



NEW DIRECTION

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The Privatisation Goldmine

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In Brief

- Many EU countries are suffering from an economic crisis of high public debt and low growth. Despite the potential to reduce debt and improve economic performance by privatising state assets, most European governments are doing remarkably little in this direction.
- Research shows that the privatisation of formerly public enterprises raises labour productivity by 19 % on average in the years subsequent to the privatisation.
- Other reasons for privatisation include increasing efficiency, public budget relief, higher profitability, increased productivity, lower prices, higher service quality, more innovation and positive impacts on domestic capital markets.
- Privatisation is suitable for all industries that can be disciplined either by competitive forces or by effective regulation. Sectors well-suited for privatisation include postal services, telecommunications, energy, transport and real estate.
- The public debt crisis is bringing privatisation back on the agenda of European member states. However, the political willingness to privatise has not been as high as would be expected in times of a public debt crisis.
- The public debt burden and the resulting bailout by the EU and IMF were responsible for strong privatisation activity in Portugal. Greece is expected to follow suit in the coming years.
- However, there are very few plans to privatise state-owned assets in member states that are not on the receiving end of the Euro rescue fund, with the exception of the United Kingdom and Poland.
- The United Kingdom is resuming its role as a pioneer of privatisation with the planned privatisation of its postal service and by outsourcing services that have traditionally been considered as belonging to the responsibilities of the State in a range of sectors from healthcare to emergency services.
- Research shows that the potential for privatisation in large Euro zone countries such as France, Italy and Spain is equivalent to around 5 % of GDP (DB Research, 2011).
- Public debt could be cut by 5.9 % in Spain and by 5.5 % in France from privatisations. Italy has a privatisation potential of around 4 % of public debt.
- In addition, over time, total productivity increases from privatisation could amount to 3 % of GDP in France, 2.3 % in Italy and 2.2 % in Spain.
- The potential in smaller Euro zone countries with a lower privatisation potential such as Ireland is around 3.25 % of GDP, and more than 6.5 % in those with substantial privatisation potential such as Greece.

1 Introduction

In the aftermath of the deepest recession since the Great Depression of the 1930s, public finances in most EU countries have worsened dramatically; some countries face or have faced public insolvency. Most member states are still suffering from low economic growth or even recession that is debt-related. Given the enormous budget consolidation requirements brought on by this crisis, in addition to efficiency considerations, a powerful motive for privatisation exists: the opportunity to tap additional revenue sources in the short and medium term and improve productivity.

The time has come to (re-)examine to what extent further potential for privatisation is still available at all levels of government. Not only can a privatisation programme be beneficial for the state as the seller and to the new owners, but it also benefits the company itself and its customers.

Investors are primarily interested in a successful investment. In particular, though not exclusively, above-average returns are the result of efficiency gains in privatised firms. External know-how and new technologies are often introduced in privatised firms. If privatisation leads to higher profits and higher employment, the State benefits from increased tax revenues as well as higher social security contributions (due to a higher profit tax volume and a higher wage income tax volume within the company). Additionally, privatisation proceeds can be used to reduce public debt. The privatised company benefits from an extended capital base and higher competitiveness. The economy in general enjoys additional value added created by the privatised company. Supply and delivery structures also create additional value added, plus the associated indirect and induced employment effects, both upstream and downstream, in the value chain.

This paper is in four parts. First it explains the theoretical evidence for the benefits of privatisation, before moving on to look at the practical experience of it. Third, it shows that in practice most EU governments are not seriously seeking to exploit the potential for privatising state assets. And finally, drawing on previous research by Deutsche Bank and others, it estimates the economic benefits on offer from privatisation in Europe.

2 Theoretical analysis of privatisation

In this chapter the rationale for and against privatisation is discussed, and the advantages and disadvantages analysed.

2.1 Privatisation, liberalization and deregulation

The term "privatisation" is generally understood to denote the transfer of public assets to private ownership by sale or by changed the legal status, and this definition will be used in this study.

"Deregulation" means the reduction of government intervention with regard to market access, market conduct and market exit as well as with respect to the creation of new markets. It is the removal of or a simplification of market regulation.

"Liberalization" refers to relaxation of restricted market access for competing providers and the gradual abolition of quantitative and qualitative trade and investment barriers.

2.2 Public ownership of firms

During the 20th century, up to the beginning of the privatisations that took place in the first half of the 1980s in Great Britain, it was generally accepted that the state should at least control 'natural monopolies' such as telecommunications, postal services, electricity and gas supply as well as airlines and railroads. In part this was also true of arms manufacturers and commercial banks of systemic importance.

In the past, market failure arising from the existence of natural monopolies was often considered to be a justification for public ownership. A natural monopoly occurs when a single supplier can provide the quantity demanded at a lower cost than would be the case with multiple providers. Examples of natural monopolies are the electricity, gas, telecommunications, railway, postal services and wastewater sectors. Natural monopolies are in a position to charge price premiums from consumers. This is why it has often been argued that it is better when natural monopolies are in public ownership (see e.g. Shleifer, 1998). This standpoint is also called the social view.

However, the assumption that private firms maximize profits while public enterprises maximize the total welfare is unrealistic. Public firms are run by managers and these are often not only interested in maximizing total welfare, but also in acting selfishly in order to increase their personal income and assets, as well as their own power and reputation (see e.g. Wieser, 2007).

Under certain conditions – through regulatory mechanisms – private natural monopolies can be more advantageous than publicly-owned natural monopolies.

2.3 Main motives for privatisation

Cavaliere and Scabrosetti (2008) list three reasons why countries might consider the privatisation of public enterprises:

- (1) Improving the efficiency of firms: It is often assumed that privatisation increases efficiency when the market takes over the allocation of resources. Theoretical studies generally show this to be true when considering productive efficiency.
- (2) Strengthening financial markets: Empirical evidence shows that privatisations have a positive impact on financial market development. In addition, privatisations contribute to an increase of stock market capitalization and global trading on the financial markets (Megginson and Netter, 2001). The effects of privatisation will be discussed further in the following section.
- (3) Reduction of public debt¹: The privatisation of public enterprises can relieve the public budget if the firms previously received government subsidies, which are then reduced or stopped completely. If previously subsidized firms are profitable after privatisation, then this increases tax revenues (from taxes on profits and if employment was increased, also from taxes on incomes). A prerequisite for a positive impact on the public debt is that privatisation proceeds are used to repay public debt.

PricewaterhouseCoopers (1989 a, b) mentioned as additional reasons:

- (4) Reduction of state intervention in the economy,
- (5) More competitive market environments facing state-owned enterprises,
- (6) Market discipline on former state-owned enterprises,
- (7) Enlargement of the number of owners (shareholders).

Privatisation is further facilitated by technological change resulting in the declining importance of physical networks. The emergence of wireless communication, for instance, led to a smaller minimum efficient scale and thus leaves room for more competitors given a certain market demand. Another factor facilitating privatisation was a change in the mind set. In the 1980s and 1990s economic theory developed a new approach for finding areas fit for privatisation. Whereas until that time, economists had sought for industries (as a whole) suited for privatisation, they then adopted a disaggregated approach, aiming to separate of the competitive from the non-competitive elements within a given sector.

2.4 Incentive problems of state-owned firms

In competitive markets public ownership generally leads to significant efficiency losses compared to private ownership. This is because private firms can deal more effectively with information asymmetries and enforce incomplete contract incentive systems better than public firms. Public ownership can lead to efficiency losses for the following reasons:

(1) Less monitoring by owners

Monitoring can be used to encourage managers to represent the interests of the owners. For public firms this is generally more difficult than for private firms, because the State (the public owners) often has multiple - and often competing - aims. Furthermore, the owners of public firms (the citizens) do not communicate directly with managers and do not control them. The voters (as owners) elect the political representatives and these in turn control the managers. The owners of public firms receive little information on the efforts of the management and may only respond indirectly and very rarely, such as during elections.

(2) Soft budget constraints – no risk of bankruptcy

The managers of the publicly owned firms have a stronger motivation to let a company grow faster than it may make sense from a business point of view, because they are exposed to less strict or no budget constraints (Kornai, 1986). Soft budget constraints arise from the fact that for public firms there is generally no risk of bankruptcy. In case liquidity problems arise, a public subsidy is supplied more readily (by raising or re-allocating taxes) than to force a publicly-owned firm into a situation, where it has to file for bankruptcy, thus causing uproar with the employees, the worker unions and the public. This can affect the behaviour of managers in so far as they tend to use resources more freely and take higher risks when selecting investment projects.

(3) No takeover threat

One reason why public firms are generally monitored less and are under less control than private firms is that public firms are not listed and therefore not subject to a takeover threat. In addition, public ownership means that there are no shareholders to sell their shares when they are unhappy with the firm's performance. This may affect and influence the company's performance negatively (Vickers and Yarrow, 1989). The debt markets usually take no disciplinary role, because the debts of public enterprises are treated differently.

(4) Political interference

Inefficiencies occur when the managers of public enterprises pursue objectives other than those of private enterprises, for example, the satisfaction of political interests (Shleifer and Vishny, 1994). The managers of public firms tend to incorporate political objectives into corporate objectives, such as the preservation of jobs or the acquisition of political prestige. This often happens at the expense of efficiency.

(5) Heterogeneity of the objectives

Public firms face no single overriding objective, such as the maximization of shareholder value, but are dominated by a variety of interests and desires (political involvement). This makes it much more difficult for managers to run the company, since its objectives may partially conflict with each other.

2.5 Efficiency comparison of public and private firms

Sappington and Stiglitz (1987) have proposed a so-called "fundamental theory of privatisation". Under certain conditions, the efficiency of production is not affected by the ownership structure

(private or public). This result is reached under certain strict assumptions concerning information, risk-aversion and collusion. For example, the State can outsource the provision of a good – through an auction mechanism – to a private company, which in turn receives the rights to provide this public service. Under the restrictive assumptions of the model, both productive and allocative efficiency can be achieved.

Productive efficiency is defined as a state when an economy is on its production possibility frontier and cannot produce additional amounts of a good without lowering the production of another good. This condition does not necessarily result in price reductions. If there are no price reductions, the new private owners mainly benefit from lower costs, but partly also the employees or certain groups of employees. From the perspective of the consumers it is of essential importance whether prices converge to the welfare-maximizing price level, i.e. whether privatisation will result in *allocative efficiency*².

Some economists believe that it is only crucial to create competition, no matter whether the owner is private or public (Stiglitz, 1992). However, the subsidy of a market dominating public enterprise prevents other firms from entering the market, even if market entry is legally possible. This is especially relevant in the case of natural monopolies. This is one of the reasons why today private ownership with a regulatory framework is generally preferred to public ownership.

It can be shown that private ownership is more advantageous (in terms of the efficiency achieved) than public ownership if the relevant market is larger, so that the national economy is open to international trade and there is technological progress (Sheshinski and Lopez-Calva, 2003).

2.6 Market form and privatisation: Natural monopolies – is privatisation possible?

The general discussion on the pros and cons of privatisation shows that privatisations certainly increase efficiency in competitive markets. For natural monopolies it is however not sufficient to create the legal conditions for market introduction and exit. Instead a suitable regulatory framework is required in sectors without sufficient competition.

From the point of view of the Austrian School of Economics, regulation was designed as a measure only for a relatively short time period leading up to competition (see for example Littlechild, 1983). In practice, however, there are sectors with cost functions that exhibit significant sunk costs like electricity transmission and distribution networks as well as railway networks. In sectors with such properties, most economists do not think it is possible that competitive market outcomes can ever be achieved. Most economists believe that network competition cannot lead to efficient outcomes.

Services that are or were traditionally publicly provided, but that do not constitute natural monopolies, such as passenger or freight transportation, might only need regulation as a measure to create competition. In parts of the telecommunication sector, phasing out of sector-specific regulation may well be possible, for instance in mobile communication. In this case, general competition law can be sufficient for maintaining workable competition. This is in line with the view of the Austrian School of Economics.

Due to the inefficiencies of public enterprises, private ownership with appropriate regulation is propagated by economic literature for most sectors. This development was influenced by the theory of contestable markets (see Baumol et al., 1982). Markets are contestable if market entry and exit are possible freely (without costs). In practice, however, it is difficult to find markets that are subject to these conditions, since neither sunk costs, nor entry and exit barriers are allowed. But the theory of contestable markets is still used today to identify competitive market segments.

For natural monopolies we can make the distinction whether there are sunk costs or not. Sunk costs represent costs that incurred in the past and which are irrevocable, such as fixed networks of pipes, wires or tracks.

Natural monopolies and high sunk costs

In the case of natural monopolies and high sunk costs, the majority of the economic literature today recommends private ownership together with adequate regulation. In Continental Europe, back in the 1970s, public ownership was preferred. Because of the efficiency problems connected with state ownership, economists have tended to advocate private ownership with a high degree of regulation in recent decades. Natural monopolies and high sunk costs arise, for example, in the power sector, the gas sector and in the railway sector. In the electricity and gas sector only the transmission and distribution networks are subject to high sunk costs, thus only these areas require a high degree of regulation. The production, distribution and trading of electricity and gas are viewed as being potentially competitive.

The wastewater sector is another example of such a market form. The wastewater sector is considered to be a public responsibility in Austria, for example. In France, however, concessions are awarded to private firms that then operate the water sector for the contractually specified time period.

Natural monopolies and low sunk costs

For natural monopolies with relatively low sunk costs, “Demsetz auctions” can be considered as a method for weakening or diminishing monopoly power. Examples for natural monopolies with low sunk costs are postal services and bus transport. Waste collection is another sector where sunk costs are low, though if demand for such a service is also low (for example, in rural areas), it can constitute a natural monopoly.

Demsetz auctions award an exclusive right to the agent bidding the lowest price for the provision of a good or service for some contractually specified time period. The franchise is awarded via competitive bidding. The firms willing to provide the good or service submit bids in the form of the uniform price that they would charge in case they are awarded the franchise. The firm offering the lowest price wins the auction. At the end of every contractual period, the rights can be auctioned off in a new auction. Demsetz (1968) auctions can act as a substitute for traditional-style price regulation. In practice, however, the incentives for long-term investment provided by the monopoly franchise can be too low if the contractual period is too short.

Demsetz auctions can also be used to auction-off the right to operate natural monopolies with high sunk costs such as the wastewater sector or local or urban transportation by underground or tram. Franchise bidding is used in the water industry in France (see for example Meister, 2005).

Natural oligopolies

Natural oligopolies have a number of natural competitors greater than one, i.e. two or more providers can serve the market at a lower cost than one or many firms. Air transport is an example for a natural oligopoly with few and relatively large firms. Efficient market outcomes can only be achieved under certain conditions in the case of a natural oligopoly, for example under 'Bertrand competition'.³

General view on regulating markets with limited competition

Overall, it can be said that recent research on the microeconomic effects of regulation has moved away from the question whether private ownership increases efficiency in markets with limited competition, and has moved its attention to the question of how to regulate private ownership for this type of market.

2.6.1 Regulation of natural monopolies – Unbundling

The current literature regarding suitable regulatory measures for sectors that are natural monopolies takes the monopoly firms' position in the value chain into account. This approach is called a *disaggregated approach to regulation* (Knieps, 2008). Unbundling may follow different criteria. Ownership unbundling specifies that there must be different owners for the split sub-segments. Also a separation of accounting may be prescribed. In a split-up of vertically integrated monopolies, however, the advantages of vertical integration are lost. The expected costs have to be compared to the expected advantages of increased competition. For an overview of the regulatory literature, see Laffont (1994).

Disadvantages are the high costs of regulation and the fact that regulation is only effective if access to the necessary data is guaranteed – even if this is against the will of the firms concerned.

2.6.2 Privatisation of non-profitable public firms

In some public firms prices are set in such a manner that they do not cover the costs. This occurs for political reasons. In the case of public transportation, for example, these include environmental reasons in order to avoid too much private transportation. A distributive reason, why public transportation prices often are set below costs, is to subsidize people who do not own cars, as people who do not own cars are generally poorer. A third reason is to enable people that are too young or too old for owning a car to move around, to get to school, to work and to buy their food and clothes.

If such a firm is to be privatised, profitability is not possible given the existing price policy. One option would be to abandon the low-price policy. In case that the price policy is to be adhered to, the state can continue to set the retail prices at a low level and sell the company under this condition. However, in order to find buyers for a public company with an expected negative net present value, a one-time subsidy from the State is required. This subsidy needs to be so high that the expected net

present value of the company is positive, so that a purchase is attractive to investors. This can take the form of a one-time grant, but should not constitute a recurring coverage of losses. Recurring loss coverage can create severe incentive problems. Furthermore, it has to be checked whether a one-time subsidy is permitted in the relevant situation under the national and European Competition Law. Additionally, the desired amount and quality of the service has to be contracted ex-ante as well as the required amount of investment in the formerly public infrastructure of the service.

3 Privatisation in practice

In the past decades numerous empirical studies have been conducted on the effects of privatisation of state enterprises. Megginson and Netter (2001), in particular, have summarized the results of these individual studies. Privatisation is interpreted not only in the narrow sense of the sale of state enterprises, but also as appropriate actions that are performed in the course of liberalization or deregulation. At the beginning of their paper, the authors remark, that *"it is tempting to point to the spread of privatisation programmes around the world during the past two decades and conclude that the debate on the economic and political merits of government versus private ownership has been decided. But such a conclusion is flawed, since 25 years ago proponents of state ownership could just as easily have surveyed the post-war rise of state-owned enterprises and concluded that their model of economic organization was winning the intellectual battle with free-market capitalism."*

Megginson and Netter (2001) arrive at a number of conclusions, the most important of which are summarized below:

- (1) The privatisation programmes have contributed to a significant extent to the fact that state enterprises play a smaller role in the economic system of their countries. The proportion of state enterprises in the GDP of industrialized countries declined from 8.5 percent in 1984 to less than 6 percent in 1991 (Megginson, Netter and Chahyadi, 2005).
- (2) The results of the studies confirm the theory that private firms operate more efficiently and more profitably than comparable public enterprises. D'Souza and Megginson (1999) find strong efficiency increases following privatisation looking at 85 firms from 13 developing and 15 industrialized countries that experienced full or partial privatisation through public share offerings during the period 1990 to 1996. They observe a 23 percent increase sales per employee as well as a 32 percent increase of net income per employee three years after the privatisation compared to the year of the privatisation. Further, sales per employee increased in 79 percent of all cases, the net income per employee increased in 76 percent of all cases.
- (3) This is supported by other studies such as Megginson, Nash, and van Randenborgh (1994) and Boycko, Shleifer, and Vishny (1996). When looking at these three studies, between 79 percent and 86 percent of all firms show increases in the output per worker (D'Souza and Megginson, 1999).
- (4) Not only efficiency, but also profitability increased significantly after privatisation. D'Souza and Megginson (1999) report significant increases in the return on sales (ROS) and return on assets (ROA), as well as insignificant increases in the return on equity (ROE) subsequent to

privatisation⁴. Profitability increases significantly after privatisation according to ROS and ROA for the full sample of 85 firms. The mean increase in ROS after divestiture is three percentage points, from 14 percent to 17 percent of sales, and 71 percent of all firms experience expanding profit margins after privatisation.

- (5) There is some empirical evidence that liberalization and deregulation measures have increased the efficiency of state enterprises. However, such reform measures should be much more successful if they are connected with privatisations.
- (6) In many previous IPOs of state enterprises, domestic investors seem to be preferred over foreign investors, for example with regard to the maximum allocation. In addition, the state often retains special rights (such as blocking minority).
- (7) Most studies conclude that the number of employees in privatised firms has decreased. However, it remains an open question whether privatisation leads to a reduction in the labour force of the particular country.
- (8) Studies tested whether investors who purchase shares during privatisation initial public offerings (PIPOs) at the offering price, and then sell these shares on the first day of open market trading, earn returns that are significantly different from zero. The first buyers of IPOs of former state-owned enterprises achieved significantly positive returns even for a holding period of several days of the shares, showing that the shares were under-priced. Under-pricing ranges from 39.6 percent for 40 British PIPOs studied by Menyah and Paudyal (1996) to 940 percent for 380 Chinese PIPOs studied by Su and Fleisher (1999). Multi-country studies also document significant under-pricing of PIPOs, averaging about 30 percent in the large-sample studies (see for example the survey by Megginson and Netter (2001)).
- (9) In countries where major privatisations were carried out, there was a rapid increase in market capitalization and trading volume of the domestic stock market (Megginson and Netter, 2001).

Privatisations lead to a significant improvement of national financial market regulation in emerging economies. In particular, privatisation can contribute to significant improvements regarding securities market regulation, information disclosure rules, and other required components of modern financial systems. A reason for this phenomenon is given in Megginson and Netter (2001):

“Democratic governments are usually acutely aware of the political fall-out that could result if small investors suffer losses on their SIP investments [Note: SIP stands for systematic investment plans, i.e. where investors make regular, equally high payments into a mutual fund, saving account or retirement plan] because of inadequate shareholder protection or insider dealings. Thus, at the same time they launch the first large SIPs, most governments establish (or augment) a regulatory body similar to the U.S. Securities and Exchange Commission. Since utilities comprise many of the important privatisations and since many utilities are natural monopolies, most privatising governments establish regulatory bodies for these firms as well. In addition, national stock exchanges are often illiquid and

non-transparent at the beginning of large SIP programmes. Governments must establish the listing and other regulations that will assure potential investors that the market is a reputable place to invest and trade”.

3.1 Effects of privatisation on capital markets

Privatisations are always seen as a way to relieve the public budget. Megginson (2010) points out, however, that privatisation packages redeemed rarely more than 1 percent of GDP in an economy in any year, even in years with high privatisation activity. He mentions another important effect of privatisations instead, namely, that they have a very positive impact on the capitalization and liquidity of domestic capital markets.

Boutchkova and Megginson (2000) conclude that privatisation in the first year after privatisation led to an average increase of 2.3 percent in national turnover rate (measured as trading volume by market capitalization for the previous year) and 1.7 percent in the following year. Bortolotti et al. (2007) confirm the positive impact on the capital market. In their study of 19 developed economies, they find that the privatisation of formerly public enterprises was an important source of stock market liquidity in these countries.

Investors who bought shares in public IPOs achieved significantly positive initial returns in excess of 35 percent. These returns are higher than those achieved by investors in IPOs of private firms (Megginson, 2010). A study of the Austrian privatisation until the mid-1990s also confirms that IPOs with former public-owners have developed above average compared to those with former private owners (Helmenstein, 1995).

Choi et al. (2010) investigated whether this also applies to the longer-term stock market performance. They considered 241 IPOs in the course of privatisation of public enterprises during the period 1981 to 2003. They found that the IPOs of privatised firms delivered higher returns compared to the development of the national stock indices, where 1-, 3- and 5-year horizons were examined. However, if these privatisations are compared to similar private firms (benchmark firms of similar size and/or similar book-to-market ratio), then the results are less consistent. It also demonstrates that, in contrast to private IPOs, the IPOs of privatised firms hardly show a systematic bias. This can be explained by the fact that in IPOs of privatised firms less information asymmetry occurs than for private IPOs.

3.2 The outset of modern privatisation programmes: United Kingdom and Germany

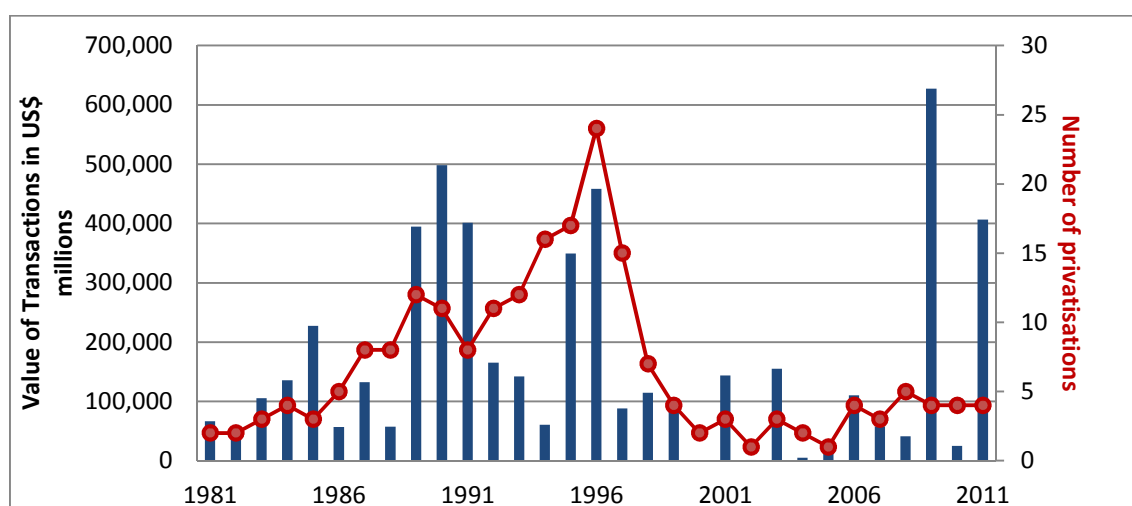
The beginning of post-war privatisation programmes in Europe were characterised by the privatisation programmes carried out in the United Kingdom and Germany. Both countries were forerunners in Europe concerning the privatisation of state-owned enterprises. Whereas the German privatisations were somewhat isolated efforts, the UK ran a large privatisation programme that increased competition and affected the economic development of Britain significantly, but which was also met with widespread scepticism by the public and by employees of the former state-owned

enterprises. Today the UK is still one of the few European countries that has privatised infrastructure industries such as railway operators.

United Kingdom

Britain was a pioneer in the privatisation of state-owned enterprises. During the period 1979 to 2001 about 68 billion pounds, that is 8 percent of UK GDP (1995 prices), were earned by privatisations. About 31 billion pounds were generated from privatised firms that were operating in competitive markets, including British Airways, British Aerospace, oil firms, automakers and steel producers. In the mentioned period the share of public enterprises in gross domestic product (GDP) declined from 11.5 percent in 1979 to 1 percent in 1990 (Connolly and Munro, 1999). According to OECD data the scope of the public enterprise sector remained on a low level between 1998 and 2003, but then rose slightly between 2003 and 2008 (OECD Product Market Database)⁵.

Figure 1: Privatisation in the United Kingdom, Value of Transactions (1977 – 2011)



Source: Privatization Barometer (2013)

Germany

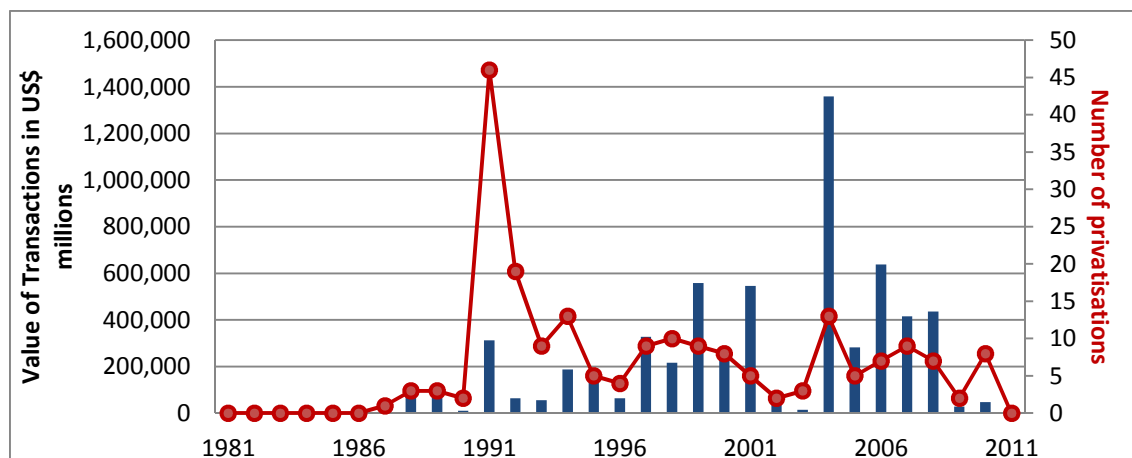
Before privatisation began in Britain in the early 1980s, a process that was subsequently followed by many European and non-European countries, Germany had already privatised specific state-owned firms. In 1959 Germany (partially) privatised Preussag, the Prussian mining and metallurgical AG, followed by Volkswagen in 1961 and VEBA (United Electricity and Mining Ltd.) in 1965.

The privatisation motives of the German government included: increasing the efficiency of industrial enterprises, reducing taxes and decreasing state influence, increasing the “democracy” of the stock market (*Volksaktie*) and distributing the productive capital more widely (Felderer, 2004). However, in contrast to the privatisation programme of the Thatcher government, the German privatisation was not followed by a large number of privatisations in various sectors including infrastructure.

Following the reunification of the two German states, former enterprises of the GDR were transferred to the market economy by the Treuhandgesellschaft. In subsequent years, the partial

privatisation of the telecommunication company Deutsche Telekom (1996), the full privatisation of Lufthansa (1997) and the partial privatisation of the postal service Deutsche Post (2000) took place.

Figure 2: Privatisations in Germany, Value of Transactions (1987 – 2011)



Source: Privatization Barometer (2013)

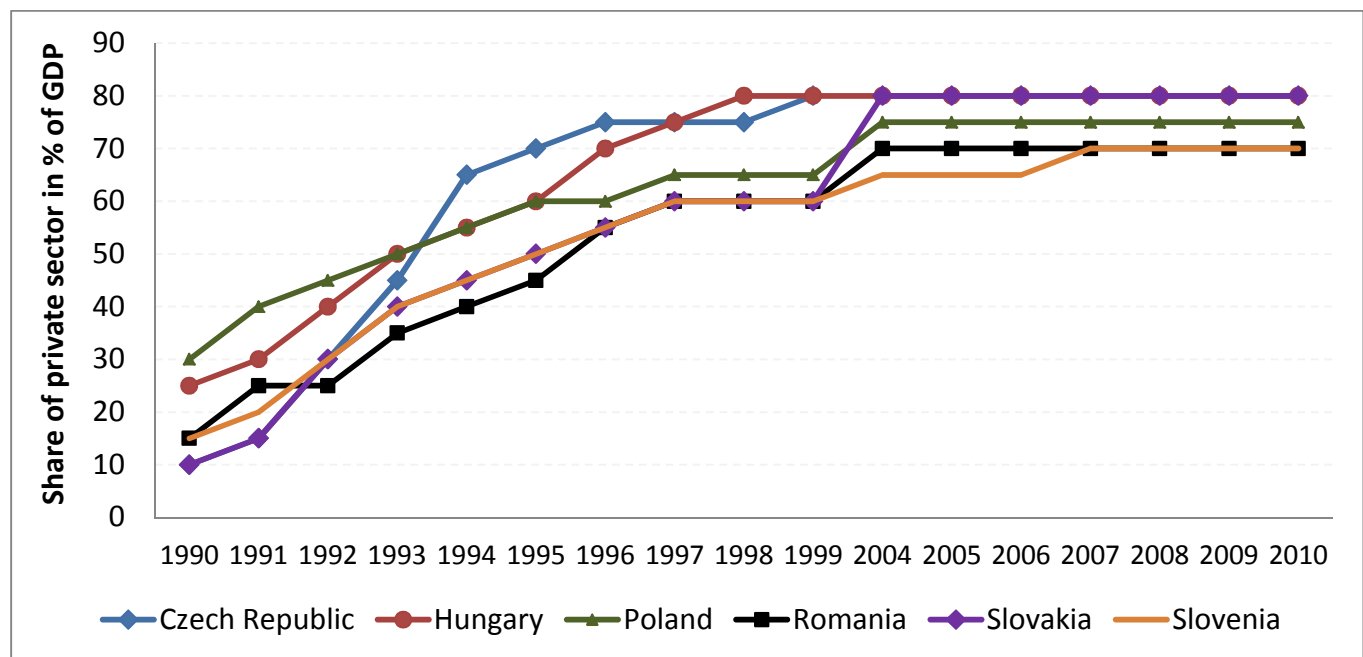
3.3 Empirical studies on the effects of privatisation

In this chapter, we focus on countries that recently conducted extensive privatisation programmes, as was the case in the CEE EU member states. A study by the World Bank (Estrin et al., 2009) examined the impact of privatisations in post-communist countries of Central and Eastern Europe during the past two decades. Compared to previous studies, recent studies often benefit from larger data sets of better quality. This allows the use of more complex empirical methods, for example to examine causal relationships more accurately, and affects the focus of research in this area. Estrin et al. (2009) point out that researchers are currently interested in comparing the development of firms with foreign ownership to firms with domestic ownership. Furthermore they are interested in performance comparisons between privatised firms and recently founded private enterprises, as well as the effects of different degrees of ownership concentration.

Due to the enormous volume of privatisations already having been carried out, valuable experience and understanding can be gained from the impact of these privatisations.

Figure 3 shows the tremendous increase recorded in the importance of the private sector in Central and Eastern European countries, especially in the 1990s. The data for a selection of CEE countries, namely the Czech Republic, Hungary, Poland, Slovakia, Slovenia and Romania are presented in the figure 3.

Figure 3: Share of the private sector in percent of GDP in CEE countries (1990-2010)



Source: European Bank for Reconstruction and Development (EBRD).

Estrin et al. (2009) summarize the results of various studies on the impact of privatisation in transition economies. Privatisation to foreign owners is found to result in considerable and fairly rapid performance improvements in all countries analysed. Firm-level studies on privatised firms in CEE and CIS suggest that concentrated private ownership (particularly that by private foreign owners) has a stronger positive effect on performance than dispersed ownership. The authors deduce that restructuring is most easily and effectively achieved by foreign ownership in former state-owned firms because they sell products through their global distributional networks, introduce a relatively advanced system of corporate governance, stress the importance of business ethics, bring in capable expatriate managers and invest heavily in the training of local managers. High levels of corporate governance of the new foreign owners partly compensate for underdeveloped legal and institutional systems in many transition economies.

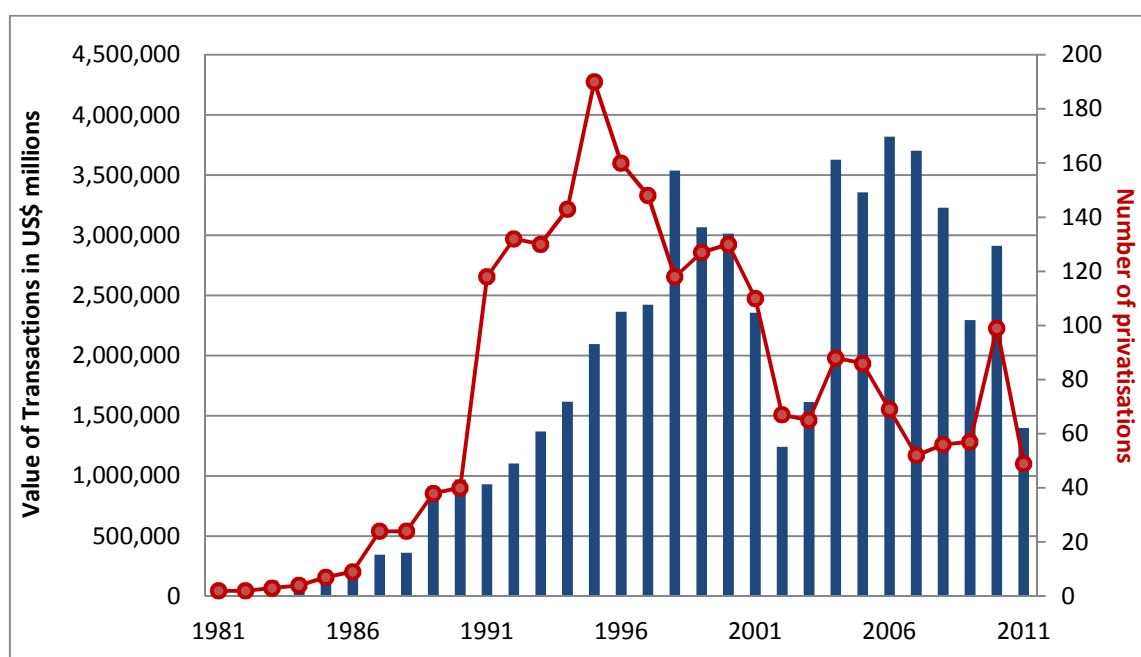
Plane (1997) concludes from his study of 35 developing countries during the period 1984 to 1992 that privatisation has a significant positive effect on GDP growth and that the effect on growth was more significant for activities of a public good type (in industrial and infrastructure sectors) than in other sectors. According to Plane (1997) privatisation increased economic growth from 0.8 percent to 1.5 percent during the periods 1984 to 1988 and 1988 to 1992, respectively.

An IMF study (Barnett, 2000) investigated the effect of privatisation on real GDP growth, unemployment, and investment in 18 countries, whereof twelve were developing countries and six transitional economies. The study found that privatisation amounting to proceeds equal to 1 percent of the GDP was associated with an average increase in the real growth rate of 0.5 percent in period one (the year of the privatisation) and 0.4 percent in period two (one year after the year of the privatisation). The study suggests that the positive relationship between privatisation and economic growth could be explained by privatisation acting as a proxy for a range of structural measures

improving the economic environment. Privatised formerly state-owned enterprises often constitute large firms, including the largest firms on stock exchanges. This makes them more likely to affect the economic growth of the respective country.

Zinnes et al. (2001) examine a panel data set of 25 transition economies and reach the result that privatisation does not affect economic growth per se, but only in the case, when it is accompanied by corresponding budget constraints and institutional reforms. Other studies, such as Bennett et al. (2007) and Gouret (2007), stress the importance of the respective pace of privatisation.

Figure 4: Privatisation in Europe (EU-27), value of transactions



Source of data: *Privatization Barometer (2013)*

Figure shows the number and volume of the privatisations between 1981 and 2011 for the EU-27 countries (Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxemburg, Malta, Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden and United Kingdom). The number of privatisations is falling since the mid-1990s, however the privatisation proceeds peaked in 2006.

Guriev and Megginson (2005) summarize the main findings of the empirical studies on privatisation and arrive at essentially the same conclusions which were already stated in Megginson and Netter (2001). The authors point to specific difficulties connected with the evaluation of the impact of privatisations. Early research on this subject has often ignored the fact that the selection of firms to be privatised does not constitute a random sample, which is, however, a prerequisite for the application of numerous statistical methods. We are confronted here with a selection problem that can lead to biased results. In addition, a more accurate evaluation should take into account not only the performance of privatised firms, but, as a comparison, also the corresponding counterfactual situation, namely: How would the development of the firms have looked like, if they had not been privatised? For such questions modern evaluation research has developed a number of sophisticated

techniques. However, this requires a much higher standard of methodology and a larger scope of empirical studies.

Future research could consider the conditions of the political environment more intensively. For example, the prospect of an EU membership and the related pressures on institutional reforms might be responsible for certain positive effects that were observed with respect to the privatisations in Central and Eastern Europe.

4 Privatisation plans in Europe

In this section we look at EU member states that are planning to privatise state-owned firms. Most privatisations in the European Union over the last year were planned due to pressure resulting from the European Union (EU) and International Monetary Fund (IMF) bailout packages. However, only few privatisations took place: some were postponed due to lack of interest from investors and others were put aside due to resistance from the public. Generally, the political willingness to privatise has not been as high as would be expected in times of a public debt crisis. There are very few plans to privatise state-owned assets in the member states that are not on the receiving end of the Euro rescue fund. The UK and Poland are exceptions with respect to the general trend. The UK has taken steps to privatise services that have so far been considered to belong to the core activities of the State, for example the emergency call of the Fire Brigade. The following overview is the result of constant monitoring of privatisation plans in Europe.

4.1 Austria

Currently no privatisations are planned.

4.2 Belgium

Currently no privatisations are planned.

4.3 Bulgaria

Bulgaria is selling the Bulgarian State Railway's (BDZ) freight unit. Due to public pressure against the deal, the deadline for the submission of bids has already twice been extended, this time to June 2013.⁶ The sale is hoped to raise around \$67 million.

Bulgaria is also trying to privatise its military industrial plant VMZ in Sopot in 2013. However, the sale of VMZ failed in January 2013, when the sole bidder, a local company called Emko, failed to provide the required bank guarantee of 3 million euros after presenting its binding offer. A new solution is sought for; however the company currently has debts of more than 77 million euros.⁷

4.4 Cyprus

Currently no privatisations are planned.

4.5 Czech Republic

Many formerly state-owned firms of the Czech Republic have been privatised, including banks and telecommunications. The sale of the Budejovický Budvar brewery has been discussed, but without any concrete plans.⁸

4.6 Denmark

Currently no privatisations are planned.

4.7 Estonia

Currently no privatisations are planned. In the 1990s, the Estonian government privatised more than 90 percent of its industrial and manufacturing enterprises.

4.8 Finland

No privatisations are planned by the current government. However, in November 2012 the National Coalition Party (Kansallinen Kokoomus) came forth with a list of candidates that the government-managed Ownership Steering Committee (OSC) should consider for partial or complete privatisation in the years 2013 to 2015. The list included Destia, Altia (the alcohol monopoly), Edita (a communications solutions firm) and Motiva (an energy efficiency company). The National Coalition Party additionally is in favour of divesting the state's 34.1 percent share in Ekokem, Finland's biggest hazardous waste treatment enterprise.⁹

4.9 France

The French government has not put forward plans to privatise state-owned property. According to the French Agency for State-Owned Holdings, the Agence des participations de l'État (APE), the French government had assets equal to 656.1 billion euros in 2011, equal to 36% of the French public debt. The portfolio of quoted shareholdings (including an 84 percent stake of the energy group EDF) had a market capitalisation of 60.2 billion euros on September 1, 2012 according to APE¹⁰, equal to 3.3 percent of the French public debt.

4.10 Germany

The current government stipulated in its coalition agreement the privatisation of several public firms¹¹. This includes the gradual privatisation of the transport and logistics division of Deutsche Bahn. The privatisation of the railway infrastructure is not planned. The privatisation of German Air Traffic Control will be examined. Furthermore the state share (30.5 percent) of Deutsche Post AG held by KfW (Kreditanstalt für Wiederaufbau) will be gradually reduced "according to the receptivity of the capital markets" and Deutsche Post should be privatised completely. The same applies to Deutsche Telekom AG, where the State holds 14.8 percent directly and 16.8 percent indirectly via the KfW Bank.

The TLG commercial property group (TLG Immobilien GmbH) was sold off by the German state in December 2012 to the US private equity investor Lone Star for 1.1 billion euros. This was the largest privatisation in Germany for five years. The TLG commercial property group held 780 properties, mostly office buildings, shopping centers and restaurants. It had once belonged to the East German state before unification.

In November 2012 the Federal State sold the housing portfolio (over 11.000 residential units) of the TLG Wohnen GmbH to the Hamburg-based listed property group TAG Immobilien AG for 471 million euros.

In November 2011 the European Commission ordered a break-up plan for the West LB bank, which was nationalized as a result of the financial market crisis in 2009. Large parts of the West LB were sold to Wells Fargo. The Portigon AG is the successor of the remains of the West LB bank. Parts of the West LB were moved into the Erste Abwicklungsanstalt (EAA), a government-backed “bad bank”.

In July 2011, the Federal Finance Minister of Germany Schäuble announced that further privatisations were being planned and said that he is expecting privatisation proceeds amounting to 5.6 euros billion. An internal list of the Ministry regarding potential privatisation candidates include Deutsche Telekom AG, Deutsche Post AG, Köln-Bonn airport (Flughafen Köln/Bonn GmbH), Munich airport (Flughafen München GmbH), EXPO 2000 Hannover GmbH i.L. and DEGES Deutsche Einheit Fernstraßenplanungs- und -bau GmbH¹². The privatisation of the Duisburg port was a candidate on the list but the Federal State retreated from the plan. The privatisation of Deutsche Bahn Mobility Logistics AG was planned in 2008, but postponed to an indefinite date. None of the privatisation candidates have been privatised so far, except for TLG. No further steps were taken for the privatisation of state-owned property in Germany.

4.11 Greece

In reaction to the financial difficulties of Greece, broad privatisation plans were announced in the year 2010. However, low demand by potential buyers has led to the postponement of sales and to a downward revision of estimated privatisation proceeds. So far Greece has managed to raise about 2 billion euros from sales, far lower than hoped for. The original plan had been to raise 50 billion euros by 2025, which was then lowered to 19 billion euros by the end of 2015 and this has now been lowered to 11 billion euros by the end of 2016.

The first large privatisations are scheduled for 2013, with the sale of the state-owned gambling monopoly OPAP and the natural gas company DEPA. The sale of the 99 percent government-held stake of OPAP (with the government holding on to 1 percent) has begun, with the Greek-Czech investment fund Emma Delta submitting the highest bid equal to 622 million euros for a 33% stake. The Greek government accepted the revised bid equal to 652 million euros by the Emma Delta fund in May 2013. The deal is still subject to regulatory approval.¹³

The privatisation of the natural gas distributor DEPA and its subsidiary DESFA for the transportation of gas has been expected to be carried out by the end of April 2013. According to Reuters, Greece meanwhile agreed to change some terms in the planned privatisation of natural gas distributor DEPA, opening the way for Russian energy giant Gazprom to bid for the firm¹⁴.

In 2011, the European Commission suggested the following privatisation programme for Greece (see European Commission, 2011):

- Electricity: Public Power Corporation – DEI (currently 51.1 percent state-owned, 17 percent sale is planned)
- Gas: Public Gas Corporation – DEPA (65 percent to be sold)
- Gas Transmission: National Gas Transmission System DESFA (31 percent to be sold)
- Telecommunication: OTE (10 percent to be sold to)
- Ports: Piraeus Port Authority (23.1 percent to be sold)
- Airport: Athens International Airports (100 percent to be sold)
- Railway: TrainOSE (100 percent to be sold)
- Postal Service: Hellenic Post ELTA (at least 40 percent to be sold)
- Hellenic Defence Systems EAS: (99.8 percent to be sold)
- Hellenic Petroleum ELP (35.5 percent to be sold)
- General Mining & Metallurgical Company (LARKO) (55.2 percent to be sold)
- Hellenic Vehicle Industry ELBO (72.6 percent to be sold)
- Bank: ATEbank – Agricultural Bank of Greece (38.6 percent to be sold)
- Bank: Hellenic Post Bank (34 percent to be sold)
- National Lottery: (100 percent to be sold)
- Horse Racing: Greek Agency for Horse Racing ODIE (100 percent to be sold)
- Sports Betting: OPAP (to be sold in stages)
- Gambling: Greek Casino Mount Parnes (49 percent to be sold)
- Water: Athens water company EYDAP (27.3 percent to be sold)
- Water works: Thessaloniki Water EYATH (34 percent to be sold)

4.12 Hungary

Currently no privatisations are planned.

4.13 Ireland

In 2012, the Irish government identified up to 3 billion euros in state-owned assets it plans to sell to meet a requirement of its bailout by the European Union, the International Monetary Fund and the European Central Bank. They had advised Ireland to sell between 2 billion and 5 billion euros of assets. Candidates identified by the Irish government include the power-generation capacity of Ireland's largest energy company, Electricity Supply Board (ESB), and stakes in the gas company Bord Gais Energy (BGE). The sale of Bord Gais is planned for the year 2013.¹⁵ The government said it would also consider selling parts of the forests belonging to the forestry firm Coillte. The plans were met with strong resistance by the public. The government also formally decided to sell its 25.4 percent stake in airline Aer Lingus Group when market conditions improve¹⁶.

4.14 Italy

In November 2012, the Province of Milan tried to sell its 82.12 percent stake in Italy's third-biggest motorway operator Seravalle. However, the auction failed to attract any bids at the floor price of 658

million euros¹⁷. The Province of Milan also tried to sell its 14.6 percent stake in the Milan airport operator SEA in November 2012, but this was also put on ice due to a lack of demand.¹⁸

According to Deutsche Bank Research (2011), the privatisation potential of Italy is equal to 5 percent of GDP, i.e. currently 78 billion euros. Using this potential would enable Italy to lower its debt by about 4 percent.¹⁹ In September 2011, the Ministry of Economy and Finance estimated that the remaining corporate holdings of Italy had a total value of 80 billion euros (or roughly 5.2 percent of GDP, see Scalera, 2011). Furthermore, a plan to grant concessions could generate around 70 billion euros in revenue. *Cassa Depositi e Prestiti* says the total value of Italy's public buildings and property runs to 421 billion euros. It further estimates that real estate worth 42 billion euros is not being used at present. It largely belongs to the municipalities. The Ministry of Economy and Finance expects proceeds from real estate sales to total 25 to 30 billion euros additional to cost savings of an initial 3 billion euros per year. In November 2011, the senate passed a plan to sell state-owned enterprises and state-owned real estate, but Italy has yet to specify the plans.

4.15 Latvia

Currently no privatisations are planned. Latvia's privatisation process started in the mid-1990s. The largest privatisation so far took place in 2008, when the government sold its majority stake of the mobile telephone operator LMT. The government still holds 51 percent of the telecommunications company Lattelecom.

4.16 Lithuania

Lithuania privatised a large portion of the state-owned industry and property in the 1990s. Currently no privatisations are planned, though a recent study by the Ministry of Economy of the Republic of Lithuania shows that there is much room for reform of state-owned enterprises.²⁰

4.17 Luxembourg

Currently no privatisations are planned.

4.18 Malta

Currently no privatisations are planned. In October 2012, the Maltese government halted plans for the privatisation of 32 car parks across Malta.

4.19 Netherlands

The Dutch coalition government announced in November 2012 that it is planning to privatise the state-owned gambling monopoly, Holland Casino Group and at the same time set an end to its monopoly status²¹. Privatisation of gambling will thus be combined with liberalisation, including the regulation and taxation of online gambling.

4.20 Poland

The Polish state raised over 1 billion euros (over 5 billion zloty) in January 2013 from the sale of an 11.75 percent stake of the PKO BP, Poland's largest bank²². With this sale, the BGK – the state development bank Bank Gospodarstwa Krajowego – sold its entire stake. The Polish state now holds a 31.9 percent stake directly.

The Treasury's privatisation revenue plan for 2013 is to raise 5 billion zloty. In 2013, Poland plans to privatise the real estate holding PHN in two stages, first selling a minority stake via an IPO and then a bigger stake to a selected investor²³. The state wants to reduce its role in PHN to a minority shareholding by the end of 2013. The privatisation of state-owned financial and chemical firms is also possible. Plans to privatise about 50 hospitals were also made public.

The Polish government announced its privatisation plan for the years 2012 and 2013 in March 2012 aiming to raise 10 billion zlotys in 2012 and 5 billion zloty in 2013.²⁴ The privatisation efforts that began in 2008 are to be continued by selling stakes in large firms and selling controlling stakes in small firms.

4.21 Portugal

Portugal has already managed to raise 5.5 billion euros through privatisations in the first months of 2013²⁵. In February 2013, the remaining government 4.1 percent stake of Energias de Portugal was sold. In December 2012, the Portuguese government sold its 95 percent stake in the airport operator ANA to the French group Vinci for 3.08 billion euros. Earlier in 2012 the Portuguese government had raised about 3.4 billion euros by selling major stakes in the electricity firm EDP and the power grid firm REN²⁶.

The Portuguese government is planning further sales this year, including the profitable national postal service CTT and the freight unit and suburban railways (in Lisbon and Porto) of the national railway company, Comboios de Portugal, as well as parts of water utility Aguas de Portugal, the insurance business of the state-controlled bank Caixa Geral de Depositos and national TV broadcaster RTP²⁷. The privatisation of the airline TAP Portugal is also being discussed²⁸.

The privatisation of the government-owned ENVC shipyard (Estaleiros Navais de Viana do Castelo) was initially forecast for December 2012, but was delayed by queries from the European Commission²⁹. It has been making losses since the year 2000.

4.22 Romania

The Romanian government is selling a 51 percent stake in Posta Romana.³⁰ The Romanian state currently holds a 75 percent stake directly and the remaining 25 percent stake via a government-controlled investment fund. Romanian Post has a network of about 7,100 post offices with about 32,000 employees.

In 2012, the Romanian state tried to sell the state-owned chemical company Oltchim. The privatisation was halted though, because the successful bidder Dan Diaconescu, who is a media tycoon and presidential candidate, had a major row with the government.³¹

The Canadian Roman Copper Corporation won a tender in March 2012 for the privatisation of the mine Cupru Min Abrud, but shortly afterwards the Romanian government backed out of the deal and wanted to relaunch the tender, which resulted in Roman Copper Corporation suing the Romanian state³².

The IMF has asked the Romanian Government to come up with a plan for the privatisation of state firms in energy and transport, such as the government stakes in the unlisted state-owned energy firms Nuclearelectrica and Transgaz, as well as Romgaz, the country's largest oil producer. IPOs of stakes in the energy firms are planned. Hidroelectrica was also one of the privatisation candidates in the Energy sector, but was declared insolvent in June 2012. Surprisingly, Euro Insol, the court-appointed administrator of Hidroelectrica managed to make a profit at the end of 2012.

In March 2012 Romania sold a 15 percent stake in the power grid operator Transelectrica for about 38 million euros³³.

The Romanian government is selling its 51 percent majority stake in the freight division of the State Railway CFR Marfa³⁴. The company posted losses of EUR 31.3 million in 2011.³⁵ The government also agreed to sell a 20 percent stake in the national airline company Tarom by July 2013.

4.23 Slovak Republic

Slovakia has privatised many state-owned assets already. The privatisation of the railway company Cargo Slovakia was discussed in recent years; however it has not been implemented so far. The privatisation of the airport of Bratislava has also been taken off the agenda.

4.24 Slovenia

The Slovenian government is planning to privatise fifteen state-owned firms starting in September³⁶. The privatisation programme will include the NKBM bank, which is the second-largest bank in Slovenia, and the major telecommunications provider Telekom Slovenije. Also included is the national airline Adria Airways together with its maintenance arm Adria Tehnika, the airport operator Aerodrom Ljubljana and the sports goods maker Elan. Furthermore, Slovenia is selling stakes in the chemical companies Aero, Helios and Cinkarna Celje, laser maker Fotona, paper company Paloma, food company Žito, tool maker Unior and spa operator Terme Olimje³⁷.

4.25 Spain

The regional government of Madrid plans to privatise six hospitals and 27 (of the 270) health centres in the region³⁸. This led to large protests when the plans were made public in March 2013. Spain's health care and education system are administered by regional authorities rather than by the central government.

A number of privatisation projects planned for 2011 or 2012 were postponed. This includes the sale of the airport operator Aena Aeropuertos³⁹ and the 7 billion euros initial public offering of national lottery operator Sociedad Estatal de Loterías y Apuestas del Estado SA. Unfavourable market conditions were quoted as reasons.⁴⁰

The freight and passenger train operator Renfe is to be restructured by splitting it into four subdivisions⁴¹. Subsequently, Renfe will be partly privatised.

Privatisation plans for the postal service Sociedad Estatal Correos y Telegrafos have been mentioned as well as the government-operated mining and shipbuilding operations, state-run port authorities, and state-run tourism locations. The government may also divest its holdings in several firms, such as IAG, Ebro Foods and Red Eléctrica⁴².

4.26 Sweden

Currently no privatisations are planned.

4.27 UK

The coalition government has agreed plans to auction-off Royal Mail. Royal Mail is to float on the London Stock Exchange before April 2014. According to the Business minister, at least 10% of the shares will be handed out or sold to Royal Mail employees; however it is not yet clear whether the current staff would get the shares free or at a discount⁴³.

The London fire brigade is outsourcing its emergency calls to Capita, a firm listed on the London Stock Exchange in the FTSE 100.⁴⁴ This was decided in March 2012. Fire brigades nationwide are expected to follow suit, and police services are also outsourcing back office functions⁴⁵.

In March 2012 David Cameron made a proposal to lease sections of the national road network to private investors, allowing sovereign wealth funds from countries such as China to lease roads in England over a long period of time under a given set of targets, such as to reduce congestion and to improve or maintain road infrastructure⁴⁶. The investors would receive a proportion of vehicle excise duty, which currently all goes to the Treasury. No tolls are allowed on the existing road network, but if the road firms create new capacity, by adding lanes or building new roads, then they would be entitled to charge for their use.

The “Health and Social Care Bill” passed on 20 March 2012 allows hospitals to outsource hospital services. Hospitals will be able to use 49 percent of their hospital beds and theatre time (i.e. the time an operating theatre is available) to generate private income. Commissioning groups will see that doctors and other health care professionals are able to buy in services from other providers. Non-emergency ambulance services in North-Western England are outsourced to Arriva (a transportation service provider)⁴⁷.

Health care services offered outside of hospitals are being outsourced too. In the first wave, 398 outsourcing contracts were signed in March 2012 for areas including musculoskeletal services for back pain, adult hearing services in the community and wheelchair services for children as well as

primary care psychological therapies for adults. Furthermore, the operation of the national health helpline “NHS Direct” is being outsourced to private bidders.

In December 2012 the British transport minister rejected plans for privatising the Dover Harbour Board. The trust port was planning a £200million trade sale or flotation. The Department for Transport found that the proposed scheme “*would not ensure a sufficient level of enduring community participation in the port*”⁴⁸.

5 Privatisation proceeds and productivity effects

In 2011 Deutsche Bank Research published an analysis of the privatisation potential in the Euro area. The authors conclude that the privatisation potential in large Euro countries such as France, Italy and Spain is equal to around 5 percent of GDP (Germany was not included in DB Research 2011). The potential in smaller, peripheral Euro countries is expected be over 6.5 percent of GDP in Greece and at least 3 percent of GDP in Ireland.

The analysis focuses on the expected privatisation proceeds from state-owned firms and/or holdings (excluding the real estate sector) that could be disposed of in the medium term.

As well as privatisation leading to revenues in the form of sale proceeds, additional benefits can occur when they lead to productivity increases.

According to a survey by D’Souza and Megginson (1999), the average bandwidth of labour productivity gains (real sales per employee) of newly privatised firms was 10 to 25 percent, comparing the last three years before privatisation and the first three years after privatisation (see Table 1). On average, we observe a 19 percent increase in real sales per employee subsequent to privatisation.

Table 1: Overview on productivity gains subsequent to privatisations

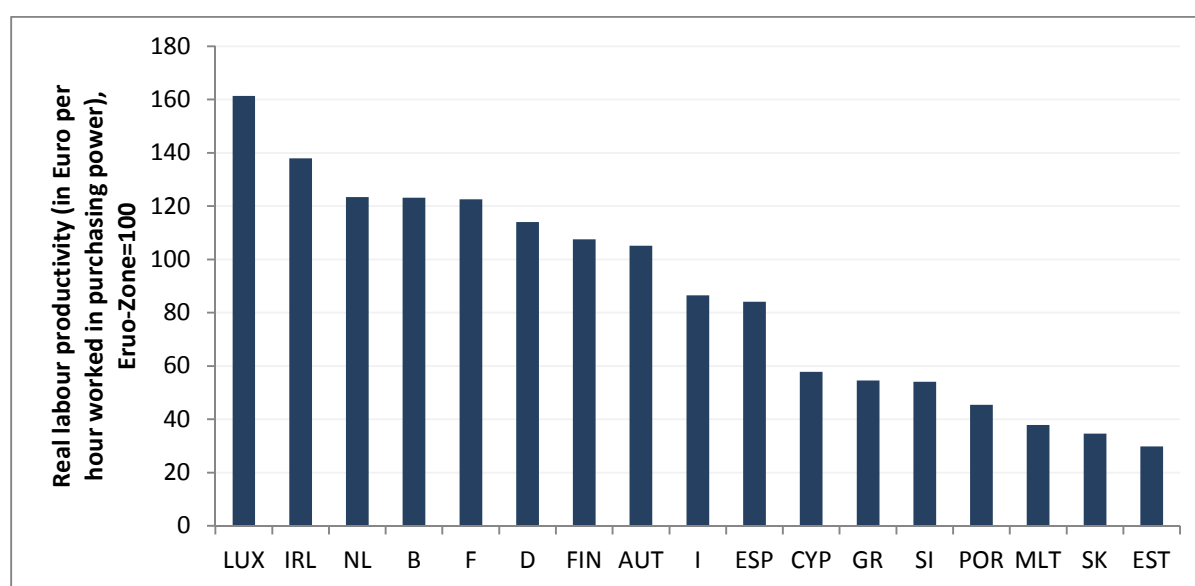
	Observations	Mean Change after Privatisation	Median Change after Privatisation
Megginson, Nash and van Randenborgh (1994)	51	11%	12%
Boubkari & Cosset (1998)	56	25%	24%
D’Souza & Megginson (1999)	63	21%	29%
Weighted average of the three studies above	170	19%	

Source: D'Souza and Megginson (1999). Note: The mean change after privatisation refers to the change in real sales per employee comparing the three years before privatisation to the three years after privatisation.

Labour productivity in the Euro area

Looking at figure 5, we can see that the Euro member states suffering from high public debt also have a below average labour productivity with the exception of Ireland. Ireland boasts the second highest labour productivity in the Euro area with a labour productivity 38 percent above that of the Euro zone average. Portugal has the fourth lowest labour productivity in the Euro area with a value of 45 percent of the Euro area average. Greece's labour productivity is only equal to about half (55 percent) of average labour productivity in the Euro area. Spain and Italy's labour productivities are equal to 84 and 87 percent (respectively) of the Euro area's average.

Figure 5: Real labour productivity in the Euro area, 2012 (Euro area average = 100)



Source: Eurostat.

Note: Labour productivity is measured in terms of GDP (in PPP) per person employed. The average labour productivity in the Euro area was set equal to 100.

In order to estimate the size of the privatisation potential as a percentage of GDP (including both the expected proceeds and the productivity increases), we need to calculate the effect of the expected labour productivity increase on GDP. Taking the results from D'Souza and Megginson (1999) we can assume an increase in labour productivity of around 20 percent in the years following privatisation⁴⁹. D'Souza and Megginson derived this result by observing the effects of privatisations on sales per employee. Sales per employee measure output at the firm-level. On a macroeconomic level, sales per employee are roughly equal to production value per employee. Production value in turn is equal to the value added plus the intermediate inputs. We can thus infer that the expected 20 percent increase in labour productivity due to privatisation leads to an estimated 20 percent increase in value added, if the intermediate inputs rise by the same percentage and all else is held equal.

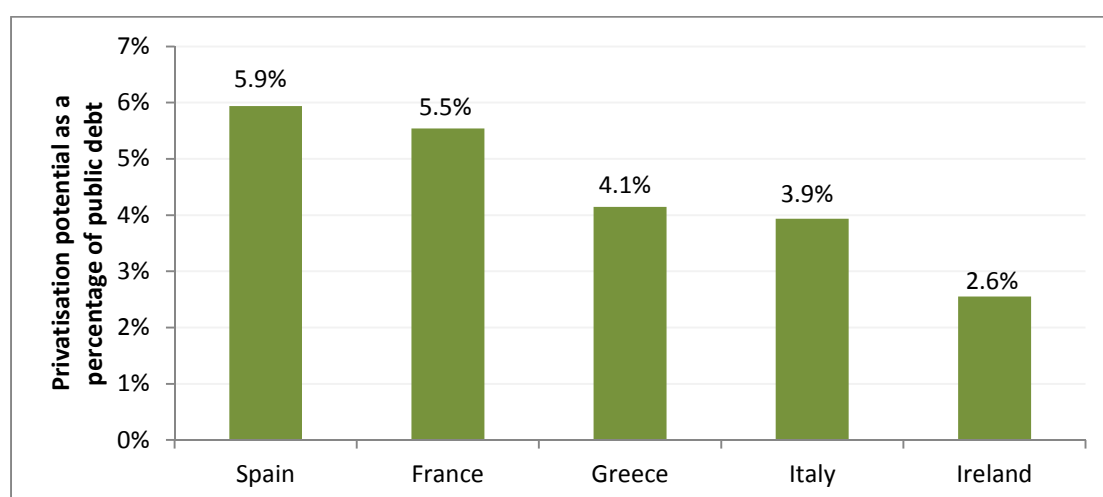
With regarding to assumption that employment levels remains equal, we want to refer to Megginson and Netter (2001), who find in their survey that the effects of privatisations on employment are not

conclusive. Of the ten studies surveyed by Megginson and Netter (2001) three find significant increases in employment, two find insignificant changes and five find significant (sometimes very large) drops in employment levels. Megginson and Netter conclude *“perhaps the safest conclusion we can assert is that privatisation does not automatically mean employment reductions in divested firms ...”*.

Deutsche Bank Research (2011) concludes that privatisation potential is equal to around 5 percent of GDP in larger Euro countries such as France, Italy and Spain and lies between 3.25 percent in smaller Euro countries with a smaller privatisation potential such as Ireland and above 6.5 percent in smaller Euro countries with a high privatisation potential such as Greece⁵⁰.

Privatisation proceeds can be used to pay back public debt. Taking the results from DB Research (2011), we can show that the privatisation proceeds would allow public debt to be cut by 5.9 percent in Spain, by 5.5 percent in France, by 4.1 percent in Greece and 3.9 percent in Italy. In Ireland, the privatisation potential is equal to around 2.6 percent of public debt.

Figure 6: Expected privatisation proceeds in the Euro zone (in percentage of the public debt in 2012)



Source: *Economica* (2012), using data from Eurostat and Deutsche Bank Research (2011).

Privatisation proceeds have a one-time only impact on the budget and the level of public debt in the year of the sale. However, privatisation only has a positive effect on the national finances if the privatisation proceeds exceed the discounted value of the expected revenues incurred from state-holdings, for example in the form of dividends. Investors are only willing to pay more for a state-owned firm than the discounted cash-flows expected by the government if they believe that they are able to increase the expected cash-flows of the firm above the levels expected through government ownership.

The privatisation of state-owned enterprises (under the assumption that the number of employees in the privatised firms remains equal) is expected to result in a productivity increase equal to around twenty percent in privatised firms according to the results by D’Souza and Megginson (1999).

With this in mind, it is possible to estimate the long term impact of a privatisation programme on economic performance.

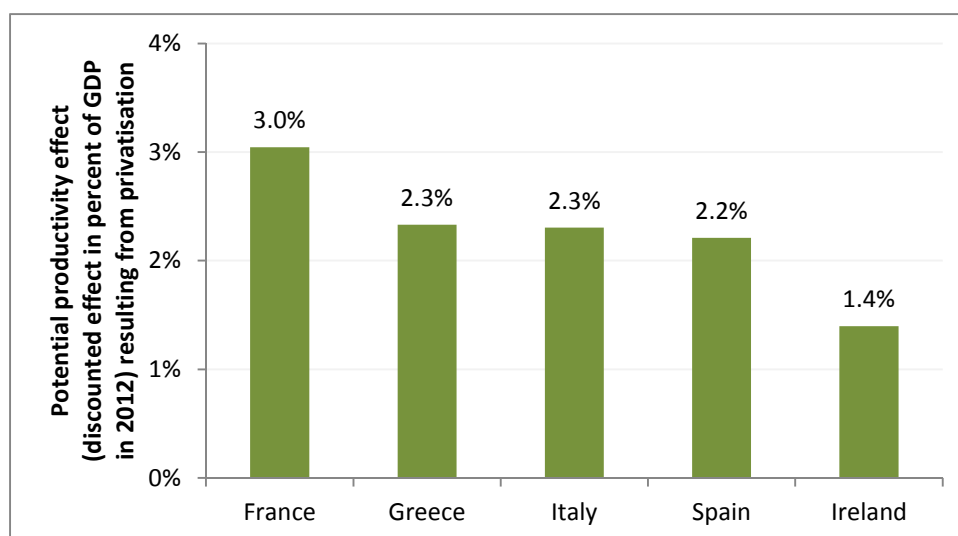
In order to establish the share of economic activity affected by privatisation, we estimated the discounted earnings per share of the state-owned firms with privatisation potential. We calculated the earnings per share, using the following formula: firm value is equal to earnings per share divided by the discount rate. The discount rate reflects the cost of capital minus the growth rate of the earnings per share. We used a discount rate of seven percent.

Taking these figures, we calculated the share of the state-owned firms with privatisation potential in the gross operating surplus and gross mixed income of the total economy using Eurostat data. Using data from the national accounts, we find that the privatisation potential identified by DB Research (2011) accounts for around 0.5 to 1.1 percent of the economy. In Ireland, the privatisation potential accounts for around 0.5 percent of the economy. In Spain, Italy and France it is equal to around 0.8 percent of the economy, whereas in Greece it is equal to 1.1 percent of the economy.

With respect to the economy as a whole, the one-time productivity increase triggered by privatisation of state-owned firms is expected to equal between 0.1 and 0.21 percent of GDP in the Mediterranean Eurozone countries, Greece, Italy, Spain and France. France faces a particularly high expected productivity increase of 0.21 percent of GDP. Greece and Italy could raise their productivity by 0.16 percent of GDP, Spain by 0.15 percent of GDP and Ireland by 0.1 percent of GDP. These productivity increases would have a lasting effect, raising the countries' GDP permanently, i.e. with a long- or medium-term impact.

To estimate the contribution of the expected productivity increase to GDP over time, we can calculate the discounted productivity effect and its impact on GDP. Again, we assume a discount rate equal to seven percent. The privatisation of state-owned enterprises (under the assumption that the number of employees in the privatised firms remains equal) can result in a discounted productivity increase equal to between two and three percent of the GDP in the Mediterranean Euro countries, Greece, Italy, Spain and France (Figure 7). France faces a particularly high expected productivity increase from privatisation with a discounted productivity increase equal to 3 percent of GDP. Greece and Italy could raise their productivity by 2.3 percent of GDP, Spain by 2.2 percent of GDP and Ireland by 1.4 percent (always as discounted productivity effects).

Figure 7: Expected productivity increase resulting from the privatisation in selected Euro zone countries (discounted productivity effect in percentage of the GDP in the year 2012)



Source: Economica (2012), using data from Eurostat and Deutsche Bank Research (2011).

6 Outlook

High government debts have brought privatisation back on the agenda in most EU countries, but astoundingly few privatisations have been carried out, with the exception of Portugal and first steps in Greece. Not even countries with surging public debt such as Spain and Italy have taken measures to sell their “family silver”. This is particularly surprising with respect to the recent boom in some European stock markets, although this was weaker in those countries primarily affected by the financial crisis, that is the Mediterranean Euro countries. The long preparation time needed for a privatisation and distrust in the continuation of the positive trend of the stock markets could be possible reasons why we do not observe privatisations despite the upturn in the stock markets. The most important reason for the hesitation of governments to privatise is however probably a fear of job cuts following a takeover by private investors. The fear of job loss is stronger in the current economic situation, when unemployment is high and jobs are becoming scarcer. Another reason is that private investors and particularly foreign ownership of infrastructure is often seen as a threat by governments and citizens, particularly when it comes to electricity, water works or road infrastructure.

Due to the considerable debt faced by most governments in the EU and depressed growth prospects, privatisation should be seen coming back onto the agenda in the coming years. A new wave of privatisations will probably result in property sales of buildings and land as well as in the sale of assets held by regional governments and municipalities. The privatisation of large infrastructure firms will be more difficult in the light of protests by employees and fears regarding the loss of infrastructure that is seen as important for the strategic interests of a nation.

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8 Endnotes

¹ Belke and Schneider (2005): “It is important to note, however, that privatisation proceeds are only allowed to have an impact on the public debt but not on the public deficit. Privatisation proceeds may not be included in the public deficit in Maastricht definition according to the EC directive 3605/93 of the Council from November 22, 1993”. This is a point often neglected in articles about privatisation and in political discussions.

² More complex theoretical models show the benefits and costs of privatisation in the light of incomplete contracts. The indifference theorem by Shapiro and Willig (1990) shows that the ownership structure (private or public) is neutral, when private information is irrelevant for profitability or when raising of public funds does not create costs. If these neutrality conditions do not hold (for example, in the case of non-benevolent governments), privatisation can lead to higher efficiency.

Schmidt (1996) showed that private firms have a higher productive efficiency (in terms of lower costs for a given output) than state-owned enterprises, but that state-owned enterprises demonstrate a greater allocative efficiency under the assumption of benevolent governments. The reasons for the lower costs of private enterprises are based on the fact that the government can credibly signal to private owners that it is not willing to distribute subsidies or act as a lender in the event of bankruptcy. Public firms, however, have a higher allocative efficiency than private firms (assuming a benevolent government and benevolent managers) because the latter choose to produce too little (from a welfare theoretical point of view) in the case of a monopoly. From the perspective of the theoretical literature the impact of privatisation on allocative efficiency, however, has not yet been fully resolved (Cavaliere and Scabrosetti, 2008). See also Sheshinski and Lopez-Calva (2003), Shirley and Walsh (2004) and Cavaliere and Scabrosetti (2008).

³ Bertrand competition is one of the most important models of competition used in economics. Firms set prices and buyers choose quantities at the given prices. The model was formulated in 1883 by the French economist Bertrand in response to the competition model put forward by the French economist Cournot in 1838. In Cournot’s model, firms set quantities and a market clearing price results. The Cournot equilibrium outcome is a price above marginal cost and hence above the competitive price. In a Bertrand equilibrium the competitive outcome is price equal to marginal cost.

⁴ The increases in the return on sales (ROS) and return on assets (ROA) are significant at the one percent level using Wilcoxon tests.

⁵ The indicator “Scope of the Public Enterprise Sectors” measures the pervasiveness of state ownership across business sectors as the proportion of sectors in which the state controls at least one firm (based on 24 business sectors). The OECD Product Regulation Data is available for the years 1998, 2003 and 2008.

⁶ <http://uk.reuters.com/article/2013/04/26/bulgaria-railways-sale-idINL6N0DD2BX20130426>

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⁸ <http://www.ceskapozice.cz/en/news/politics-policy/who%E2%80%99s-%E2%80%98worthy%E2%80%99-czech-budejovicky-budvar>

⁹ Economist (2012), „Finland economy: The government’s privatisation strategy“, Original article from the “Economist“, 28. November 2012, also published by Zurich North America (2012) on <http://news.zurichna.com/article/d3128222728c7ed73807f88796dd7212/finland-economy-the-governments-privatisation-strategy>

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¹² <http://www.faz.net/aktuell/wirtschaft/wirtschaftspolitik/haushaltspolitik-schaeuble-will-privatisierungserloese-verdoppeln-15287.html>

¹³ <http://www.bloomberg.com/news/2013-05-01/greece-asset-fund-accepts-revised-emma-delta-bid-for-opap-stake.html>

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¹⁵ <http://www.independent.ie/business/irish/bord-gais-energy-under-the-hammer-next-year-28812344.html>

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¹⁸ <http://www.reuters.com/article/2012/11/30/italy-sea-ipo-idUSL5E8MU8CN20121130>

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²² <http://blogs.ft.com/beyond-brics/2013/01/23/poland-pko-bp-drops-on-share-sale/#axzz2RwAYZKEm>

²³ <http://www.reuters.com/article/2012/11/22/phn-ringwood-idUSL5E8MMD4Y20121122>

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⁴⁵ G4S is preparing to build and run a Lincolnshire police station (<http://www.ft.com/intl/cms/s/0/5cecf890-558b-11e1-9d95-00144feabdc0.html>). The Lincolnshire police and G4S have also made an agreement that half of the civilian staff in the police force is to join the private security company. The police force is considering outsourcing their telephone emergency call centres. Discussion about the outsourcing of middle and back office police services was sparked in March 2012 when West Midlands and Surrey police announced plans to invite bids from private security firms to take over the delivery of a wide range of services previously carried out by the

police. A contract with a potential value of £1.5 billion over seven years was planned. In the meantime Surrey has abandoned the plan completely and West Midlands has put the privatisation plans on ice; <http://www.bbc.co.uk/news/uk-england-surrey-19507634>.

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⁴⁷ <http://www.guardian.co.uk/society/2012/oct/03/private-contracts-signed-nhs-privatisation>

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⁴⁹ D'Souza and Megginson (1999) observed an average increase of 19 percent with respect to the return on sales per employee, but the median increase was significantly higher. Thus we assumed a 20 percent increase for our calculations.

⁵⁰ DB Research (2011) estimated the privatisation potential, including state-owned enterprises excluding real estate. The study was conducted in 2011. In the meantime, some privatisation activity of state-owned firms has taken place in the countries studied, such as in Greece. This lowers the remaining privatisation potential. Another factor influencing the size of the privatisation potential is the stock market situation. The stock markets have gone up since 2011 in most of the countries analysed by the DB Research study, which – all else equal - raises the privatisation potential. For the sake of simplicity and clarity, we used the results from DB Research (2011).



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