Abstract
This paper analyzes the privatization of German public and charitable hospitals. The subject is examined from financial and social perspective. In the first step, an introduction about health sector is given. In the second part, the German hospitals’ situation is described. In the third part of the paper; it is discussed whether privatization is advantageous or risky by consideration of various indications. Lastly, conclusions and recommendations are presented. Until 1985, making profit in hospitals was forbidden by law in Germany. After introduction of DRGs, this law was cancelled. Before 1985, there were no private clinics except a few for rich people. This situation has changed since 90’s. The share of private hospitals reaches 36.2% in 2016. It is expected that privatization is going to grow in the presence of DRGs. Due to the financial gap in hospitals, funds for new investments and operational activity are missing. While many of public and charitable hospitals make loss, private hospitals are profitable.

Keywords: Privatization, Lump-Sum Payment, Financial Gap, Healthcare Institutions.

1. INTRODUCTION
Core statement of public service is the commitment of the state to render service for the benefit of the individual. In the debate concerning public service, it deals essentially about the role being given to the state. The scope and quality of the services provided as well as the working conditions of the employees depend on the Federal State’s willingness to provide necessary services (Quetting, 2017).

The financial crisis of public and charitable (non-profit) hospitals’ budgets, which are politically influenced and competitively driven by the new system of Diagnosis Related Groups (DRGs), will further strengthen privatization trends. Due to their falling revenues, experts expect additional economic pressure on municipal budgets. In many cases, increasing budgetary bottlenecks lead to significant deficits in the hospitals of public and charitable (e.g. churches and social) institutions. These institutions are increasingly confronted with no other option than that of finding strategic partners or selling their hospitals (Rudolphi, 2007).

In 1991, the share of privately-owned hospitals is only 14.8% and it increases steadily and it reaches 36.2% in 2016. So, every third hospital is already privately-run. In the same period, the share of public hospitals decreases from 46.0% to 29.2%. The proportion of charitable (non-profit) hospitals has only slightly changed from 39.1% to 34.5% (Statistisches Bundesamt, 2016 and Chart 1). This paper analyzes the motives of privatization of public and charitable hospitals as well as it deals with the consequences of and risks of the privatization. So, it also analyzes the process of privatization from social and financial perspectives.

2. SITUATION IN GERMAN HEALTHCARE SECTOR
In 1991, there are 2,411 hospitals in Germany and it is 1,951 in 2016, so there is a decrease of hospitals from 1991 until 2016 about 23.6%. This decline is in contrast to the development in the number of patients treated. The 34.5% increase of patients treated in hospitals from 14.5 Million in 1991 (Spiegel Online, 2015) to 19.5 Million in 2016 (Statistisches Bundesamt, 2016). The average length of time spent in a hospital is 13.3 days in 1992, 9.7 days in 2000, and 7.3 days in 2016. The distribution rate of the number of beds Retrieved in the hospital is 18.7% in private, 33.5% in charitable, and 47.9% in public hospitals. Although, 36.2% of hospitals are privately-run in 2016, they only provide 18.7% of beds in Germany. This proportion also shows the same development in the years from 2010-2015 (Statistisches Bundesamt, 2017). Most of the beds Retrieved in hospitals are provided by public hospitals, although their share among other hospitals is lower with 29.2% (see chart 1).

Supporters of the private clinics say that private hospitals work more economically or at least at the same quality as public and charitable hospitals. These are the results of a study completed by the RWI Essen and the Institute for Health Economics on behalf of the Federal Association of German Private Hospitals in
Berlin. This study is based on data from the Federal Statistical Office from the years 1996 to 2006 and from the financial statements of 701 hospitals in 2005 and 2006. According to this study, the privatization of hospitals, especially in rural areas, help to ensure patient care because the proportion of privately run hospitals is higher than non-profit hospitals (public and charitable). This trend increases in the period from 1996 to 2006. Private clinics on average work more economically because their cost of materials and staff make up a significantly smaller percentage of their total revenue than public and charitable hospitals. There are no differences in the quality of treatment between private and other type of hospitals according to RWI. Due to better access to capital market, private institutions receive easier funds and thus they can also invest more. Also, a higher profitability strengthens their internal financial position. Moreover, private hospitals have a significantly higher investment rate than other hospitals. Furthermore, private hospitals receive not only fewer subsidies, but at the same time they pay 150 million Euros in taxes on their profits to the Federal State in 2006; But hospitals with other ownership structure (public and charitable) are largely tax-exempt. The Association of Private Hospitals assumes that increasing cost and competition pressure on the hospital market is expected to rise in the next years, so the trend of clinic privatization continues. According to the opinion of scientists, increasing competition in the hospital sector also supports more efficient patient care (Augurzky, 2009).

Chart 1: Share of Hospital Types (in %)

Source: Statistisches Bundesamt, 2017

Christian Hospital Associations consisting of German Evangelic and Catholic Hospital Association together provide 155,000 beds, 6 Million patients are treated per year, around 265,000 people are employed, and 32,000 apprenticeships are placed in their hospitals (Christliche Krankenhäuser in Deutschland, 2017). The Initiative Christian Hospitals in Germany represent the interests of around 620 catholic and evangelic member institutions. So, every third hospital in Germany is a Christian hospital. These clinics form the largest group among the charitable hospitals in Germany (Katholischer Krankenhausverband Deutschlands, 2017). 397 Catholic hospitals exist in Germany. In Catholic clinics 5 Million outpatients and 3.5 Million patients are treated stationary (Katholischer Krankenhausverband Deutschlands, 2017a). These hospitals reinvest 100% of the gained profits instead of striving for more return. As a result, they are more people-oriented and service driven.

The increase in acquisitions activity should be seen in the light of the fact that, since the beginning of the 90's regarding declining financing of the investment costs has led to investment deficit of up to 50 billion Euros in inpatient health care. Even though the quantity of takeovers in the first half of 2007 has declined slightly, the purchase interest of hospital chains and investors has not fallen; only the target direction of takeovers has changed. In the 80's and 90's, it was about taking over small clinics with a partial specific focus. A new phase of takeovers was initiated at the beginning of 2006 by selling University Clinics Gießen and Marburg to Röhn-Klinikum AG. Therefore, hospitals of maximum care became the focus of the corporate groups. Corporate groups enter new business segments through the associated access to a highly specialized medical care system (Rudolphi, 2007 and BDO AG Wirtschaftsprüfungsgesellschaft, 2017). Privatization of University Clinics Gießen and Marburg was the first privatization of a university clinic in Germany. After the sale, the Federal State Hesse holds just 5% of the shares. Rhönn-Klinikum committed itself to comprehensive investments and refrains (until 2010) from dismissals of nearly 10,000 employees for operational reasons. But, in 2011 the company dismisses around 1,500 staff and the number of employees...
decreases down to 8,500 (Frankfurter Allgemeine Zeitung, 2011). According to Statistical Office of Germany, the largest cost factor in German hospitals is the staff costs which make up around 58.5 billion Euros that means 70% of the total cost of 84.2 billion Euros in 2015. Despite steadily rising number of cases, the number of hospitals is declining for years. This trend is dominated by the closure of charity and public hospitals. Since 2000, the number of beds in hospitals has declined by about 10%, but private clinics have increased their capacity in the same period (Das Statistik Portal, 2017).

3. PRIVATIZATION OF HOSPITALS – ADVANTAGEOUS OR RISKY?

Meanwhile, banks and advisory institutes expect that up to 2015/2020, between 35 to 40 % of the hospitals will be privately owned. The economic dimension of these shifts becomes clear when looking at turnover: The share of expenditure of statutory health insurance in hospital sector amounts to more than 60 billion Euros (Rudolphi, 2007 and Heubel, Kettner, and Manzeschke, 2010).

3.1 Privatization of University Clinics

On January 2, 2006, the Federal State of Hesse sells the clinic of the Philipps-University Marburg and the clinic of the Justus-Liebig University Giessen to Rhön Klinikum AG. Elisabeth Kula, Speaker of the Higher Education Policy of the General Student Committee (AStA) of Philipps-Universität Marburg, sharply criticizes the privatization of university clinic. She emphasizes that the model of the privatization of a university clinic has failed. Also, free teaching and research is incompatible with the expectation of corporations like Rhön. Elisabeth Kula sharply criticizes the privatization of a university clinic and through this bad experience; any idea of university clinic privatization should be nipped in the bud. So, education and thus the university clinics have to remain in public hands. AStA of Philipps-University Marburg requests from the State of Hesse a public announcement the privatization of university clinic Marburg and Giessen has been a mistake and by addressing the associated catastrophic consequences for teaching. Teaching at University Hospital should be increased in value and its independence and quality have to be secured (Aerzteblatt, 2016). Spiegel Online writes privatization of clinics happens at the expense of the patients. Before privatization the euphoria is often so great. But reality looks different in many cases. Neither is the case of promised price reductions nor is there an improvement of the care quality to recognize. It is critical, if it is about large houses which provide medical care to a whole region (Mertin, 2013). According to Mihm, in 2015, a fifth of clinics show deficits and 10% of clinics are confronted with increased risk of insolvency. But eight out of ten clinics made profits. The earnings situation remained practically stable. These facts originate from a report which is based on samples of a total of 877 hospitals. So, only two out of three clinics have been able to finance their own investments. Most of the Federal States in Germany do not fulfill their obligation to subsidize clinics. So, clinics must finance the money required for investments in buildings and large-scale technical facilities with the rates paid by health insurance companies for the treatment of their insured people. That’s why, money is lacking to pay for staff. Researchers write that the annual demand for investment amounts to at least 5.4 billion Euros. In 2015, Federal States support clinics with 2.8 billion Euros; as a result, a funding gap of 2.6 billion Euros occurs in the same year. University hospitals are not even considered for such a financial support (Mihm, 2017).

Maria Hagen, also a speaker of AStA Marburg, emphasizes that the profit orientation of private corporations leads to an irresponsibly higher working time compaction among doctors. She highlights physicians also have teaching tasks at a university clinic. If patient care could be ensured only by accumulation of overtime, it becomes clear that there is no time and energy for the education of medical students. According to Maria Hagen, teaching is the least important pillar in this profit logic of the three basic principles of university medicine – medical care, research and teaching. Also, research at privatized university clinics suffers from a lack of investments and jobs. This is reflected in the poor support of the doctoral students, even to refusal of doctoral students, and creating enough doctorate places. All these factors lead to a steady deterioration of medical education in the privatized university clinic which exists for ten years. Moreover, Lars Ruttkowski, a medical student in Giessen reports about the bad learning climate at University Clinic. A bad student support and an unpleasant learning climate are on the agenda by excessive workload on teaching staff. He thinks that students are taught partly by didactical and unqualified physicians. In this way, the study of medicine will be devalued. Moreover, the enthusiasm of the students to work in Marburg is small. The problem of finding adequately trained and motivated doctors for University Clinic Marburg is already expanding to the doctors of tomorrow. The profession of doctors in general and in particular, at locations Marburg and Giessen is thus continuously damaged (Aerzteblatt, 2016).

There is an association of democratically elected physicians that form an alliance of “hospital instead factory” in Germany which deals in detail with the consequences of privatization in the German healthcare sector. This alliance opposes the commercialization of health care and therefore in particular against the
system of hospital financing via Diagnosis Related Groups (DRGs). They support the needs-based financing of hospitals and their staff. It is not the profit margins that have to be decisive whether and how patients care is provided, but medical demand alone must be crucial. Public discomfort with DRG-based hospital financing is growing. DRGs are a lump-sum payment that means it is a flat rate payment per case system. This association of physicians recognizes that further clarification work on DRG based payment system is required in order to conduct a broad public debate on deliberately installed market-based management tools. This association has published detailed constructive criticism on the topic of privatization. This report emphasizes that until 1985, it was forbidden by law in Germany to make profit in hospitals. After introduction of DRGs, this law was cancelled. Before 1985, there were no private clinics except a few for rich people (Krankenhaus statt Fabrik, 2017a).

Ex-chief of physicians say that nurses are work overloaded and doctors are aimed at yields. The case of Asklepios group show impressively what happens when the Federal State gives an elementary part of the public services into the hands of private hospitals. So the reality in German hospitals scares even long-term physicians. Ulrich Hildebrandt was senior physician at a university clinic and he has witnessed at first hand the privatization of two hospitals. He has had enough with the picture conveyed in hospital series. They show that there is everyone always enthusiastic about their work, which is not the hospital reality. He continuous that every chief physician who does not occupy beds gets staff cuts. Isolation of certain patients is under such pressure sometimes no longer possible, that’s why the hygiene suffers. Furthermore, chief physician bear responsibility for his employees. Everyone knows who does not fulfill the expectations of hospital management month after month he’ll be fired. So, there is a constant pressure and now the danger begins. Employees are inwardly poled on economy efficiency, that’s like brainwashing. Hildebrandt keeps up that the pressure is built up subtly. For each aircraft, it is by law regulated how many flight attendants must be on board. In hospitals it is left to the economic calculus. As a result, the number of nurses is too low planned; chief physicians can be easily put under pressure with the threat of losing nursing places or not to get enough job positions for the expansion of patient station. Everyone knows that medicine would be much more expensive. Also a national hospital plan would be reasonable which determines where and how many hospitals are needed so that hospitals do not compete unnecessarily with each other and try to chase away patients (Gnirke and Hülsen, 2016).

3.2 Cost Structure of Hospitals

The cost structure of hospitals in 2016 shows that staff cost makes up a significant part of the expenses. Moreover, staff cost and material cost together determine 97.4% of the cost structure (see Chart 2).

![Chart 2: Cost Structure of Hospitals in 2016](source)

In 2016, although the number of private hospitals in Germany makes up 36.2% and public hospitals are just 29.2% of all hospitals (see chart 1), in private hospitals the staff cost is nearly 9 billion Euros where public hospitals expend nearly four times more with almost 34 billion Euros (see Table 1). The same situation is seen regarding material cost.
Table 1: Share of Cost Components according to Type of Ownership

<table>
<thead>
<tr>
<th></th>
<th>Staff Cost (in Billion Euro)</th>
<th>Material Cost (in Billion Euro)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Hospitals</td>
<td>33.68</td>
<td>21.06</td>
</tr>
<tr>
<td>Charity Hospitals</td>
<td>18.49</td>
<td>10.82</td>
</tr>
<tr>
<td>Private Hospitals</td>
<td>8.91</td>
<td>6.02</td>
</tr>
</tbody>
</table>

Source: (Statistisches Bundesamt, 2016a)

Chart 3 makes it clear that medical (e.g. physicians) and nursing services alone account for 62% of all staff cost in hospitals in 2016. By including the medical, technical, and functional service as part of the staff cost, all of these components reach 85.7% of personnel expenses in healthcare institutions.

3.3 Savings Potential in Private Hospitals and Consequences

Table 2 presents the most common ten illnesses dealt by public, charitable and private hospitals. Public hospitals treat nearly three times more patients than private hospitals. Charitable hospitals take care of patients more than twice as much as private hospitals with regard to the ten most common treatments. So, since the beginning of this change, there has also been an increase in the transfer of hospital-ownership from public to private hospitals. Thus, hospitals become more and more profit-oriented companies (Augurzky, Beivers and Torhorst, 2012).

Table 2: The Ten Most Common Treatments in Hospitals in 2012 Differentiated by Ownership

<table>
<thead>
<tr>
<th>Public hospitals</th>
<th>Charity hospitals</th>
<th>Private hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Childbirth</td>
<td>219,724</td>
<td>Childbirth 192,600</td>
</tr>
<tr>
<td>2 Alcohol</td>
<td>187,904</td>
<td>Heart failure 140,511</td>
</tr>
<tr>
<td>3 Heart failure</td>
<td>183,306</td>
<td>Alcohol 106,885</td>
</tr>
<tr>
<td>4 Intracranial injury</td>
<td>143,019</td>
<td>Antral fibrillation 98,155</td>
</tr>
<tr>
<td>5 Antral fibrillation</td>
<td>131,104</td>
<td>Angina pectoris 87,181</td>
</tr>
<tr>
<td>6 Stroke</td>
<td>129,775</td>
<td>Gallstones 86,404</td>
</tr>
<tr>
<td>7 Angina pectoris</td>
<td>116,848</td>
<td>Hypertension 86,175</td>
</tr>
<tr>
<td>8 Heart attack</td>
<td>115,283</td>
<td>Pneumonia 85,924</td>
</tr>
<tr>
<td>9 Pneumonia</td>
<td>108,352</td>
<td>Chronic obstructive pulmonary disease 84,139</td>
</tr>
<tr>
<td>10 Hypertension</td>
<td>107,786</td>
<td>Arthrosis of the knee 78,269</td>
</tr>
<tr>
<td>Total</td>
<td>1,443,101</td>
<td>1,046,243</td>
</tr>
</tbody>
</table>

Source: Krankenhaus statt Fabrik, 2017a

Work overload of staff in public hospitals is much less than in private hospitals. In public clinics; 56 patients are cared for by one nurse, in private hospital the ratio is 62.5 patients per nurse. The situation is similar with doctors: 113 patients per doctor in public and in private hospitals 138 patients are cared for by a single doctor. Also, medical technical service; in the public hospital 106.9 patients are taken care by one
technician but in private clinics 169.9 patients are looked after by one technician. Furthermore, a nurse earns in private hospitals e.g. 4,177 Euros less per annum than in public hospitals. Private hospitals are not agreement-bound or they have considerably worse collective agreements. Overall, 279.1 million Euros cost-advantage is received due to lower wages in the private health sector. Private hospitals save significantly on staff costs as shown in the following table 3. Augurzky, Beivers and Torhorst assume it is economically advantageous that thereby private funds flow to the healthcare system. But this option, however, becomes inapplicable in non-profit hospitals. They can only rely on scarce public funding and they can obtain debt capital on the market. Without sufficient investment, it is often difficult to optimize operating procedure. In order to obtain return on equity a high level of economic efficiency is required. These include a strict cost and revenue management as well as high work productivity. Due to increasing aging of the population, the demand for hospital services will continue to grow in the future. So, especially the need for staff in medical and nursing service and thus also wages will increase. In future, it will be therefore essential for hospital providers to obtain staff and to handle the resource personnel extremely sparingly. It seems that private-owned clinics are one step ahead then the non-private clinics (Krankenhaus statt Fabrik, 2017a and Augurzky, Beivers and Torhorst, 2012).

Table 3 depicts cost per employee regarding eight different professions in hospitals. Private clinics save on staff even more than the public and non-profit oriented hospitals. Table 3 also shows that only the medical service (physicians) of private hospitals is better paid than in public hospitals (but the difference is not big).

### Table 3: Savings Potential in Hospitals According to Ownership

<table>
<thead>
<tr>
<th>Cost per Employee (Per Staff Per Annum in Euro)</th>
<th>Public</th>
<th>Charity</th>
<th>Private</th>
<th>Difference between (Public and Private) in Euro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Service</td>
<td>111,846</td>
<td>116,508</td>
<td>113,212</td>
<td>-1,365</td>
</tr>
<tr>
<td>Nursing Service</td>
<td>53,149</td>
<td>52,252</td>
<td>49,972</td>
<td>4,177</td>
</tr>
<tr>
<td>Medical Technical Service</td>
<td>53,173</td>
<td>50,745</td>
<td>49,972</td>
<td>3,884</td>
</tr>
<tr>
<td>Functional Service</td>
<td>53,609</td>
<td>53,545</td>
<td>49,552</td>
<td>4,057</td>
</tr>
<tr>
<td>Clinical House Personnel</td>
<td>33,290</td>
<td>31,816</td>
<td>29,693</td>
<td>3,597</td>
</tr>
<tr>
<td>Operational and Supply Services</td>
<td>40,986</td>
<td>38,563</td>
<td>35,207</td>
<td>5,779</td>
</tr>
<tr>
<td>Technical Service</td>
<td>54,024</td>
<td>53,694</td>
<td>48,963</td>
<td>5,062</td>
</tr>
<tr>
<td>Administration Service</td>
<td>57,328</td>
<td>56,123</td>
<td>53,896</td>
<td>3,432</td>
</tr>
</tbody>
</table>

Source: Krankenhaus statt Fabrik, 2017a

Chart 4 demonstrates that only 16% of physicians are occupied in private hospitals and the rest is mainly employed in public hospitals. Due to the payment difference from public hospitals (see table 3), no high cost arises to private clinics because of low occupancy of medical services in private hospitals.

### Chart 4: Physicians Occupied in Hospitals According to Ownership

Source: Statistisches Bundesamt. 2016a
4. Conclusions and Recommendations

While many of public and charitable hospitals make a loss, private hospitals are profitable. So, cost-covering financing of hospitals would eliminate several problems of public and charitable hospitals because lump-sum payment (DRGs); that means case flat rates payment system is not covering the cost of many illnesses. That is an important reason as to why public and charitable hospitals show deficits.

Expenses on staff and material in public and charitable hospitals in Germany are much higher than in private hospitals. Also, it becomes obvious that private hospitals show enormous savings potential regarding the personnel employed in the hospitals. Except for medical services (physicians), there is a big difference in the payment of personnel. Public and charitable clinics pay their staff much better than private ones.

The work overload of staff occupied in private hospitals is much more than in other hospitals. For example, 56 patients are cared for by one nurse in public hospitals while in a private clinic, it is 62.5 patients. In public hospitals one physician treats 113 patients compared to 138 patients treated in private hospitals. So, the workload is much higher in private clinics. Due to overload with work of physicians and nurses and other personnel, the staff is less happy than in public and charitable hospitals. So, these may affect the quality of patient treatment. Also, working conditions that staff face in private hospitals through stress and anxiety of losing their jobs, in case given directives (such as preset turnover rates) are not fulfilled, is much bigger in private hospitals.

Successes of private clinics are based on cherry picking, work overload of staff, and wage dumping which means that the staff is paid below the market value. Private hospitals prefer treating cases with higher income determined by DRGs. Private clinics treat just 16.7% of all patients, but 24.8% of all knee arthrosis cases, 24.8% of all disc damage cases and 23.7% of all hip arthrosis cases.

Due to the privatization of university clinics, staff and students are afraid that teaching gets the least important pillar in this profit logic of the three basic principles of university medicine: medical care, research and teaching. Also, people employed in hospitals are afraid that research at privatized university clinics could suffer from a lack of investments and jobs. Moreover, doctoral students worry about poor support of the doctoral students by physicians (Professors) already overloaded with work and also are afraid of the unpleasant learning climate.

Development of private hospitals is continuously growing with 36.2% in 2016 compared to 14.8% in 1991. Due to the financial gap in public and charitable hospitals, funds for new investments and operational activity are missing. Furthermore, it is expected that privatization is going to grow in the presence of DRGs. But the privatization process should not be done without consideration for the well-being of staff in hospitals and the quality of patients’ treatment and recovery processes. Also, medical students should also have enough support by supervisors. On the basis of circumstances in private hospitals, these objectives are not easy to realize. These mentioned challenges should be regulated through legal regulations implemented by the Federal State to avoid victims in private hospitals. For example, the maximum number of patients to be treated by one physician and a nurse, also the supervision of doctoral students for a certain number of hours per week needs to be determined.

The German social system is famous worldwide. In 1883, the Chancellor, Otto von Bismarck initiated social security legislation for the first time in the world. German Emperor Wilhelm I. gave a very significant impulse when Chancellor Bismarck demanded the introduction of social security insurance on September 17, 1881. The caring attitude of ruling government for employees should not vanish from German healthcare system. Chancellor could find support for his plan also among some well-known industrialists. In Planet Wissen it is stated that; even the Bochum steel manufacturer Louis Baare expressed that a growing industrial society needs healthy and satisfied employees in a published memorandum (Schmitz, 2017).

REFERENCES


