THE EFFECTS OF PRIVATISATION ON COMPETITIVE EFFICIENCY

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1. Introduction
A recurring topic in the global economic debate is privatisation. We define privatisation as the government act of selling state-owned enterprises (SOEs) and assets to private owners. Governments have various motives for privatisation, including seeking efficiency and raising government revenue. In setting privatisation policy, governments have great influence on the post-privatisation structure of the industry. This raises the question how privatisations influence the industry of the SOE.

This paper examines an important aspect of industry structure: the efficiency level of competition. We try to answer the following research question: “Does privatisation lead to more efficient competitors?” This question is relevant for businesses that currently operate in (or plan to enter) industries in which SOEs are active, as the increase of competitive efficiency due to privatisation could have a significant impact on the industry's profitability. Furthermore, even though much research has been done on the effects of competition on the efficiency of the privatised firm, no study has looked into the reverse relationship: the effects of privatisation on the efficiency level of the competition.

The paper is structured as follows: first we define two categories of privatisations, that each affect industry structure through different mechanisms. Next, we give a survey of the current literature on the relationship between privatisation, competition and efficiency. The literature will be used to construct a theory about the mechanisms through which privatisations affect competition. Each category will be dealt with separately. Finally, based on the proposed theory, we present our hypothesis and offer suggestions for further research.

2. Categories of privatisation
Broadly speaking, two categories of privatisations can be defined. The first category consists of privatisations of SOEs that already compete with private firms in mixed markets. SOEs competing in mixed markets can be found in almost any industry, often in former communist countries, but since 2008 also in the banking industries of developed nations. These banks have not yet been
privatised, but when they are, their privatisation will fall into this category.

The second category consists of privatisations of former state-owned monopolists, such as the telecommunications, airline and postal companies in both developed and developing nations. These firms were government owned because their role was previously seen as that of providers of common goods. Both types of privatisations affect the industry through different mechanisms, which will be outlined below.

3. Literature survey

Firms in competitive industries are likely to perform more efficiently. Nickell (1996) finds evidence, based on an analysis of 670 British firms, that competition (measured by the number of competitors) is associated with higher efficiency of factor productivity. Using two complementing data sets of 3,600 European banks and 8,900 U.S. banks, Schaeck and Čihák (2008) find that competition (measured by Lerner-indices) corresponds to higher profit efficiency for banks.

Contrasting with the efficient production of firms in competitive industries are SOEs. State-owned firms are often less efficient than their private counterparts. Boardman and Vining (1989) observe the 500 largest non-U.S. industrial firms (including 419 private firms and 58 SOEs) and find that SOEs perform significantly less efficiently than private firms. Majumdar (1996) analyses data from the Annual Survey of Industries in India over the periods 1973-1974 and 1988-1989 and finds that firms owned by either the central or state governments are systematically less efficient than private sector enterprises. This suggests that the efficiency of SOEs can be improved by transferring ownership to private investors. Indeed, according to Megginson and Netter (2001), efficiency seeking is an important reason for privatisation.

As stated before, we define SOEs of the first category to be those firms that already compete with both private and public firms. Because private firms are more efficient than public firms (Boardman and Vining, 1989; Majumdar, 1996), an SOE is likely to perform more efficiently after privatisation. Thus, privatisation puts pressure on the remaining public firms in the industry to perform more efficiently as well. For them too, privatisation is a logical step towards higher efficiency. At the same time, the privatisations mean that the competing private firms, that were previously dealing with inefficient SOEs, now have more and more private competitors to take into account. Therefore competition increases and, as we stated above, efficiency and competition go hand in hand (Nickell, 1996; Schaeck and Čihák, 2008). Hence, we expect privatisation to lead to more efficient competitors for firms of the first category.

On the other hand, the second category comprises the former state-owned monopolists, whose markets are initially in complete control of the SOE. Hence, before privatisation the industry
lacks any competition. However, privatisation is often accompanied by extensive industry reforms. Governments have several options with regard to the level of competition allowed after privatisation. They can take an active stance by implementing measures and appointing independent regulators that promote or enforce competition, they can sell the SOE without regulating industry competition, or they can provide the buyers with an exclusivity contract (Wallsten, 2001). If governments take the more active stance and promote competition through regulations, privatisation is likely to lead to more efficient competitors for firms of the second category as well.

A reason to believe that governments take the more active stance is the fact that privatisation seems to have a larger impact on performance in the presence of competitive forces. Wallsten (2001) researches the telecommunications industries of 30 African and Latin American countries and concludes that a combination of privatisation and competition leads to higher firm performance, while privatisation alone is much less effective. Anderson, Lee and Murrell (2000) research data from a survey of 211 Mongolian firms that went through a large privatisation programme during the 1990s. They find that the effect of competition on promoting efficiency in privatised firms is very strong. Konings, Van Cayseele and Warzynski (2005) use representative panel data from 3,748 Eastern European manufacturing firms to analyse profit margins. They find that privatised firms have higher profit margins than state firms, but only in competitive markets. According to Konings, Van Cayseele and Warzynski (2005), this suggests that privatising firms without a competitive environment may yield little benefit. In a study on the electricity generation sectors of 36 developing countries, Zhang, Parker and Kirkpatrick (2007) argue that privatisation and regulation alone do not lead to economic gains, but the introduction of competition does.

These four studies have in common their finding that efficiency gains for the SOE result only when privatisation and competition go hand in hand. Clearly, if governments know this, it is unlikely that firms are privatised without promoting competition. Because firms in competitive industries are more efficient (Nickell, 1996; Schaeck and Čihák, 2008), this means that privatisations of SOEs of the second category (former monopolists) are likely to lead to more efficient competitors.

4. Conclusion
Privatisations can be divided into two categories: SOEs operating in mixed markets and former state-owned monopolists. Privatisation can improve the efficiency of SOEs in competitive industries. For firms of the first category, this implies increased pressure on competitors to perform more efficiently as well. Firms of the second category initially don't have any competitors. However, governments are likely to implement competition promoting reforms to increase the
performance effect of the privatisation on the SOE. This increase of competition also pressures the newly created competitors to increase their efficiency. We conclude that evidence can be found in the literature in support of our theory.

There are however gaps in the literature that need to be filled in order for us to be more conclusive. First of all, the methodologies used in some of the studies referenced above have their limitations. Anderson, Lee and Murrell (2000) use a comparatively small sample, making the results less certain. The research done by Boardman and Vining (1989) is a bit dated. Moreover, many focus on one industry or country only. A more extensive data set is required to support the arguments in favour of a more general and international claim.

More importantly, no study has hitherto established the causal link between privatisation and the efficiency of competitors because the referenced studies looked into the effects of competition on the privatised firm and not into the reverse relationship: the effects of privatisation on the efficiency level of the competition. An important aspect of this is the privatisation rationale of governments. Even though it might be economically unwise from the company perspective to privatise firms without creating a competitive environment, governments can have political or other motivations for privatisation. It is conceivable that selling an SOE raises more revenue for the government when there is little competition as this gives the buyers greater market power (Lopez-De-Silanes, 1997). Thus, if raising government revenue is an important factor in the decision to privatise, the argumentation outlined above may be of less importance. Specific empirical research is required to establish the link between privatisation and competitive efficiency.

In line with the arguments suggested by the literature review, we expect privatisations of the first category (SOEs competing in mixed markets) to lead to more efficient competitors. The empirical research should therefore test the following hypothesis about the first category:

**H1.** After the privatisation of an SOE competing in a mixed market, the average efficiency level of the competition in the industry will be higher than the average pre-privatisation efficiency level.

This hypothesis should be tested against the null hypothesis that privatisation does not affect the efficiency levels of the competition in the former SOE's industry.

We hypothesise that the effect of privatisations of the second category (state-owned monopolists) will be the same as that of privatisations of the first category. However, because SOEs of the second category initially lack any competitors, the efficiency levels of the competition can only be compared with the pre-privatisation efficiency of the SOE. Our second hypothesis is therefore:
**H2.** After the privatisation of a state-owned monopolist, the average efficiency level of the competitors will be higher than the pre-privatisation efficiency level of the SOE.

This hypothesis should be tested against the null hypothesis that privatisation does not lead to higher efficiency levels for the competition, compared with the pre-privatisation efficiency level of the SOE.
5. References


