

# Diplomarbeit

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“The Hungarian Privatisation and the Evaluation of its  
Impact on the 50 Largest Hungarian Companies”

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### **List of Abbreviations**

CA	Companies Act
CPI	Consumer Price Index
EPOP	Employee Part-Ownership Program
ESOP	Employee Share Ownership Program
EU	European Union
GDP	Gross Domestic Product
HUF	Hungarian Forint
NGO	Non-Governmental Organisation
SISPP	Small Investors' Share Purchase Program
SOE	State Owned Enterprises
USD	United States Dollar

## **Introduction**

Due to my nationality and my interest in economic development, I am especially interested in the Hungarian privatisation, and in its effects on the performance of national and international companies on the Hungarian market. By analysing past developments we attempt to gain valuable insight in order to increase our understanding of what we can expect of future developments and how to improve decision taking as well as predictions; my study is aiming to contribute to research by analysing the historical developments of the Hungarian privatisation process.

Does increased foreign ownership result in more profitable firms? What effects does the concentrated Hungarian ownership structure have on the largest companies? Did the companies “survive” the privatisation? What are the determinants of domestic ownership? I attempt to find answers to these, and many other questions, in the theoretical and empirical part of my thesis.

In my study, I combined the Hungarian privatisation process with the empirical investigation of the 50 largest Hungarian companies. I was especially interested in the ownership structure and in the number of pyramid layers of the analysed firms. To cover the most characteristic part of the privatisation, I described the companies in two time periods of the year 1995 and the year 2003 through different variables. Therefore, I identified them within the time scale of eight years as core periods of the privatisation process.

The present report consists of two main chapters. In the first one, I describe the Hungarian privatisation process in five main parts and summarise them separately with further prospects for the empirical part.

In the second chapter, I describe each of the companies individually and divide them into five main sectors. In the followings, I create, describe and test 75 company variables with logistic regressions in order to evaluate the impact of the privatisation. The main source of my variable records was the database Amadeus, and I used the software program Stata\_9 for statistical analysis.

## **1. The Hungarian Privatisation**

### **1.1 The Spontaneous Privatisation (1987-1990)**

#### 1.1.1 Introduction

Spontaneous privatisation is the process of getting multitudinous state property in public ownership. Both domestic and foreign individuals were involved, where valuable state assets were acquired on very beneficial conditions through the support of the management of the state owned enterprises.

The spontaneous privatisation was driven by individual interest and characterised by the exploitation of opportunities, which were morally reprehensive but legally still possible. This process was carried out without any state control.<sup>1</sup> At the beginnings, the main goal was not the privatisation itself, but the increase of firm profitability, the avoidance of bankruptcy and the modernisation of company structures.

This procedure is combined with a rich historical background and followed by the changing of regime. I found it personally very interesting, because it shaped the direction of the privatisation from the very beginning. In the following section I describe the developments of the Hungarian banking system, the state owned enterprises, the introduction of foreign capital, the creation of Companies Act and the appearance of the opposition.

#### 1.1.2 Establishment of the Two-Tier Banking System

The future economic growth was based on a stabilised and well developed banking system in Hungary. Therefore, it was a strong need for its reformation, because in the last four decades the National Bank of Hungary operated alone. This stood in contrast to the market economy acknowledged two-tier banking system, which was consisting of a central bank, commercial banks and other financial institutions.

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<sup>1</sup> Cp. Karsai (2005), p. 61.

The development of a new banking structure had its basics in 1987, when parts of the central bank were separated and transformed into commercial banks.<sup>2</sup> It was a difficult start, because these commercial banks “inherited” the original clients and accounts from the central bank, which contained portfolios of corporate enterprises being in difficult financial situations, having bankruptcy and partly uncollectible claims.<sup>3</sup> This led to an economic absurdity, that the Hungarian commercial banks were established from debts instead of real capital.

Hungary used to have problems with its banking system for many years; since the newly established banks remained weak and had to fight with continuous liquidity problems. Only in 1993 the government spent around 300 billion HUF on bank consolidation<sup>4</sup> and recapitalisation, described in greater detail in the *Bank Consolidation* section.

### 1.1.3 State Owned Enterprises

The state owned enterprises (SOEs) were characterised by the sole ownership of the state, they were called “[...] parts of the invisible state property”.<sup>5</sup> Invisibility meant in this context, that even if the state had wanted to, it could not have sold its enterprises, because there was no such a regulation. As stated before the state had ownership rights over its businesses, but interestingly it was not accountable for their performance and liabilities.<sup>6</sup>

I find it also remarkable, that the director of a SOE had considerable rights; he alone could sign the contracts and sell formally 99% of the business all alone,<sup>7</sup> which is considered to be highly unlikely today.

### 1.1.4 Inflow of Foreign Capital & the Companies Act

The development of companies’ law started in 1987 in line with the above mentioned development of banking system. This counts as a turning point, because it became clear, that state debt reached a critical level and only the inflow of foreign capital could save the state from national bankruptcy.<sup>8</sup>

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<sup>2</sup> Cp. Bagner/Kovacs (2004), p. 78.

<sup>3</sup> Cp. Kovács (2002), p. 49.

<sup>4</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (1).

<sup>5</sup> Cp. Mihályi (1997), p. 12.

<sup>6</sup> Cp. Mihályi (1997), p. 11.

<sup>7</sup> Cp. Mihályi (1997), p. 12.

<sup>8</sup> Cp. Liska (2005), p. 229.

Interestingly the state has opened its doors to the inflow of foreign capital only from the beginning of the 80's. Before this time it came into the country only through borrowing of foreign bank credits. The reason for the late appearance was that in state's opinion foreign investments and capital would have led to a foreign exploitation of the country.<sup>9</sup>

This statement turned out to be an inadequate economic decision, because by borrowing of foreign bank credits the money still flew into the country, but the state gave guarantee for its credit repayments as well. Therefore, it did not take into consideration the obvious fact that foreign bank credits just favoured foreign investors by eliminating their risk factor. If they made the investments themselves, the money would flow into the country as well, but the investors had to take at least their own risk.

However, as mentioned before, by the end of the 80's it became even more definite, that the country could not develop without the inflow of foreign capital. Therefore, a secure environment for ownership rights had to be created. To assure foreigners about the security of their investments, there was a strong need for well defined companies' law and modern corporate forms.

The Companies Act (CA) came into force at the beginning of January, 1989. Its early establishment explains that it did not have the intention to convert SOEs into privately owned ones; the creation of the law had only the aim to allow SOEs to establish privately owned mixed companies in cross-ownership, so that way banks, companies, foreign and domestic investors, corporate societies and other financial institutions would act as a collective enterprise.<sup>10</sup> Accordingly, the newly created companies had complementary function only, they did not need the authorization of the state and they were free from its supervisory control, leaving this duty to the Registry Court.

The laws of 1989 allowed finally the appearance of business associations and foreign investors in the Hungarian market,<sup>11</sup> but at the same time no privatisation laws were created. In consequence, a significant loophole was created, which left the protection of the state property unattended.<sup>12</sup>

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<sup>9</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (1).

<sup>10</sup> Cp. Mihályi (1997), p. 13.

<sup>11</sup> Cp. Bagner/Kovacs (2004), p. 64.

<sup>12</sup> Cp. Bagner/Kovacs (2004), p. 49.

### 1.1.5 Corporate Duplication

This “loophole”, mentioned above, contributed during these years to a heavy exploitation of state properties; the state lost a fortune, while management and executives got unfairly rich. SOEs participating in this process did not convert into private enterprises; they only used the law to transfer parts of their assets and financial sources in a limited or public company.

The example of “corporate duplication” demonstrated this situation well, which was often used by retail companies, restaurants and other small companies.<sup>13</sup> The following tactics could easily increase the wealth of some executives of SOEs and foreign investors without almost any kind of compensation to the state. They had established a business organisation with low share capital in a chosen corporate form (joint stock company, limited liability company), then they rented some properties of their SOE to the newly established company. In return of the properties the recently established company issued bonds, and gave them to the SOE as an exchange for its properties. Therefore, beyond the properties, the money was also converted to the newly established private company.<sup>14</sup>

The process did not stop there, because in many cases the employees of the SOE were transferred to the new company as well. That way they could have been paid even a higher payment, because newly established and mixed companies benefited from tax savings.<sup>15</sup> This transfer of employees was beneficial for the private owners additionally, since in the future, instead of the original length of the employment, just a lower severance payment was needed to expend for employee layoffs.

These “rented” assets mentioned before had been built into the new company mostly by share capital increase, and then other new companies were established by the previous one, what made in the long-term the original financial standings untraceable and uncollectible. In the end the original SOE was left with debt obligations, credits and other liabilities, so it did not have any other chance than the liquidation. This process was transacted mostly legally in the existing legal environment; it was called financial know-how.

Bagner/Kovacs (2004) summarises this process with the following words: “Basically this was how some 500 bankrupt, then liquidated or wound up companies were created, the assets of

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<sup>13</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (1).

<sup>14</sup> Cp. Bagner/Kovacs (2004), p. 63.

<sup>15</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (1).

which were lost to the public, and which were acquired for pittance by those who had the opportunity through various contacts or in more favourable cases through their resourcefulness, enterprising spirit and local knowledge”<sup>16</sup>.

#### 1.1.6 Opposition & the Road Followed by Changes

The privatisation and liquidation of the above mentioned “empty” enterprises caused many problems for the later established State Property Agency. Nearly 250 companies were strongly affected by the corporate duplication within the spontaneous privatisation, and almost every company was involved in a minor or major part. According to estimations, it contributed with nearly 130 billion HUF of loss to the state.<sup>17</sup>

It is important to notice, that another possible way for the start of the privatisation could not have been easy, because in contrast to the estimated amount of state capital (2600 billion HUF) only a small amount (150 billion HUF) of liquid capital,<sup>18</sup> available for privatisation, was in possession of Hungarian individuals.

It is not without any reason that this period is considered as corrupt and immoral, and besides these negative effects on the state’s financial situation it contributed negatively to the personal attitude of the public as well.

To be more precise, the main problem was not the fact itself, that state properties were transferred without any compensation to the ownership of private individuals (in other transition economies, like Czechoslovakia, the state gave almost half of its assets for free of charge to individual possession), but since the governance did not have any privatisation laws, it happened against its will. Large part of the “innocent” public was of course aware of this fact as well; they saw this injustice, and that only “insiders” could benefit through personal connections. This way the general public was precluded, and the privatisation lost reputation before it could really begin.

The opposition against the spontaneous privatisation grew increasingly,<sup>19</sup> and even more asked for immediate state intervention and control. Many political parties had their birth in

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<sup>16</sup> Cp. Bagner/Kovacs (2004), p. 24-25.

<sup>17</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (1).

<sup>18</sup> Cp. Belyó (2005), p. 100.

<sup>19</sup> Cp. Voszka (2005), p. 16.

these years, which encouraged individuals and also represented their will. The frequently attacks led finally to state intervention, it began to work on an equal privatisation system, which led in 1990 to the establishment of the State Property Agency.<sup>20</sup> The spontaneous privatisation ended in 1990, but its problems remained unsolved till the privatisation laws of 1992 (described in more detail in *Modifications of the Companies Act*).

Because of the corruption and unethical behaviour of many, this period is called scandalous, but still it had some positive effects in the long-term. These included among others the appearance of private ownership and company forms, which were the prerequisite for the transition process. Furthermore, in these three years there was more foreign capital invested in Hungary than in the previous 15 years,<sup>21</sup> which also contributed to the slow start of the Hungarian economic development.

#### 1.1.7 Summary and Future Prospects for the Empirical Part I

This time is considered as a bridge between socialism and market economy; it was a period when the inflow of foreign capital was allowed to enter in larger volumes in Hungary.

The appearance of foreign capital plays an important role in the empirical part of my study; I summarised its effects and gave an explanation for its determinants.

On the one hand the establishment of the two-tier banking system can be treated as an advantageous step towards the development of the Hungarian market economy; on the other hand, due to the late establishment of banks, they were not able to give financial stability and efficient support to Hungarian firms. This is because banks themselves had to fight continuous liquidity problems.

Their late developments explain why, in the middle of the 90's, no bank belonged to the 50 largest companies in Hungary (based on the sum of total assets), or to the largest shareholders of the first pyramid layer.

SOEs were characteristic company types without existing legal forms; they were controlled directly by the state and by enterprise directors, who had the ultimate power to make decisions all alone.

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<sup>20</sup> Cp. Bagner/Kovacs (2004), p. 65.

<sup>21</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (1).

The later established Limited liability companies (Kft.) and Companies limited by shares (Rt.), as from SOEs transformed company forms, play major roles in my research study.

The unfair and “illegal” events of the spontaneous privatisation led to the development of the opposition in Hungary. The actions of this initial phase resulted in high state losses, but compared to these losses, the negative long-term effects on the public opinion are the major damages.

I believe that it is never enough to emphasize, that the privatisation process had lost its reputation before it really began. It was interlocked with corruption and politics from the very beginning.

## **1.2 The Centrally Directed Phase of Privatisation (1990-1994)**

### **1.2.1 Incentives of the Government**

This period can be legally called as privatisation, which is the changing of state ownership to the benefit of private owners. In the meaning of the law the spontaneous “privatisation” can not be called privatisation, because no compensation value was received, which is one of its prerequisites.<sup>22</sup>

The new government, led by the Prime Minister Jozsef Antall, identified as its main goal the creation of social market economy, and the privatisation was considered as its main instrument. The government had to face a difficult inherited economical situation, where the industry needed to be partially liquidated or modernized; furthermore, there existed a high unemployment rate, general capital shortage, undeveloped banking system, disused infrastructure and the collapse of the eastern marketplace.<sup>23</sup> The latter contributed for almost the half of the external trade. Last but not least, the state was left with a huge external dept of 21 billion USD<sup>24</sup> and just small monetary reserves with rising inflation rates.

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<sup>22</sup> Cp. Sárközi (2005), p 10.

<sup>23</sup> Cp. Liska (2005), p. 229.

<sup>24</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (2).

In contrast to the above mentioned difficulties the country had also some advantages over other transition economies. These were among others the liberalised external trade and foreign investments, two-tier banking system, stock exchange regulations and a well functioning tax system.

The system of the state administration was also stabilised by the establishment of the Constitutional Court and the State Audit Office, which counted as powerful supervisory institutes. The State Audit Office became a fully independent organisation; it has a distinguished legal status and is responsible for the audit of “the asset-value maintenance and asset-increase activity of state-owned companies, enterprises”<sup>25</sup>.

### 1.2.2 State Property Agency

The State Property Agency was responsible for the support of the privatisation process. It began its functions under parliamentary control, and the board of directors became responsible for its management. The Agency had to create guidelines about the general concept of the privatisation and it also had to make annual plans for each year regarding the usage of privatisation revenues. It is still not obvious today, whether these guidelines were compensatory to follow or just showed a direction, but their yearly plans were usually far over- or underestimated.

In the meaning of state ownership protection the Agency was in supervision of the transaction of SOEs and their subsidiary companies.<sup>26</sup> Firms were obligated to announce special activities by the Agency, like the selling of more than 10% of company assets or more than 20 million HUF, the selling or leasing of company properties above 40 million HUF and the renting of more than 50% of the total assets listed in the balance sheet of the company.<sup>27</sup> The limits of these regulations were applied for two whole calendar years.

At the end of 1990 the position of the State Property Agency was strengthened; its status was modified to a separate institute with ownership rights. It gained more independence from the parliament and became the owner of the several SOEs; it received shares from its interest relations and assets from liquidated state companies as well.

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<sup>25</sup> Cp. State Audit Office of Hungary.

<sup>26</sup> Cp. Mihályi (1997), p. 13.

<sup>27</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (2).

### 1.2.3 Privatisation Process

The Agency identified and accepted three main ways of the privatisation process. These were:<sup>28</sup>

- Active privatisation: it was supported directly by the state; the State Property Agency was in charge to offer SOEs for selling, reorganisation and trust management.
- Self-privatisation: was the privatisation initiated by SOEs and societies; companies could work out their own privatisation program and then only the authorisation of the Agency was needed for its implementation.<sup>29</sup>
- Privatisation by external initiatives: domestic or foreign individuals or groups along with investors could report individually their privatisation desire to the Agency. Of course acceptance of the Agency was needed again.

In general the privatisation process went through two stages; first the state owned enterprises had to change their legal status, they needed to establish sufficient share capital and transform into a business association; second, after defining the competition rules the stocks and properties of the companies were ready to be sold legally.<sup>30</sup>

Within the first years of its foundation, the assets of the State Property Agency were increased very fast, many SOEs got under its supervision and the newly transformed business companies increased its possessions as well. At the end of 1991 its belongings reached already near 300 billion HUF, and only half a year later its “wealth” was increased to 800 billion HUF.<sup>31</sup>

In order to support domestic investors, the government had a strong focus on the mass establishment of small and medium enterprises and it made use of the privatisation in order to support their participation.<sup>32</sup> As a reaction to mass privatisation the body of foreign and domestic privatisation advisors was evolved. The importance of domestic advisors rose especially in the “self-privatisation” process. This process was used mostly by medium and

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<sup>28</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (2).

<sup>29</sup> Cp. Voszka (2005), p. 30.

<sup>30</sup> Cp. Bagner/Kovacs (2004), p. 50.

<sup>31</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (2).

<sup>32</sup> Cp. Bagner/Kovacs (2004), p. 66.

small firms, where the management chose its individual privatisation program in respect of the Agency's framework and general rules. The self-privatisation process was considered very successful; only within two years it conducted the privatisation of 431 firms.<sup>33</sup>

Another way of privatisation was the liquidation and final settlement. In interest of a fast transformation from socialism to market economy the government established a strict liquidation policy in order to reuse assets as fast as possible. This policy was disputed in many aspects, but at the end the policies led to a combined liquidation value of app. 350 billion HUF, which got back to some individuals in a very cheap way.

The Small Investors' Share Purchase Program (SISPP) was introduced in the early 90's. It had the main goal of fastening up the privatisation process and increasing the number of minority shareholders. This program meant to support the privatisation, but it was beneficial for the state as well, because it wanted to sell its minority share portfolios, which were left from the investments of professional investors. These investors were generally only interested in the control of the companies; therefore they were completely satisfied with buying of 50% +1 of the shares. This program ran only two years long; until the next government with different privatisation principles came into power. Therefore the SISPP did not have much actual influence on the privatisation, but the damaging actions of the professional investors and the remaining minority portfolios set many problems in the later period.<sup>34</sup>

The Employee Part-Ownership Program (EPOP), the privatisation loans and leasing and the compensation vouchers were also essential parts of the privatisation process; they are described in later parts.

#### 1.2.4 Public Judgement of the Privatisation

In line with the demonstration of the privatisation process it is also important to investigate its judgement and public opinion.

These years were characterised by everyday political conflicts and misunderstandings, which made often an inconvenient pressure on the continuous work of the Agency, its labour force

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<sup>33</sup> Cp. Bagner/Kovacs (2004), p. 67.

<sup>34</sup> Cp. Bagner/Kovacs (2004), p. 68.

of 300 employees turned out often as not being sufficient.<sup>35</sup> The Agency made big efforts on the information of opportunities and facts of the privatisation; hence the public opinion was disturbed by the feeling of unfairness.<sup>36</sup> Due to this attitude many were disoriented and missed out from the privatisation.

To avoid these problems and simultaneously to increase the investment sentiment within the country, the importance of “public teaching”<sup>37</sup> of the privatisation was identified. This procedure demonstrated the possibilities and advantages of the privatisation, and intended to make it transparent and more understandable for the public and to familiarise its workflow for everyone. Publicity was obviously related to marketing, so the Agency got in touch with more than hundred NGOs, banks and foreign institutions in order to increase its reputation, and also huge amounts of money were spent on TV, radio or newspapers.

All in one these endeavours were not unsuccessful, but they still were not able to communicate the main idea and the importance of the privatisation to many. One of the reasons was that the press was rather interested in scandals and continuous political conflicts instead of increasing its popularity.

#### 1.2.5 Modifications of the Companies Act

Followed by the government incentives, mentioned above, a new program emerged to support the development of constant economic growth. Within this program were extensions and modifications of the CA created, and the privatisation process got also more stabilized. The alterations contained among others the protection of minority shareholders and the equal privileges of all companies incorporated in Hungary,<sup>38</sup> regardless of their ownership type.

A new privatisation institute, the Hungarian State Holding Company, was also established and put under state coordination.<sup>39</sup> Its main duties included the supervision and management of state owned companies, which were planned to remain in a long-term state ownership. According to these changes, the SOEs were divided up by the ownership of the State Property Agency and the Hungarian State Holding Company. The Hungarian State Holding Company

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<sup>35</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (2).

<sup>36</sup> Cp. Bagner/Kovacs (2004), p 31.

<sup>37</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (2).

<sup>38</sup> Cp. Mihályi (1997), p. 17.

<sup>39</sup> Cp. Voszka (2005), p. 16.

became the owner of strategically important and profitable companies. They had the combined value of app. 1600 billion HUF, while the State Property Agency was left companies of lower volume with their combined market value of 800 billion HUF.<sup>40</sup>

The activities of the Hungarian State Holding Company developed slowly. At the beginning its operations concentrated mainly on the exchange of compensation warrants against company shares.

#### 1.2.6 Bank Consolidation

The other important issue of the program was the privatisation and consolidation of banks. As mentioned before, the Hungarian commercial banks were since their establishment in a very difficult economic situation with inherited and inefficient portfolios and insolvent clients. Most of the banks, also the largest ones, became bankrupt, and they needed to be recapitalised in order to survive.

The first bank consolidation took place in 1992<sup>41</sup>; when inefficient credits and insolvent clients were eliminated from the bank's portfolios. There participated twenty commercial banks with the combined cost of app. 100 billion HUF. This process continued one year later with the consolidation of ten other banks, but this time it was not only a credit consolidation but also a debtor consolidation.<sup>42</sup> This meant that the banks were given sufficient capital in the ratio of their inefficient credits, but it had to be transferred partial to their clients in form of client's debt reduction, if they were only temporarily insolvent or had a reorganisation plan.

The bank consolidation was expanded by its limits and it grew to a general reorganisation plan of many Hungarian companies having financial difficulties. Due to this support thousands of workplaces were saved and several strategically key companies survived (e.g. MÁV, and 15 others).<sup>43</sup>

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<sup>40</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (2).

<sup>41</sup> Cp. Mihályi (1997), p. 22.

<sup>42</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (2).

<sup>43</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (2).

The bank consolidation continued also in 1994, and it increased the overall government spending of the last two years to 312 billion HUF. In line with this process the state ownership was increased in the banking sector up to 80%, but it quickly decreased to the original stand after the majority of the consolidated banks were privatised.<sup>44</sup>

All together in these four years almost 310 billion HUF of state properties were privatised, where a participation rate of 55% was achieved in favour to domestic investors, and foreign investors stayed in minority. These revenues were used for the establishment of public institutions, for the reorganisation of companies and financial institutions, for investment trusts and for budgetary payments.

### 1.2.7 Summary and Future Prospects for the Empirical Part II

This period is characterised by the stabilization of the Hungarian market economy and by the development of private ownership protection.

The incentives of the government, to assist Hungary on its way of a fast development towards market economy, are clearly observable through the open and supportive decisions. Key state and administrative bodies were established; among others the Constitutional Court, the State Audit Office, the State Property Agency and the National Compensation Office. Moreover, the Budapest Stock Exchange was reopened.

The newly founded State Property Agency and Hungarian State Holding Company (in line with their legal successor) operated as an owner and supervisor of the companies available for privatisation; these privatisation funds were one of the largest shareholders out of the 50 largest analysed companies of my study.

Bank consolidations took place in large numbers from the early 1992; which also explains the weak position of Hungarian banks for many years.

In my opinion it is especially important to mention that after the change of regime, the Hungarian government was offered to repeal all its current state debts, therefore, it could have

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<sup>44</sup> Cp. Bagner/Kovacs (2004), p. 79.

had a “clear” start on its way of the development, but the offer was rejected by the government.

This attitude and pride was very characteristic considering the start of the privatisation, though many people think today that it was not the best economic decision.

In the next part I describe the state’s main compensation and privatisation programs, which contributed to the development of small- and middle sized enterprises and domestic investors. These happenings still belonged to this period (1992-1994) chronologically.

### **1.3 The Compensation Process**

#### **1.3.1 Theory of the Compensation**

The compensation process did not mean that the state was just giving away its possessions for free; its goal was to compensate the ones who suffered from unfair expropriation of their private property between the years of 1939-1990. It applied also for others who had been illegitimate disposed from their freedom or even from their lives by the state because of political reasons.<sup>45</sup>

The injustice of the forcibly shaped ownership rights of the past four decades was well seen by the majority of the Hungarians; it divided the public opinion into two standpoints.<sup>46</sup> Some meant that socialism was just an unordinary episode in Hungarian history, therefore its regulations needed to be considered as invalid, and because the original ownership rights can not be lapsed they had to be restored. The other party rejected the restoration of original ownership rights completely. They were in complete agreement that in pursuance of the new constitution the unconstitutionality of previous laws can not be investigated. They acknowledged that the arrangements of socialism were objectionable and questionable; its laws were still valid. Therefore only moral recompense would be appropriate.

The government came up with a solution between the two above mentioned viewpoints; it rejected the full reprivatisation (=restoring of original ownership rights) of private

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<sup>45</sup> Cp. Mihályi (1997), p. 24.

<sup>46</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (3).

properties<sup>47</sup>, but it issued compensation warrants as an instrument for compensation at the same time.

### 1.3.2 Compensation Warrants

The above mentioned compensation offered by the state could be just partial, because the state did not have sufficient monetary reserves.<sup>48</sup> Only private persons could participate, legal entities were not allowed to, while its value was based on the size of the original ownership rights.<sup>49</sup> The extent of the compensation was regressive, up to the value of 200 thousand HUF it was compensated by 100%, and then this percentage fell by risen original ownership measures.<sup>50</sup> The maximal amount of the compensation was set by single assets and by persons to 5 million HUF. In case of owner's decease the compensation rights were transferred to the offspring, in their absence to a wife or husband.

The compensation voucher was a kind of bearer instrument; it could be used under restricted conditions for the following purposes:<sup>51</sup>

- for buying of state assets
- for buying of agricultural lands (set by collective farms and state farmlands)
- for buying of flats (offered by municipalities)
- for refunding as life annuity
- or they could be just sold as securities

People were able to choose freely between the options listed above, and the State Property Agency established also investment trusts, where compensation warrants were accepted as well. Its aggregated value of app. 4 billion HUF was oversubscribed very fast.<sup>52</sup>

The National Compensation Office was established in 1992; its tasks included the issue of compensation vouchers, the consideration of compensation claims and the administration of

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<sup>47</sup> with the exception of patrimony.

<sup>48</sup> Cp. Bagner/Kovacs (2004), p. 51.

<sup>49</sup> Cp. Gidai (1996), p. 28.

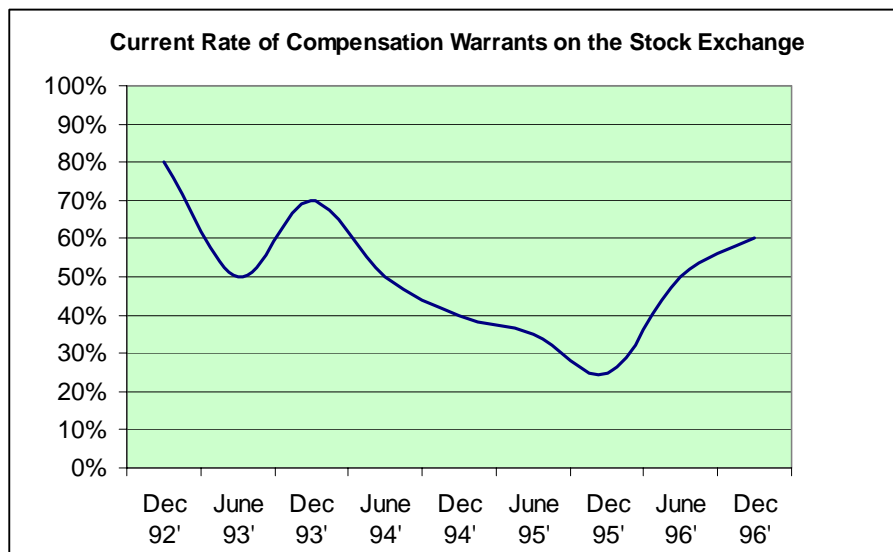
<sup>50</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (3).

<sup>51</sup> Cp. Bagner/Kovacs (2004), p. 52.

<sup>52</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (3).

compensation workflows.<sup>53</sup> The Office started its functions in the same year of its establishment with the emission of compensation notes in the app. value of 700 million HUF per month. This issue rose in the next two years to about 4 billion HUF, but at the end of 1994 it went back to the original amount.<sup>54</sup> This rise and fall was combined with the scarcity of the lands and properties available for privatisation, referred to later in this chapter. However nearly 1.8 million Hungarian reported their claims in an app. value of 300 billion HUF.<sup>55</sup>

The compensation voucher, given out by the National Compensation Office, was introduced in the stock market, and it turned out to be an important liquid security.<sup>56</sup> In the next two years it accounted for app. 30% of total revenues of the stock market. The current rate of the compensation notes was influenced by the often changing share-list, which had the following tendency (see Figure 1):



**Figure 1: Changing Rate of Compensation Warrants**  
Source: Hungary in the XX. Century; the Privatisation and the Compensation (3)

The volatile trend of the vouchers was abused by the secondary owners, described in greater detail in the *Misleading Routes of the Privatisation*.

<sup>53</sup> Cp. Food and Agricultural Organisation of the United Nations.  
<sup>54</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (3).  
<sup>55</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (3).  
<sup>56</sup> Cp. Bagner/Kovacs (2004), p. 51.

Owners of compensation vouchers held in their own right (= not the purchased ones) were able to exchange their notes for shares of newly privatised companies. Through this action the flotation of company shares was supported, it had a very positive effect on the development of the Hungarian capital market.<sup>57</sup> Therefore the share trade boomed; especially the shares of the following companies: Pick, Danubius, Csemege Julius Meinl, Buszesz, Soproni Sörgyár, Prímagáz, Omker, OTP, Mol, MKB etc. were very popular among the compensation warranty holders. In sum almost 20 billion HUF of shares were sold what contributed to the appearance of many small stock owners.

### 1.3.3 Ownership Rights of Municipalities

Along with the compensation process an important law was enforced in 1991, it regulated the ownership rights of municipalities. Within this law the state owned buildings, flats, houses, internal lands and public utilities were transferred into their ownership while the ex-council enterprises were taken away from them and were privatised by the State Property Agency. In consequence, an estimated value of app. 4000 billion HUF was legally transferred to the municipalities.<sup>58</sup>

In the meaning of the law, municipalities were remunerated after privatisations of SOEs located within their internal area. Therefore, the Agency had to pay municipalities 50% of the value for the construction land underneath the company (or business shares or stocks in the same value).<sup>59</sup> A new line of privatisation driven by municipalities was started, which included the privatisation of flats in a very fast way. In cases of other assets the development was slower.

In this regard, it is important to notice, that significant part of the compensation law focused on regulations of the agricultural land. If we get back to the original ways of the usage of compensation warrants, one way was to purchase agricultural lands with it. Collective farms and state farmlands were the ones to be in charge to appoint available lands for compensation. They were available for public auctions, and someone with the highest bid could actually buy.

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<sup>57</sup> Cp. Bagner/Kovacs (2004), p. 73.

<sup>58</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (3).

<sup>59</sup> Cp. Mihályi (1997), p. 24.

These auctions functioned quite well till the authorities started to run out of available lands for auction in the middle of 1993. The shortage had the effect that everyone was trying to get rid of the compensation warrants and buy lands at the same time, so the prices of them increased extremely fast. Therefore a big debate was caused by the scarcity of lands between politicians and experts.<sup>60</sup>

Until 1994 about 21 thousand auctions took place, app. 35 billion HUF of compensation warrants were spent and 600 thousand people were able to buy a ground.<sup>61</sup>

Another issue was raised by the increasing number of compensation warrants in the possession of cooperative societies and whether they can be used by them as a legal entity.<sup>62</sup> The Constitutional Court investigated this problem and made the decision, that cooperative societies as legal entities should be protected as well from unfair absorption of lands, so their compensation notes could be used for buying of state owned assets or could be sold on the free market. Compensation notes assembled by state institutions were immediately repealed, because they had already fulfilled their goal.

#### 1.3.4 Misleading Routes of the Privatisation

The development of secondary owners of compensation vouchers gave a good example that the State Property Agency concentrated mainly on the issue of determinate amount of compensation warrants, but it did not play enough attention to the persons who really needed to be compensated and whether the compensation was equally distributed.

A significant part of the people affected in the compensation was old or not well informed.<sup>63</sup> Therefore, they could only use their compensation notes in simple cases, like to exchange them for company shares, or they just sold them on the free market or on the Stock Exchange for cash, so they were left out from most of its benefits.<sup>64</sup>

Another problem was, that at the same time the maximal compensation limit of 5 million HUF also did not represent a useable capital to acquire an enterprise, therefore a significant

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<sup>60</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (3).

<sup>61</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (3).

<sup>62</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (3).

<sup>63</sup> Cp. Bagner/Kovacs (2004), p. 72.

<sup>64</sup> Cp. Mihályi (1997), p. 19.

part of the compensation warrants were bought up by investors, who could participate that way in the privatisation process as well. These investors were called secondary owners of compensation warrants, and in many cases they were the only ones who could effectively participate in auctions. Often millions of HUF were needed to win a bid what precluded other bids limited by 5 million HUF. Buying up the compensation warrants was beneficial for the investors, because usually they bought them far under their nominal value, but they could sell them within the privatisation on its original value to the state. That way these investors made in a few years often an enormous profit of app. 150% on the business.

That was definitely not what the Agency aimed for.

### 1.3.5 Summary & Adjustment of the Compensation

Despite of the positive achievements and the efforts of the state, the compensation policy was not politically successful. The public was in most of the cases unsatisfied, because compared to their original ownerships they were given only a limited compensation, and also not in cash but in complicatedly usable compensation warrants, whereas the ones not participating considered the compensation process only as a give away of commons for free.

By all means the compensation and the regulation of ownership rights of municipalities and patrimonies made it clear and obvious, that the assets sold by the state are actually in the possession of the owners and can not be taken away, which created the prerequisite for the mass public privatisation.

In the following sections the four main instruments, which supported the privatisation process are illustrated. These are the Start-up loan, the Privatisation loan, the Employee Part-Ownership Program and the Privatisation leasing.

### 1.3.6 Start-Up Loan

Start-up loan (E-credit) was a credit facility developed only for domestic investors and offered by commercial banks and financial institutions after successful credit reconsideration. It could be used only by selling of state owned assets. The source of the start-up loan was the refinance credit offered by the National Bank of Hungary; its interest consisted of the

refinance interest and the interest margin of the commercial banks or financial institutions.<sup>65</sup> A minimal amount of initial capital was required for granting the credit; it could be paid in cash or in compensation notes as well.

The credit terms were often modified in favour of the private persons between 1991 and 1995 (with the exceptions of some restrictions of the last year)<sup>66</sup>. The interest rates and the height of initial capital were reduced, the initial maturities were lengthened and the number of entitled people and the upper limit of the credit were increased as well. It is interesting to observe the continuously falling development of the credit rate in Table 1.

Year	Inflation Rate	E-Credit Rate	Refinance Credit	Interest Margin
1991	35%	<b>22%</b>	18%	4%
1992	28%	<b>16.60%</b>	12.60%	4%
1993	25%	<b>7%</b>	3%	4%

**Table 1: Comparison of the E-Credit Rate with the Inflation Rate**

Source: Karsai (2005), p. 58, Hungarian Central Statistical Office (KSH) (1), Hungary in the XX. Century; the Privatisation and the Compensation (4).

These changes applied ex-post from the date of the borrowing. So in 1993 a buyer had to pay only 7% of interest, whereas the annual inflation rate was about 25% and other usual bank credits around 35%. This was obviously a large state support which had the advantage of increasing entrepreneur spirit of domestic investors.

At the beginning E-credit was mostly used for buying of retail firms and smaller catering companies, it was called preliminary privatisation,<sup>67</sup> then its usage was extended also for large enterprises, when its credit terms were positively modified. Then in 1994 the new government, led by the minister president Gyula Horn, changed the previous privatisation policies and set the new goal of increasing cash-nature revenues, which resulted in restricted conditions of the start-up loan.<sup>68</sup>

<sup>65</sup> Cp. Voszka (2005), p 29.

<sup>66</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (4).

<sup>67</sup> Cp. Bagner/Kovacs (2004), p. 51.

<sup>68</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (4).

Commercial banks acted differently in the credit auditing process, some of them even used the start-up loan as part of their business policy. For example many obligated clients, who requested a credit, to open a bank account at their bank as well, or they just modified its credit terms to offer better conditions as the concurrence in order to “steal” the clientele.<sup>69</sup> Some of these techniques were not illegal but still unmoral; they often led to scandalous cases which had a negative influence on the public opinion again (see among others the *Tocsik-Scandal* in later parts).

Nevertheless, the presence of the start-up loan had a beneficial effect on the speed of the privatisation; app. 22% of the privatised firms used it between 1991 and 1994. The E-credit is also considered as an instrument for driving the growth of bank business.

### 1.3.7 Privatisation Loan

The privatisation loan had analogous conditions to the E-credit, but it was far not as successful as the previous one. It enabled private persons to access a loan with a maximum of 75% of the sale price of the state’s asset. It was also granted by the National Bank of Hungary, but as mentioned before, it was used only in limited numbers.<sup>70</sup>

Therefore the privatisation loan had only a slight influence on the privatisation process.

### 1.3.8 Employee Part-Ownership Program

Another important privatisation technique was the Employee Part-Ownership Program (EPOP), which enabled a beneficial possibility for employees of state owned enterprises to participate in the privatisation of their own company and to become its owner.<sup>71</sup>

The ideas of Employee Share Ownership Program (ESOP) had appeared already in many countries at the beginning of the 70’s, to which the EPOP in Hungary had many similarities. Based on the basic idea of EPOP<sup>72</sup>, the proprietary affection of the employees to their company had a positive effect on the efficiency of the business. Furthermore, in some cases the EPOP made it possible to save the company from liquidation.

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<sup>69</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (4).

<sup>70</sup> Cp. Bagner/Kovacs (2004), p. 70.

<sup>71</sup> Cp. Voszka (2005), p 29.

<sup>72</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (4).

The creation of EPOP had often the main goal in Hungary to hold and secure the workplace itself instead of achieving additional revenues. Not only employees, but also managers could participate in this program, it was called management buy out.<sup>73</sup>

To illustrate how the EPOP operated, its laws, enforced in 1992<sup>74</sup>, will be analysed. These defined, that:

- The EPOP can only be implemented by companies, where the employees are officially employed.
- Every employee had the right to participate, but at least six month of employment was needed.
- There was no limit for buying of company shares, but to establish an EPOP at least 40% of employee participation was required.
- The EPOP functioned as an organisation of the municipality, the only goal of its establishment was the employee buy out; the organisation only stayed alive till the borrowed credit was paid back.
- Its key document was the constitution article, which was highly variable within its legal bounds.
- The application of every EPOP was considered by the State Property Agency; in case of similar applications the one in an EPOP was preferable.

At the beginning of 1993 the state modified the credit conditions; therefore the actual E-credit rate was applied. Another advantage was that besides of the initial starting capital no mortgage was required to request a credit. Employees could benefit from personal income tax allowances as well. We can summarise, that the participation in EPOP involved many advantages. This support was part of the government's conscious economic policy, which accounted for the evolution of the society's ownership scheme with the special focus on the development of small investors.<sup>75</sup>

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<sup>73</sup> Cp. Kovács (2002), p. 42.

<sup>74</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (4).

<sup>75</sup> Cp. Bagner/Kovacs (2004), p. 71.

### 1.3.9 Privatisation Leasing

The privatisation leasing had many similarities with the above mentioned Employee Part-Ownership Program, where state-owned companies and assets were available to rent for usage. These assets and companies available of leasing were, because of their lack of demand, left out often from the privatisation, but with this method they could be of good use. The privatisation leasing was only two years long in force after its creation.<sup>76</sup>

The above listed privatisation techniques had all the main goal to support the privatisation process and to enable the formation of small, - middle, - and large domestic enterprises.

### 1.3.10 Summary and Future Prospects for the Empirical Part III

The compensation process was theoretically based on the idea of equality, but the practice stood in clear contrast; therefore, the secondary ownership emerged. Secondary owners are self interest and profit driven individuals aiming to “trick” the privatisation process, in order to benefit from others’ expense.

The wide acceptance of compensation vouchers allowed entitled persons to use them as an exchange for company shares. The introduction of the vouchers influenced the performance of companies in a beneficial way; many became listed on the stock market.

Municipalities, as state bodies, became majority owners of large companies.

From my point of view it is important to emphasise the extensive support of this period for domestic investors; it was especially beneficial for the country and many of the small- and medium sized enterprises were efficiently privatised.

The privatisation programs (e.g. start-up loan, Employee part ownership program) assisted the above mentioned process as well.

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<sup>76</sup> Cp. Bagner/Kovacs (2004), p. 71.

## 1.4 The Privatisation Process between 1994 and 1998

### 1.4.1 The New Government

After the first four official years of the privatisation, a significant change happened within the privatisation process; the new government led by the Prime Minister Gyula Horn, introduced contrary and restrictive policies, which set back the previous direction of the privatisation.

The new government criticized strongly the previous government's program; it took a stand especially against the lack of parliamentary control and required publicity, against the speed of the privatisation, its institutions and regulations. They considered the economic growth started in 1993 unrealistic<sup>77</sup> and set restrictive policies, like;

- No ministry was appointed to lead the privatisation; this role was taken over by the Minister of Finance.
- Just a very few new applications were announced, the privatisation was stagnated, essentially only the ongoing 165 privatisation transactions were continued.<sup>78</sup>
- Politics of dismissal (well-known arrangements of the socialism) was used; more than a hundred of managing directors and nearly a thousand of managerial and board members of SOEs were laid off and replaced<sup>79</sup>

In 1994 it went that far, that the prime minister himself encroached in the privatisation process (see the case with Hungarhotels)<sup>80</sup>. He qualified the decision of the State Property Agency as wrong, and he made pressure on its repeal. This scandalous action had the consequence that many foreign investors lost temporarily their investing interest in Hungary.

As mentioned before, starting from 1994, the new government strictly reviewed and audited the privatisation program of the previous government, but no illegal privatisation operations were found.<sup>81</sup> There were just a very few objectionable acts on behalf of the board of directors, but considering the thousands of transactions it was still not a bad result.

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<sup>77</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (5).

<sup>78</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (5).

<sup>79</sup> Cp. Bagner/Kovacs (2004), p. 33-34.

<sup>80</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (5).

<sup>81</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (5).

In the middle of 1995 a new privatisation law was announced, which merged the State Property Agency with the Hungarian State Holding Company, and so the Hungarian Privatisation and State Holding Co. (ÁPV Rt.) was established.<sup>82</sup> Furthermore, the reduction of the economic role of the state and at the same time the increase of state revenues were identified as new goals of the privatisation.<sup>83</sup> The company was in sole ownership of the state; its tasks included the management of privatisation and the supervision of companies being held in long-term state ownership. The consolidated company employed that time app. 450 employees.

Another new regulation of the 1995 privatisation law was the so called “simplified privatisation”. This could be resorted only by executive officers, and only if the company had less than 500 employees and 600 million HUF of capital resources.<sup>84</sup> According to this law, the companies had to prepare alone for the privatisation, the State Privatisation and Asset Management Company was responsible only for the final decision. The simplified privatisation underwent three phases, where app. 140 companies were sold. The goal of the program was also to fasten the privatisation process, which was planned to be finished by the end of 1996.<sup>85</sup> This plan could not be realised, because it made the privatisation only more bureaucratic and slow. These thoughts will be analysed in greater detail in the next chapter of *Recent Years*.

#### 1.4.2 Results of the New Way of Privatisation

In interest of the new government, the previous beneficial and subsidiary policies were repealed; since the highest amount available for Start-up loan was limited to 50 million HUF or maximal to the half of the company’s selling price, the acceptance of the compensation warrants and the possibilities of domestic investors to acquire new ownerships were also widely restricted<sup>86</sup>.

Because of these changed circumstances, the new government privatised within its administration app. 1070 billion HUF<sup>87</sup> of state assets, what was nearly two and a half times

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<sup>82</sup> Cp. Hungarian Privatisation and State Holding Company (1).

<sup>83</sup> Cp. Bagner/Kovacs (2004), p. 48.

<sup>84</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (5).

<sup>85</sup> Cp. Sárközi (2005), p. 11.

<sup>86</sup> Cp. Bagner/Kovacs (2004), p. 27.

<sup>87</sup> Cp. Hungarian Privatisation and State Holding Company (2).

more, than what the previous government achieved. An example for the speed of privatisation is that more than half of the state's entrepreneurial assets were already privatised by the end of 1996.<sup>88</sup> It is important to mention, that the ratio of domestic and foreign investors was significantly changed. Its position of 45%-55% achieved by the previous government was modified to 85%<sup>89</sup> in favour of the foreign investors. In 1995 the privatisation revenues reached the highest yearly number till then, 481 billion HUF flew in, 80% of it was in cash and almost only from foreign investors.<sup>90</sup>

This period was characterised also by the selling of majority ownership and management rights of large service companies. The Hungarian Oil & Gas Company Plc (MOL Rt.)<sup>91</sup>, with its large share of the Hungarian oil market, was sold at a very low price (its share price went up in two years by 400%); the five regional gas service companies became foreign-owned and also six other electric power companies were sold. It came to the second major selling of the Hungarian Telecommunications Company Ltd. (MATÁV Rt.)<sup>92</sup>, and other sales occurred in the chemicals and pharmaceutical industry.

There were some scandalous cases in the bank industry; among others the privatisation of Budapest Bank Rt. became questionable. In contrast to its previous consolidation and extensive capital support, it was sold massively under priced and it became foreign-owned with almost no remuneration.<sup>93</sup>

#### 1.4.3 Talking Numbers and the Critics

The article of Liska (2005)<sup>94</sup> investigates critically the privatisation process with the focus of the selling of strategically important Hungarian enterprises. He contrasted the numbers of the annual privatisation incomes with the annual privatisation expenses in the following Table 2:

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<sup>88</sup> Cp. Bagner/Kovacs (2004), p. 37.

<sup>89</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (5).

<sup>90</sup> Cp. Hungarian Privatisation and State Holding Company (2).

<sup>91</sup> Cp. Hungarian Oil & Gas Company Plc (MOL Rt.).

<sup>92</sup> Cp. Matáv Hungarian Telecommunications Company Ltd.

<sup>93</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (5).

<sup>94</sup> Cp. Liska (2005), p. 230-248.

<b>Year</b>	<b>Privatisation Inflows (in million HUF)</b>	<b>Privatisation Expenses (in million HUF)</b>
1990	670	0
1991	31 360	3 430
1992	77 230	24 940
1993	169 910	58 300
1994	156 670	46 340
1995	473 965	241 938
1996	157 964	340 168
1997	349 753	329 509
1998	111 923	150 439
1999	132 395	132 392
2000	56 987	60 121

**Table 2: Comparison of Privatisation Inflows and Expenses**

Source: Liska (2005), p. 233, Hungarian Privatisation and State Holding Company (2).

The table summarises well, that in the beginnings (after the changing of the regime), transactions were of lower value, and the revenues were clearly higher than the expenditures. In this time generally the well-operating small or middle sized enterprises were sold domestically in favour of domestic investors. After the state privatised these firms, the privatisation continued with the selling of large strategic Hungarian companies.<sup>95</sup> This time, mainly between 1994 and 1996, the main goal of the state was to increase state revenues, therefore these firms were sold regardless of their financial situation.

The data of the previous table shows clearly, that this goal was not realised, because the high incomes were also combined with high expenses. In 1996 it went also that far, that the yearly expenses exceeded the inflows.

Lentner (1997) summarised in his notes these happenings as a “key mistake of the governments”, that they should have realised earlier that selling of strategically important firms was not the right way to reduce state debts, and in the final balance it only led to high expenses and wasted chances.<sup>96</sup>

<sup>95</sup> Cp. Voszka (2005), p. 28.

<sup>96</sup> Cp. Lentner (1997), p. 36.

Another explanation for the low balance of the privatisation revenues was that because the state urgently needed inflows to refinance its short-term credits, it did not have the time for sufficient price negotiations. The case of Kaposvári Húskombinát, a large agricultural factory, states a good example, where the company-intern continuous maintenance work was stopped, because the management was afraid of not being able to sell fast the valuable and technically well-equipped company. The not repaired machinery equipments resulted in value losses, so at the end the company could be offered on a lower selling price. Finally the factory was bought up for 4.4 billion HUF by Italian investors, the expenses reached almost 4 billion HUF, leaving the state, compared to the inflows, with a small amount of revenues.<sup>97</sup>

#### 1.4.4 The Opposition

The number of the opposition grew fast and the State Audit Office doubted the success of the “new way” of the operations as well. As an example the privatisation of the electric power companies was also not professionally prepared, and furthermore the selling of management rights to foreigners was also considered as an elementary failure of the national economy.

Many from the opposition stated, that the government was not prepared for the large privatisation inflows, because it did not have an appropriate investment plan for its optimal utilisation; so the excess revenues were used mostly only to redeem public debt.<sup>98</sup>

#### 1.4.5 Tocsik-Scandal

Probably one of the biggest privatisation scandals was associated with Marta Tocsik’s name, which was based on the litigation between municipalities and the state. It included in more detail, that in the meaning of the privatisation law of 1989, the value of the internal grounds stated in the balance sheet of privatised companies did not belong to the state, but it pertained to the municipality where the companies were located.<sup>99</sup>

The problem was based on the false interpretation of the law. In the previous years, instead of the whole value of the inbound grounds listed on the company’s balance sheet, only its reduced value, lowered proportionately by the liabilities, was paid to the municipalities. This

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<sup>97</sup> Cp. Liska (2005), p. 232.

<sup>98</sup> Cp. Gidai (1996), p. 13.

<sup>99</sup> Cp. Bagner/Kovacs (2004), p. 26.

issue went on trial in 1996, where based on the final decision of the Supreme Court, the state had to compensate retroactively all the losses of municipalities. Because the sum of these obligations had a high approximate value of 80 billion HUF, the lawyer Marta Tocsik was requested to reduce this amount.<sup>100</sup> Her activities were supported by the establishment of two limited liability companies, which were founded in order to compromise with municipalities to pay a lower compensation.<sup>101</sup>

When this came to light, a big scandal emerged about the usage of state power bargaining about its duties. It was also contrary to the rules, that Marta Tocsik was given for her work an especially high success fee of 800 million HUF.<sup>102</sup> A criminal procedure started immediately against the lawyer, the involved executive officers of the State Privatisation and Asset Management Company (ÁPV Rt.) and other possible participants.

#### 1.4.6 Evaluation of this Period

The politics of the new cabinet was characterised by accelerating the privatisation process and increasing the foreign ownership in the country. Many of the subsidies were taken away from domestic investors, while the state made use of the privatisation in order to increase its revenues. The quality of professional control of the privatisation and its popularity greatly decreased, while the necessary parliamentary audit could not be achieved. The privatisation process was characterised by secrecy and by the importance of personal connections.

Therefore, and for the reasons stated in previous parts, the Hungarian privatisation process was judged negative by most of the public.<sup>103</sup>

There were made many mistakes indeed, but I need to complement that the origins of many privatisation problems were based also on the difficulty, that no appropriate literature had been available about the “right way” of the privatisation. Nobody had analyzed transition economies effectively before, and not even the way how they could have transferred efficiently from socialism to a market economy. The situation became also complicated because of continuous fights between opposite interest groups and political powers to acquire

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<sup>100</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (5).

<sup>101</sup> Cp. Bagner/Kovacs (2004), p. 26.

<sup>102</sup> Cp. Hungary in the XX. Century; the Privatisation and the Compensation (5).

<sup>103</sup> Cp. Bagner/Kovacs (2004), p. 19.

assets as cheap as possible. It was obvious as well that everyone's interest could not be met at the same time, and it was in interest of the governments in power to magnify the mistakes of previous cabinets.

Despite all these, the outside world considered the Hungarian privatisation between 1989 and 1998 generally as successful, and even many Hungarian specialists agreed with that. In these years, the economic structure was completely transformed, foreign capital investments increased to 16 billion USD, the HUF became stable and the Hungarian economy developed as well.

#### 1.4.7 Summary and Future Prospects for the Empirical Part IV

A new way of privatisation was introduced, which was characterised by contrary and restrictive policies.

Additional privatisation laws were enforced in 1995; the newly established Hungarian Privatisation and State Holding Company became the legal successor of the state privatisation funds.

Within these and the next years, most of the largest Hungarian companies were privatised, and many changes occurred in their ultimate ownership types. In the final part of my diploma I investigate the determinants of these changes.

In my opinion, this was the period when the government began to overstate the support for foreign investors at the expense of domestic ones. The privatisation regulations favoured foreign investors (e.g. Gedeon Richter Plc ...) through state subsidiaries and tax allowances in order to attract even more foreign capital. Foreign ownership became dominant in Hungary in these four years; it increased from its overall ratio of 45% to 85%.

The described period is characterised by the selling of majority ownership rights of strategically important companies; to these belong among others the Hungarian Oil & Gas Company Plc., Matáv Hungarian Telecommunications Company Ltd., five regional gas service companies and six electric power companies.

The Hungarian ownership structure became more concentrated and the changed regulations of the privatisation resulted in the development of large-scale investors, who disposed of a significant power and influence within the European market.

## 1.5 The Privatisation from 1998 till the Recent Years

### 1.5.1 Recent Years

The Hungarian privatisation process seemed to come to end at the first time in 1996<sup>104</sup>, but in reality it is still present. However, what we can be sure about, that its importance decreased from the turning of the millennium, when the original number of nearly 2000 SOEs in the possession of state asset management companies decreased to app. 10%.<sup>105</sup>

Karsai (2005) investigated these and other changes effected by the privatisation from the early 90's within the Hungarian economy. He states in his writings, that there is a privatisation trend driving changes in the ownership structure of Hungarian companies. The most important characteristic of this trend is its cyclicity<sup>106</sup>, which is related on the one hand to the world economy, and on the other hand to the internal politics.

Bagner/Kovacs (2004) writes also about this cyclicity, their article emphasizes its effects on internal political actions. Before political elections, the privatisation process always slows down, so the government can concentrate solely on the acquisition or retention of the political power. After the election it always speeds up in order to increase revenues and to demonstrate again the commitment of the new government.<sup>107</sup>

Voszka (2005) answers the question “Why does the privatisation process last for such a long-term?” in her critical article with the outspoken and hidden motives of the state. These are:<sup>108</sup>

- enforcement of the public interest
- theory of market failure

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<sup>104</sup> Cp. Voszka (2005), p. 15.

<sup>105</sup> Cp. Belyo (2005), p. 100.

<sup>106</sup> Cp. Karsai (2005), p. 47.

<sup>107</sup> Cp. Bagner/Kovacs (2004), p. 30.

<sup>108</sup> Cp. Voszka (2005), p. 19-20.

- argument of redistribution
- position power and influence

The first two are the “good” factors of the privatisation; the enforcement of the public interest is based on the assumption that the state has almost all the information available to decide in favour of the general interest, while the theory of the market failure allows the presence of state ownership only in market situations, where competition could not work because of potential monopolies.

The other two reasons are based on their “abuse of power” nature hidden for the public; according to the argument of redistribution the privatisation “redistributes” benefits and burdens of special classes automatically<sup>109</sup>, but this initially “automatic” process can be used to satisfy political interests as well. An example can be the avoidance of public budget debates with the allocation of state subsidiaries. The fourth reason, position power and influence, is interlocked with the previous one, which is the redistribution of public properties to gain power and political influence, This can easily lead to illegal enrichment of people being in leading positions.<sup>110</sup> Today’s political debates about the ending of the privatisation do not include the latter two arguments, but many believe<sup>111</sup> that they play a key role.

It is also important to remark, that no new privatisation law was created officially with the acceptance of the ministry since 1998; however the privatisation practice in these years was quite distinct.<sup>112</sup> This observation refers back to the statement of Bagner/Kovacs (2004) and Karsai (2005) that a clear distinction is needed between principles and practice of Hungarian privatisation policies.

They have justified their statement with the following two reasons:

Firstly, many processes were executed without any parliamentary legislation, because so called “silent”<sup>113</sup> adjustments or modifications were used by the changing governments. These adjustments were characteristic for the period between 1994 and 1998 under the socialist government, when the Kupa-program and the Bokros-package was introduced without any

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<sup>109</sup> (e.g. motorways in state hands, where, in case of centrally financed tariff cuttings, everyone has the burden of tax paying but only the ones who actually use the roads do benefit).

<sup>110</sup> Cp. Voszka (2005), p. 20.

<sup>111</sup> Cp. Voszka (2005), Karsai (2005), Bagner/Kovacs (2004).

<sup>112</sup> Cp. Karsai (2005), p. 48.

<sup>113</sup> Cp. Karsai (2005), Bagner/Kovacs (2004).

parliamentary supervision. Then the next government, led by Viktor Orbán, made also silent modifications in 1999, which allowed the cabinet to make uncontrolled arrangements in the budget line of 2001-2002. Years later this strategy was continued by the next socialist government, led by Péter Medgyessy, as well.<sup>114</sup>

Secondly, the contradiction between existing and newly established laws, legislated by the series of governments, led to disorientation, which allowed a wide political leeway for the interpretation of privatisation processes.<sup>115</sup>

Another remarkable characteristic of these years is the Hungarian welfare issue. It is important to notice that series of governments were trying to sustain the original welfare system, instead of modifying the public finance reform. As a consequence, large amounts were spent followed by increasing public debt, but the outdated welfare system still could not satisfy the expectations.<sup>116</sup>

### 1.5.2 Summary of the Hungarian Privatisation

In spite of the previously listed real or putative mistakes of the privatisation the reverse of the medal still shows positive achievements. Belyó (2005) has identified that one of the indicators for its efficiency is the companies' profitability index. His study gives a favourable picture about the financial situation of the privatised and foreign owned companies. It shows a tendency that starting from the end of the 90's the average annual revenues of the privatised companies rose often by 50%, while the state owned ones had to suffer significant losses.<sup>117</sup> Of course these results are not only due to the presence of foreign owners, but they depend on their actions; e.g. share capital increases and technology modernizations.

I want to close this topic with the illustration of a summary figure (see Figure 2) of all the notable events occurred in the last 17 years of the privatisation.

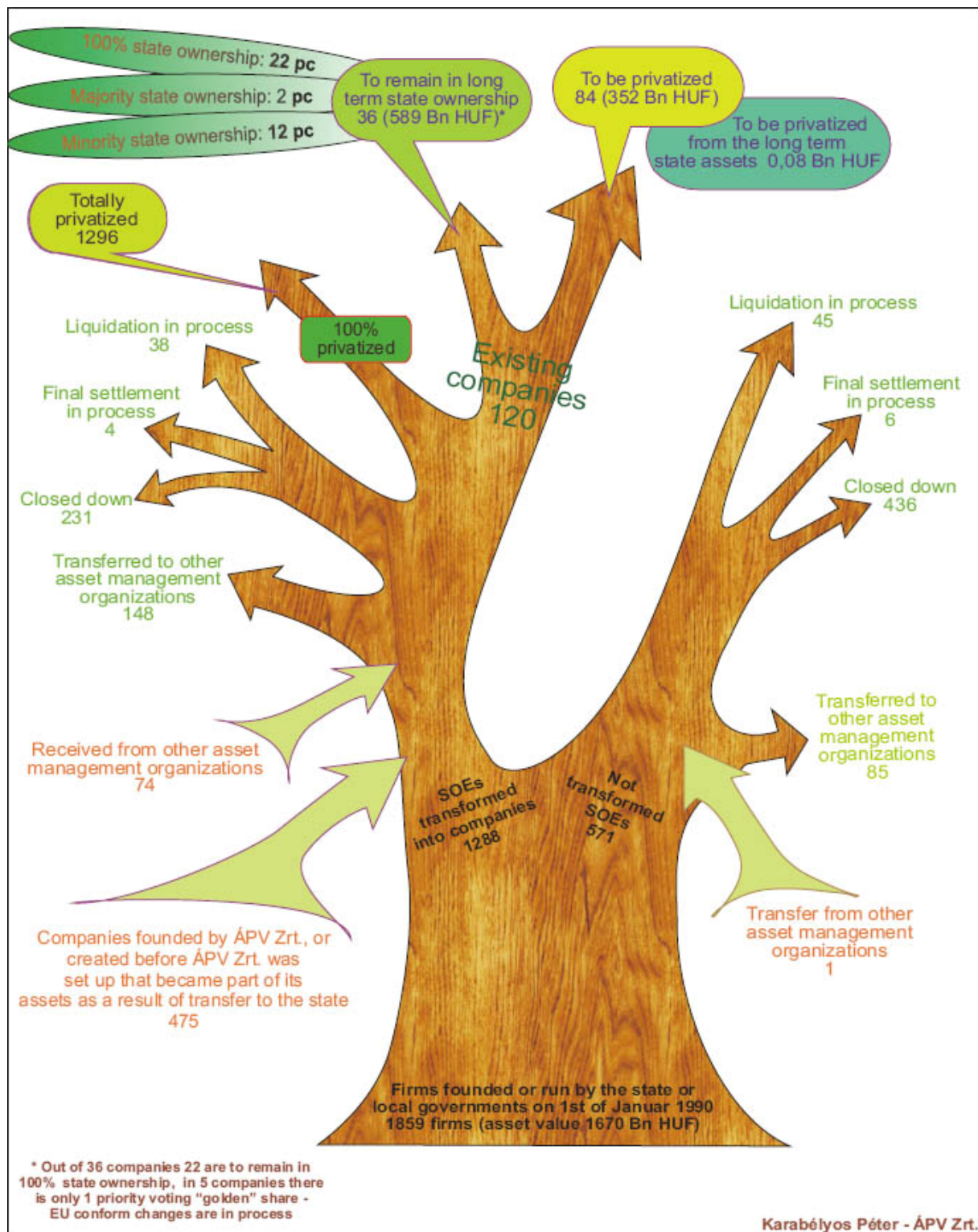
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<sup>114</sup> Cp. Karsai (2005), p. 48.

<sup>115</sup> Cp. Karsai (2005), p. 49.

<sup>116</sup> Cp. Bagner/Kovacs (2004), p. 28.

<sup>117</sup> Cp. Belyó (2005), p. 101.



**Figure 2: Data on Enterprises, Companies as of 30th June 2007**  
 Source: Hungarian Privatisation and State Holding Company (1).

## 2 Impacts of the Privatisation on the 50 Largest Hungarian Companies

### 2.1 Introduction and Expectations

The empirical part of my thesis is based on an evaluation of the 50 largest Hungarian enterprises.

The “largest companies” were determined by the size of their total assets in 1995. In this study, I investigate the companies in the years 1995 and 2003. I defined 75 variables and collected 100 observations in total (of the 50 companies in the two periods), where I focus especially on the ownership structure and on the types of ultimate shareholders of the largest companies. The aim of this part is to find the determinants of ultimate domestic ownership and the determinants of changes in the number and types of ultimate shareholders.

Based on the previous theoretical chapter “*The Hungarian Privatisation*” I formulated three expectations:

- **Expectation (1):** Domestic ultimate ownership is combined with low company profitability and small company size in Hungary.
- **Expectation (2):** A larger deviation of cash flow from control rights leads to less change in the ultimate shareholder type.
- **Expectation (3):** Changes in ultimate ownership are due to the decreased role of state as an ultimate shareholder.

As stated above, my expectations are based on the history of the Hungarian privatisation process but especially on the literature by Voszka (2005) Belyo (2005) and Karsai (2005).

Voszka (2005)<sup>118</sup> presents two main characteristics of the Hungarian ownership structure; one is the high percentage of foreign ownership rights and the other is the concentrated ownership structure. She emphasized a risk factor combined with the appearance of large scale foreign investors. On the one hand, large scale investors bring the capital, technology and markets for the companies in their ownership, but on the other hand, frequently, these companies represent the lowest hierarchy level of large multinational companies, which often merely

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<sup>118</sup> Cp. Voszka (2005), p. 31-38.

satisfies production purposes of large parent companies. The influential foreign large scale investors aim to control their subsidiary companies through concentrated ownership structures.

As an indicator for the efficiency of the privatisation process, Belyó (2005) identified the companies' profitability index. His study gives a favourable picture of the financial situation of the privatised and foreign owned companies. It shows that, starting from the end of the 90's, the average annual revenues of the privatised companies often increased by 50%, while the state owned ones had to suffer significant losses.<sup>119</sup> Hungarian ownership is characterised by concentrated ownership structures (due to large scale investors) and foreign ownership.

To test my expectation (1), I chose the variables *total assets* and *sales per employees*. In order to test expectation (2), I created, among others the variables, *shareholder direct*, *cash flow rights of ultimate shareholders* and *cash flow rights per voting rights*. Finally, to test expectation (3) I used the variables *ultimate shareholder type* "state" and the dummy variable *Hungarian state01*. I explain these and other major variables in Section 2.

The empirical study is organised as follows. Section 2 provides a description of the data, which includes the variables and summary tables. Furthermore it provides a list of company forms, a description of the 50 largest companies and the limitations of my study. Section 3 presents the main logistic regression results, while Section 4 provides a conclusion.

## 2.2 The Data

To gather the required data, I used the database AMADEUS as a main source. Afterwards, I completed and audited my data by using internet research, the classification scheme of the World Bank and Fay (1996). I used the software package Microsoft Office Excel to summarise my data and subsequently transferred it to the statistical software Stata\_9<sup>120</sup>, which I used for the final data analysis and testing.

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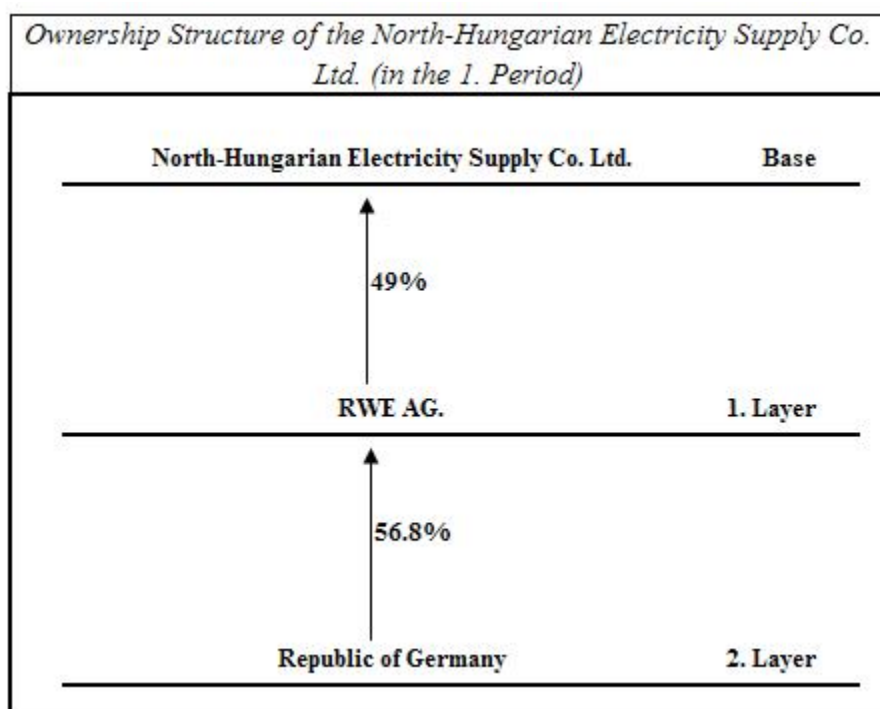
<sup>119</sup> Cp. Belyo (2005), p. 101.

<sup>120</sup> Stata: Data Analysis and Statistical Software.

## 2.2.1 Variables and Summary Tables

### 2.2.1.1 Description of the Variables

As stated above, I focus especially on the ownership structure and on the type of ultimate shareholders within the investigation of the 50 largest Hungarian companies. Taking the ownership structure of North-Hungarian Electricity Supply Co. Ltd. (see Figure 3) as an example, I describe four of the most important variables in further detail.



**Figure 3: Ownership Structure of the North-Hungarian Electricity Supply Co. Ltd.**

North-Hungarian Electricity Supply Co. Ltd. is an electricity supply company. It is Nr. 15 in the ranking of the 50 largest Hungarian companies. In my study, I will refer to it as a base layer company, since it represents the “base” of ownership layers. RWE AG. is located at the first layer of the pyramid. It is the largest direct shareholder with its 49% ownership in the Hungarian company (see variable *shareholder direct*). The Republic of Germany is the largest ultimate shareholder, it holds 56.8% direct ownership in RWE AG, and by this belongs to the second (ownership) layer.

In order to measure the ownership rights of the German state (ultimate layer) in the North-Hungarian Electricity Supply Co. Ltd. (base layer), I created the variable *cash flow rights of*

*ultimate shareholders*. In the previous example, it represents 27.83%, which is quantified by multiplying the ownership rights of the largest direct shareholders (49% and 56.8%). As a measure of control, I created the variable *cash flow rights per voting rights*, which represents the ratio of *cash flow rights of ultimate shareholders* (=27.83%) divided by the voting rights (=49%, equals *shareholder direct*). This example has two pyramid layers (see variable *number of pyramid layers*) with RWE AG. and the Republic of Germany as the largest shareholders.

The example is simple but representative of all the other company records.

I sort the most important variables of my study into four groups:

- Performance Measures: I introduce each company with performance related variables. I use the variables *total assets and sales* as measure of size, *sales per employees* and *profits and losses after tax per total assets* for measuring profitability. In the second period, I only managed to find values for the variable *profits and losses after tax* only in limited numbers. I state this and further constraints of my study in greater detail in a later part of *Limitations of the Analysis*.
- First Layer: the most representative variables are: *shareholder direct* (=shareholders with the largest direct ownership), *shareholder type* (=industry type of the shareholders in the first layer, e.g.: family, industrial company, other financial institution, privatisation fund or state), *shareholder country* (=states the nationality of the largest shareholder), *domestic shareholder01* (=variable of binary choice; “1” stands for domestic ownership, “0” for foreign ownership) and *quoted01* (=explains whether the company is listed on the stock exchange, “1” stands for yes).
- Ultimate Layer: it consists of *ultimate shareholder type*, *ultimate shareholder country*, and *domestic ultimate shareholder01*. The variables *cash flow rights of ultimate shareholders* and *cash flow rights per voting rights* are described in Figure 3. *Change01* is a binary variable; it explains whether or not there was a change in the type of ultimate ownership. I created two other variables of *private domestic ownership01*, where in case of the second one I dropped the observations of the Hungarian “state” as the ultimate owner to find the determinants of domestic and private domestic ownership.

- **Pyramid Layer:** illustrates the *number of pyramid layers*; the number of (ownership) layers of the largest direct shareholders. The number of the layers ranged from 1 to 7 in my study. *Pyramid layer01*, as a variable of binary choice, differentiates companies with only one layer (value=0) and companies with more than one layers (value=1).

### 2.2.1.2 Summary Tables

#### *Performance Measures*

I identify three main variables to measure the performance of the companies under assessment; these are the *total assets*, *sales per employees* and *profits and losses after tax per total assets*. Total assets are measured in million USD.

<i>Variable: Total Assets</i>			
<b>Period</b>	<b>Observations</b>	<b>Mean</b>	<b>Median</b>
1	50	1617.9588	559.28964
2	48	569.2906	253.11538
Total	98	1104.3254	390.13419

**Table 3: Summary Table of the Variable Total Assets**

The variable *total assets* (see Table 3) measures the size of the company, it consists of the fixed assets (=intangible-, tangible- and other assets), the current assets (=stock, debtor and other) and cash & cash equivalents. As mentioned before, the two periods are comparable due to the adjustment performed according to changes in the Consumer Price Index.

The result shows that the mean of the *total assets* decreased significantly, from the first to the second period. Its' value shifted from around 1618 million USD to 569 million USD. This difference might arise from changes in the fields of operations, since many among them lost the market positions held in the first period. This implies that a determination of the 50 largest companies in the second period would have probably led to an even higher mean of *total assets*. The remarkably small value of the medians compared to the value of the means in both of the periods is due to the skewness in firm size within the observed values.

<i>Variable: Sales per Employees</i>			
<b>Period</b>	<b>Observations</b>	<b>Mean</b>	<b>Median</b>
1	49	.30037393	.06209386
2	46	.4784912	.16994202
Total	95	.38662018	.09463492

**Table 4: Summary Table of the Variable Sales per Employees**

The variable *sales per employees* measures the profitability of the companies (see Table 4); it derives from the ratio of company sales divided by the number of their employees.

The mean of the variable is increasing; it rose from around 300 thousand USD per employee to nearly 478 thousand USD from one sampling period to the other.

The small values of the medians in the first and second period (62 thousand USD and 170 thousand USD per employees) compared to the mean values can be explained by the skewness of firm sales.

<i>Variable: Profit and Losses after Tax per Total Assets</i>			
<b>Period</b>	<b>Observations</b>	<b>Mean</b>	<b>Median</b>
1	2	.03798401	.03798401
2	47	.03697089	.04057213
Total	49	.03701224	.04057213

**Table 5: Summary Table of the Variable Profit and Losses after Tax per Total Assets**

*Profits and losses after tax per total assets* (see Table 5) is the primary variable chosen for measuring the company's profitability. Due to missing values of *profits and losses after tax* in the first period, I chose the variable *sales per employees* instead. For that reason, this variable only represents the company's profitability for the second period. It has a mean value of 3.7%, where 11 out of 49 companies observed suffered losses.

### *First Layer*

The variable *shareholder direct* represents the ownership right of the largest direct shareholder.

<i>Variable: Shareholder Direct</i>			
<b>Period</b>	<b>Observations</b>	<b>Mean</b>	<b>Median</b>
1	50	70.69%	64.5%
2	45	73.94%	90%
Total	95	72.23%	73.7%

**Table 6: Summary Table of the Variable Shareholder Direct**

The summary table (see Table 6) shows a minor growth in the mean of the ownership rights; its average increased from nearly 71% to 74% in the second period. This slight increase represents a more concentrated ownership structure; I expect an interrelation to the formation of large-scale investors as stated in the theoretical part of the privatisation.

I display the results of the variable *shareholder type* in Table 7:

<i>Period 1 - Variable: Shareholder Type</i>		
<b>Shareholder Type</b>	<b>Frequency</b>	<b>Percent</b>
INDUSTRIAL COMPANY	31	62%
PRIVATISATION FUND	16	32%
OTHER FINANCIAL INSTITUTION	2	4%
STATE	1	2%
Total	50	100%
<i>Period 2 - Variable: Shareholder Type</i>		
<b>Shareholder Type</b>	<b>Frequency</b>	<b>Percent</b>
INDUSTRIAL COMPANY	37	77.08%
PRIVATISATION FUND	6	12.50%
OTHER FINANCIAL INSTITUTION	3	6.25%
LIQUIDATION	1	2.08%
STATE	1	2.08%
Total	48	100.00%

**Table 7: Summary Table of the Variable Shareholder Type**

*Shareholder type* categories are “industrial company”, “privatisation fund”, “other financial institution” and “state” as the largest direct shareholder. It is interesting to observe the reduced impact of privatisation funds over the two periods; the first period’s value of 32% decreased to 12.5% until the second period. The number of privatisation funds decreased

significantly (from 16 to 6), while the number of industrial companies and other financial institutions increased.

The overall lack of financial institutions as largest shareholders or as largest companies especially in the first period is demonstrated in the previous chapter called *The Hungarian Privatisation*. This chapter explains the weak position of Hungarian banks and financial institutions and their necessity for continuous consolidations.

<i>Variable: Shareholder Country</i>			
<b>Shareholder Country</b>	<b>Period 1</b>	<b>Period 2</b>	<b>Total</b>
HU	30	24	54
DE	4	7	11
US	4	3	7
FR	3	4	7
AT	3	2	5
NL	2	2	4
BE	1	1	2
SE	1	1	2
LI	0	1	1
LU	0	1	1
NO	0	1	1
RO	1	0	1
OTHER FOREIGN	1	0	1
<b>Total</b>	<b>50</b>	<b>47</b>	<b>97</b>

**Table 8: Summary Table of the Variable Shareholder Country**

The previous table (see Table 8) of the variable *shareholder country* shows a clearly decreasing tendency of the largest Hungarian shareholders on the one side, while showing an increase in the number of foreign companies on the other side (especially in the case of Germany).

Germany, USA, France and Austria play a major role in the ownership of the 50 largest Hungarian companies as foreign owners.

<i>Period 1 - Variable: Domestic Shareholder01</i>		
<b>Domestic Shareholder01</b>	<b>Frequency</b>	<b>Percent</b>
0 - foreign ownership	20	40%
1 - domestic ownership	30	60%
Total	50	100%
<i>Period 2 - Variable: Domestic Shareholder01</i>		
<b>Domestic Shareholder01</b>	<b>Frequency</b>	<b>Percent</b>
0 - foreign ownership	23	48.94%
1 - domestic ownership	24	51.06%
Total	47	100%

**Table 9: Summary Table of the Variable Domestic Shareholder01**

I created the variable *domestic shareholder01* (see Table 9) to be able to test direct domestic ownership by using LOGIT regression functions. The data summarises the result of the previous variable *shareholder country*. It is a variable of binary choice, displaying the value of “1”, if the largest shareholder is a domestic owner, otherwise, in the case that the largest direct shareholder is a foreign owner, it has a value of ‘0’.

#### *Ultimate Layer*

The results of the variable *cash flow rights of ultimate shareholders* (defined previously in Figure 3) are summarised in Table 10:

<i>Variable: Cash Flow Rights of Ultimate Shareholder</i>			
<b>Period</b>	<b>Observations</b>	<b>Mean</b>	<b>Median</b>
1	50	61.81%	52.5%
2	45	48.60%	41.58%
Total	95	55.55%	50%

**Table 10: Summary Table of the Variable Cash Flow Rights of Ultimate Shareholders**

It has a mean of app. 62% for 1995, and an app. value of 49% for 2003. The mean of this variable has a decreasing tendency, but the average value of 49% still indicates a distinctive attribute for the concentration of Hungarian ownership structure.

The variable *ultimate shareholder type* has many similarities with the variable *shareholder type*; the only difference is that while the first one represents the ultimate layer of the pyramid, the latter stands for the first largest shareholder with direct ownership rights. There are cases where these two variables have the same result; this is the case when a company has only one pyramid layer in its ownership structure. I summarised the results in Table 11:

<i>Period 1 - Variable: Ultimate Shareholder Type</i>		
<b>Ultimate Shareholder Type</b>	<b>Frequency</b>	<b>Percent</b>
STATE	24	48.00%
INDUSTRIAL COMPANY	12	24.00%
FAMILY	5	10.00%
FOREIGN STATE	4	8.00%
OTHER FINANCIAL INSTITUTION	3	6.00%
FREEFLOAT	2	4.00%
Total	50	100.00%
<i>Period 2 - Variable: Ultimate Shareholder Type</i>		
<b>Ultimate Shareholder Type</b>	<b>Frequency</b>	<b>Percent</b>
STATE	15	31.91%
INDUSTRIAL COMPANY	10	21.28%
OTHER FINANCIAL INSTITUTION	8	17.02%
FOREIGN STATE	7	14.89%
FAMILY	5	10.64%
FREEFLOAT	2	4.26%
Total	47	100.00%

**Table 11: Summary Table of the Variable Ultimate Shareholder Type**

Due to missing data, I was not able to attribute all the companies to an ultimate shareholder type; I refer to these observations as “industrial company”. The Hungarian state as an ultimate owner has a decreasing tendency; it has lowered from 48% in the first period to nearly 32% in the second period. **This result is in line with what one can expect as result of privatisation.** Foreign ownership has increased over the years; especially foreign state ownership (German, French and Austrian), which nearly doubled from 8% to 15%. The increasing number of financial institutions is clearly observable as well; it rose from 3 to 8 observations. I believe, this result **is in relationship to** the slow but continuous development of the Hungarian banking system and the financial sector.

<i>Variable: Ultimate Shareholder Country</i>			
<b>Shareholder Country</b>	<b>Period 1</b>	<b>Period 2</b>	<b>Total</b>
HU	30	20	50
DE	2	9	11
US	6	4	10
FR	3	5	8
AT	4	2	6
IT	1	2	3
BE	1	1	2
SE	1	1	2
LI	0	1	1
LU	0	1	1
NL	1	0	1
NO	0	1	1
OTHER FOREIGN	1	0	1
Total	50	47	97

**Table 12: Summary Table of the Variable Ultimate Shareholder Country**

The variable *ultimate shareholder country* (see Table 12) lists the nationalities of the largest ultimate shareholders. After having observed the results of the previous variables, it is not surprising to see the decreasing tendency of domestic owners, its ratio of 60% lowered to app. 43%.

There is a similarity between these results and the results of the variable *shareholder country*; both have an increasing tendency of the German state as the owner of Hungarian firms.

<i>Period 1 - Variable: Domestic Ultimate Shareholder01</i>		
<b>Domestic Ultimate Shareholder01</b>	<b>Frequency</b>	<b>Percent</b>
0 - foreign ultimate ownership	20	40%
1 - domestic ultimate ownership	30	60%
Total	50	100%
<i>Period 1 - Variable: Domestic Ultimate Shareholder01</i>		
<b>Domestic Ultimate Shareholder01</b>	<b>Frequency</b>	<b>Percent</b>
0 - foreign ultimate ownership	27	57.45%
1 - domestic ultimate ownership	20	42.55%
Total	47	100%

**Table 13: Summary Table of the Variable Domestic Ultimate Shareholder01**

The variable *domestic ultimate shareholder01* (see Table 13) emphasises the findings as described above, (“1” stands for domestic ultimate shareholder, while foreign ultimate shareholder is denominated by “0”), but this variable of binary choice has a more important role in the following section of *Logistic Regression Results*.

<i>Variable: Cash Flow Rights Per Voting Rights</i>			
<b>Period</b>	<b>Observations</b>	<b>Mean</b>	<b>Median</b>
1	50	88.56%	100%
2	44	67.80%	99%
Total	94	78.84%	100%

**Table 14: Summary Table of the Variable Cash Flow Rights Voting Rights**

The variable *cash flow rights per voting rights* (explained in Figure 3) represents the relationship of two previously described variables; the ratio of the *cash flow rights of ultimate shareholders* divided by *shareholder direct*.

The summary table (see Table 14) shows a decreasing, but still very high, average mean value of 89% for the first period, and 66% for the second period. This result is possibly in relationship with the increasing number of *pyramid layers* in the second period. I describe the variable *pyramid layers* in further detail in the following part *Pyramid Layer*.

<i>Variable: Change01</i>		
<b>Change01</b>	<b>Frequency</b>	<b>Percent</b>
0 - no change in ultimate shareholder type	20	42.55%
1 - change in ultimate shareholder type	27	57.45%
Total	47	100%

**Table 15: Summary Table of the Variable Change01**

*Change01* is a variable of binary choice; “1” represents a change in the *ultimate shareholder type*, while “0” indicates that the ultimate shareholder is the same in both periods. The majority of companies experienced a change in the type of the ultimate shareholder from one period to the other, according to the result of 57% (see Table 15).

#### *Pyramid Layer*

I have already referred to the variable *number of pyramid layers*, which is explained in greater detail in Figure 3.

<i>Period 1 - Variable: Number of Pyramid Layers</i>		
<b>Number of Pyramid Layers</b>	<b>Frequency</b>	<b>Percent</b>
2	21	42%
1	18	36%
3	9	18%
4	2	4%
Total	50	100%
<i>Period 2 - Variable: Number of Pyramid Layers</i>		
<b>Number of Pyramid Layers</b>	<b>Frequency</b>	<b>Percent</b>
2	18	38.30%
3	14	29.79%
1	11	23.40%
4	3	6.38%
7	1	2.13%
Total	47	100%

**Table 16: Summary Table of the Variable Number of Pyramid Layers**

The observations of the variable *number of pyramid layers* (see Table 16) show an increasing average number of pyramid layers in the second period; the number of companies having 1 to 2 ownership layers has decreased and the number of other companies with 3 or more ownership layers has increased.

<i>Period 1 - Variable: Pyramid Layer01</i>		
<b>Pyramid Layer01</b>	<b>Frequency</b>	<b>Percent</b>
0 - only one pyramid layer	18	36%
1 - more than one pyramid layer	32	64%
Total	50	100%
<i>Period 2 - Variable: Pyramid Layer01</i>		
<b>Pyramid Layer01</b>	<b>Frequency</b>	<b>Percent</b>
0 - only one pyramid layer	11	23.40%
1 - more than one pyramid layer	36	76.60%
Total	47	100%

**Table 17: Summary Table of the Variable Pyramid Layer01**

*Pyramid layer01* (see Table 17) is a variable of binary choice; it is of great importance for the logistic regressions performed. *Pyramid layer01* distinguishes only two different possible conditions; its value equals “0”, if a company has only one pyramid layer, or its value equals “1”, if the company has more than one pyramid layer.

### 2.2.2 Description of the Company Forms

In the following table (Table 18.) I list the type and number of economic corporations and unincorporated enterprises registered in Hungary. This table can be of great help in the further investigation of the 50 largest chosen companies.

Permitted governance forms in the Hungarian economy	Commonly used Hungarian abbreviation	Number of units as of end-1995	Number of units as of end- 2002	Explanation
<b>I. According to the Companies Act</b>				
Unincorporated economic associations				
-unlimited partnership	Kt.	3 951	8 113	More a theoretical possibility, than reality.

-limited partnership	Bt.	107 106	208 454	Very popular form of association for self-employed and family run businesses.
Incorporated economic associations				
-unions	-	no data	no data	Exceptional use only.
-joint enterprises	-	no data	no data	Not popular since the early 1990s
-limited liability companies	Kft.	102 697	182 242	Very popular form of small- and medium size businesses.
-companies limited by shares	Rt.	3 186	4 425	Very popular form of medium size and large businesses.
<b>II. Permitted and regulated by other laws</b>				
-co-operatives		8 321	6 768	Typical form of rural trading companies and agricultural businesses
-specialised groups		no data	no data	Exception
-water-management societies		no data	no data	Typically owned by local governments.
-incorporated work teams	Gmk.	no data	no data	Very popular before the changing of regime. Later most Gmk-s turned into Kft.-s.

Permitted governance forms in the Hungarian economy	Commonly used Hungarian abbreviation	Number of units as of end-1995	Number of units as of end- 2002	Explanation
<b>III. Not for profit organisations</b>				
-budgetary organisations		14 879	15 319	Owned by the central or the local governments.
-compulsory social security	Tb.	113	82	
-Non-profit institutions		46 804	46 804	
Addendum:				
State-owned enterprises	V.	761	298	

**Table 18: Permitted Governance Forms in the Hungarian Economy**  
Source: Bagner/Kovács (2004), Hungarian Central Statistical Office (KSH).

The number of enterprise forms based on the Companies Act increased in almost every category, the importance of the forms permitted and regulated by other laws decreased, and the number of non-profit organisations stayed approximately the same in the two periods.

Limited liability companies (Kft.) and Companies limited by shares (Rt.) as company forms play major roles in my research; both of them have noticeable increasing tendencies. The number of the latter increased in the period 1995-2002 nearly by 50%, while the number of small- and medium enterprises by more than 100%. The number of state owned enterprises decreased from 761 to 298, as a result of continuous privatisation transactions of the seven years.

### 2.2.3 Description of the Companies

I conducted an extensive research,<sup>121</sup> in order to acquire as much historical background of the analysed companies as possible. I describe each company with typical characteristics and individual ranking numbers (based on the size of their total assets). To illustrate them clearly, I use the general classification scheme of the World Bank. I divided the companies into five main sectors and smaller sub-sectors, they are listed below<sup>122</sup>:

- *Energy*, which includes the exploration, extraction, and refinement of oil and natural gas.
- *Financial*, which includes, real estate, insurance, banks, and other financial services.
- *Infrastructure*, which includes transportation, water and sewerage, telecommunications, natural gas transmission and distribution, and electricity generation, transmission, and distribution.
- *Manufacturing and services*, which includes chemicals, construction, steel, hotels, tourism, airlines and other sub-sectors that are not infrastructure or finance related.
- *Primary*, which includes the extraction, refinement and sale of primary minerals and metals such as coal and iron ore.

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<sup>121</sup> Cp. Fay (1996).

<sup>122</sup> World Bank (company sectors).

### 2.2.3.1 Energy Sector

The only company belonging to the energy sector is the **Nr. 4 Magyar Olaj- és Gázipari Rt. (MOL Rt.) / Hungarian Oil & Gas Company Plc.** The oil company was founded in 1991, and it has a significant role within the Hungarian petroleum industry.<sup>123</sup> MOL Rt. was privatised in 2004, nowadays it is more than 92.4 %<sup>124</sup> foreign owned.

### 2.2.3.2 Financial Sector

The **Nr. 25 Investor Holding Rt.** concentrates its operations mainly on real estates and investments. It is the subsidiary company of CP Holding.<sup>125</sup>

### 2.2.3.3 Infrastructure Sector

#### *Telecommunication*

The **Nr. 5 is Magyar Távközlési Rt. / Matáv Hungarian Telecommunications Company Ltd.**, which is the largest telecommunications company in Hungary. It was established in 1991 and was introduced in the stock market in 1997. Its privatisation underwent many stages; it started in 1993 and lasted till 1999. The company was merged and renamed in 2006 to Magyar Telecom Plc.<sup>126</sup>

The other telecommunications company with the focus on mobile phone services is the **Nr. 31 Pannon GSM Távközlési Rt. / Pannon GSM Telecommunications Ltd.** The company was established in 1993 and its business share has grown continuously year by year till the present days.<sup>127</sup>

**Nr. 41 is Westel Rádiótelefon Kft. / Westel Mobile Telephone Company**, which is another major player of the telecommunications industry. In 2004 it was renamed into T-Mobile Magyarország Távközlési Rt., in 2006 it joined the large international T-Mobile-Group, and it

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<sup>123</sup> Hungarian Oil & Gas Company Plc. (1).

<sup>124</sup> Hungarian Oil & Gas Company Plc. (2).

<sup>125</sup> Investor Holding Rt.

<sup>126</sup> Matáv Hungarian Telecommunications Company Ltd.

<sup>127</sup> Pannon GSM Telecommunications Ltd.

merged into Magyar Telecom Plc (in line with the previously mentioned Nr. 1 Magyar Távközlési Rt.).<sup>128</sup>

**Antenna Hungária Magyar Műsorszóró és Rádióhírközlési Rt. (Nr. 43)** is a TV and Radio broadcasting and distribution company. Its shares became listed on the stock exchange in 1999, and then in 2004 it was privatised. The Swisscom Broadcast AG won the tender, since 2006 Antenna Hungária is in its 100% ownership.<sup>129</sup>

**Siemens Telefongyár Kft. / Siemens Telephone Factory Ltd. (Nr. 46)** was established in 1991. Siemens is present for 121 years now in Hungary. In 1999 Siemens Telefongyár Kft. merged with Siemens Rt and Siemens Investor Kft. into Siemens Nemzeti Vállalat.<sup>130</sup>

#### *Electricity Generation, Transmission, and Distribution (Power Plants)*

**The Nr. 13 Mátrai Erőmű Rt. / Mátra Power Plant Ltd.** began its functions in 1962; today it contributes to 13% of the Hungarian electricity supply. It was privatised in 1995, nowadays the company is up to 25% owned by the MVM-Group, in the remaining 75% it is foreign owned.<sup>131</sup>

The famous **Paksi Atomerőmű Rt. / Paks Nuclear Power Plant Ltd.** is the **Nr. 7**, which is owned by the Nr. 12 Magyar Villamos Művek Rt., and therefore it is part of the MVM-Group. It is responsible for more than 40% of the Hungarian electricity production.<sup>132</sup>

The **Nr. 21 AES Tiszai Erőmű Rt. / AES Tisza II Power Plant Ltd.** was founded in 1945, it is considered as the biggest power plant in Eastern-Hungary. It was privatised in 1996, when it became to 80% foreign-owned by AES (USA).<sup>133</sup>

**Vértési Erőmű Rt. / Vértés Power Plant Co. Ltd. (Nr. 23)** is owned by the MVM- Group as well, it was created in 1971.<sup>134</sup>

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<sup>128</sup> Westel Mobile Telephone Company.

<sup>129</sup> Antenna Hungária Magyar Műsorszóró és Rádióhírközlési Rt.

<sup>130</sup> Siemens Telephone Factory Ltd.

<sup>131</sup> Mátra Power Plant Ltd.

<sup>132</sup> Paks Nuclear Power Plant Ltd.

<sup>133</sup> AES Tisza II Power Plant Ltd.

<sup>134</sup> Vértés Power Plant Co. Ltd.

**Bakonyi Erőmű Rt. / Bakony Power Plant Ltd. (Nr. 33)** is part of the major Hungarian Power Plants as well, it was established in 1943, and its privatisation took place in 1998.<sup>135</sup>

**Budapesti Erőmű Rt. (BERT) / Budapest Power Plant Ltd.** is the largest Hungarian district heating supplier. In 2001 its shares were bought by the Electricité de France International S.A. It is the **Nr. 26** company.<sup>136</sup>

*Electricity Transmission and Distribution (Power Supply Companies)*

The **Nr. 16 Dél-magyarországi Áramszolgáltató Rt. (DÉMÁSZ) / South-Hungarian Electricity Supply Co. Ltd.** was founded in 1951 and belongs to the Hungarian power supply companies. It was privatised in 1996, when Électricité de France International S. A. (EDFI) acquired the controlling ownership.<sup>137</sup>

**Észak-magyarországi Áramszolgáltató Rt. (ÉMÁSZ) / North-Hungarian Electricity Supply Co. Ltd. (Nr. 15)** was founded in the same year as the previous company. It was privatised in 1995 and became foreign-owned by the German RWE Energie AG, and then its shares were introduced to the stock market in 1997.<sup>138</sup>

The **Nr. 11 Észak-dunántúli Áramszolgáltató Rt. / North-West Hungarian Electricity Supply Co. Ltd.** was founded in 1951; it was privatised in 1995, now it belongs to the large E.ON Hungária Group.<sup>139</sup>

**Tiszántúli Áramszolgáltató Rt. / East-Hungarian Electricity Supply Co. Ltd. (Nr. 19)** has similar history than the above mentioned power supply company, and it belongs to the E.ON Hungária Group as well.<sup>140</sup>

The **Nr. 22 Dél-dunántúli Áramszolgáltató Rt. / South-West Hungarian Electricity Supply Co. Ltd.** is a power supply company owned by the E.ON Hungária as well.<sup>141</sup>

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<sup>135</sup> Bakony Power Plant Ltd.

<sup>136</sup> Budapest Power Plant Ltd.

<sup>137</sup> South-Hungarian Electricity Supply Co. Ltd.

<sup>138</sup> North-Hungarian Electricity Supply Co. Ltd.

<sup>139</sup> North-West Hungarian Electricity Supply Co. Ltd.

<sup>140</sup> East-Hungarian Electricity Supply Co. Ltd.

**Budapesti Elektromos Művek Rt. (ELMŰ) / Budapest Electric Supply Co. Ltd. (Nr. 8)** has a historical background, which can be traced back for more than 100 years. Its shares were introduced in the stock market in 1995, the majority of the company is owned today by foreign investors.<sup>142</sup>

The **Nr. 3** is **Magyar Villamos Művek Rt. (MVM Rt.) / Hungarian Power Companies Ltd.** It is the leader of MVM Group and the owner of six regional electricity supplying companies and power plants.<sup>143</sup>

#### *Natural Gas Transmission and Distribution*

The **Nr. 24 TIGÁZ Tiszántúli Gázszolgáltató Rt.** was founded exactly 50 years ago; it belongs to the biggest natural gas distributors. The company was privatised in 1995 and was bought by the Italian Italgas-SNAM, that way it became a member of the ENI-Group.<sup>144</sup>

**Délalföldi Gázszolgáltató Rt. (DÉGÁZ Rt.) / South Hungarian Gas Supply Co. Ltd. (Nr. 35)** was established in 1967. In 1995 the company was privatised and bought by Gaz de France International. In 2006 it merged with the North-East Hungarian Gas Supply Co. Ltd., and created Égáz-Dégáz Rt.<sup>145</sup>

The **Nr. 42** is **Közép-dunántúli Gázszolgáltató Rt. (KÖGÁZ RT.)**. The company was privatised in 1995 as well, it has a historical background for more than 57 years, and it belongs to the large E.ON Hungária Group.<sup>146</sup>

#### *Water and Sewerage*

The **Nr. 9 Fővárosi Vízművek Rt. / Waterworks of Budapest Ltd.** is a water service company; it is responsible for the water supply of the capital of Hungary. It has more than 140 years of company history, today it is owned by the Hungarian City council to 73.6%.<sup>147</sup>

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<sup>141</sup> South-West Hungarian Electricity Supply Co. Ltd.

<sup>142</sup> Budapest Electric Supply Co. Ltd. (ELMŰ Rt.).

<sup>143</sup> Hungarian Power Companies Ltd. (MVM Rt.)

<sup>144</sup> TIGÁZ Tiszántúli Gázszolgáltató Rt.

<sup>145</sup> South Hungarian Gas Supply Co. Ltd.

<sup>146</sup> Közép-dunántúli Gázszolgáltató Rt. (KÖGÁZ RT.)

### *Other Infrastructure*

**Magyar Államvasutak Rt. (MÁV Rt.) / Hungarian State Railways Ltd. (Nr. 2)** is a railway company, and it was founded in 1846. The company has total railway lines of 7,606 km, and it is still held in state ownership.<sup>148</sup>

**The Nr. 40 Hungarocamion Nemzetközi Autóközlekedési Rt.** was established in 1966, and it was an internationally active freight company. In 2002 it was bought by Volán Tefu Rt., and the name “Hungarocamion” disappeared in the last years.<sup>149</sup>

#### 2.2.3.4 Manufacturing and Services Sector

### *Chemicals*

**The Nr. 17 Richter Gedeon Vegyészeti Gyár Rt. / Gedeon Richter Plc.** is an international pharmaceutical company founded in 1901. Due to privatisation offerings of 1994, 1995 and 1997 the previous ownership of the Hungarian Privatisation and State Holding Company was significantly lowered.<sup>150</sup>

**The Nr. 12 Tiszai Vegyi Kombinát Rt. (TVK Rt.)** has a historical background of over 50 years. TVK is a petrochemical company, with a large market share in Hungary. Its privatisation began in 1996, since 2001 it belongs to the MOL-Group (Nr. 4).<sup>151</sup>

**The Nr. 6 Horizon-Multiplan Kutatási és Fejlesztési Rt. / Horizon-Multiplan Research and Development Ltd.** is an international commercial company in the pharmaceutical industry.<sup>152</sup> It was founded in 1983 and it was first listed on the Stock Exchange in 1996. In 2001 the name of the company was changed to Humet Rt.<sup>153</sup>

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<sup>147</sup> Waterworks of Budapest Ltd.

<sup>148</sup> Hungarian State Railways Ltd. (MÁV Rt.).

<sup>149</sup> Hungarocamion Nemzetközi Autóközlekedési Rt.

<sup>150</sup> Gedeon Richter Plc.

<sup>151</sup> Tiszai Vegyi Kombinát Rt. (TVK Rt.).

<sup>152</sup> Horizon-Multiplan Research and Development Ltd. (1).

<sup>153</sup> Horizon-Multiplan Research and Development Ltd. (2).

**The Nr. 28 EGIS Gyógyszergyár Rt. / EGIS Pharmaceuticals Ltd.** is one of the leading pharmaceutical companies in Central-Europe. Its privatisation began in 1993; one year later the company was introduced in the Stock Exchange. The French company Servier became its majority shareholder in 1995, and it managed to keep its control over the last 12 years.<sup>154</sup>

The legal successor of **BorsodChem Rt. / BorsodChem Ltd. (Nr. 32)** was founded in 1949. The company shares were listed on the Budapest Stock Market in 1996, today it is owned by the Austrian CE Oil & Gas Beteiligung und Verwaltung AG.<sup>155</sup>

The **Nr. 29 Chinoin Gyógyszer- és Vegyészeti Termékek Gyára Rt. (Chinoin Rt.)** was established in 1910. Its privatisation began, compared to other Hungarian enterprises, relatively early, in 1989. In 1997 the French company Sanofi acquired 99% of its shares, and since 1999 Chinoin Rt. operates as a subsidiary company of Sanofi-Synthélabo.<sup>156</sup>

The legal successor of **Nitrokémia Rt. / Nitrokémie Ltd. (Nr. 47)** was established in 1921. In order to support its privatisation, in 1997<sup>157</sup> the company was split up to Nitrokémia Vegyipari Rt. and Nitrokémia 2000 Ipari és Vagyonkezelő Rt.<sup>158</sup>

#### *Airlines*

The **Nr. 14 Magyar Légiközlekedési Rt. (MALÉV Rt.) / Hungarian Airlines Ltd.** was first privatised in 1992, but its shares were bought back by the Hungarian Privatisation and State Holding Company five years later.<sup>159</sup> Its privatisation ended in 2007 and the company was bought by Airbrige Zrt.<sup>160</sup>

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<sup>154</sup> EGIS Pharmaceuticals Ltd.

<sup>155</sup> BorsodChem Ltd.

<sup>156</sup> Chinoin Gyógyszer- és Vegyészeti Termékek Gyára Rt.

<sup>157</sup> Nitrokémia Rt. (1).

<sup>158</sup> Nitrokémia Rt. (2).

<sup>159</sup> Magyar Légiközlekedési Rt. (MALÉV Rt.) (1).

<sup>160</sup> Magyar Légiközlekedési Rt. (MALÉV Rt.) (2).

### *Steel*

The former **Nr. 37 DAM-Diósgyöri Acélművek Rt. / Diósgyör Steelworks Industrial & Trade Shareholding Co.** was a steel bar and section producing company. Its story ended due to bankruptcy; it was liquidated in 1999.<sup>161</sup>

### *Hotels*

**Danubius Szálloda és Gyógyüdülő Rt. / Danubius Hotel and Spa Ltd. (Nr. 39)** was established in 1972 and it operates in the hotel and services business. Its shares were introduced in the Budapest Stock exchange in 1992 and it was privatised relatively early between 1992 and 1994. CP Holding Ltd. has today a controlling ownership over the company.<sup>162</sup>

### *Construction*

The **Nr. 1 Opel Magyarország Autóipari Kft. / Opel Hungary Ltd.** is present in Hungary since 1991; it is a large car manufacturing and distribution company and belongs to the large General Motors.<sup>163</sup>

**IKARUS Járműgyártó Rt. / IKARUS Vehicle Manufacturing Co. Ltd. (Nr. 20)** is a bus manufacturing company with a great business success history (it was the fourth biggest manufacturer of the world in the 70s-80s).<sup>164</sup> From the middle of the 90s the company started having a hard time, the manufacture works were even closed down in 2004. After a break of two years it restarted its operations in 2006.<sup>165</sup>

### *Other*

The **Nr. 10 Magyar Posta Rt. / Hungarian Post Co. Ltd.** has a historical background of many hundred years; today it is still in long-term state ownership.<sup>166</sup>

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<sup>161</sup> DAM-Diósgyöri Acélművek Rt.

<sup>162</sup> Danubius Hotel and Spa Ltd.

<sup>163</sup> Opel Magyarország Autóipari Kft.

<sup>164</sup> IKARUS Járműgyártó Rt. (1).

<sup>165</sup> IKARUS Járműgyártó Rt. (2).

<sup>166</sup> Magyar Posta Rt.

The legal successor of **Cereol Rt. / Cereol Ltd. (Nr. 27)** was founded in 1964, and the company is present in the vegetable oil industry. It was privatised in 1994; its present name became Bunge Növényolajipari Rt.<sup>167</sup>

The **Nr. 38 Dunapack Papír és Csomagolóanyag Rt. / Dunapack Paper and Packaging Ltd.** is a Hungarian paper and packaging manufacturer, it has factories in Bulgaria, Rumania, Poland, Ukraine and Croatia. The company was privatised in 1995.<sup>168</sup>

The **Nr. 36 Csemege-Julius Meinl Rt.** was founded in 1952; nowadays it represents a large super-market chain. In 1999 the company was bought by the French-Belgian Louise Delhaize Group, from this time Csemege-Julius Meinl Rt was renamed to Csemege-Match Kereskedelmi Rt.<sup>169</sup>

**Hungavis Külkereskedelmi Rt. / Hungavis Foreign Trade Co. Ltd. (Nr. 44)** was one of the largest Hungarian poultry raiser, processor and selling company. Because of financial difficulties it was bought by Hajdú-Bét Baromfitermelő és Értékesítő Rt. in 1998, then for the following years it became profitable, since 2003 it had financial difficulties again and nowadays it is under liquidation.<sup>170</sup>

The **Nr. 45 MKM Magyar Kábel Művek Kft.** is a large producing and trading company of cables and power-lines for high-frequency electric currents. The company has a historical background of more than 125 years. It was privatised in 1993, since 2005 it operates under the name Prysmian MKM Magyar Kábel Művek Kft.<sup>171</sup>

**Borsodi Sörgyár Rt. (Nr. 48)** was founded in 1973; it is the largest Hungarian brewery. The company was privatised in 1991, and it got under the controlling ownership of the Belgian Interbrew.<sup>172</sup>

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<sup>167</sup> Cereol Ltd.

<sup>168</sup> Dunapack Paper and Packaging Ltd.

<sup>169</sup> Nr. 39 Csemege-Julius Meinl Rt.

<sup>170</sup> Hungavis Foreign Trade Co. Ltd.

<sup>171</sup> MKM Magyar Kábel Művek Kft.

<sup>172</sup> Borsodi Sörgyár Rt.

The legal successor of **Electrolux Lehel Hűtőgépgyár Kft. / Lehel Refrigerator Factory Ltd. (Nr. 49)** was founded in 1953, and it became a producer of appliances and equipment for kitchen and cleaning. The company was privatised in 1991; today it is still in the ownership of the Swiss AB Electrolux.<sup>173</sup>

The **Nr. 50 Fővárosi Ásványvíz és Üdítőipari Rt.** is a mineral water and soft drinks producing company. It was bought after its privatisation in 1993 by PepsiCo, and it remained till the present days in its ownership.<sup>174</sup>

#### 2.2.3.5 Primary Sector

The legal successor of the **Nr. 18 DUNAFERR Dunai Vasmű Rt. / DUNAFERR Danube Ironworks Co. Ltd.** was founded in 1950, and it is a large Hungarian company within the steel industry. It was privatised in 2003, and became foreign owned by the Ukrainian-Swiss Donbass-Duferco consortium.<sup>175</sup>

**DUNAFERR Acélművek Kft. / DUNAFERR Steelworks Ltd. (Nr. 30)** is part of the DUNAFERR-group as well; it was merged into the previously described Nr. 19 in 2003.<sup>176</sup>

The majority stake of **Alcoa-Köfém Székesfehérvári Könnyűfémmű Kft. / Alcoa-Kofem Szekesfehervar Light Metal Works (Nr. 34)** was acquired by the American Alcoa in 1993, and then in 1996 the company got under its 100% ownership. Alcoa-Köfém is a producer and manager of aluminium and alumina facilities.<sup>177</sup>

#### 2.2.4 Limitations of the Analysis

First I wish to provide additional important information referring to the definition and identification of “the 50 largest companies in the sample years 1995 and 2003”.

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<sup>173</sup> Electrolux Lehel Hűtőgépgyár Kft.

<sup>174</sup> Fővárosi Ásványvíz és Üdítőipari Rt.

<sup>175</sup> DUNAFERR Danube Ironworks Co. Ltd.

<sup>176</sup> DUNAFERR Steelworks Ltd.

<sup>177</sup> Alcoa-Köfém Székesfehérvári Könnyűfémmű Kft.

The process of “tracking companies” over a time period of 8 years was a difficult and complicated task in general; many of them changed their names, merged into their legal successor or changed their field of operations during these years.

I validated the data collected by using the AMADEUS database with the help of additional sources from the internet and with Fay (1996); by applying this procedure I managed to locate all company records and information needed except for three companies, this data is missing for the second period. As a consequence, I worked with 97 observations (instead of the 50 observations per period, summing up to 100 total observations in theory), since company Nr. 37 DAM-Diósgyöri Acélművek Rt. / Diósgyőr Steelworks Industrial & Trade Shareholding Co. was liquidated in 1999. Sufficient data was not available for companies Nr. 6 Horizon-Multiplan Kutatási és Fejlesztési Rt. / Horizon-Multiplan Research and Development Ltd. and and Nr. 25 Investor Holding Rt.

In order to perform precise comparison over the time periods chosen, it was inevitable to include effects arising from inflation. Three calculations were based on the Consumer Price Index aiming to “revalue” the affected variables. The year of 2003 was chosen to define the price level for reasons of comparison. I found the CPI on the official site of the Hungarian Central Statistical Office (KSH)<sup>178</sup>.

I have chosen and ranked the “largest companies” by their size of *total assets*. One could have chosen another main indicator for the selection (e.g. *profits and losses, sales, sales per employees, number of employees*) but none of them would have provided a perfect selection of companies. One of the reasons for this in the differences in company types; there are capital-intensive firms (generally production firms) with high investments and total assets, and companies with high labour-intensity, where employee “skills” play a major role in the business, instead of high total assets.<sup>179</sup> In consequence, other indicators might have caused differences in the sample and in my company ranking.

Due to missing observations of the variable *profits and losses after tax* for the first period, I created and chose *sales per employees* as another variable for measuring the performance of

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<sup>178</sup> Hungarian Central Statistical Office (KSH) (3).

<sup>179</sup> Wikipedia - Capital intensity.

companies. This variable represents the ratio of company sales divided by the number of their employees.

As another limitation to my study, I only considered the largest shareholders of the companies; I did not list other shareholders.

Other potential mistakes could occur due to discrepancy or missing records (e.g. observations in the variable *ultimate shareholder types*); hence, I was doing my best to eliminate errors and to use multiple checks to achieve data for accuracy.

The final fact to consider is the time scale of my study, which is the period between 1995 and 2003. From 2003 till today some further privatisation actions took place (e.g. the privatisation of Gedeon Richter Plc., Antenna Hungária Magyar Műsorszóró és Rádióhírközlési Rt., etc.), which further changed the ownership structures of some of the companies chosen. Therefore, the tests do not perfectly reflect today's outcomes and are not intended to do so, but to investigate the most characteristic years of the privatisation process.

## **2.3 Logistic Regression Results**

In this part of my thesis I analyse the variables described to find determinants of domestic ownership and determinants of change (of the ultimate shareholder type). I test these variables with the LOGIT function of Stata<sub>9</sub>.

### **2.3.1 Domestic Ownership**

#### **2.3.1.1 Domestic Ultimate Shareholders**

In this model (see Table 19), I analyse the dependent variable *domestic ultimate shareholder01* in order to define the determinants of domestic ownership. As a reminder, the value of "1" stands for domestic ultimate shareholders, and the value of "0" indicates foreign ultimate shareholders.

<i>Logistic Regression for Period 1 - Domestic Ultimate Shareholder01</i>				
<b>Domestic Ultimate Shareholder01</b>	<b>Coefficient</b>	<b>P-Value</b>	<b>Log likelihood:</b>	-12.07686
Total Assets	.0087108	0.012	<b>Observations:</b>	49
Sales per Employees	4.051729	0.099	<b>LR chi2(4):</b>	42.11
Cash Flow Rights Per Voting Rights	1.777643	0.015	<b>Prob &gt; chi2:</b>	0.0000
Pyramid Layer01	3.657224	0.005	<b>Pseudo R2:</b>	0.6355
Constant	-2.933405	0.014		

**Table 19: Logistic Regression – Domestic Ultimate Shareholder01 for Period 1**

The tested variables of these logistic regressions are: *total assets* as measure of the size of the companies, *sales per employees* as measure of profitability, *cash flow rights per voting rights* to show the ratio of cash flow to voting rights and *pyramid layer01* to test the number of pyramid layers.

First of all, the P-value of 0.0000 in the first period suggests, that the overall model is statistically significant. The value of “Log likelihood” has no meaning in and of itself; it can only be used with other regressions for comparative reasons.<sup>180</sup>

The independent variable *total assets* is significant (P-value=0.012) with its coefficient of 0.0087108, which means that for an increase of one million USD in *total assets*, a small increase of 0.87% is expected in the *domestic ultimate shareholder01*, if all other independent variables are held constant at the same time. That way, based on the test results, there is a positive significant relationship at the 5% level between the two variables, signalling that many large companies still stayed in domestic ownership until 2003.

The variable *sales per employees* is only significant at the 10% level with its P-value of 0.099, it implies a positive relationship between the performance of a company and ultimate domestic ownership. Finally, there is a positive relationship between the number of *pyramid layers* and domestic ownership.

The positive and significant coefficients of the variables *total assets* and *sales per employees* are inconsistent with my expectation (1). My expectations suggest that domestic ultimate

<sup>180</sup> Cp. UCLA, Academic Technology Services, Online Tutorial of Stata\_9.

ownership is combined with low company profitability and small company size. I created two variables of private domestic ownership for the reason of further testing.

<i>Logistic Regression for Period 2 – Domestic Ultimate Shareholder01</i>				
<b>Domestic Ultimate Shareholder01</b>	<b>Coefficient</b>	<b>P-Value</b>	<b>Log likelihood:</b>	-25.900636
Total Assets	.0002859	0.372	<b>Observations:</b>	44
Sales per Employees	-.07163	0.832	<b>LR chi2(4):</b>	7.73
Cash Flow Rights Per Voting Rights	.0235003	0.017	<b>Prob &gt; chi2:</b>	0.1019
Pyramid Layer01	1.04401	0.217	<b>Pseudo R2:</b>	0.1299
Constant	-3.682783	0.015		

**Table 20: Logistic Regression – Domestic Ultimate Shareholder01 for Period 2**

The overall test result of the variable *domestic ultimate shareholder01* is statistically not significant in the second period (see Table 20).

2.3.1.2 Private Domestic Ownership I

The variable *private domestic ownership01* was created in order to differentiate among the ultimate shareholder types. The difference to the dependent variable described above is the restriction, that state observations (of great quantities) do not belong to the variable value of “1” (=private domestic ownership) any more, but to the value of “0” in line with ultimate foreign ownership. Therefore, its value of “0” stands for state and ultimate foreign ownership and “1” stands for domestic ownerships only.

In the following two logistic regressions, I do not test the dummy variable *pyramid layer01*, because it weakens the test results significantly by dropping half of my observations.

<i>Logistic Regression for Period 1 – Private Domestic Ownership01</i>				
<b>Private Domestic Ownership01</b>	<b>Coefficient</b>	<b>P-Value</b>	<b>Log likelihood:</b>	-
Total Assets	.0000341	0.871	<b>Observations:</b>	49
Sales per Employees	.4290148	0.587	<b>LR chi2(3):</b>	1.47
Cash Flow Rights Per Voting Rights	.0340792	0.391	<b>Prob &gt; chi2:</b>	0.6889
Constant	-5.352969	0.181	<b>Pseudo R2:</b>	0.0404
<i>Logistic Regression for Period 2 – Private Domestic Ownership01</i>				
<b>Private Domestic Ownership01</b>	<b>Coefficient</b>	<b>P-Value</b>	<b>Log likelihood:</b>	-
Total Assets	-.0044506	0.266	<b>Observations:</b>	44
Sales per Employees	-24.41965	0.074	<b>LR chi2(3):</b>	9.25
Cash Flow Rights Per Voting Rights	-.0027624	0.871	<b>Prob &gt; chi2:</b>	0.0261
Constant	1.959374	0.382	<b>Pseudo R2:</b>	0.3452

**Table 21: Logistic Regression – Private Domestic Ownership01**

In this logistic regression I estimate the relationship between the dependent variable *private domestic ownership01* and the independent variables *total assets*, *sales per employees* and *cash flow rights of ultimate shareholders* (see Table 21).

In the first period, the overall test result of the dependent variable has no statistical significance for the independent variables.

The regression is statistically significant with its P-Value of 0.0261 in the second period and the coefficient of the independent variable *sales per employee* is also significant with the tested variable *private domestic ownership01* at the 10% level. As described earlier, the variable *sales per employee* is responsible for measuring the company's profitability. Therefore, its negative relationship implies that an increase in the profitability of the companies results in decreased domestic ownership.

This statement corresponds to expectation (1) and to the theory of Voszta (2005) and Belyó (2005), stating that the privatisation, driven by foreign investors especially, results in capital inflows through increases in share capital and modernizations of technology, contributing among others to higher company profitability.

The other two independent variables are both in negative relationship with the dependent variable.

### 2.3.1.3 Private Domestic Ownership II

I dropped all the observations of “state” as the largest ultimate shareholder in order to test the variable *private domestic ownership01 (dropped state)*. This way the value of the variable “0” stands for ultimate foreign ownership alone, while “1” stands for private domestic ownership. In consequence of the dropped “state” records, the number of test observations significantly decreased.

<i>Logistic Regression for Period 1 - Private Domestic Ownership01 (dropped state)</i>				
<b>Private Domestic Ownership01 (dropped state)</b>	<b>Coefficient</b>	<b>P-Value</b>	<b>Log likelihood:</b>	-3.4759647
Total Assets	.0202313	0.145	<b>Observations:</b>	26
Sales per Employees	11.19323	0.146	<b>LR chi2(3):</b>	21.14
Cash Flow Rights Per Voting Rights	4.148879	0.158	<b>Prob &gt; chi2:</b>	0.0001
Constant	-428.5853	0.158	<b>Pseudo R2:</b>	0.7525
<i>Logistic Regression for Period 2 - Private Domestic Ownership01 (dropped state)</i>				
<b>Private Domestic Ownership01 (dropped state)</b>	<b>Coefficient</b>	<b>P-Value</b>	<b>Log likelihood:</b>	-5.1615622
Total Assets	-.0034029	0.482	<b>Observations:</b>	30
Sales per Employees	-43.10378	0.050	<b>LR chi2(3):</b>	13.24
Cash Flow Rights Per Voting Rights	.0053731	0.777	<b>Prob &gt; chi2:</b>	0.0042
Constant	4.095767	0.172	<b>Pseudo R2:</b>	0.5618

**Table 22: Logistic Regression – Private Domestic Ownership01**

In this logistic regression (see Table 22) I test the dependent variable *private domestic ownership01 (dropped state)* to find potential relationships with the independent variables of *total assets*, *sales per employees* and *cash flow rights of ultimate shareholders*.

In the first period, the P-value of the model is 0.0001; therefore the overall regression is statistically significant. Although none of the independent variables are significant in respect to the dependent variable.

In the second period, the overall model is statistically significant (P-Value equals 0.0042), and the tested variable *private domestic ownership01 (dropped state)* has a significant relationship to the independent variable *sales per employee* at a 5% level. As one can see, this result is similar to the previous regression of the variable *private domestic ownership01* and

corresponds to my expectation (1), that domestic ultimate ownership is combined with low company profitability.

The variable *total assets* is in positive, while *cash flow rights of ultimate shareholders* stands in negative relationship with the dependent variable.

Due to the restriction of dropped state observations mentioned above, only a small number of 26 (30) company records remained. This fact might decrease the relevance of this regression.

2.3.2 Change

In this part of my study, I analyse the variable *change01* (of ultimate shareholder types) to find its determinants.

<i>Logistic Regression for Period 1 - Change01 (A)</i>				
<b>Change01</b>	<b>Coefficient</b>	<b>P-Value</b>	<b>Log likelihood:</b>	-27.217572
Total Assets	-.0003304	0.150	<b>Observations:</b>	47
Sales per Employees	.3220672	0.739	<b>LR chi2(4):</b>	10.19
Shareholder Direct	-.0244009	0.091	<b>Prob &gt; chi2:</b>	0.0374
Pyramid Layer01	-1.116493	0.123	<b>Pseudo R2:</b>	0.1576
Constant	3.022069	0.020		

**Table 23: Logistic Regression – Change01 for Period 1 (A)**

I tested the relationship of the variables *total assets*, *sales per employees*, *shareholder direct* and *pyramid layers01* with the dependent variable *change01* (see Table 23). The overall, statistically significant test of the logistic regression results in the significant independent variable of *shareholder direct* at the 5% level, which stands in negative relation to the variable *change01*. Therefore, an increase in the ownership of the largest direct shareholder has less change as effect in ultimate shareholder ownership.

I test the variable *change01* with the *ultimate shareholder types* to find the determinants of change in the ultimate layer. I choose the three largest ultimate shareholder types as dummy variables of *state01*, *family01* and *other financial institution01*. The results are summarised in Table 24.

<i>Logistic Regression for Period 1 – Change01 (B)</i>				
<b>Change01</b>	<b>Coefficient</b>	<b>P-Value</b>	<b>Log likelihood:</b>	-24.9109
Total Assets	-.000278	0.224	<b>Observations:</b>	47
Sales per Employees	.0203087	0.987	<b>LR chi2(6):</b>	14.80
Cash Flow Rights Per Voting Rights	.0228268	0.149	<b>Prob &gt; chi2:</b>	0.0219
Ultimate Shareholder Type State01	-2.354396	0.008	<b>Pseudo R2:</b>	0.2290
Ultimate Shareholder Type Financial01	-1.069372	0.550		
Ultimate Shareholder Type Family01	-.9655533	0.437		
Constant	-.0645489	0.964		

**Table 24: Logistic Regression – Change01 for Period 1 (B)**

This logistic regression has an overall statistically significant result (P-Value equals 0.0219), and the dependent variable *change01* stands in a significant negative relationship to the *ultimate shareholder type* “state” at the 1% level (P-value= 0.008). According to this result, state ownership leads to a lower probability of change in ultimate shareholder type.

To investigate the relationship of “state” as an ultimate shareholder with the variable *change01* in more detail, I created the new variable *Hungarian state01*. It distinguishes only two different conditions: the Hungarian state and other ultimate shareholder types. Its value of “0” stands for all non Hungarian state observations, and “1” represents records of the Hungarian state.

<i>Logistic Regression for Period 1 - Change01 (C)</i>				
<b>Change01</b>	<b>Coefficient</b>	<b>P-Value</b>	<b>Log likelihood:</b>	-23.77471
Total Assets	-.0002064	0.323	<b>Observations:</b>	47
Sales per Employees	-.0508935	0.969	<b>LR chi2(5):</b>	17.07
Cash Flow Rights Per Voting Rights	.0612044	0.052	<b>Prob &gt; chi2:</b>	0.0044
Hungarian State01	-4.585523	0.044	<b>Pseudo R2:</b>	0.2642
Pyramid Layer01	2.828813	0.201		
Constant	-4.413363	0.154		

**Table 25: Logistic Regression – Change01 for Period 1 (C)**

This statistically significant result (see Table 25) of the logistic regression (P-Value=0.0044) has two significant independent variables; the dependent variable *change01* stands in negative relationship at the 5% level with the newly created variable *Hungarian state01*, and it is in positive relation to the independent variable *cash flow rights per voting rights* at the 10% level (P-Value of 0.052). This test result corresponds to expectation (3) as well, meaning that a decrease in state ownership leads to a higher probability of change in ultimate shareholder type.

The positive relationship between the variable *cash flow rights per voting rights* and the dependent variable shows that a larger deviation of cash flow from control rights leads to less change in the ultimate shareholder type. The overall result of increased *cash flow rights per voting rights* corresponds to my expectation (2) that ultimate owners value control if they are not intending to sell the company, since they enjoy private benefits of control.

Therefore, we can conclude that the previously described changes in ownership structures are related to the desire for having control.

## 2.4 Conclusions of the Empirical Study

The results of the summary tables show a decrease in the ultimate domestic ownership (from 60% to 42%) and an increase in the number of foreign ultimate investors. The 50 largest Hungarian companies have very concentrated ownership structures; the largest direct shareholders average direct ownership accounts for 74% (71% in the first period), while the largest ultimate shareholders have cash flow rights of 47% in average (62% in the second period).

The mean number of pyramid layers decreased according to the values observed in the second period of the privatisation process (companies with one layer ranging from 36% to 23%; companies with two layers ranging from 42% to 38%), while the number of structures including three or more pyramid layers increased. The role of the state, as the largest shareholder, has definitely decreased in importance throughout the privatisation process. The second period of my study; shows that the percentage of “state”/”privatisation fund” as the largest direct owners decreased from 34% to 15%, while the percentage of state as the largest ultimate owner decreased from 48% to 32%.

Some results were contradictory to my initial expectation (1), described at the beginning of section 3: *Logistic Regression Results*. One of these results is the following: The dependent variable *ultimate shareholder domestic01* has a significant positive relation to the independent variables *total assets* at the 5% level and to *sales per employees* at the 10% level. According to this relation an increase in these variables determines a higher level of domestic ownership. Based on my expectation (1), domestic ultimate ownership is connected to low profitability and small company size in Hungary. Therefore, I would expect a negative relationship among the variables *sales per employees* (states the profitability of a company) and *total assets* (states the size of the company) and domestic ultimate ownership.

The logistic regression including the dependent variable *private domestic ownership01* stands in a negative relationship with the variable *sales per employees*. It states that a decrease profitability of these companies results in an increase in private domestic ownership. This statement corresponds to expectation (1), stating that foreign ownership results in higher company profitability, as one of many effects, due to share capital increases and investment in technology. The following logistic regression including the variable *private domestic ownership01 (dropped state)* also underlines this result.

The logistic regression of the variable *change01* implies a negative significant relationship to the independent variable *shareholder direct* at 5 % level; in consequence, a decrease in the percentage of voting rights determines a change in the ultimate ownership types.

In the final logistic regression, the independent variable *Hungarian state01* stands in negative relation to the dependent variable *change01* at the 5% significance level. It underlines expectation (3), according to which an increase in the number cases where the Hungarian state is the largest ultimate shareholder, determinates less change in the ultimate ownership types.

The other positive significant relationship of *change01* with the independent variable *cash flow rights per voting rights* corresponds to my expectation (2) that ultimate owners value control if they are not intending to sell the company, since they enjoy private benefits of control.

### 3 Final Conclusions

The previous chapter of *Conclusions of the Empirical Study* reveals the most important results of my study.

The Hungarian privatisation process became a major part of the Hungarian politics, which resulted in the increase of foreign ownership especially from the middle of the 90's. The reputation and perception of the privatisation process were mostly negative and very much associated with inequalities and corruption.

The importance of ultimate state ownership is decreasing in proportion with increasing foreign ultimate investors. The concentrated structure of the Hungarian ownership is under the strong control of large scale investors.

The test results show that a larger deviation of cash flow from control rights leads to less change in the ultimate shareholder type. In consequence, ultimate owners seek more control and influence over the companies under their possession.

Surprisingly state ownership leads to a lower probability of change in ultimate shareholder type. This means that despite privatization, private firms change types of ultimate owners even more often than the state, at least during transition.

By working on this study, I have learned various methods of logistic regressions and testing in line with efficient data searching and analysis methods. I also managed to further increase my understanding of how to combine theory and practice within a research process.

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**Dunapack Paper and Packaging Ltd.:**

[http://www.dunapack.hu/en/company\\_group/company\\_introduction/company\\_introduction.html](http://www.dunapack.hu/en/company_group/company_introduction/company_introduction.html)

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**EGIS Pharmaceuticals Ltd.:**

<http://www.egis.hu/Content/Company/EgisStory.aspx#h5>

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**Fővárosi Ásványvíz és Üdítőipari Rt.:**

<http://www.pepsi.hu/AboutPepsi.aspx>

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**Gedeon Richter Plc.:**

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**Horizon-Multiplan Research and Development Ltd. (1):**

[www.humet.hu](http://www.humet.hu)

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**Horizon-Multiplan Research and Development Ltd. (2):**

<http://www.humet.hu/jelentesek/134-03-J2002-03-31.pdf>

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**Hungarian Oil & Gas Company Plc. (1):**

[http://www.mol.hu/hu/a\\_molrol/tarsasagunkrol/tortenetunk/tortenet\\_i\\_attekintes/](http://www.mol.hu/hu/a_molrol/tarsasagunkrol/tortenetunk/tortenet_i_attekintes/)

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**Hungarian Oil & Gas Company Plc. (2):**

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**Hungarian Power Companies Ltd. (MVM Rt.):**

<http://www.mvm.hu/engine.aspx?page=cegtortenet>

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**Hungarocamion Nemzetközi Autóközlekedési Rt.:**

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**Hungavis Foreign Trade Co. Ltd.:**

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**Investor Holding Rt.:**

<http://www.napi.hu/default.asp?cCenter=article.asp&place=morecompanynews&nID=305405>

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**Közép-dunántúli Gázszolgáltató Rt. (KÖGÁZ RT.):**

<http://www.mediastorm.hu/eon/szervezet/kogaz.html>

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**Magyar Légiközlekedési Rt. (MALÉV Rt.) (1):**

<http://www.jobpilot.hu/profile/cegek/malev/>

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**Magyar Légiközlekedési Rt. (MALÉV Rt.) (2):**

[http://www.malev.hu/bp/hun/I\\_CORPORATE/](http://www.malev.hu/bp/hun/I_CORPORATE/)

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**Magyar Posta Rt.:**

<http://www.posta.hu/object.db9323c5-d7e6-4610-ba4b-57d74479ce36.ivy>

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**Matáv Hungarian Telecommunications Company Ltd.:**

<http://www.magyartelekom.hu/english/aboutmagyartelekom/companyhistory.vm>

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**Mátra Power Plant Ltd.:**

<http://www.mert.hu/>

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**MKM Magyar Kábel Művek Kft.:**

[http://www.hu.prysmian.com/hu\\_HU/cables\\_systems/energy/index\\_energy\\_hu.jhtml](http://www.hu.prysmian.com/hu_HU/cables_systems/energy/index_energy_hu.jhtml)

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**Nitrokémia Rt. (1):**

<http://www.nitro.hu/>

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**Nitrokémia Rt. (2):**

<http://www.kfki.hu/chemonet/mkl/mkl198/mkl5/vegyl2.html>

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**North-Hungarian Electricity Supply Co. Ltd.:**

[http://www.emasz.hu/cegtortenet\\_emasz.php](http://www.emasz.hu/cegtortenet_emasz.php)

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**North-West Hungarian Electricity Supply Co. Ltd.:**

<http://www.eon-hungaria.com/vallalat/eoncsoport/eszakdunantuliamszolgaltato/cegtortenet/>

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**Opel Magyarország Autóipari Kft.:**

<http://www.opel.hu/site/footer/about2.html>

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**Paks Nuclear Power Plant Ltd.:**

<http://www.mvm-csoport.hu/index.php?in=www.atomeromu.hu>

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**Pannon GSM Telecommunications Ltd.:**

<http://www.pannon.hu/pannon/sajtoszoba/ceginformaciok/bemutakozas/>

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**Siemens Telephone Factory Ltd.:**

<http://www.freeweb.hu/muvelodes/okossag.doc>

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**South-Hungarian Electricity Supply Co. Ltd.:**

<http://www.demasz.hu/pages/aloldal.jsp?id=1018>

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**South Hungarian Gas Supply Co. Ltd.:**

[http://www.egaz-degaz.hu/hu/tars\\_cegtortenet.html](http://www.egaz-degaz.hu/hu/tars_cegtortenet.html)

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**South-West Hungarian Electricity Supply Co. Ltd.:**

<http://www.eon-deldunantul.com/vallalat/eoncsoport/deldunantuliaramszolgaltato/cegtortenet/>

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**TIGÁZ Tiszántúli Gázszolgáltató Rt.:**

[http://www.tigaz.hu/engine.aspx?page=Tigazzrt\\_fejlodes](http://www.tigaz.hu/engine.aspx?page=Tigazzrt_fejlodes)

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**Tiszai Vegyi Kombinát Rt. (TVK Rt.):**

[http://www.tvk.hu/hu/a\\_tvkrol/tarsasagunkrol/tortenetunk/torteneti\\_attekintes/](http://www.tvk.hu/hu/a_tvkrol/tarsasagunkrol/tortenetunk/torteneti_attekintes/)

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**Vértes Power Plant Co. Ltd.:**

<http://www.vert.hu/vert.tortenet.htm>

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**Waterworks of Budapest Ltd.:**

<http://www.vizmuvek.hu/pages?p=1>

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**Westel Mobile Telephone Company:**

<http://www.t-mobile.hu/egyeni/rolunk/ceginformaciok/cegtortenet/index.shtml>

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## Appendix 1 – Curriculum Vitae

### ATTILA GUNYHÓ

University of Vienna  
School of Business, Economics and Statistics  
Brünner Straße 72  
1210 Vienna, Austria

E-Mail.: attila.gunyho@univie.ac.at  
Tel.: +43 650 5013327

#### EDUCATION

- 2001 – 2007      **University of Vienna, Austria**  
MA International Business Studies, Specialised in Knowledge  
Management & Management Accounting
- 2005 – 2006      **University of Reading, UK**  
Extended Study Year
- 1996 – 2001      **Austrian Advanced High School, Hungary**  
Qualification: Austrian and Hungarian final exam certification  
A- Level (German, Mathematics, IT, History, Biology)

#### WORK EXPERIENCE

- 2007 (Jul – Sep)      **Erste Bank Hungary Nyrt., Hungary**  
Placement at Treasury Management Accounting Department in  
closely cooperation with the Risk Management Group
- 2006 – 2007      **University of Vienna, Austria**  
Study Tutor and System Administrator  
Website creating with the content management tool TYPO3
- 2006 (Apr – Aug)      **Levin Consulting Ltd., UK**  
Supporting of strategic marketing consulting projects and  
product launches in Germany and in the UK
- 2005 (Jul – Aug)      **EGIS Pharmaceuticals Ltd., Hungary**  
Professional practice at the Management Accounting  
Department; Gaining insight, comparison analysis, creating MIS  
reports

#### IT SKILLS

SAP with Controlling Certificate  
SPSS, Stata9, TYPO3, Oracle, BAAN, Kondor+, Varitron, Ricos, Symbols  
Confident user of all Office applications, Email and Internet

#### LANGUAGES

English: fluent  
German: fluent  
Hungarian: native

## Appendix 2 – Abstract in German

Im Rahmen meiner Arbeit habe ich die Theorie und Praxis der ungarischen Privatisierung beleuchtet und ihre Zusammenwirkung durch eine Analyse der 50 größten ungarischen Unternehmen geprüft.

Im ersten Teil meiner Diplomarbeit beschreibe ich den Prozess der Privatisierung beginnend 1987 bis zu den heutigen Tagen.

In Ungarn hängt die Privatisierung eng mit der Politik und mit der Entwicklung der Marktwirtschaft zusammen, viele weisen aus diesem Grund auf einen „zyklischen“ Ablauf der Privatisierung, bedingt durch die häufigen Regierungswechsel in diesem Zeitraum hin. Für die Jahre zwischen 1990 und 1994 sind die Einführung der meisten Gesetze und die Förderung von inländischen Investoren charakteristisch.

Nach 1994 hat sich die Richtung der Privatisierung durch die neue Regierung geändert, welche die möglichst schnelle Privatisierung der Firmen zum Hauptziel hatte, und ausländische Investoren als die dafür am besten geeignete Zielgruppe empfand.

Nach dem Millennium hat der Privatisierungsprozess aus Bedeutung verloren, spielt aber heutzutage dennoch eine besondere Rolle.

Im zweiten Teil meiner Diplomarbeit habe ich die Veränderungen in den 50 größten Ungarischen Unternehmen während der Privatisierung beschrieben.

Diese Unternehmen habe ich zum Zwecke meiner Studie nach der Höhe ihrer Bilanzsumme bestimmt, als charakteristische Zeitpunkte der Privatisierung habe ich die Jahre 1995 (1. Periode) und 2003 (2. Periode) identifiziert. Drei der Firmen konnte ich in der Analyse der 2. Periode nicht mehr berücksichtigen, da zu zwei keine Unternehmensdaten zur Verfügung standen und eine aufgelöst wurde.

Im Rahmen des empirischen Teils habe ich zunächst mittels der Anwendung Excel die größten Unternehmen nach 75 Variablen und auf zwei Perioden aufgeteilt dargestellt. Die hierfür verwendeten Daten stammen aus der Datenbank Amadeus, aus Internetquellen und aus Fay (1996). Die vorhergehende historische Beschreibung der Firmen war von wesentlicher Hilfe bei der Kontrolle der gefundenen Daten.

Anhand der ausgesuchten Variablen habe ich mich auf die Darstellung der Eigentümerstruktur der Unternehmen konzentriert, wobei ich bei meiner Beschreibung der Unternehmensstufen

mit gezieltem Fokus auf die Eigentübertypen „Staat“ und „Ausländischen Investoren“ eingegangen bin.

Durch Zuhilfenahme des statistischen Softwareprogramms Stata\_9 habe ich die Ausprägungen der durch die ungarische Privatisierung verursachten Änderungen in der entsprechenden Zeitperiode beschrieben und anschließend logistische Regressionen mit den wesentlichsten Variablen meiner Arbeit durchgeführt, um die für die Änderungen der ungarischer Eigentümerstruktur und größten Aktionären verantwortliche Determinanten zu bestimmen.

Die Testergebnisse der logistischen Regressionen haben zunächst den abnehmenden Einfluss des Staates als Eigentümer, die steigende Anzahl der ausländischen Investoren und die steigende Zahl der Unternehmensstufen der größten Aktionären bestätigt, weiters hat sich noch als Ergebnis ein negativer Zusammenhang zwischen der Höhe der Beteiligung des größten Aktionärs der ersten Stufe und der Änderung der Aktienärentyp der letzten Eigentümerstufe herausgestellt. Unter anderem ist noch die erhöhte Produktivität der Firmen im ausländischen Eigentum erwähnenswert.

Als Gesamtergebnis dieser Studie kann eine Zusammenführung der Praxis und der Theorie auf diesem Bereich angeführt werden.