utility services. They are priority factors in the decisions regarding the location for investment by firms in many industries. They are standard economic indicators of the differences between developed and developing countries. The effects of the efficiency and universality of a country’s infrastructure services ripple throughout the economy and society in a manner that multiplies their impact many times. Because of their centrality to all economic and social life, utility services always have been treated differently from industry in general. Public policy has been directed to ensuring to the greatest extent possible the universal availability of utility services at a reasonable quality and price” (Melody, 2007a).

The public utility industries provide the basic infrastructure for the economy and a variety of social services. Public utility industries differ from general industries in five dimensions as mentioned in Section 2. The transition of utility firms from the public sector to private sector makes these firms attractive to private equity funds, in particular if the firm is fully privatised and the management is receptive to a leverage buyout offer.

The special characteristics mentioned in Section 2 makes these firms attractive targets for leveraged buyouts in particular because these firms provide (Hall, 2006; Melody, 2007a):

- Large, stable cash flows from a customer base that considers the service a necessity and has few, and sometimes no alternatives;
- A significant degree of monopoly power in the primary market(s);
- Public utilities do not maximize short-run profit because primary consideration in decision making is given to long-term investment needs, stable financial structures and public service responsibilities;

- Financial structures and policies are geared to risk optimization for long-term investments in capital intensive fixed assets; the large cash flows provide internally generated capital necessary to meet significant ongoing long-term investment requirements in infrastructure facilities;
- Public utilities own significant public resources and special rights (e.g., land, rights-of-way, eminent domain, radio spectrum, etc.) that are undervalued, or even unvalued assets;
- Public utilities are typically characterized by conservative management, often carried over from the prior government service model, and management policies and practices are often untested by competitive markets and of varying efficiency;
- Public stockholders who are attracted to public utility providers have been investors looking for a stable long-term return with regular dividends and reduced market risk. Stock prices will reflect this.
- Industry specific governance/regulation is limited typically to certain service performance objectives in basic services and does not extend to ownership, financial policies, pricing for most services, or profit control.

These distinctive characteristics and circumstances of public utilities in Europe suggest that the overall effects of private equity fund takeovers are likely to be highly negative with respect to both infrastructure development and the longstanding public policy objectives for public utilities.

- The potential impact of private equity leveraged buyouts on the performance of the targeted telecommunication firm is ‘generic’ and is primarily concerned with the ability of the firm to meet the general ‘public interest’ objective of continuity of service, renewal of the network, the modernization of the network to provide new services (for instance upgrades to higher data rates), and service innovation.

Note: In this contribution we address only sector specific public values. Other concerns related to private equity activity such as employment levels and tax contribution are considered to be outside the scope of this project.

In the following Sections we will assess the potential impact of private equity leveraged buyouts in the telecommunication sector using the two policy perspectives ‘regulatory’ and ‘developmental’. Using these two perspectives provides a contrast that deepens the insights. It should be noted that in practice these two pure forms do not exist. Moreover, there is no need for a choice to be made between the two forms prior to assessing the impact of private equity leveraged buyouts in the telecommunications sector. However, the intervention deemed appropriate is subject to the role perception of the government.

11.1 Assessment in the perspective of a ‘regulatory state’

Within the regulatory state the government operates at a distance and plays the role of the ‘night watch’. Such a government is small and first of all a facilitator of what ‘society wants’. In terms of information production and diffusion it is the ‘lender of last resort’. After all other options have been tried the state plays the role that remains. It monitors and in case it discovers inconsistencies it does not intervene, but feeds information back into the system. The regulatory state is strong with respect to the maintenance of the rules of the game: supervising the process is central and in that respect the state intervenes strongly based on strict rules of competition.

Against this background the emergence of private equity leveraged buyouts is ‘just another’ asset class, a result of innovation in a quest to pursue private gains. The way private gains are achieved is left to the market as long as it is lawful. Massive capital re-allocation is one of the mechanism that can be applied to achieve that goal. Capital that is ‘freed’ can be reinvested elsewhere.

Considering that the ultimate test for the ‘shareholder value’ perspective is the degree of protection against hostile takeovers, under the ‘regulatory regime’ any remaining protection should be removed in the interest of the proper functioning of the market for corporate control.

Corporate governance rules having been enacted to protect the shareholder as owner of the firm in the principle-agent relationship with the board and the management, and disclosure rules having been enacted to facilitate the proper functioning of the stock market, these become redundant once the firm is taken private.

If a firm having been impacted by a leverage buyout fails, other firms are expected to take benefit of the opportunity being provided.

As in this perspective the public interests are perceived to be best served by the pursuit of private interest, perceived impacts of ‘public interest’ will not lead to intervention. The outcome is one of many and a result of the operation of competitive markets.

Interestingly the country that is most often cited as a prime example of the ‘regulatory state’ – the USA, has a very strong involvement of government in the infrastructure sectors. Regulatory agencies in the US have strong regulatory powers over the financial practices of public utilities because they are “businesses affected with a public interest”.

A private equity fund leveraged buyout of an incumbent utility operator that was the dominant provider in its industry with universal service and other public interest obligations could not take place in the USA, today, without advance approval from one or more utility regulatory authorities, and ongoing regulation that encompassed both operational and financial matters (Melody, 2008).

The development of this regulatory practice in the telecom sector may be a result of the fact that in the USA the incumbent telecommunications firm has always been a private entity with shares listed at the public stock market. Hence, the principle-agent issue in safeguarding the ‘public interest’ through a ‘private firm’ has always been a matter of government involvement.

Note that as the financial system fails governments with a ‘regulatory’ perspective, or strong proponents of ‘free market fundamentalism’ do intervene, as ‘lender of last resort’, as the (extreme) outcome of non-intervention is deemed unacceptable to the public at large, viz. the recent interventions in the financial markets in the USA and the UK.

11.2 Assessment in the perspective of a ‘developmental state’

In the ‘developmental state’ government develops, in consultation or without consultation of the private actors, a vision about the desired future. The state defines the objectives and the instruments to be used to realise the vision. Such a state is well informed, is an authority in society, and well respected because of its power to guide and direct structural developments.

Not necessarily all private equity leveraged buyout activity needs to become subject of government intervention. Although a ‘developmental state’ could be inclined to

discourage or ban all ‘investments’ that are aimed at capital redistribution and not at the addition of economic value in the production of goods or services.

In the ‘developmental’ perspective the emergence of private equity leveraged buyouts is a major concern as the outcome may impact the ‘vision’, whether articulated in more general terms of ‘public interests’ or through more specific ‘public values’ being safeguarded through enactment by law. A ‘developmental state’ will be inclined to act *ex-ante* to avoid outcomes that are deemed not to be acceptable.

If ‘public interest’ are not safeguarded (anymore) through the normal operation of the market, intervention will be required. Given the operational process of private equity leveraged buyouts any safeguarding will have to be assured upfront and through enactment of laws and regulation.

From a socio-political perspective in a ‘developmental state’ the redistribution of capital may be considered primarily a role for the state, to realise objectives related to equity and a minimum economic and social living standard for all citizens.

In a ‘developmental’ perspective we expect a more balanced view on the purpose of the firm and the stakeholders involved. The so-called ‘Rhineland’ model is an example of multi-stakeholder governance.

In assessing the options to intervene the ‘developmental state’ will assess whether the market may provide the mitigation required or whether intervention is warranted, taking into account the cost of intervention and the risk of ‘market failure’ being replaced by ‘government failure’.

11.3 Assessing the impact of telecommunication firm failure

Whether the government should intervene and whether this intervention should be general or specific can be made dependent on the impact of a private equity leveraged buyout on the sector. And following the systems approach for that matter on the economy at large. For such an assessment we need to assume a particular firm to be targeted.³⁹

If we assume the impact is most severe if the firm fails, the impact depends on the size of the firm and the ability and willingness of other firms to take over the interests after bankruptcy. The structure of the industry will be important to consider. The ability will be positively influenced by the customer base that can be taken over. The willingness will depend on the appreciation of the assets, an aged network in need of replacement will command a lower price than an All-IP network.

Of importance is also to assess the risk of black-outs in the period of protection against bankruptcy, until a solution has been arranged through the court.

For this same reason firm failure may not be the worst outcome. This may be a firm haemorrhaging for a long period of time, meanwhile being unable to serve the ‘public interests’.

Whether a market solution can be acceptable also depends on the impact on the ‘public interest’ at stake and ‘specific ‘public values’ assigned to the firm. Again the size of the firm matters, as well as its role in the telecommunications infrastructure. In general, the failure of an incumbent firm or former national monopolist will be most severe.

When considering specific ‘public values’ such as ‘universal service’ the issue may not be severe, as mobile communications may provide an alternative for the USO linked to the fixed network.

If the incumbent firm to which the USO has been assigned fails, it may be difficult to re-assign USO to another firm(s) not being the owner of a legacy network and hence not having a favourable starting position, i.e., without financial compensation.

11.4 Instruments in the perspective of a ‘developmental state’

An impact assessment of the type described in the previous Section is expected to be possible on the basis of the powers granted to most telecom regulators in Europe in the context of regular SMP reviews. However, this assessment will have to be very regular if not ‘continuous’ as a consequence of the dynamics of the financial sector.

The approach presented above assumes a preference for failures to be corrected by the market, i.e. a ‘regulatory’ perspective applies. The major issue associated with this approach is the uncertainty as a result of the many unknown, market driven factors. Moreover, the approach suggested is not preventive but corrective and hence the ‘damage may have been done’ and the government may have to step in as ‘lender of last resort’. It should be noted that the incumbent operators own the physical infrastructure for most of the country, so the entire industry, user base and economy depends on its functioning at a reasonable level. It is typically considered too big to fail and in that case the state will have to step in as ‘lender of last resort’.

If an initial assessment as described above is performed and the conclusion drawn suggests that (1) a solution through the market is not likely; or (2) the potential impact may be unacceptable; *and* (3) as private equity leveraged buyouts can not or will not be outlawed; *and* (4) as the takeover proposal will be an offer that can not be refused, the remaining solution implies that telecom regulators will need to have their regulatory powers extended and strengthened to enable effective governance over telecommunication firms that are or may become subject to financing practices of leveraged buyout funds.⁴⁰

One measure that could be applied nationally is to set a ceiling regarding the debt/equity ratio that is allowed for firms representing a significant public interest. While, this may discourage highly leveraged buyouts, it will not necessarily prevent a subsequent redistribution of capital.

In that case, firstly, telecommunication regulators will need to obtain complete transparency with respect to all transactions affecting the implementation of existing (and new) public service responsibilities, including financing, investment and expenditure activity, as well as the periodic reporting of indicators of public service performance. This calls for a monitoring function.

As corporate governance rules have been enacted to protect the shareholder as owner of the firm in the principle-agent relationship with the board and the management, implementation of these rules may be considered to govern the principle-agent relationship between the ‘public’ and the ‘private’ interests for telecom firms being publicly listed or privately owned.

In that case, secondly, regulators will need to be empowered to prevent financial practices and transactions that are contrary to the public interest in infrastructure and services development. The simple fact that regulators have these powers may provide the incentive to avoid these practices.

Specifically, telecom regulators will need to be empowered to require the telecom firm to put forward the following items for advance approval against the public interest standard (to be) established in the law (Melody, 2008):

1. All proposed payments to owners and their affiliated companies and partners, fees for financial services, non-arm's-length transactions, management fees and bonuses;
2. A sustainable long-term investment program that will continue infrastructure and services development to meet the public interest obligations under the law;
3. A sustainable long-term financing plan based on generally accepted norms for utility sector financing;
4. A sustainable long-term human resources development plan to make full and effective use of staff resources;
5. A research and development program appropriate to ensuring the firm maintains efficiency in the light of technological and market changes.

In that case, in the light of the potential negative effects of private equity fund ownership on telecommunication infrastructure development, governments may wish to consider applying the principles applied in the early days of privatisation, i.e. upper limits on the percentage share ownership of a single party to protect against the takeover by special interests with a narrow agenda, and/or retaining a single "Golden Share" of equity ownership, to ensure the government is informed of the firm's plans, and to reserve the power to veto major decisions if the government believes they are contrary to the public interest.

Enacting the new legislation to provide regulators with these powers may already discourage private equity fund leveraged buyout funds in targeting telecommunication firms.

11.5 Reflecting on the current economic climate

The changed conditions in the financial sector and now the economy at large suggests that the climate for private equity leveraged buyout activities has changed.

Aspects that may be mentioned that work positively for the funds are:

- low interest rates,
- lack of high yield alternatives in the investment market,
- telecommunication revenues and income will be impacted by the crisis, but most likely to a lesser degree, hence, telecommunication firms have become, relatively speaking, more attractive.

Aspects that may be mentioned that work negatively for the funds are:

- lack of credit in the market,
- delay in privatisation activity by governments.

One may conclude on the basis of this highly qualitative assessment that the risk of telecommunication firms becoming a target of private equity leveraged buyout funds has not diminished.

The risk of failure of firms already having been taken private through leveraged buyouts has increased, as the servicing of debt will be more difficult.

12 Conclusions and recommendations

The concerns being raised on the role of the financial sector in general and private equity buyout funds in particular in the development of the telecommunication sector and the safeguarding of public values is justified.

The operating principles of private equity buyout funds and the experience from recent cases in Ireland (*eircom*) and Denmark (TDC) provide the evidence.

The purpose of the funds is massive capital reallocation in favour of the investors and the fund managers. The operational model is not aimed at the creation of economic value through the production of goods or services.

The targeting of telecommunication firms by private equity leverage buyout funds is to be expected given the characteristics of the business model of telecommunication firms. It is a natural step in the development of the sector since privatisation, when the financial sector became involved in the telecoms sector.

While the impact of private equity leveraged buyouts may in general be absorbed by the market, the importance of the telecommunication sector for the development of the economy and society at large requires special attention to the performance of these firm in serving the 'public interest' in general and certain 'public values' in particular.

As the offers made by private equity buyout funds are too good to be declined by shareholders, boards and the management, the role these funds may assume in the firm can not be mitigated through existing corporate governance structures. In fact, these structures become redundant once the firm is taken private.

In The Netherlands, in completing the Reform process the state has relinquished its influence on the incumbent telecom firm, the remaining financial stake in KPN has been sold in 2005, and to meet financial market demands for 'good governance' the 'Golden Share' has been relinquished.

Depending on which telecommunication firm(s) is being targeted the market may mitigate the effects. However, if a large firm and/or a firm that represents the 'public interest' at large is being targeted the outcome may be deemed economically and/or politically unacceptable. In that case, new policy measures will need to be designed and enacted to prevent the undesirable outcomes.

In that case, public utility regulators and more specifically telecom regulators will need complete transparency with respect to all transactions affecting the implementation of existing public service responsibilities, including financing, investment and expenditure activity, as well as the periodic reporting of indicators of public service performance. Moreover, in that case regulators will need to be empowered to prevent financial practices and transactions that are contrary to the public interest in long-term infrastructure and services development.

This recommendation in that case implies the need for continuing *ex-ante* involvement of governments in the development of the telecommunication sector, not because telecom services markets are not functioning properly, but because financial markets are not operating in line with public interests. As a consequence and to safeguard public values the government may wish to shift its role from a predominantly *ex-post* regulatory role perception to a more *ex-ante* involvement in the sector. In that case, *ex-ante* monitoring and potentially intervention will require a pro-active stance of

government and are expected to have implications for the resources and capabilities of the organisations involved.

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Notes

¹ The term telecommunication sector is used to denote the service operator segment of the telecommunication industry. The industry is understood to include the manufacturers of telecommunications equipment and the users of telecommunication services.

² Although private equity and hedge funds are often mentioned together in relation to 'activist' or 'aggressive' financial practices the focus of this contribution is on private equity leveraged buyouts, whereby firms are taken private to be 'restructured' and 'streamlined' for subsequent sale at a profit. Both asset classes have similarities, they are based on private pools of capital and they are not quoted on the stock market. The investments are not liquid, they are lightly regulated and lightly taxed. They borrow money for leverage to enhance their returns. However, hedge funds are involved with publicly listed companies only, while private equity leveraged buyout is based on taking publicly listed firms private (Coggan, 2008).

³ In both the regulatory and developmental state the market is considered to be central. In the regulatory state the outcome is solely driven by the market, only to be corrected by the government when a market failure occurs. In a developmental state the government is interested in the outcome of the market process and steers towards the desired outcome. The steering can be very light (information supply), in the form of facilitation (tax incentives, subsidies) or very direct (assuming control).

⁴ Subscription fees varied widely (Hfl. 30-120), the higher fees applied for the bigger networks, the main argument used by the owners being that the cost of networks increase with increasing numbers of subscribers.

⁵ In some countries the transposition of these EC rules into national legislation occurred after Jan. 1st 1998.

⁶ In effect the control of the state enterprise is relinquished gradually: multiple steps in the sale of stocks, and be retaining and ultimately relinquishing a 'golden share'.

⁷ See Chapter 6 in Lemstra (2006) for a discussion of the CLEC crisis.

⁸ Collingwood argues that quarterly management of information has very real costs: "The fetishistic attention to an almost meaningless indicator might be cause for nothing more than amusement, except for one thing: the earnings game does actual harm. It distorts corporate decision making. It reduces securities analysts and investing to a guessing contest. It compromises the integrity of corporate audits. Ultimately, it undermines the capital markets." (Collingwood, 2001).

⁹ A typical example is LDDS-WorldCom. See also (Jeter, 2003).

¹⁰ Acquisitions were also attractive through the possibility of “pooling of interest”. This method allows the acquired company to take on the books the acquisition target at its book value, or at historical cost, rather than the actual cost paid. This allows the buyer to shift the premium paid or overpaid to the future (Endlich, 2004). The difference appears as ‘goodwill’ on the balance and will have to be written off at a future moment.

¹¹ The Chairman of Global Crossing Garry Winnick was trained by Michael Milken, the junk bond ‘power house’ at Drexel Burnham Lambert, to learn the ‘art of leverage’ (Malik, 2003).

¹² A typical range would be between 12 and 18 percent for the internal rate of return for a firm in the telecom equipment industry. The rate of return for the Iridium project was above 40%.

¹³ A process exacerbated by conflicts of interest at the level of the individuals involved.

¹⁴ Another example is the changes in the investment portfolio policy of pension funds, these were relaxed with respect to the percentage of stocks that could be held in the portfolio, at the time these long-term oriented protective measures were most needed.

¹⁵ Other sources used in the compilation of this overview: (Lemstra, 2006; Mueller, 2002; Van Eeten et al., 2007)

¹⁶ Off-net calling to reach subscribers on the (mobile) telephone networks is typically provided by VoIP providers.

¹⁷ See also (Bauer et al., 2007) on the issue of malware and economic incentives.

¹⁸ When the market is not favourable for IPOs, VC rely on private financing to exit.

¹⁹ This data reflect a study of 419 venture capital partnerships in the USA in the period 1970-1990 (Gompers and Lerner, 1999).

²⁰ In 1979, through the Stieger Amendment the US Congress had reduced the maximum capital gains tax rate from 49.5% to 28%. Through the Tax Act of 1981 this level was lowered to 20%.

²¹ EBITDA: Earnings before Interest, Tax, Depreciation and Amortization.

²² These are publicly listed private companies.

²³ This includes payment-in-kind loans with deferred interest payments (Wester, 2008).

²⁴ The practice has been called ‘leveraged recapitalisations’ and described as ‘the cocaine of private equity’. Standard and Poor reported that the quality of debt has become very weak, 75% of the loans being rated as single “B” range of junk debt. Default rates of firms with leveraged recaps were as high as 6% (Hall, 2006).

²⁵ The fall of RJR Nabisco is documented by Burrough and Helyar in “Barbarians at the gate” (1990)

²⁶ The updates are based for Ireland on (Barrett, 2004; Palcic and Reeves, 2008) and to a large extent on newspaper reports in the Irish Times, Irish Examiner, the Independent, FinFacts Ireland, The Post as well as other electronic sources business&finance, ESOP, finance-magazine, telenor, totaltele.com, allbusiness.com, rtebusiness, telegraph.co.uk, CIT publications and telecomseurope.net. For Denmark on (Falch and Henten, 1997) respectively allbusiness, Bloomberg, fundinguniverse, redorbit, reuters, totaltele.com and TDC annual reports.

²⁷ Dargan, M. (1979) Report of the Posts and Telegraphs Review Group. Dublin.

²⁸ It is assumed that the OECD reported data for the country represents the incumbent data at privatization.

²⁹ The Valentia Consortium is headed by the Chairman of the ‘Independent News and Media’, a media organisation based in Dublin, Ireland with interests in 22 countries on 4 continents worldwide. The company owns over 200 print titles, more than 130 radio stations, over 100 commercial websites and many billboard locations, and is a leading press player in five countries. The INM group of companies has been dominated by Tony O’Reilly, CEO, and his family. After the take over O’Reilly became executive chairman of Eircom.

³⁰ ESOT has been able to generate an average of €42,000 worth of cash for each of its 14,000 members and its stake in Eircom would be worth €47,000, based on a replacement value of €2.2 bln given by Valentia (www.independent.ie/business/irish/staff-trust-nets-228m-in-deal-212960.html).

³¹ The consortium is led by former BCM director Rob Topfer, and involves former *eircom* chief executive Rex Comb.

³² STT is involved in Star Hub, the second telecoms group in Singapore, and has interest in fixed and mobile communications companies in Asia and owns Global Crossing.

³³ The deal is consummated through a special purpose company Emerald Communications, based on the Cayman Islands. As part of the agreement, ESOT is expected to roll over its 35% stake into this new entity.

³⁴ A more extensive discussion of the TDC case can be found in “The private equity takeover of telecom infrastructure in Denmark: Implications for network development and public policy” (Melody, 2007b)

³⁵ Ameritech is one of the US Regional Holding Companies being created in the break-up of AT&T in 1984, as is SBC.

³⁶ It is assumed that the OECD reported data for the country represents the incumbent data at privatization.

³⁷ Moody's for instance downgraded TDC's bonds to 'non investment grade' status Ba1.

³⁸ Interest payments were assessed at about the level of annual earnings (nb!ict, 2006)

³⁹ If multiple firms are being targeted and/or have been or are subject of leveraged buyouts the analysis will need to take these conditions into account.

⁴⁰ It is conceivable that financial regulation is enacted that limits the degree of leverage applied in PE-LBO transactions. However, this is not very likely as it would require international agreement, whereby public interest objectives applicable to one type of firm would affect another.