Diplomarbeit

Titel der Diplomarbeit

“An Economic Analysis of Public Cultural Subsidies”

Verfasserin

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angestrebter akademischer Grad

Magistra der Sozial- und Wirtschaftswissenschaften
(Mag. rer. soc. oec.)

Wien, im März 2010

Studienkennzahl lt. Studienblatt: A 140
Studienrichtung lt. Studienblatt: Volkswirtschaft
Betreuer: ao. Prof. Dr. Wolfgang Weigel
Acknowledgements:

I would like to thank my parents for their guidance and advice and for supporting all my decisions and my supervisor Prof. W. Weigel who helped me with his knowledge and experience but gave room for my own ideas.
## TABLE OF CONTENTS

### Abstract

### 1. Introduction

#### 1.1. Rationales and Objectives of Research  

### 2. Theory and Background

#### 2.1. Cultural Sponsorship  

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1.1. Of Patrons and Sponsors</td>
<td>13</td>
</tr>
<tr>
<td>2.1.2. Public Subsidies as Weak Substitutes for Patrons and Sponsors?</td>
<td>14</td>
</tr>
<tr>
<td>2.1.2.1. Instruments of Public Support</td>
<td>14</td>
</tr>
<tr>
<td>2.1.2.2. Reasons for Public Support</td>
<td>17</td>
</tr>
<tr>
<td>2.1.2.3. Austria and the United States: Two systems of cultural support</td>
<td>23</td>
</tr>
<tr>
<td>2.1.3. Private Support for the Arts and Culture</td>
<td>28</td>
</tr>
<tr>
<td>2.1.3.1. Foundations and Corporate Support</td>
<td>29</td>
</tr>
<tr>
<td>2.1.3.2. Individual Support</td>
<td>32</td>
</tr>
<tr>
<td>2.1.4. Some Economic Indicators regarding Two Major Arts Institutions –</td>
<td>33</td>
</tr>
<tr>
<td>The Wiener Staatsoper and the Metropolitan Opera New York</td>
<td>33</td>
</tr>
<tr>
<td>2.1.4.1. Austria and the Wiener Staatsoper</td>
<td>33</td>
</tr>
<tr>
<td>2.1.4.2. United States of America and the Metropolitan Opera New York</td>
<td>35</td>
</tr>
<tr>
<td>2.1.4.3. A Comparison of Economic Indicators</td>
<td>36</td>
</tr>
<tr>
<td>2.1.5. Culture and the Crisis</td>
<td>38</td>
</tr>
</tbody>
</table>
2.2. Methodological Background

2.2.1. Economic Effects and the Input-Output Analysis
2.2.1.1. W. Leontief and the development of the Input-Output Analysis
2.2.1.2. Supply Table
2.2.1.3. Use Table
2.2.1.4. Symmetric Input-Output Table
2.2.1.5. Multipliers
2.2.1.6. Calculation of Economic Effects

2.2.2. Fiscal Effects
2.2.2.1. Taxes and social Security Contributions
2.2.2.2. Calculation of Fiscal Effects

2.2.3. Results of the study from the Austrian Institute for Advanced Studies

3. Empirical Evaluations

3.1. Data on the arts and culture in Austria
3.1.1. Public Cultural Expenditures in Austria
3.1.2. Employees in the Sector of Arts and Culture
3.1.3. Visitors of the Leading Performing arts Institutions in Vienna

3.2. Economic Effects

3.3. Fiscal Effects

Conclusion

Literature

Appendix
Abstract:

This thesis examines the financial support for cultural institutions and artistic activities in general and concentrates in particular on public subsidies for arts institutions. The work discusses the various methods of and the reasons for governmental and private support to the arts. Three different motives for governments and public institutions to fund the arts are given: market failure and arts as a merit good, the “welfare state doctrine” and the tradition and path dependency economic actors follow.

The neo-classical approach of market failure applies to any market intervention of government agencies. Governmental subsidies are justified by classifying commodities as public goods that produce positive externalities not captured in the market price. For artistic and cultural projects these positive external effects are long term effects and can therefore not be measured in monetary units for the short-run. The welfare state doctrine and the tradition and path dependency are rather political or historical reasons for the public funding of the arts.

To emphasize the importance of tradition and path dependency two different systems of cultural support are conferred to: the Austrian and the US – system. In Austria the governments on state, federal and municipal levels are directly in charge of the distribution of grants. In the United States of America the governmental units fund politically independent state agencies to deal with cultural funding. A comparison of the main opera house in Vienna, the Wiener Staatsoper, and the Metropolitan Opera in New York highlights the fact that both systems are capable of supporting cultural activities.

To estimate the measurable economic effects of the cultural sector and of specific cultural institutions the Input-Output system is introduced as methodological background. In the last part of this work the economic effects of the Wiener Staatsoper are calculated and analyzed to underline the significance of cultural institutions for the national economy.

Most of the data that is used in this work stems from the homepage of the Statistics Austria, an independent federal institution. The full data sets are available at the homepage http://www.statistik.gv.at/ but can also be required from the author.
1. Introduction
1.1. Rationales and Objectives of Research

In Europe the support of the arts has been common since the middle ages or even earlier, when the emperors employed musicians and painters for their private delight.

After World War II governments defined their support for art and culture as public expenditures and special departments were created for this purpose. The first Ministry of culture was established in France in 1959, in 1965 the United States, the Netherlands and Germany followed the French example.¹

In the 60s economists got interested in the economic effects of artistic and cultural activities and the question why the public should feel responsible for the financial aspects of these. The literature on cultural economics has been influenced strongly by the authors of the 1966 published book, „Performing arts - The economic dilemma“, William J. Bowen and William W. Baumol. In 1989 Bruno S. Frey and Werner W. Pommerehne caused a debate about the public funding of arts with their book “Muses and Markets”. Another text that has often been cited as well as criticized is the article „The subsidized Muse - Public support for the arts in the United States” by Dick Netzer, published in 1978.

More recent literature concentrates on the econometric measurable effects of cultural activities and institutions. For Austria a very important study has been published in 2008 on the external effects of the Bundestheater Holding. The Institute for Advanced Studies in Vienna calculated the effects of the expenditure of the theaters of the Holding on the Austrian economy as a whole and on the city of Vienna.²

In this diploma thesis the public cultural expenditures and their effects on the overall economy will be investigated.

Why should the state fund the arts and culture?
Is there an economic justification for the public funding of arts?

These questions will be addressed in chapter 2.1., but first the question how arts and culture are officially defined by governmental institutions should be answered.

¹ Toepler and Zimmermann, 1999, p.33
² IHS, 2008
What is important in the context of this work and especially for the econometric analysis is the official definition of the sector that produces artistic and cultural goods and services.

In Austria the public expenditures for culture and the arts are categorized by the so called LIKUS-system. The system has been invented in 1993 to facilitate the comparability of the cultural expenditures by the states and municipals. The sectors are defined according to their content and subject and not according to the political responsibility. The distinction made by the LIKUS-system is consistent with the UNESCO Framework for Cultural Statistics that is used internationally.³

There are 16 defined categories:

1) Museums, archives and science
2) Building culture heritage
3) Folk culture, historical and traditional customs
4) Literature
5) Librarianship
6) Press
7) Music
8) Performing arts
9) Fine arts, photography, architecture, design
10) Movie, cinema, video
11) Radio and television
12) Cultural initiatives and centers
13) Education and training
14) Adult education
15) International cultural exchange
16) Major events
And others

In the last part of this paper some empirical evaluations about the arts and cultural sector and its funding will be presented. First, descriptive data will give an overview over the sector (3.1.), after this the economic effects of the Wiener Staatsoper GmbH will be estimated using an Input-Output analysis (3.2.), the last chapter points out the fiscal effects of the Staatsoper (3.3.).

³ Statistics Austria,2009
2. Theory and Background
2.1. Cultural Sponsorship

2.1.1. Of Patrons and Sponsors:

In this section of the work the different ways of cultural sponsoring will be outlined. The promotion of the arts does not lie in the hands of the state alone. While in great parts of Europe (especially in France, Italy, Germany and Austria) the public sector is the most important promoter of artistic institutions, in the USA private advocates or companies are responsible for the biggest part of the funds received by various cultural institutions.

In this context the differences and similarities of the terms patronage and sponsorship should be clarified. This is important because the incentives for both activities can be very different whereas the actions and results might be almost the same.

A patron in the original sense of the word is someone who protects or defends something (Latin: patronus = protector) but is used for “a person who gives financial or other support to a person, organization, cause etc.”. In that sense a patron does not get any service or good in return for his or her giving. The same applies for an advocate, even though, it should be made clear that this term has a wider definition and does not pertain to giving alone but is also used for general support or recommendations that are made in public.

The definition of sponsorship in the Oxford English Dictionary does not leave room for much discussion about the distinction between a sponsor and a patron. The fact that a sponsor “pays for or contributes to the costs of a sporting or artistic event or a radio or television program in return for advertising” shows that sponsorship implies a reward and is therefore simply a trade between two economic players.

The next part of this chapter (2.1.2.) deals with public cultural expenditures and the different instruments (2.1.2.1.) a public administration has to grant artistic activities. The questions, why the state should intervene (2.1.2.2.) will be discussed briefly and an overview of two different systems, the Austrian and the US American, (2.1.2.3.) will be given.

After this I will also outline the different ways of private sponsorship of companies as well as individuals; their possibilities and incentives for investment in the arts (2.1.3.).

4 http://www.askoxford.com/ (03.12.2009)
5 http://www.askoxford.com/ (03.12.2009)
To get an idea how outstanding cultural institutions generate the needed pecuniary resources the financial statements of two of the world’s biggest opera houses are going to be compared (2.1.4.). The Metropolitan Opera New York and the Wiener Staatsoper are going to be the subject matters of this chapter.

2.1.2. Public Subsidies as Weak Substitutes for Patrons and Sponsors?

2.1.2.1. Instruments of public support:

The government can use different financial instruments to facilitate cultural activities, but what shall not be forgotten is the importance of the non-pecuniary support, i.e. institutional surroundings for artists. In the paper at hand both, the direct and indirect pecuniary instruments are of major interest as their quantity and economic impact can be measured and provide a clear view of state intervention in the cultural sector.

In the following section I will rely on the partition of public help made by Frey and Pommerehne in their book “Markets and Muses”.

(i) Fixed sum government subsidy:

The subsidy is given to cultural bodies independent of input and output and is very important for non-mainstream institutions that could not survive without outside help. Furthermore, new establishments often depend on a lump sum grant to overcome the first years of business.

In most cases the fixed sum subsidy stops when profits are made, which might lead to adverse effects, such as inefficient behavior of the management and decision makers. This behavior results in performances that do not reflect the wishes of the potential audience, such as very sophisticated and off-mainstream productions. Other income resources, in particular marketing goods, are not or very unsatisfactory used as well to make revenue.

Another drawback of direct subsidies is that the government gains influence over the administrative rules of the recipient. The official reason is that the donor wants to be able to track the given money and therefore imposes transparent budget principles on the addressee of the gift. The case of the Austrian art scene shows that especially decisions about the personnel of main cultural institutions are often closely related to the governing party.6

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6 Frey and Pommerehne, 1989, p.184
(ii) **Support through tax deduction:**

Support through tax deduction is a method for the government to support the arts indirectly. This particular way of facilitating artistic activities is very common in the USA where the government in general tries to intervene as little as possible and sees its main part in stimulating private sponsorship.

Tax deductions enable individuals or corporations to reduce their income or revenue tax burden but are only applicable for donations to charitable or non-profit organizations, including cultural establishments as long as they do not make any earnings. Hence, it gives an incentive to avoid profits in order to maintain the status of a non-profit establishment.

In the United States the deduction can be as high as 50% of the gross income of a private individual. The tax deduction favors citizens within higher income brackets and is therefore questionable from a distributional point of view. An answer to this distributional problem could be to make “the gift deductible from taxes that are independent of wealth and income”.

As a consequence of the indirect support through tax deduction more private donors will be willing to support arts organizations but they need to be reassured that their money is well used and that the contribution is revealed to a broad public. Furthermore, cultural management will have to concentrate on attracting new donors for their own establishment; this competition can become very time and even money consuming for cultural institutions.

Detailed discussion on private subsidies can be found in chapter 2.1.3.

(iii) **Subsidies of and taxes on tickets:**

The importance of subsidies of and taxes on tickets for arts institutions is in practice negligible. Quite the contrary to facilitating cultural activities, the box office income is often subject of taxes and can therefore be seen as a “negative subsidy” to the arts. This “negative subsidy” evokes a negative incentive to gain new audience. Art directors are therefore no longer subject to the requirements of the market, which consequently allows them to ignore the wishes of their potential audience.

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7 Frey and Pommerehne, 1989, p.43
8 Frey and Pommerehne, 1989, p.45
(iv) Deficit coverage:

The budget principle of many theatres in Europe is a cameralistic one. This means that these cultural institutions are part of the government budget, hence, at the end of the year the gains as well as the losses are handed over to the state. The roots of this system date back to the medieval times where the first secularized theatres were part of the royal court and thus under the financial and artistic leadership of the dynasty. In 1741 the Austrian Burgtheater has been the first royal court theatre that was opened to the public but remained part of the court budget⁹.

In a cameralistic system at the beginning of every budget year the arts institutions are bargaining their expected deficit with the ministry in charge. This happens with the past deficits and subsidies in the minds of the negotiation partners and is always subject to asymmetric information. As the budget deficit from one year results in a higher subsidy for the next year, the incentive for a balanced budget is very low or even negative.¹⁰

Note that the strategy of a higher deficit than necessary that might be run by cultural institutions is only applicable in Europe, where the vast majority of subsidies comes from the public hand. In the United States, where sponsoring the arts and culture lies in the hands of private patrons and donors, a high deficit will hardly lead to more means from these. The strategy of the cultural management is therefore a complementary one. The higher the number of visitors and following this the box office income, the more private sponsors will be attracted. This might also lead to more prestigious projects that have higher block-buster potential than less reputable projects.

(v) Institutional frameworks:

Another important policy for the support of the arts is the setting of favorable conditions for cultural activities of all kinds. This includes not only tax deductions and the limitation of barriers to market entry for new institutions, but also a legal system that provides distinct rules on property rights.¹¹ A tight net of copyright protection is sufficient to keep the artistic market alive because it protects unauthorized copying and distribution. Without copyrights the incentive of creating an art piece would be diminish to the sheer joy of being seen as the creator of an art piece. Together with property rights copyrights secure the income of many artists.¹²

⁹ http://aeiou.iicm.tugraz.at/aeiou.encyclop.t/t313901.htm (am 29.04.2009)
¹⁰ Frey and Pommerehne, 1989, p.45f
¹¹ Frey and Pommerehne, 1989, p.43
¹² Landes, 2003, p.132
Copyrights do also have economic drawbacks that should be kept in mind. The costs of copyrights are not only administrative ones but also the trade off between too tight protection and the formation of new projects that rely on preceding art pieces. Having a rigid copyright protection the price of art is sometimes too high and therefore the creation of new art pieces might be slowed down or even blocked.\textsuperscript{13}

\textbf{2.1.2.2. Reasons for cultural public support:}

The motivation for governments and public institutions to support artistic projects is more complex than one would anticipate at first sight. As Frey points out in his article “What values should count in the arts – the tension between economic effects and cultural value” decision makers, i.e. politicians and bureaucrats, are only partly interested in the maximization of social welfare through cultural funding. There are various other reasons to invest in the arts, such as prestige, enlargement of political power, and “most importantly, government politicians must be reelected”\textsuperscript{14}. Other reasons that will be discussed in the following chapter are market failure and merit goods.

The support of the arts through government forces has a long tradition in Europe; the ones in power have always been very inclined to the arts. Tradition might not be the most obvious and indisputable reason but it is certainly worth to take a look at the history of public and private support to understand the strong connection between the governmental and artistic institutions.

(i) \textbf{Market failure and merit goods:}

The neo-classical approach of market failure is suitable for any intervention of the state and relies on the assumption that there are so called public goods. These public goods have two characteristics: they are non-rival and non-excludable. A commodity (good or service) that can be consumed by every individual without interfering in the consumption of another individual that is consuming the same commodity is called a non-rival good. If, additionally, nobody in the economy can be excluded from the consumption through market prices economists are talking about pure public goods.\textsuperscript{15} Following this definition, the national defense is the perfect example for a public good.

\textsuperscript{13} Landes, 2003, p.133f \\
\textsuperscript{14} Frey, 2008, p.266 \\
\textsuperscript{15} IHS, 2008, p. 14-15
Another definition used in the literature states that the supply of public goods is desired by the general public but the amount of it cannot be based on the private demand. The state has to intervene in order to assure that the desired amount of the public good can be supplied. The reason for this discrepancy is that the benefits of public goods are not or too little valued by private households and firms. Or, even if they are valued high enough the consumption behavior of the households does not reveal the true preferences and utilities. The strategy is to reveal wrong, i.e. too little, preferences, for goods that are provided anyway in order to pay less for them because they are subsidized by the public.

The aggregated utilities of the private agents do not reflect the overall utility of the economy. The result is that the willingness to pay for such goods is too low; in economic terms market clearing is not possible because the equilibrium price, which secures that the right amount of the commodity is supplied to reach the demands, cannot be achieved.

Bruno S. Frey pointed out that if the positive externalities are captured by the (market) price a project or activity arises from the market itself. Public support is only justified if “the project in question produces external effects not captured by the market”. Such external effects have to be differentiated from economic effects that can be measured in monetary units (these effects are discussed in chapter II.2). An external effect of a cultural institution such as the opera house in Vienna might be the enhancement of the reputation of the Austrian nation.

To answer the question if the support for the arts and culture can be justified in the economic theory, it has to be proven that the arts and culture in general are public goods or services.

Pure public goods that fulfill both criteria of the definition made in the previous paragraph, not excludable and not rival, such as a clean environment, are hard to find. But there are many borderline cases that fulfill at least one criterion and are therefore subject to public support. These goods are private in the sense that the welfare of one single person who uses the good or service is raised, and public ones in the sense that one consumer raises the welfare for all people in the economy. The most common example in economic literature is education, which increases the future opportunities for one student but also for the whole population, by increasing the chance of technological progress.

Mixed commodities are also mixed in the sense that part of its expenses can be covered by the revenues from the market, but the other part has to be paid for by the state, i.e. the tax payer.

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16 Baumol and Bowen, 1967, p.380f
17 Berger and Hummel, 1988, p. 35
18 Frey, 2008, p.263;
19 Baumol and Bowen, 1967, p.381
Furthermore each individual can be excluded from the direct benefits (having a good education) but nobody can be excluded from the indirect effects (more productivity in the society). “Therefore, the price tag which can be put on quasi-public goods may be insufficient to cover their cost of production.”

Still, the question remains if the public support of the arts and culture can be justified using the economic theory of public or – more likely - merit (i.e. mixed) goods. There should be no discussion about the direct benefits for the consumer of art and culture, but to categorize art as a mixed commodity it is necessary to prove the indirect benefits for the whole society.

Baumol and Bowen found four indirect benefits stemming from performing arts projects which can be transferred to any kind of artistic or cultural activity:

1. “…prestige conferred to a nation by its performing arts”;
2. “…the availability of cultural activity confers on business in its vicinity”;
3. “Funds must be provided today if the arts are to be kept alive for tomorrow.”;
4. “Still another type of indirect benefit provided by the arts is their educational contribution.”

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20 Baumol and Bowen, 1967, p.382
21 Baumol and Bowen, 1967, p.382 - 385
22 Baumol and Bowen, 1967, p.382
23 Baumol and Bowen, 1967, p.383
24 Baumol and Bowen, 1967, p.385
25 Baumol and Bowen, 1967, p.385
It is widely accepted that a good education system benefits a society and its economic development because it is essential for technological progress, which is (in macroeconomic growth theory) the only factor that can generate constant growth. As the arts are an important part of the education system it follows that the indirect effects of education are to a certain extent due to a lively artistic culture.

With all these arguments in mind I conclude that artistic and cultural services are merit, i.e. mixed, goods and should therefore be considered for state support. Without public support the use (consumption) would be too low and artistic and cultural projects therefore could not cover its expenditures.

(ii) “Welfare state doctrine”:

Yet another explanation for public cultural sponsoring that can be found in neo-classical literature is the welfare state doctrine. This approach is based on the general assumption of social and cultural equality. One nation that can be seen as a representative of the welfare policy is Sweden.26 In the 17th and 18th century the Swedish crown created a very tight net of cultural institutions that is still in use. Until the 1930s public subsidies focused only on high cultural institutions situated in Stockholm.

From 1960 to 1980 the support of the arts was “en vogue” and reflected the egalitarian attitude of the European politicians of that time. In the 1970s the Swedish government implemented the ideas of an experts’ report called “New Cultural Policy” which proclaimed that equal access to the arts and culture is an important part of social and economic equality.27

Now, the support for the arts in Sweden is much diversified and in the hands of private associations, municipals and state governments as well as in the hands of the federal state bureaucracy. In Sweden the attitude of a social welfare state is still strong and therefore the neo-classical egalitarian approach has its reason.

In other European countries the argument of the welfare state doctrine is appropriate from the period of the 1960s to the 1980s, but afterwards, as conservative and liberal policies took the lead, another explanation has to be found.28

26 Toepler and Zimmermann, 1999, p.34
27 Toepler and Zimmermann, 1999, p.39f;
28 Toepler and Zimmermann, 1999, p.40;
(iii) Tradition and path-dependency:

As mentioned before the support of the arts and culture has a very long tradition in Europe. In the article “The Subsidized Muse – Governments and the Arts in Western Europe and the United States” Annette Zimmermann and Stefan Toepler discuss a neo-institutional point of view regarding public subsidies for the arts, which takes “public policy to be shaped, mediated and channeled by the history and public policy tradition of any given country”\(^\text{29}\).

This approach emphasizes that the high subsidies are a result of the strong bureaucracy and the creation of cultural institutions during the period of totalitarian regimes in Europe. The best example is France, where in the 17\(^{th}\) and 18\(^{th}\) century the emperors established a high number of museums, theatres and opera houses; these were built not only for the amusement of the kings and queens but primarily to underline their grandeur and power. French emperors always thought that their power could best be shown to their people and to the outside world by cultural institutions and architectural monuments.

Regarding the dependency of the arts on public subsidies not much has changed in France since the Ancient Régime. On the one hand this is due to the still very centralized state structure, on the other hand, state ownership is widely accepted in France because the “government has traditionally played a quite significant role in the economic development”\(^\text{30}\).

Comparing Austria and France there is little difference regarding these arguments. What does make a difference, though, is the fact that in France the president is more powerful than in Austria. This leads to a stronger support for prestigious projects, since the name of the resident will always be connected to the public - and hence to the cultural – policies in his legislature. The head of the state has a private interest to support projects that will be remembered and recognized as highlights in the history of the arts, because his name will not be forgotten.

Following this reasoning, local or less popular projects are in danger of being dismissed. To solve this problem, more distributive power should be given to municipals and communities, whose motives are more egalitarian and in sync with the welfare state doctrine discussed in the previous section. This phenomenon can be observed in Sweden, where the government structure is highly decentralized and the local governments take a lot of responsibility in the distribution of public expenditures.\(^\text{31}\)

\(^{29}\) Toepler and Zimmermann, 1999, p. 35;  
\(^{30}\) Toepler and Zimmermann, 1999, p.38;  
\(^{31}\) Toepler and Zimmermann, 1999, p.40
The tradition in the United States of America is quite different from the European tradition of aristocratic patronage and cultural institutions. Until the second half of the 19th century there has been little contribution to the arts neither by the state nor private donors. Only then did “urban elites, business communities and institutional philanthropy” 32 start to facilitate artistic work. Except for indirect support via tax deductions, the state was not very welcome to support the arts, neither by the artists nor by their private patrons. The “third-man approach” that is used for many policy fields in the USA is also valid for cultural policy. The American policy approach is to keep the government small and outsource as many programs and duties as possible into non-governmental institutions.33

Toepler concluded in his 1991 published work “Kulturfinanzierung – Ein Vergleich U.S.A. - Deutschland” that the “lack of a feudal-aristocratic heritage of cultural institutions, puritanical beliefs which regarded the arts as unnecessary luxury, and a strong republican tradition of limited government” 34 explains the small share of public support for the arts in the United States compared to Western Europe.

The public opinion in the U.S. shows a strong reluctance against public support or intervention among the American people. The rationale behind this is the fear of losing the independency and being overregulated by the federal state. This argument serves the third-man approach that is exercised in American policy and is raised whenever the state intervenes.

2.1.2.3. Austria and the United States: Two systems of cultural support

In Western Europe Ministries for Arts and Culture are established in almost every country; hence one could say the support for the arts is centralized and as a matter of fact often highly politicized. The American system for arts funding is much more complex and diversified as there is no central government committee for cultural issues.

In the following section two systems of Austrian and American public support will be discussed and some data presented.

32 Toepler and Zimmermann, 1999, p. 46
33 Toepler and Zimmermann, 1999, p.42
34 Toepler and Zimmermann, 1999, p.42
(i) Austria:

As in most Western European countries Austria’s cultural policy is determined by the Ministry of Education, Culture and Arts (Bundesministerium für Unterricht, Kunst und Kultur). However, the cultural ministry is not the only one that is engaged in supporting the arts; the federal ministry, the ministries of finance, military, forestry and agriculture to name just a few. In the budget of 2006 the expenses for the arts and culture have been shared by eight different ministries (graph 1); the largest part comes from the cultural ministry (€ 319,946,393 real gross expenditures) followed by the federal ministry (€ 217,489,757 real gross expenditures).³⁵

It should be mentioned that in 2007 after the election and the formation of a new government the ministries and their areas of responsibility slightly changed. Nevertheless it can be assumed that the statements made above are still valid overall and give a general idea of the division of competences between different governmental sectors.

Graph 1:

![Graph showing division of public cultural expenditures in Austria in 2006](image)

Share of real gross public expenditures for the Arts and Culture in 2006³⁶

³⁵ IKM, 2007, p.10
³⁶ IKM 2007, p.10
The public cultural expenditures in Austria are divided almost equally between the federal, the state and the municipal level of government. The federal state holds a share of 34.6%, the states and regions 34.4% and the municipals and cities 31% of the overall public support to the arts (in 2004). In real numbers the Austrian central, regional and local authorities spent € 1 957 400 000 to support cultural and artistic activities. Consequently, in 2004 the public per capita cultural expenditures have been €293.54 in Austria. Compared to other Western European countries this number is one of the highest; in Sweden the per capita expenditures have been €195.77 (last data collection in 2000) and in Germany, even less, €96.00 in 2004.  

Tax concessions in Austria:

As in most European countries the tax concession that benefits arts institutions most is the exemption from the value added tax. A uniform tax rate, such as the value added tax, applies to all goods and services and should therefore not change the consumption behavior of individuals in the economy. This and the fact that a uniform rate is very easy to handle for bureaucrats are the arguments that strengthen a value added tax system. However, to make sure that the tax system allows a government to support certain sectors it needs to be able to lower the rate for sectors of public interest. 

In Austria the value added tax is as high as 20 % and therefore one of the highest among European countries. Non-profit arts organizations are exempt from this tax, so one could anticipate that in monetary terms the indirect support of the state is as high as 20 % of the box office income. This is of course not quite right because a value added tax for art output would most likely result in higher ticket prices. As prices are raised the consumer’s demand could drop to a lower level and therefore reduce the taxable box office revenues.

37 IKM 2007, p.51f  
38 O’Hagan, 2003, p.455
(ii) The United States of America:

In the United States of America direct public support for the arts is not as important as in Western Europe. The reasons for this have been outlined in chapter 1.1.2. (iii) and can be summarized as the “third – party approach” that dominates American policies in general.

The “third party” regarding the arts, i.e. the independent federal agency that is responsible for public cultural support, is the National Endowment for the Arts (NEA). Along with other state and local arts agencies this organization gives direct public grants. Further public subsidies for the arts and culture are given directly by some other federal agencies and legislative earmarks or indirectly by tax exemptions and institutional frameworks.39

The NEA which has been built up in 1965 is run by experts of the arts and claims to be politically independent. To receive a grant from the NEA an arts group or institution has to apply and be recognized by an expert panel, the National Council on the Arts and by the chairman of the NEA. Projects can only be supported partially by the agency and must prove that they receive the rest of their financial needs from other resources. In 2006 the NEA granted 2,592 grants and appropriated $ 124.4 Million.

The National Endowment for the Arts is closely related to state and regional agencies as it has to give 40 % of its funds to them. The agencies are endowed by the state government (90 % of their annual funding) and the NEA (10 % of their annual funding) and have an annual funding of $ 360.4 Million at their disposal.

The third level of public support in the USA is taken by the local agencies that are funded by municipals, state agencies, private donations and the NEA (Graph 2). The estimated number of local arts agencies goes up to 4,000 of which around 35 % are publicly run. Due to the diversity of local arts agencies it is hard to collect the data on their expenditures. The “Americans for Arts” that represents local arts agencies estimated the expenditures at $ 778 Million in 2006.40

39 NEA, 2007, p.v-viii
40 NEA, 2007, p.3-9
Some other federal agencies are active in the non-profit arts sector either directly or indirectly. These organizations are usually established to fund one defined segment of the arts and culture. Furthermore the US Army has a long tradition in supporting the arts. Not only does it operate military bands (with an annually budget of more than $100 Million) but it also offers a wide cultural program for its personnel and their families, especially during war times. The Army Art collection which consists of over 100,000 works should also be mentioned.

The legislative earmarks that have been referred to as further direct support are usually written into a government spending bill by lawmakers to ensure a financial subsidy to a certain project or institution. These earmarks are possible on the state and on the federal level of government.  

Overall the public subsidies (federal, local and state) account for roughly 13% of the total endowment of non-profit arts organizations (data from 2004). 43% stem from private individual and institutional donors (corporations and foundations) and 44% of the revenue is covered by earned income, i.e. box office income, subscriptions etc.

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41 NEA, 2007, p.3-9
42 NEA, 2007, p.1ff
Tax concessions in the United States of America:

For arts institutions in the United States the tax deductions are the most important tool of assistance from the state. There are three sections of the US income tax code that are of great significance to non-profit arts organizations. 44

(i) The deduction of charitable contributions from the income tax is the most important indirect support for arts institutions. American tax payers are allowed to reduce their tax burden by up to 50% of their adjusted gross income when donating half of their income to institutions that are “…organized and operated exclusively for charitable, religious, educational, scientific, or literary purposes…”45

(ii) Corporations are also allowed to claim deduction for gifts to charitable non-profit organizations. The limit on deductions for firms is 10% of their taxable income for one year.

43 NEA 2007, p.1
44 O’Hagan, 2003, p.454
(iii) Another instrument that helps arts institutions is the exempt of gifts of property from the capital gains tax. If a charitable organization receives a donation in the form of any property, the donor of the property is allowed to deduct the profits generated by an increased value of the property.

The tax concessions that favor charitable contributions to non-profit organizations have been criticized because they benefit higher income classes more than lower ones in two ways. First, the private contributions made by a high income citizens results in a higher tax loss for the state and hence for the public than a contribution made by a person with a lower income. If, for example, a contribution of $10 is made by a taxpayer that would have to tax 50% of its income, the deduction of this $10 contribution costs the state $5 of tax revenues. The same $10 from a citizen, who does not have any taxable income, does not generate any costs for the public. Another reason of criticism points towards the exemption of gifts of property from the capital gains tax, because in general only very well-off people are able to donate property.

46 O’Hagan, 2003, p.455
2.1.3. Private Support for the Arts and Culture:

The following section will concentrate on the private support for the arts and culture which is especially important for the artistic scene in the United States.

Private donors can be split up into two groups: the first one consists of corporations and businesses that are granting certain cultural institutions and projects (2.1.3.1.). The second group is labeled as “individual support” and includes besides others donations from charity events, payments from subscribers as well as gifts from patrons (2.1.3.2.).

2.1.3.1. Foundations and Corporate Support:

Institutional support of the arts is more important in the United States than in Europe for the opposite reasons that have been discussed in chapter 1.2.2) where the path dependency is taken to explain differences in public support between Western Europe and the USA. In Europe the arts have always been of great interest to the emperors and therefore been supported with public means. Private support has been and still is not facilitated from the federal government.

On the other side of the ocean, the history of corporate donors goes a long way back and is closely linked to legislative developments. The first tax deduction for charitable contributions was established in 1935, when the Internal Revenue Code allowed a deduction of up to 5 % of corporate income. 47

The common subjects of corporate giving are health and welfare institutions. The Conference Board 2008 Corporate Contributions Survey that included 197 US-based corporations showed that the participating companies have given $ 10.97 Billion to non-profit organizations in the financial year 2007. The greatest share has been contributed to health and human services (53.01 %), the second largest to education (18.65 %). The donations to cultural and arts institutions are the third largest group of receivers, with 5% (that equals $ 400.01 Million) of the charitable contributions by corporations. Of these $ 400.01 Million banks contributed $ 120.14 Million what makes them the strongest supporter of the arts. 48

47 Baumol and Bowen, 1967, p.329
In 2004 nonprofit arts organizations in the US were able to cover 12 % of their expenses using funds from institutional private contributions, 3 % stem from business corporations.\textsuperscript{49} 36 % of corporations in the United States are engaged in arts funding, mostly for local arts organizations (the numbers are taken from the financial year 2003).

In Austria corporations are not as active in the arts and culture as in the United States, but the trend shows that more and more support comes from private companies. The Austrian initiative “Wirtschaft für Kunst” estimated the cultural support by firms to be as high as € 43Million. There is definitely a positive trend as from 1989 onwards until 2007 the private corporative funds to the arts have increased six times.

A survey among the top 500 business corporations in Austria showed that 43 % of the businesses do support the arts mostly financially (91 %) but also with services or know-how. \textsuperscript{51}

The first motive for corporations to support arts projects or institutions that comes to one’s mind is image building and reputation. But there are also less obvious reasons such as staff motivation and workspace improvement.\textsuperscript{52}

The optimization of the business location by improving the cultural infrastructure is often mentioned as an important factor for highly skilled job-seeking workers. Hence the company’s decision makers act in their own interest – as they are also dependent on the infrastructure in the corporation’s area - and in the interest of their corporation by making it more attractive for well educated and sophisticated employees to work for the firm. But it is not just the individuals that are attracted by a rich cultural landscape; “There is also evidence that other industries and services derive some prosperity from the arts.” \textsuperscript{53}

It should be mentioned that the simplifying model of rational behavior as an explanation for the donations made by corporations is not the end of the story. Empirical evaluations show that some industrial donors simply support what they think is worth to be supported and because they feel a responsibility for the arts and culture. Still, in the survey made by the Ifo-Institute in 1988 many firms participants pointed towards the public or other institutions such as foundations or cultural clubs as the ones in charge for cultural support. Of course there are corporations that do not have the financial means to support arts projects or have other priorities such as the support of social

\textsuperscript{49} NEA, 2007, p.1
\textsuperscript{50} NEA, 2007, p.20
\textsuperscript{51} \url{http://www.iwk.at/} (02.09.2009)
\textsuperscript{52} Berger and Hummel, 1988, p. 140
\textsuperscript{53} Baumol and Bowen, 1967, p.334
projects or sport institutions. Some insurance companies indicated further that they were not authorized to use the money of their clients for other purposes. This problem occurs for all firms that are listed on the stock market because they are supposed to act in the interest of the stock and shareholder which is to get high dividends and consequently high profit of the firm.

Business corporations are not the only private institutional supporters of the arts. Universities have always been engaged in the arts, using mainly non-financial ways of support. In general they support by awakening the students’ interest in the arts and in particular by offering professional training. A lot of Universities also established their own art scene by acting “as impresarios for visiting arts groups, and increasingly (they are) serving as homes for resident professional performing organizations.”

In Austria almost every University hosts an orchestra or chorus where students as well as alumni are active in the arts.

In the United States two thirds of institutional support comes from foundations (in 2004) that have been set up in large numbers since the 1930s when tax law made it attractive for well-off citizens to put their assets into foundations. There are estimations that American foundations are holding $ 400 Billion in total assets; the largest one is the Ford Foundation that is said to be worth $ 10.7 Billion of which $ 52.7 Million is generated for the arts, culture and humanities.

Given these numbers it is surprising that the influence of foundations is rather limited. There are only few foundations, such as the Ford, Carnegie, and Mellon Foundations, that have significant influence to the arts as a whole. Nevertheless, some smaller arts projects and groups might not have survived without the financial support of family foundations. The aim of a foundation is to give money once in order to help building up a project. While this might work for recipients that are able to cover their costs with their ordinary earnings, but most arts institutions are not in the financial position to do so. After the first three or five years the grant can usually be renewed but after this the project is expected to finance itself. Especially performing arts projects are hardly ever able to maintain their business without outside help, even if they are well-established.

Baumol and Bowen concluded in 1966 that “support for the arts (then) requires long-term commitments, not stopgap (temporary, A.R.) attempts to provide temporary stimuli.”

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54 Berger and Hummel, 1988, p.141-143
55 Baumol and Bowen, 1967, p.330
56 Baumol and Bowen, 1967, p.337
57 NEA, 2007, p.20
58 Baumol and Bowen, 1967, p.342
Nobody expects a corporation or foundation to commit itself to a livelong tie with an artistic project without acting in self-interest and ducking out in case of financial scarcity or other occurring problems. This is definitely a drawback of institutional support for the arts and can be seen as a direct disadvantage of private money compared to public subsidies.

2.1.3.2. Individual Support:

As most Western European countries do not offer incentives, i.e. tax deductions, individual support is not as common and as important as in the United States. From another point of view it can be reasoned that “Europeans may see charitable contributions as a function of their much higher general tax rates and not as something that they are expected to pay in addition to their taxes.”

In its 2007 published paper the American National Endowment for the Arts (NEA) estimated that 31% of the total expenses of nonprofit arts organization in 2004 were covered by donations received from private individual donors, compared to 13% that are covered by the public. Further data for the year 2005 showed that the citizens of America donated $13.5 Billion to “arts, culture and humanities” divided by the number of citizens this equals a private per capita donation of $45 per year.

The reason for the active involvement of American tax payers in the arts can be found in the easy tax deduction of donations to tax-exempt nonprofit organizations; in 1917 donations to nonprofit institutions have first been allowed to be deducted by individual tax payers.

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61 A handbook of cultural economics – Tax concessions, John O’Hagan, p.453
62 How the United States Funds the Arts, National Endowment for the Arts, January 2007, p.18f
2.1.4. Some Economic Indicators regarding Two Major Arts Institutions – The Wiener Staatsoper vs the Metropolitan Opera New York

The Wiener Staatsoper is open for the public since 1869 and was rebuilt in 1945 after parts of it have been destroyed in World War II. The famous building on the Ringstraße in Vienna is capable of an audience of up to 2209 people, with 1642 seats and a standing room for 567 visitors. In the season 2006/07 the opera house hosted 356 shows with seven new productions.

The Metropolitan Opera House in New York City has been founded by 65 businessmen in 1883 and has become the most important opera house of the United States. In 1966 the Met, as it is called among New York citizens and culture lovers all over the world, left its original home at the Broadway and moved to the Avery Fisher Hall which is part of the Lincoln Centre and has a capacity of 3788 seats.

In the season 2006/07 223 performances set place in the Metropolitan Opera House of which six were new productions.

2.1.4.1. Austria and the Wiener Staatsoper

Since 1999 the Staatsoper is part of the Bundestheater Holding alongside with the Burgtheater and the Volkstheater. The Bundestheater Holding is owned by the Austrian federal state and together with the Theaterservice GmbH forms the Bundestheaterkonzern of which the Austrian state holds only 51.1%.

The Austrian Bundestheater Holding employs 1060 artists and around 1170 technical personnel and, according to the “Kulturbericht 2007” from the Austrian ministry of culture, earned € 55.3 Million in 2005/06 and is therefore the world’s biggest performing arts business.

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63 Österreich Lexikon, Band II, p.427
64 Bundestheater Holding, 2007, p. 31
65 Brockhaus Nr. 14, p. 538 and Polyglott on tour, – New York, Christine Metzger, p. 42
66 The Metropolitan Opera, 2007, p.5
67 BMUKK, 2007, p.133
The Wiener Staatsoper accumulates the greatest part of its revenues from public grants, whereas other operating income is generated by box office sales and private contributions or subscription fees (€ 3,328,604.78). The private gifts from individuals and corporations only account for less than 17% of total contributions; the other 83% are coming from the public sector.  

Graph 5: Share of operating revenue by income source:

Source: Consolidated Financial Statement 2007/08 of the Wiener Staatsoper

The consolidated statement of activities discloses that the Wiener Staatsoper received € 52,211,787 from public means and € 3,328,605 from private donations in the fiscal year 2007/08. Together the
public and private (institutional and individual) contributions account for around 59 % of the operating revenues. Media income is the income that is generated by the purchase of audio and television broadcasting rights, whereas endowment income reflects the income from rent and leasing activities. As shown in the graph above the Wiener Opernball is an important source of income as the revenues of this event total to € 3,026,338. The visitors of the Opernball are for the most part highly profiled and well-off citizens that could be compared to private individual donors that show their allegiance to an arts institution with a yearly bequest. ⁶⁹

2.1.4.2. The United States of America and the Metropolitan Opera New York:

The Metropolitan Opera Association is a non-profit organization and is therefore exempted from the federal income tax. Furthermore, it has a wholly-owned subsidiary which develops and purchases software for other arts institutions and is a for-profit-company. The third pillar of the Metropolitan Opera Association is the Opera Endowment Trust whose purpose it is to support the activities of the Met⁷⁰. In the fiscal year 2006/07 the Trust transferred $ 1,713,754 to the Metropolitan Opera Association and received direct public grants of $ 4,241,586.⁷¹

Graph 6: Share of operating revenues by income source:

![Graph showing operating revenues by income source for the Metropolitan Opera New York.]


In the fiscal year starting August 1, 2006 and ending July 31, 2007 the Metropolitan Opera received a total of $ 113,552,000 from the government and private sponsors. This equals around 45 % of

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⁶⁹ Wiener Staatsoper, 2008
⁷⁰ The Metropolitan Opera,2007, p.39
⁷¹ Form 990, 2007
total revenues, which consist of box office income including tours (36 %), media income (2 %), endowment or investment income (8 %) and other income.

2.1.4.3 A Comparison of Economic Indicators:

Comparing the contributions received by the Metropolitan Opera House and the Wiener Staatsoper makes the different ways of sponsorship even more obvious. Whereas the Met generates 99.42 % of its contributions from private individuals and corporations or foundations, the private grants received by the Staatsoper only account for about 6 % of total contributions. The detailed numbers are of little interest, since the exchange rate between the US-Dollar and the Euro is not taken into account, and are only given to get an idea about the amount of money that moves from one pocket to the other. What is important, though, is the comparison of the percentages of public and private subsidies on total contributions.

Table 1:

<table>
<thead>
<tr>
<th></th>
<th>Wiener Staatsoper</th>
<th>%</th>
<th>Metropolitan Opera</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Subsidies</td>
<td>€52 211 787.00</td>
<td>94.01%</td>
<td>$ 656 000.00</td>
<td>0.58%</td>
</tr>
<tr>
<td>Private Individuals,</td>
<td>€3 328 604.78</td>
<td>5.99%</td>
<td>$ 112 896 000.00</td>
<td>99.42%</td>
</tr>
<tr>
<td>Corporations and</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foundations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sum</td>
<td>€55 540 391.78</td>
<td>100%</td>
<td>$ 113 552 000.00</td>
<td>100%</td>
</tr>
</tbody>
</table>


The Wiener Staatsoper receives around 94 % of its support from the public, whereas the Metropolitan Opera gets only 0.58 % of its grants from public organizations. These numbers show how different the two institutions are funded.

The Table 2 gives a more distinguished view about the method of financing; it shows how the Wiener Staatsoper and the Metropolitan Opera cover their expenses. In this table the revenues and expenses are given in Euros for both organizations to sketch the size and make them comparable.
Table 2: Share of expenses by income source

<table>
<thead>
<tr>
<th></th>
<th>Wiener Staatsoper (season 2007/08)</th>
<th>Metropolitan Opera New York (season 2007)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum of operating expenses</td>
<td>€ 97,582,913.87</td>
<td>€ 169,032,965.48</td>
</tr>
<tr>
<td>Revenues from box office, tours and program sales</td>
<td>€ 29,536,344.22</td>
<td>€ 63,997,594.79</td>
</tr>
<tr>
<td>→ share of operating expenses</td>
<td>30.27 %</td>
<td>37.86 %</td>
</tr>
<tr>
<td>Revenues from public support (government agencies)</td>
<td>€ 52,211,787.00</td>
<td>€ 464,063.38</td>
</tr>
<tr>
<td>→ share of operating expenses</td>
<td>53.51 %</td>
<td>0.27 %</td>
</tr>
<tr>
<td>Revenues from private support (individuals, corporations, foundations, organizations)</td>
<td>€ 3,328,604.78</td>
<td>€ 80,328,239.95</td>
</tr>
<tr>
<td>→ share of operating expenses</td>
<td>3.41 %</td>
<td>47.52 %</td>
</tr>
</tbody>
</table>


During the opera season 2007/08 the Staatsoper was able to cover 30.27 % of its operating expenses by its main business, i.e. the box office, tours and program sale income, which amounted to a total of almost € 30 Million. The Metropolitan Opera generated approximately € 64 Million via its main activities; that’s a share of 37.86 % of the operating expenses.

The received public grants cover 53.51 % of the Staatsoper’s expenses for one season but only 0.27 % of the Metropolitan’s expenses. The private support reverses this picture and indicates that the Metropolitan Opera can cover 47.52 % of its costs by the support of individuals, corporations, foundations and organizations whereas the Staatsoper is not able to cover more than 3.41 % of its expenditures using private grants.

According to the Financial Statement of the Metropolitan Opera the loss from operations before contribution activity (total operating revenues – total operating expenses) was 99.513 Mio $. The net contribution activities (contributions and bequests and net assets released from restrictions – fund-raising expenses) were 99.519 Mio $, and could therefore cover the loss from operations.
2.1.5. Culture and the Crisis:

In 2008 the financial market in the United States of America crashed due to foul credits, and initiated a global financial crisis that infiltrated all economic sectors. The cultural sector has been no exemption and accordingly, artistic and cultural institutions suffered from the lack of available means. Those projects that gained their funds mainly from private institutional or individual donors got into severer problems than the ones sponsored by the public. There are no thorough analytical papers or works about the impact on arts organizations yet but it appears quite logical that the problem of cultural sponsorship has increased during the financial crisis.

In general, public subsidies are quite stable and relatively independent of short-term economic fluctuations because the public administration can easily smooth their expenditures either by tax raises or by credit.

Private donations are strongly reliant on the stability of the money market. If banks do not give credits or only on very tough conditions private corporations and individuals will be the ones suffering of money scarcity. Assumingly it follows that cultural institutions will have problems gaining credits and, what might be even worse, the private donations might decrease, as their former private sponsors may as well have a hard time generating money. These theoretic assumptions and causalities are reflected by the reality of the arts and cultural sector. In the U.S. many small and middle range artistic projects have been and still are affected by a withdrawal of private (individual) donors. Bigger and more prestigious projects are also victims of the liquidity loss because many institutional grants came from banks and insurance companies (see “The 2008 Corporate Contributions Report”), that got hit by the financial crisis.

Some economists are a little more optimistic about the effects of the financial crisis on the cultural sector. This is for the reason that banks and insurance companies are using cultural sponsorship to increase brand awareness and improve their image, which is especially important in times where these institutions are made responsible for the international economic crisis. 72

The fact that the media is aware of and published several cases of bankruptcy among cultural and artistic institutions is a clear sign that the problem is existent and not just a theoretic thought. The growing number of business failures of arts organizations in America cannot be diminished to mere media panic and undermines the statements made above.

72 [http://www.dw-world.de/dw/0.,3724693.00.html](http://www.dw-world.de/dw/0.,3724693.00.html) (23.8.2009) – Cultural Sponsoring Untouched by Financial Crisis Woes
2.2. Methodological Background

2.2.1. Economic Effects and the Input-Output Analysis:

To estimate the economic effects of the cultural sector in general and of a specific cultural institution the Input-Output analysis is an appropriate instrument. The Input-Output table is part of the European System of Integrated Economic Accounts (ESA 95) that is required by the European Union from every member state at a five-year interval. Besides the symmetric Input-Output table, the supply and use table at basic prices and at prices of the preceding year has to be generated every year to reach the requisition of the European Union’s Input-Output statistics.

2.2.1.1. Wassily Leontief and the development of the Input-Output analysis:

The Input-Output analysis is based on the idea of the Russian Economist Wassily W. Leontief (1905-1999) who interpreted the economy as a cycle of preliminary goods and end products and wanted to show the effects of a change of output in one industry on other industries. For the design and, most important, the empirical application of the Input-Output system Leontief received the Nobel Prize in Economic Sciences in 1973, over thirty years after he first presented his methodological theory in the book “Structure of American Industry” (1941). \(^{73}\)

The Nobel Prize laureate was born in Munich on August 5 in 1905 (not 1906 as has been wrongly anticipated until the 90s) and grew up in St. Petersburg where his father was a professor for economics. Leontief studied at the University of Leningrad (now St. Petersburg) and the University of Berlin where he reached his P.h.D degree. After his studies in Berlin he moved on to Kiel to do research at the University. In 1931 he went to New York to work for the National Bureau of Economic Research and only one year later to Cambridge to teach at Harvard University. From 1975 until his death in 1999 he taught at the New York University where he became the director of the Institute of Economic Analysis in 1978.\(^{74}\)

Leontief was and still is highly respected among economists because he did not concentrate on economic theory alone but always had in mind the application of the theory to empirically measurable data. Paul A. Samuelson who was one of Leontief’s students at Harvard stated in “A portrait of the master as a young man” that “The whole world appreciated the genius of Wassisly W. Leontief. But we his disciples knew the full measure of his inspiration and potential”\(^\text{75}\).

The following schematic diagram shows the systematic approach of Leontief’s work and gives a general idea of the flow of expenditures in one economic unit or sector and its effects on employment, purchase power and tax revenues.

**Graph 7:**

This graph sketches the mind concept and idea behind the Input-Output system that Leontief implemented in the form of the Input-Output table for the USA by splitting its economy into 500 sectors and calculating the interdependence between the industries.

With the Input-Output analysis Wassily W. Leontief wanted to “combine empirical and theoretical. In Economics that combination requires mathematical concepts, such as systems analysis”\(^\text{76}\).

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\(^{75}\) Samuelson 2004, p.3

\(^{76}\) Foley, 1998, p.126
A very simplified example of a sector-by-sector Input-Output system can be found in the essay “Input-Output analysis” (1965) by Wassily Leontief:

Table 3:

<table>
<thead>
<tr>
<th>From</th>
<th>into</th>
<th>Sector 1: Agriculture</th>
<th>Sector 2: Manufacture</th>
<th>Sector 3: Households</th>
<th>Total Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sector 1: Agriculture</td>
<td>25</td>
<td>20</td>
<td>55</td>
<td>100 bushels of wheat</td>
<td></td>
</tr>
<tr>
<td>Sector 2: Manufacture</td>
<td>14</td>
<td>6</td>
<td>30</td>
<td>50 yards of cloth</td>
<td></td>
</tr>
<tr>
<td>Sector 3: Households</td>
<td>80</td>
<td>180</td>
<td>40</td>
<td>300 man years of labor</td>
<td></td>
</tr>
</tbody>
</table>

“Of the 100 bushels of farm products turned out by the Agriculture, 25 bushels were used up within the Agricultural sector itself, 20 were delivered to and absorbed, as one of its inputs, by Manufacture, and 55 were taken by the Household sector.”

Even though this is a very basic example with only three sectors and simple numbers it helps to understand the upcoming descriptions of the Supply and Use table as well as the Input-Output table.

2.2.1.2. Supply Table:

The Supply Table presents the national production at basic (manufacturing) prices and the imports at cif prices (cost, insurance and freight prices). The national production table is a good-by-activity (industry or economic sector) matrix and shows the goods that are produced within a certain activity. This means the principal diagonal of the matrix contains the value of the goods and services that are the main business of the concerned industry and the other fields are covering the side or non-characteristic products that are created within this economic activity or sector. Besides the production and imports, the supply table consists of columns that comprehend trade and transport margins as well as taxes less subsidies on goods. These components sum up to the total supply at purchasers’ prices and are illustrated for each good in the supply table’s last column.

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77 Leontief, 1965, p. 135
78 Leontief, 1965, p. 135

79 Following the definition of the OECD the cif price is “the price of a good delivered at the frontier of the importing country, including any insurance and freight charges incurred to that point, or the price of a service delivered to a resident, before the payment of any import duties or other taxes on imports or trade and transport margins within the country.” [http://stats.oecd.org/glossary/detail.asp?ID=332](http://stats.oecd.org/glossary/detail.asp?ID=332) (19.11.2009)
80 Statistics Austria, 2008 p.23
Table 4: Simplified supply table at basic prices and transformation to purchase prices

<table>
<thead>
<tr>
<th>Products</th>
<th>Industries</th>
<th>Imports (cif)</th>
<th>Total supply at basic prices</th>
<th>Trade and transport margins</th>
<th>Taxes less subsidies on products</th>
<th>Total supply at purchasers’ prices</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Output by product and by industry</td>
<td>Imports by product</td>
<td>Total supply by product</td>
<td>Trade and transport margins by product</td>
<td>Taxes less subsidies by product</td>
<td>Total supply by product at purchasers’ prices</td>
</tr>
<tr>
<td>Total</td>
<td>Total output by industry</td>
<td>Total imports</td>
<td>Total supply</td>
<td>0</td>
<td>Total taxes less subsidies</td>
<td>Total supply at purchasers’ prices</td>
</tr>
</tbody>
</table>

Source: CIRCA – a collaborative workspace with partners of the European Institutions

This is only a schematic demonstration of the supply table, which contains 57 different homogeneous sectors and goods for Austria. The field “Output by product and by industry” is actually a production matrix that contains the domestic output of each industry. The “Activities / industries” are supplied with “Goods” of their own sector and of other sectors and are therefore able to run production processes.

2.2.1.3. Use Table:

To show how many preliminary goods and services are necessary for a specific economic sector to run its production and to highlight the final demand for these factors the Use Table is published every year. Again a good-by-activity matrix is stressed, but contrary to the supply table the goods and services are valued at purchasers’ prices and the exports at fob prices (free on board prices).

Regarding the final demand a distinction between consumption, gross capital formation and exports is made. The consumption is again divided into three components: private consumption, state or public consumption and the consumption by non profit institutions serving households (NPISH). The gross capital formation is split into gross fixed capital, changes in inventories and net growth of valuables.

Additionally the use table points out how much value has been added to the intermediate goods and services during the production process of an industry, whereas each “component of value added, i.e.

---


82 The OECD defines the fob prices as follows: “The f.o.b. price (free on board price) of exports and imports of goods is the market value of the goods at the point of uniform valuation, (the customs frontier of the economy from which they are exported).” http://stats.oecd.org/glossary/detail.asp?ID=1009 (19.11.2009)
compensation of employees, other taxes less subsidies on production, net mixed income, net operating surplus and consumption on fixed capital is identified and presented.

Table 5: Simplified use table at purchase prices

<table>
<thead>
<tr>
<th>Industries</th>
<th>Final Consumption at purchase prices</th>
<th>Gross capital formation at purchase prices</th>
<th>Exports (fob)</th>
<th>Total use by product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Products</td>
<td>Intermediate consumption by goods and activities at purchase prices</td>
<td>Final consumption expenditures</td>
<td>Gross capital formation</td>
<td>Exports (fob)</td>
</tr>
<tr>
<td>Components of value added</td>
<td>Value added by component and by activity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Total inputs by industry</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: CIRCA – a collaborative workspace with partners of the European Institutions

2.2.1.4. Symmetric Input-Output Table:

The Input-Output table is called symmetric because the main part of it - a matrix that illustrates the amount of preliminary services or goods of one sector needed by another - is either presented as a product-by-product matrix or as an industry-by-industry matrix. Further parts of the Input-Output table show the categorized final demand of goods, the net tax rate for goods and the resulting preliminary services at purchaser’s prices, the value added, the production value, the imports and the sum of supply. “The Input-Output Tables in the product-by-product version show as intermediate consumption those product inputs which were necessary for manufacturing the entire supply of a particular product obtained through domestic production.”

85 Statistics Austria, 2008 p.27
Table 6: Simplified symmetric Input-Output table

<table>
<thead>
<tr>
<th>Products</th>
<th>Products</th>
<th>Final consumption at basic prices</th>
<th>Gross capital formation at basic prices</th>
<th>Exports (fob)</th>
<th>Total use by product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
<td>CIRCA – a collaborative workspace with partners of the European Institutions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The total supply by product</td>
<td>should equal the total use by product, so that for each industry the following formula holds:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output + Imports = Intermediate consumption + Final consumption expenditure + Gross capital formation + Exports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compared to the supply and use tables the Input-Output table does not reflect observable data but is based on various assumptions, i.e. technological characteristics and other information about the input structures of goods and services. Taking these assumptions for every good and industry into account, the symmetric Input-Output table is derived from the supply and use tables using complex analytical and mathematical methods.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2.2.1.5. Multipliers:

The multipliers in the context of the Input-Output Analysis estimate the overall economic effects of a market movement. However, they should not be mixed up with Keynes’ multiplier that calculates the effects of higher investments on the aggregated income.

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88 For more details about the technical and mathematical background see: Statistics Austria, 2008, p.58-64
The Input-Output statistics can show us the direct effects of an increase in final demand, which is the input that is necessary to produce a certain good or activity. However, what is of greater interest to economists is the sum of direct and indirect effects. These cumulative effects can be calculated with the help of multipliers, also known as the sum of the so called “Leontief Inverses”\(^9^9\). To get the matrix of “Leontief Inverses”, the inverse of a coefficient matrix, which is filled with the negative input coefficients of a product of a certain sector, is taken.

This formula\(^9^0\) is used by the Statistics Austria to calculate the multipliers:

\[
(I - B.D)^{-1}
\]

I → identity matrix  
B → preliminary coefficient matrix (share of preliminary goods on the total output of an activity - per activity)  
D → market share matrix (share of an activity on the total domestic production of a good - per good)

The matrix \((I-B.D)^{-1}\) is the product-by-product Leontief-Inverse and one element shows how much of one (intermediate) product has to be produced to secure that the final demand is supplied with one unit of another good. The sum of all these inverses for one good is the multiplier for this good and indicates how much of all goods (domestic and imported) is needed to deliver one unit of this good to the final demand.

The detailed explanation of the calculations behind these matrices would lead too far into the field of mathematical theory, but this is not the intention of the underlying work.\(^9^1\)

The multipliers are used to calculate the effects of an exogenous final demand or the increase of the same. It enables us to answer the question, what happens if the private households increase their consumption of a certain product. The direct effects – a higher production in the industry that produces the product – but also the indirect ones, created by the intermediate services and goods that the industry needs, are considered. This is not the end of the story as the preliminary industries also need inputs from other sectors to serve the demand of the industry that increased its demand in the first place. The interdependence of inputs increases the production more than the final demand of the households has increased at the beginning of the chain.

\(^9^9\) Statistics Austria, 2008 p.31  
\(^9^0\) Statistics Austria, 2008, p. 70  
\(^9^1\) To get the full mathematical methods behind the multipliers and the inverse matrices I recommend chapter 7 of the book Input-Output Economics by Wassily Leontief (1966), p.134-155
Statistics Austria publishes the following multipliers:

- **The production multiplier** - which can be divided into the multiplier for domestic production and the multiplier for imports;

  The higher the interdependence of an industry with other industries is, the higher the production multiplier of this industry will be.
  The production multiplier will always be at least 1 because if the final demand for a good is increased by one unit this must lead to a higher production increase of at least this additional unit. It seems obvious that the higher the domestic production multiplier is the higher is the importance of this sector for the economy within its home country.
  The domestic production multiplier is the value of the increase of domestic production that is caused by one additional unit produced in a certain sector.
  In 2005 the multiplier for domestic production for agriculture had the value 1.8188 in Austria. Therefore the domestic production of the whole Austrian economy would be € 1.8188 higher if the agricultural production would be expanded by € 1.
  The import multiplier shows how much preliminary goods and services have to be imported to extend the production by one unit.\(^\text{92}\)

- **The value added multiplier** - of which the multiplier for compensation of employees is revealed separately

  The value added multiplier specifies the direct and indirect domestic value added that is generated by delivering one unit of a good to the final consumer. A special characteristic of the value added multiplier is that together with the import multiplier (see previous paragraph) it adds up to one. The reason for this is that an enhanced demand can be divided into a domestic and a foreign value added (= imports).
  Furthermore the production of a good induces higher wages; the exact height of this increase can be estimated using the multiplier for compensation of employees.\(^\text{93}\)

- **The employment multiplier** - using the full-time equivalent

  This multiplier shows how much a raise of the final demand directly and indirectly increases the labor demand. The number 0.0086 for sector 1, Agriculture, predicates that an increase of delivered agricultural goods by € 1 Million induces 8.6 jobs in full-time equivalences.\(^\text{94}\)

\(^{92}\) Statistics Austria, 2009, p.31
\(^{93}\) Statistics Austria, 2009, p.31
\(^{94}\)
2.2.1.6. Calculation of Economic Effects:

The effects that can be calculated using the Input-Output system and reflecting the externalities of an industry or institution can be divided into two groups.

First, there are the direct and indirect effects generated by an economic action which add up to so-called primary effects. Second, the effects induced by a higher consumption following the primary effects can be summarized under the multiplier (consumption induced) effects.

Direct effects include employment expenditures (direct income effects), the number of employees (direct employment effects) and the revenues of an economic unit (direct revenues); whereas the demand for preliminary goods and services is known as indirect effects. The primary effects lead to higher employment or higher wages which result in a higher overall consumption in the economy. To measure the impact of the so-called consumption induced or multiplier effects the industry multipliers, calculated by using various assumptions about the production structure of a sector\(^95\), are implemented.\(^96\)

These effects can be calculated to illustrate the economic influence of an industry:

(i) **Value added effects**: the economic performance of a sector is the production value minus the preliminary services and goods that were needed to generate the whole output of that particular sector

(ii) **Employment effects**: every job that is generated or upheld due to the production of a certain sector is implied here

(iii) **Purchasing power effects**: personnel expenses less taxes, social insurance, private savings and foreign expenses yield the income that is used for consumption in the national economy

\(^94\) Statistics Austria, 2009, p.31
\(^95\) For further information see: Statistics Austria, 2008, p.70-73
\(^96\) IHS. 2008, p.6f
Fiscal effects are often mentioned in the same breath with the three effects stated above. In the empirical part of my work (Part III) I will calculate the economic and the fiscal effects separately, because I think that fiscal effects are not compatible with the definition of economic effects. The reason for this is that fiscal effects do not benefit private households over the economic cycle but over the redistribution by the state.
2.2.2. Fiscal effects:

In German the corresponding term to “fiscal effects” is “Umwegrentabilität” or “Nettoübertragungsrate”. Translated literally the first term means “detour or loop way profitability”. This phrase describes the fact that part of the public money that is invested into needy institutions or businesses flows back to treasury due to taxation and social security payments. In other words, public expenditures are compared to the reflow from taxes and social security contributions. The second term, “Nettoübertragungsrate” means “net transition rate” and points out the fact that the taxes and other payments are subtracted from the original flow of grants.

Sometimes the phrases indirect financing or indirect effects can be found in literature to describe the same process; however, these terms are misleading because they are likely to be confused with the indirect effects that are dealt with in 2.1.6), which are externalities that stem from a higher demand of preliminary goods and services following a higher final demand for a certain good.

2.2.2.1. Taxes and social Security Contributions:

Taxes are defined as “a compulsory contribution to state revenue, levied by the government on personal income and business profits or added to the cost of some goods, services, and transactions” and comes from the Latin verb “taxare” which means “to censure, charge, compute”. ⁹⁷

(i) Income tax:

The personal income tax in Austria is split into to parts; one part is paid for by the employee for revenues from professional and trading or self-employed activity, as well as earnings from agriculture and forestry, whereas the employer is in charge of the other part, the earnings tax. In Austria there are four income categories that are taxed differently. It starts at 10 % for the lowest income level and goes up to 50 % for the highest income quarter. In fact the highest paid tax rate is lower due to a flat rate of 6 % for Christmas and holiday bonuses. Furthermore, the

base at which the income tax is calculated is the income after the social insurance payments and expenditures for professional causes have been deducted from the original income. This and the fact that there are various other special allowances for deductions, brings the Austrian average tax rate down to 9 % for the tax that has to be paid by the employee and 12 % for the employer.\textsuperscript{98} These rates can be misleading because for the fiscal effects the average rate on taxable income is decisive. In Austria the average tax rate on taxable income has been estimated by the Statistics Austria to be 31.9 % for the year 2006 (latest number available).

(ii) Corporate tax:

In Austria corporations and associations are exempted from the income tax but they are subject to the so called “Körperschaftssteuer”, the corresponding English term would be corporate income tax. This tax is, in contrast to the income tax, a flat tax that is the same for every generated profit. Since 2005 the tax on corporate income in Austria is 25 %, until then the flat rate was at 35 %. The calculation base for the tax rate is the annual profit according to the financial statement of a corporation.\textsuperscript{99}

(iii) Sales tax:

A sales or value added tax (VAT) is a tax on the consumed goods and services which is usually included in the price the consumer pays. The treasury collects the VAT from the seller of a product but the actual tax burden lies on the consumer because the tax is usually included in the price of the good or service. The rate in Austria is “10% on food, books, theatrical and cultural events, artistic activity, domestic passenger transportation, rentals for private residential use (including hotel rooms), etc., and at 20% for everything else.”\textsuperscript{100}

\textsuperscript{100} http://location-austria.at/ (16.12.2009)
(iv) Social insurance for employees:

There are four different parts of social insurance in Austria that have to be paid to some degree by the employer and to some degree by the insured employee himself. The social insurance for employees is a compulsory insurance for every employed person in Austria.

Table 7:

<table>
<thead>
<tr>
<th></th>
<th>Blue-collar worker</th>
<th>White-collar worker</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health insurance</strong></td>
<td>7.65% (employees: 3.7%</td>
<td>7.65% (employees: 3.83%</td>
</tr>
<tr>
<td></td>
<td>Employers: 3.95%)</td>
<td>employers: 3.82%)</td>
</tr>
<tr>
<td><strong>Industrial injuries insurance</strong></td>
<td>1.4% (only employers)</td>
<td>1.4% (only employers)</td>
</tr>
<tr>
<td><strong>Pensions insurance</strong></td>
<td>22.8% (employees: 12.55%</td>
<td>22.8% (employees: 12.55%</td>
</tr>
<tr>
<td></td>
<td>Employers: 10.25%)</td>
<td>employers: 10.25%)</td>
</tr>
</tbody>
</table>

Source: Versicherungsverband Österreich

The forth part of the social security system is the unemployment insurance which is treated separately because it is not handled by the “Hauptverband der österreichischen Sozialversicherungsträger”, the Holding of 22 social security agencies that cover pensions and the risks of illness and injury.

The unemployment insurance is administered and executed by the “Arbeitsmarktservice” and is split into 3% paid by the employee and 3% by the employer.

What is most important in the context of the fiscal effects is the tax burden an institution or corporation has to pay. This amount of money flows back to the public and is a very important income source for the state. Taxes are instruments to redistribute wealth; this is especially true for the social security insurance that distributes money directly to the ones in urgent need.

In taxation theory another reason for the collection of taxes is that it is an instrument for the state to regulate certain sectors, such as the financial market.

2.2.2.2. Calculation of Fiscal Effects:

The question we are interested in is how high the returns in form of taxes and social security contributions to the state – including federal government, federal states and municipals – are.

The proper method to answer this question is to compare the public expenditures to the returns from taxes and social securities.\(^\text{102}\)

The same thing can of course be done for single sectors, such as the sector for arts and culture. For this purpose the public subsidies for arts and culture are compared with the returns of cultural institutions that received public support. The comparison of certain cultural institutions in Austria will be done at the end of this paper.

What should be kept in mind is that also the preliminary and processing sectors pay taxes and social security contributions that are adding a high amount to the tax gains of the state.

The analysis of the fiscal effects of the preliminary and processing sectors is much more complicated because a very clear definition of these sectors has to be drawn. In this work the focus concentrates on the core field of culture and public.

Illustration of the calculation method:

In a study for the German Interior Ministry published in 1988 the impact of public subsidies to cultural institutions on the public budget has been demonstrated using the following model\(^\text{103}\):

It is assumed that the expenses for public theaters is raised by DM 100 Million, 20% of this can be financed by the theaters via box office revenues, the remaining 80% are covered by the state.

From the point of view of the state the expenditures of DM 80 Million have to be compensated with tax gains. In the model a tax rate of 17.6% (from 1986) on gross income and salaries is used. The sales tax is supposed to be 12% (weighted median), corporate revenues and profit from property are taxed with 35%.

Without social security payments the state earns DM 16 Million from tax gains, additional DM 2 Million are generated via the increase of private consumption. This is due to the positive external effects of an increase of expenditures, i.e. higher employment and higher private income.

As a result the financial deficit of DM 80 Million is reduced to DM 62 Million.

\(^{102}\) Berger and Hummel, 1988, p.3

\(^{103}\) Berger and Hummel, 1988, p.13f
Considering the gains from social security contributions which are DM 24 Million (rates of 1987), the original public expenditures of DM 80 Million are diminished to DM 38 Million. This equals a reduction of 53% of the theater expenses which can be refinanced with the tax returns from the theaters.

Of course, any other use of public means could generate the same or maybe even higher returns. Furthermore this kind of analysis does not take effects on other economic factors, such as capital investments, in consideration.
2.2.3. Results of the study from the Austrian Institute for Advanced Studies (January 2008)\textsuperscript{104}:

I will now make use of the methods that were introduced in the preceding chapters, i.e. the multipliers, to analyze the results of the study of the Institute for Advanced studies. The Institute for Advanced Studies (IHS), Vienna, analyzed the impact of the Bundestheater Holding and its subsidiaries, the Burgtheater GmbH, the Wiener Staatsoper GmbH, the Volksoper Wien GmbH, the Theaterservice GmbH and the ART for ART Kreativ-Werkstätten GmbH. The effects have been calculated for the financial year 2005/06 and in my work the effects of the expenditures of the Wiener Staatsoper GmbH are presented according to the calculation done by the staff of the IHS.

To distinguish between the federal states, Vienna and the federal state a regional Input-Output table is needed because they show the effects on a regional scale and the smaller the economic unit the more imports and exports are generated. The multipliers that are calculated from these regional tables have the vices that they only show the intra-regional effects (the effects within a region) but not the effects on other regions or the state. To track down the effects between the single regions (here the federal states) a multi-regional Input-Output table has been developed, and inter-regional multipliers have been derived.\textsuperscript{105}

In the IHS-study the direct and indirect effects of the visitors of the theatres have also been calculated but this work concentrates on the effects of the expenditure of arts and cultural institutions and not on the effects of the expenditures of the visitors of these institutions.

In the fiscal year 2005/06 the Staatsoper in Vienna invested € 11 Million, had € 24 Million tangible expenses, € 63 Million personnel expenses and € 8.8 Million amortization costs. The total number of employees was 931.

\textsuperscript{104} IHS, 2008
\textsuperscript{105} Statistics Austria, 2008, p.6f
The following results have been calculated\textsuperscript{106}.

The expenditures of the Wiener Staatsoper GmbH generated a total value added of around € 115 Million in Vienna, € 72 Million can be interpreted as direct and € 21 Million as indirect effects. The higher consumption induced further € 22 Million. A value added effect of more than € 5 Million has been generated in the federal states. The sum of the federal states and Vienna amounts to the value added in Austria as a whole, € 121 Million. The part of the value added that is due to foreign preliminary goods and services induced almost € 18 Million abroad.

The employment effects of the Wiener Staatsoper GmbH that can be put down to the expenditures of the fiscal year 2006/07 were calculated to be 1802 employment years per person for Vienna, 144 for the other states and 307 in other countries. Respectively the employment effect in Austria was 1946. Again the distinction between direct, indirect and induced effects is made and is presented in Table 8. The full-time equivalent to the calculated employment years per person point out how many full-time jobs (40 hours per week) are equivalent to the jobs that could be generated or secured due to the expenditures of the Staatsoper. The effects on the full-time equivalent employment years were 1658 for Austria and 253 abroad.

As an effect of the activities of the Staatsoper a purchasing power of € 35 Million was generated in Austria, of which € 34 Million stayed in Vienna.

The public collects taxes at three levels, state, federal states and municipals. Besides the taxes the social security payments increase the federal income. The taxes and the social security payments sum up to the overall fiscal effects.

Over all levels the expenditures of the Wiener Staatsoper led to more than € 57 Million public earnings. The greatest part, € 28 Million, stems from social security contributions, € 21 Million were collected by the federal government, around € 3 Million in Vienna and € 6 Million in the remaining federal states and the municipals.

\textsuperscript{106} Statistics Austria, 2008, p.36
Table 8:

<table>
<thead>
<tr>
<th></th>
<th>direct</th>
<th>indirect</th>
<th>induced</th>
<th>sum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Value added in Mio €</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vienna</td>
<td>71.1</td>
<td>21.3</td>
<td>22.3</td>
<td>115.2</td>
</tr>
<tr>
<td>other fed. States</td>
<td>0.0</td>
<td>3.5</td>
<td>1.8</td>
<td>5.3</td>
</tr>
<tr>
<td>Austria</td>
<td>71.7</td>
<td>24.7</td>
<td>24.1</td>
<td>120.5</td>
</tr>
<tr>
<td>Foreign</td>
<td>0.0</td>
<td>11.7</td>
<td>6.1</td>
<td>17.8</td>
</tr>
<tr>
<td>Sum</td>
<td>71.7</td>
<td>36.4</td>
<td>30.2</td>
<td>138.3</td>
</tr>
</tbody>
</table>

| **Employment years per person** |        |          |         |      |
| Vienna         | 1065   | 350      | 387     | 1802 |
| Other fed. States | 0      | 64       | 80      | 144  |
| Austria        | 1065   | 414      | 467     | 1946 |
| Foreign        | 0      | 188      | 119     | 307  |
| Sum            | 1065   | 601      | 586     | 2253 |

| **Employment years per full-time equivalent** |        |          |         |      |
| Vienna         | 931    | 305      | 322     | 1558 |
| other fed. States | 0      | 56       | 44      | 100  |
| Austria        | 931    | 361      | 366     | 1658 |
| Foreign        | 0      | 164      | 89      | 253  |
| Sum            | 931    | 526      | 455     | 1912 |

| **Purchasing power in Mio €** |        |          |         |      |
| Vienna         | 26.3   | 4.2      | 3.2     | 33.6 |
| Other fed. States | 0.0    | 0.8      | 0.4     | 1.2  |
| Austria        | 26.3   | 5.0      | 3.6     | 34.8 |

| **Fiscal effects in Mio €** |        |          |         |      |
| Social security | 20.5   | 3.9      | 3.4     | 27.8 |
| State          | 13.4   | 2.2      | 5.1     | 20.8 |
| Vienna         | 2.2    | 0.4      | 0.6     | 3.1  |
| other fed. States | 2.2    | 0.4      | 0.8     | 3.4  |
| other municipals | 1.5    | 0.3      | 0.6     | 2.4  |
| Austria        | 39.8   | 7.1      | 10.6    | 57.4 |

Source: IHS, 2008\(^{107}\)

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\(^{107}\) IHS, 2008
3. Empirical Evaluations
3.1. Data on the Arts and Culture in Austria

3.1.1. Public Cultural Expenditures in Austria:

Since 2000 the major part (in 2007 67.6 %) of public subsidies has been received by the sectors Performing Arts, Education and training and Museums, archives and science. This outcome is not very surprising since a great number of Austrian theatres and museums have been state-owned for a long time and many staff members of these institutions are still employed by the state. Furthermore the federal state holds more than 50 % of the Bundestheaterkonzern which is the parent company of the most important theatres in Austria, the Burgtheater, the Wiener Staatsoper and the Volksoper Wien.

The relation between the two most promoted sectors, Performing Arts and Education and Training, has been reversed over the examined period. The height of the grants for Performing Arts has been relatively stable - from € 174.1 Million in 2000 to € 176.01 Million in 2007 - whereas the subsidies for Education and Training were raised from € 141.39 Million to € 207.06 Million in the same amount of time.

The federal government’s cultural expenditures from 2000 until 2007 using the LIKUS-categories are presented in the following table:\footnote{108}

Table 9:

<table>
<thead>
<tr>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sum</strong></td>
<td>660.81</td>
<td>699.76</td>
<td>710.77</td>
<td>680.23</td>
<td>700.55</td>
<td>714.26</td>
<td>710.67</td>
</tr>
<tr>
<td>Museums, archives and science</td>
<td>109.96</td>
<td>107.43</td>
<td>111.14</td>
<td>112.09</td>
<td>108.88</td>
<td>118.92</td>
<td>116.42</td>
</tr>
<tr>
<td>Building culture heritage</td>
<td>88.45</td>
<td>96.21</td>
<td>129.69</td>
<td>109.65</td>
<td>105.84</td>
<td>105.93</td>
<td>99.27</td>
</tr>
<tr>
<td>Folk culture, historical &amp; traditional customs</td>
<td>0.59</td>
<td>0.58</td>
<td>0.48</td>
<td>0.57</td>
<td>0.43</td>
<td>0.41</td>
<td>0.50</td>
</tr>
<tr>
<td>Literature</td>
<td>7.35</td>
<td>7.25</td>
<td>7.67</td>
<td>7.98</td>
<td>8.00</td>
<td>8.15</td>
<td>7.96</td>
</tr>
<tr>
<td>Librarianship</td>
<td>20.80</td>
<td>26.65</td>
<td>27.31</td>
<td>26.51</td>
<td>27.37</td>
<td>19.00</td>
<td>18.84</td>
</tr>
</tbody>
</table>

\footnote{108 Statistics Austria 2009}
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Music</td>
<td>9.65</td>
<td>12.18</td>
<td>12.58</td>
<td>8.65</td>
<td>8.69</td>
<td>8.86</td>
<td>9.31</td>
<td>9.90</td>
</tr>
<tr>
<td>Performing arts</td>
<td>174.10</td>
<td>175.27</td>
<td>173.04</td>
<td>173.25</td>
<td>173.41</td>
<td>178.51</td>
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<tr>
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<td>13.86</td>
<td>14.74</td>
<td>15.03</td>
<td>15.96</td>
<td>16.03</td>
<td>19.07</td>
</tr>
<tr>
<td>Radio and television</td>
<td>9.61</td>
<td>6.55</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Cultural initiatives and centers</td>
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<td>5.62</td>
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<td>24.25</td>
<td>23.38</td>
<td>25.04</td>
<td>26.07</td>
<td>27.07</td>
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<tr>
<td>Major events</td>
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<td>36.32</td>
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<td>14.70</td>
<td>13.71</td>
<td>19.28</td>
<td>12.56</td>
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<td>Others</td>
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<td>4.94</td>
<td>4.47</td>
<td>6.80</td>
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**in %**

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<th>100.0</th>
<th>100.0</th>
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<td>Museums, archives and science</td>
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<td>15.6</td>
<td>16.5</td>
<td>15.5</td>
<td>16.6</td>
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<td>Building culture heritage</td>
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<td>16.1</td>
<td>15.1</td>
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<td>14.0</td>
<td>14.3</td>
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<td>0.1</td>
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<td>0.1</td>
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<td>1.1</td>
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<td>Librarianship</td>
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<td>3.8</td>
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</tr>
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<td>2.2</td>
<td>2.3</td>
<td>2.5</td>
<td>2.2</td>
<td>2.2</td>
<td>2.1</td>
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<tr>
<td>Music</td>
<td>1.5</td>
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<tr>
<td>Performing arts</td>
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<td>24.8</td>
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<td>24.7</td>
<td>23.7</td>
</tr>
<tr>
<td>Fine arts, photography, architecture, design</td>
<td>1.1</td>
<td>1.2</td>
<td>1.1</td>
<td>1.4</td>
<td>1.3</td>
<td>1.2</td>
<td>1.3</td>
<td>1.2</td>
</tr>
<tr>
<td>Movie, cinema, video</td>
<td>1.9</td>
<td>2.2</td>
<td>2.0</td>
<td>2.2</td>
<td>2.1</td>
<td>2.2</td>
<td>2.3</td>
<td>2.6</td>
</tr>
<tr>
<td>Radio and television</td>
<td>1.5</td>
<td>0.9</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cultural initiatives and centers</td>
<td>0.7</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Education and training</th>
<th>21.4</th>
<th>20.8</th>
<th>21.9</th>
<th>22.4</th>
<th>25.3</th>
<th>25.5</th>
<th>26.0</th>
<th>27.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult education</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>International cultural exchange</td>
<td>4.8</td>
<td>4.5</td>
<td>4.3</td>
<td>3.6</td>
<td>3.3</td>
<td>3.5</td>
<td>3.7</td>
<td>3.6</td>
</tr>
<tr>
<td>Major events</td>
<td>1.8</td>
<td>5.2</td>
<td>1.6</td>
<td>2.0</td>
<td>2.1</td>
<td>1.9</td>
<td>2.7</td>
<td>1.7</td>
</tr>
<tr>
<td>Others</td>
<td>1.8</td>
<td>1.2</td>
<td>1.1</td>
<td>0.7</td>
<td>0.6</td>
<td>1.0</td>
<td>0.8</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Source: Statistics Austria 2009; including intergovernmental transfer payments

3.1.2. Employees in the Sector of Arts and Culture:

An indicator for the importance of a sector to the economy is the number of people that find jobs in this sector. Part of the justification of public grants for artistic projects and institutions is that the government wants to secure jobs that would get lost in case of bankruptcy. The jobs that are secured in the preliminary and processing sectors are not even considered here even though they would strengthen the argument.

Table 10: Employment in the cultural sector (in thousands)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed persons in the Cultural sector</td>
<td>3506.1</td>
<td>3532.6</td>
<td>3576.0</td>
<td>3597.0</td>
<td>3628.3</td>
<td>3675.3</td>
<td>3704.4</td>
<td>3744.0</td>
<td>3824.4</td>
<td>3928.3</td>
<td>4027.9</td>
</tr>
<tr>
<td>Employed persons in the Cultural sector as percentage of overall employment</td>
<td>1.36 %</td>
<td>1.34 %</td>
<td>1.01 %</td>
<td>1.38 %</td>
<td>1.37 %</td>
<td>1.49 %</td>
<td>1.55 %</td>
<td>1.54 %</td>
<td>1.35 %</td>
<td>1.50 %</td>
<td>1.51 %</td>
</tr>
</tbody>
</table>

Source: Statistics Austria, 2009

In 2007 60.7 Thousand persons were employed in the arts and cultural sector, this is a share of 1.5% on the overall employment in Austria.
The share of persons that are employed in the cultural sector increased almost steadily since 1999, when it fell to a low of 1.01%. In 2005 the ratio dropped from 1.54% in 2004 to 1.34% but recovered in the following year. The highest share was reached in 2003 with 1.55%.\textsuperscript{109}

\subsection*{3.1.3. Visitors of the Leading Performing arts Institutions in Vienna:}

All over the world Vienna is known for its grand cultural institutions such as the Staatsoper, the Burgtheater or the Concert of the Vienna Philharmonics on New Years day. It is not necessary to point out that these organizations and events are a major attraction for tourists and therefore an important economic factor for the capital of Austria. The number of visitors underlines the fact that the demand for arts and culture is and has been very high.

\textsuperscript{109} Statistics Austria 2009
Table 12:

<table>
<thead>
<tr>
<th>Season</th>
<th>Staatsoper</th>
<th>Volksoper</th>
<th>Burgtheater</th>
<th>Akademietheater</th>
<th>Theater i. d. Josefstadt</th>
<th>Volkstheater</th>
<th>Raimundtheater</th>
<th>Theater an der Wien</th>
<th>Ronacher</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980/81</td>
<td>584215</td>
<td>412660</td>
<td>354323</td>
<td>150295</td>
<td>272957</td>
<td>219650</td>
<td>216504</td>
<td>202529</td>
<td></td>
<td>2,413,133</td>
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<tr>
<td>1985/86</td>
<td>602461</td>
<td>401913</td>
<td>362697</td>
<td>142346</td>
<td>248893</td>
<td>323973</td>
<td>179940</td>
<td>424378</td>
<td></td>
<td>2,68, 601</td>
</tr>
<tr>
<td>1990/91</td>
<td>588666</td>
<td>405969</td>
<td>284544</td>
<td>139155</td>
<td>262979</td>
<td>255782</td>
<td>371424</td>
<td>230235</td>
<td>73336</td>
<td>2,61, 090</td>
</tr>
<tr>
<td>1995/96</td>
<td>613333</td>
<td>367431</td>
<td>217704</td>
<td>141172</td>
<td>265077</td>
<td>265809</td>
<td>330994</td>
<td>269676</td>
<td></td>
<td>2,471,196</td>
</tr>
<tr>
<td>1996/97</td>
<td>637967</td>
<td>355961</td>
<td>292489</td>
<td>134565</td>
<td>244819</td>
<td>278471</td>
<td>353991</td>
<td>277117</td>
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<td>2,575,380</td>
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<tr>
<td>1997/98</td>
<td>627702</td>
<td>359994</td>
<td>269636</td>
<td>143701</td>
<td>243238</td>
<td>276934</td>
<td>304407</td>
<td>255486</td>
<td>5355</td>
<td>2,486,453</td>
</tr>
<tr>
<td>1998/99</td>
<td>629702</td>
<td>337584</td>
<td>258807</td>
<td>140489</td>
<td>236062</td>
<td>297362</td>
<td>366283</td>
<td>273602</td>
<td>248526</td>
<td>2,788,417</td>
</tr>
<tr>
<td>1999/00</td>
<td>596357</td>
<td>303456</td>
<td>264241</td>
<td>92338</td>
<td>238491</td>
<td>279767</td>
<td>366487</td>
<td>150167</td>
<td>177986</td>
<td>2,469,290</td>
</tr>
<tr>
<td>2000/01</td>
<td>620436</td>
<td>297227</td>
<td>255801</td>
<td>123761</td>
<td>195848</td>
<td>274566</td>
<td>286295</td>
<td>267515</td>
<td>111060</td>
<td>2,432,509</td>
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<td>2001/02</td>
<td>612755</td>
<td>303107</td>
<td>279952</td>
<td>120349</td>
<td>198570</td>
<td>234321</td>
<td>302276</td>
<td>235934</td>
<td>175719</td>
<td>2,462,983</td>
</tr>
<tr>
<td>2002/03</td>
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<td>285019</td>
<td>265946</td>
<td>129945</td>
<td>186893</td>
<td>215083</td>
<td>259564</td>
<td>232451</td>
<td>114463</td>
<td>2,296,706</td>
</tr>
<tr>
<td>2003/04</td>
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<td>320641</td>
<td>281604</td>
<td>129345</td>
<td>169140</td>
<td>244901</td>
<td>227686</td>
<td>219657</td>
<td>101370</td>
<td>2,313,792</td>
</tr>
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<td>2004/05</td>
<td>623046</td>
<td>296787</td>
<td>293757</td>
<td>122636</td>
<td>180515</td>
<td>198182</td>
<td>193936</td>
<td>273132</td>
<td>155382</td>
<td>2,337,373</td>
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<td>280520</td>
<td>285422</td>
<td>119923</td>
<td>181667</td>
<td>205847</td>
<td>300048</td>
<td>228186</td>
<td>44953</td>
<td>2,250,316</td>
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<tr>
<td>2006/07</td>
<td>608195</td>
<td>289721</td>
<td>298105</td>
<td>118566</td>
<td>170945</td>
<td>208740</td>
<td>306559</td>
<td>99209</td>
<td></td>
<td>2,100,040</td>
</tr>
</tbody>
</table>

Source: Statistics Austria 2009

This table shows the visitors of some selected performing arts institutions in Vienna. It should be noted that in some years the number of visitors dropped due to building or construction works. In 2006/07 the Bundestheater could augment its visiting numbers by 1.9 % compared to the previous year. The strongest increase was generated by the Burgtheater with 4.4 %, followed by the Volksoper with 3.3 %.

All theatres of the Bundestheater Holding attracted 1.315 Million visitors in 2006/07 and therefore accounts for 22.5 % of the overall Austrian theatre visitors, which were 5.872 visitors for all theatre and concert attendees. The biggest institution in regard to visitors is the Staatsoper in Vienna with 608195 visitors in 2006/07.

Over all the sum of visitors of these selected theatres dropped slightly since the season 2004/05 but still adds up to over 2 Million visitors.110

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110 Statistics Austria, 2009
3.2. Economic Effects

This part of the work will show the results of an Input-Output analysis using the financial statement of the Wiener Staatsoper GmbH from the fiscal year 2007/08 and the multipliers according to the national Input-Output table 2005 that is published by the Statistics Austria.

The analysis in this chapter relies on the availability of data and is therefore a basic example of how to undertake an Input-Output analysis, rather than a full study of the economic effects. However, the result will draw a very distinguished picture of the primary effects, the purchasing effects and the consumption induced effects of the Wiener Staatsoper on the Austrian economy.

(i) Primary effects:

The multipliers that are used to examine the expenditures of the Staatsoper can be used for every institution that is included in sector 92, which encompasses cultural, sports and entertainment services. In Table 13 the multipliers for the year 2005 are presented.

The multiplier for domestic production and imports for the examined sector is 1.8098. Hence, to produce cultural services of € 1 Million preliminary services and goods worth € 1.8098 Million have to be produced domestically or imported from abroad.

The multiplier for domestic production of 1.533 shows that € 1 Million output of sector 92 induces € 1.533 Million of production in the national economy.

To deliver services of € 1 Million to the final demand generates direct and indirect value added effects in Austria as high as € 868100; this is the value of the (domestic) value added multiplier. The import multiplier (or foreign value added multiplier) is 0.1319, and adds a value of € 131900 to the domestic value added.

---

111 Statistics Austria, 2000
As part of the value added multiplier the **multiplier of compensation of employees** is calculated in the Input-Output analysis. In 2005 this multiplier was 0.422, so expenses of € 1 Million in the cultural sector generate € 422000 salaries and wages.

### Table 13: Multipliers (2005)

<table>
<thead>
<tr>
<th></th>
<th>Production multiplier (domestic production and Imports)</th>
<th>Production multiplier (domestic production)</th>
<th>Import multiplier (foreign value added)</th>
<th>Value added multiplier (domestic)</th>
<th>of which: Multiplier of compensation of employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural, sports and entertainment services</td>
<td>1.8098</td>
<td>1.533</td>
<td>0.1319</td>
<td>0.8681</td>
<td>0.422</td>
</tr>
</tbody>
</table>

Source: Statistics Austria

**Calculations for the Staatsoper (Table 14):**

In the fiscal year 2006/07 he Wiener Staatsoper spent € 1.38 Million on material and other services, as well as € 0.66 Million on wages and € 51.9 Million on salaries. In sum the tangible and personnel expenses reached around € 53.4 Million.

The direct and indirect gross domestic production effects of the domestic production and the imports have been calculated using the production multiplier from the previous table and summed up to over € 100 Million, of which the effects on the Austrian economy were € 84 Million. The primary effects of the value added, foreign and domestically, € 7.3 Million and accordingly € 48.1 Million, added up to around € 55.4 Million. In sum the direct and indirect effects on the economy generated by the expenditures of the Wiener Staatsoper GmbH were € 293.1 Million.

This value does not take other important effects into account, such as the consumption induced effects or the jobs that could be secured or generated through the activities of the Staatsoper. As mentioned before, impact studies often include the effects that are generated by the visitors, national or from abroad, of cultural institutions. For a very detailed analysis of this field the study of the IHS on the economic effects of the Bundestheater Holding can be recommended.
Table 14: Primary effects (in €)

<table>
<thead>
<tr>
<th></th>
<th>Expenses: domestic and foreign gross production effect</th>
<th>domestic gross production value</th>
<th>foreign value added</th>
<th>domestic value added</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material:</td>
<td>1 383 444.08</td>
<td>2 503 757.10</td>
<td>2 120 819.77</td>
<td>182 476.27</td>
<td>7 391 465.03</td>
</tr>
<tr>
<td>Wages:</td>
<td>66 123.42</td>
<td>119 670.17</td>
<td>101 367.20</td>
<td>8 721.68</td>
<td>353 284.21</td>
</tr>
<tr>
<td>Salaries:</td>
<td>51 895 216.46</td>
<td>97 611 017.29</td>
<td>82 681 892.75</td>
<td>7 113 986.73</td>
<td>286 122 824.96</td>
</tr>
<tr>
<td>Sum</td>
<td>53 344 783.96</td>
<td>100 234 444.55</td>
<td>84 904 079.73</td>
<td>7 305 184.68</td>
<td>293 867 574.20</td>
</tr>
</tbody>
</table>

(ii) Purchasing power:

To calculate the purchasing power it is necessary to calculate the available income and the savings rate. The available income is the gross income less the taxes and other contributions the employees have to pay. From the resulting available income the part of the income that is saved has to be subtracted to get the actual purchasing power. The savings rate that is used is the average value of the savings rate of all private households and private non-profit organizations and is published annually by the Statistics Austria. The net savings rate is the ratio between the net savings and the total available net income plus the sum of annuity claims paid by the employer. In Austria the average net savings rate was 12%, which means that 12% of the total available income has been saved by the Austrian citizens.

The average tax rate on salaries in Austria has been calculated up to the year 2006 and is 31.9% of the taxable income. As long as there are no major changes in fiscal law the average tax rate is relatively stable and therefore the value of 2006 can be used for the salaries of 2007. The available wages are burdened with an average rate of 14.6%, and 12.8% for social security contributions.\textsuperscript{112}

According to these numbers the employees of the Wiener Staatsoper GmbH can dispose over an income of € 35,355,620.11 from the salaries and € 48,002,96305 from wage payments. These values stem from the fact that the taxes on salaries are € 16,539,596.35 and taxes on wages € 18,120.46, according to the average taxes on income in Austria.

The disposable income of the Wiener Staatsoper’s workers is therefore € 35,403,623.1. With an average savings rate for Austria of 12% the private purchasing power induced by the activities of the Staatsoper is € 31,155,188.3.

\textsuperscript{112} The average tax rates were calculated on the base of the salary tax and wage tax statistic published by Statistic Austria in 2009
(iii) Consumption induced effects:

The private consumption of goods and services starts a new chain of direct and indirect effects. The goods that are consumed additionally need to be produced and therefore the supply of these goods rises. This again induces more production in the sectors that deliver preliminary goods to the sectors that had to increase their production due to more consumption. These effects are called the final demand effects and special multipliers can be generated to estimate the effects of an increase of final demand.

These multipliers (again the production, value added, and the compensation of employment multiplier) are calculated for each category of the final demand. The most recently published multipliers of final demand are dating back to the year 2000. In the following table the multipliers for the three most important sectors of final demand are presented:

Table 15: Final demand multipliers for 2000

<table>
<thead>
<tr>
<th>Categories of consumption:</th>
<th>Production multiplier (domestic production and imports)</th>
<th>Import multiplier (foreign value added)</th>
<th>Value added multiplier (domestic)</th>
<th>of which: Multiplier of compensation of employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private households</td>
<td>1.31</td>
<td>0.28</td>
<td>0.72</td>
<td>0.34</td>
</tr>
<tr>
<td>The state</td>
<td>1.34</td>
<td>0.1</td>
<td>0.9</td>
<td>0.69</td>
</tr>
<tr>
<td>Private non-profit organizations</td>
<td>1.42</td>
<td>0.11</td>
<td>0.89</td>
<td>0.67</td>
</tr>
</tbody>
</table>

Source: Statistics Austria 2000

The production multiplier for the consumption of private households indicates that € 1 Million of private demand for domestic and foreign goods (according to an average consumption bundle) results in an increase of domestic production of € 1.31 Million.

Accordingly, it induces € 0.28 Million imports and € 0.72 Million domestic value added, of which € 0.34 Million are compensations of employees.

Combining the information from the paragraph (ii) about the purchasing power of the workers of the Wiener Staatsoper and the information provided by the final demand multipliers the following results can be launched:
Table 16: Effects of final demand (in €)

<table>
<thead>
<tr>
<th>income disposable for consumption:</th>
<th>gross production effect</th>
<th>Foreign value added</th>
<th>domestic value added</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 155 188.3</td>
<td>40 813 296.67</td>
<td>8 723 452.724</td>
<td>22 431 735.58</td>
</tr>
</tbody>
</table>

The employees of the Staatsoper consumed goods and services for € 31.2 Million and therefore, under the assumption that they have the same or at least comparable consumption habits as the average Austrian inhabitant, induced production in other sectors of € 40.8 Million. Imports are responsible for almost € 8.7 Million of the value added; accordingly the domestic value added is € 22.4 Million. The sum of the consumption induced effects is almost € 72 Million.
3.3. Fiscal Effects

The fiscal effects of one sector are the entire tax and social security payments that are collected from the observed sector or industry. The same logic appeals to single companies, organizations or institutions. In the case of cultural institutions the fiscal effects reduce the net rate of the public subsidies received by them. I will undertake an analysis of the fiscal effects of the Wiener Staatsoper GmbH, and therefore compare the government’s grants that the Staatsoper received in 2007/08 with the tax and social security concessions made to the public.

The public profits from the activities of an institution in more than one way. First, the salaries and wages of the employees are taxed with an average rate of 31.9%. Second, according to the corporate tax law the annual profits that are published in the financial statement are rated with 25%. Third, the sales tax, which is 10% for cultural events and artistic activity, is collected from every corporation. The last component that the public benefits from is the payment of social security contributions. These are split into health insurance, insurance for industrial injuries, pension insurance and insurance against unemployment.

There are four different public institutions that collect and redistribute the taxes and contributions made by cultural organizations:

- Social security holding and the AMS (labor market service)
- State
- Federal states
- Municipals

For the Staatsoper the following results (in €) have been calculated:

<table>
<thead>
<tr>
<th>Income tax</th>
<th>Corporate tax</th>
<th>Sales tax</th>
<th>Social security contributions</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 663 911.15</td>
<td>1 098 116.75</td>
<td>299 723.10</td>
<td>12 824 900.76</td>
<td>32 886 651.76</td>
</tr>
</tbody>
</table>
In 2007/08 the Wiener Staatsoper GmbH obtained a profit of almost € 4.4 Million and had to contribute 25% of it, around € 1.1 Million to the state as corporate tax payments. The wages and salaries that are paid to the employees of the Staatsoper amount to € 52 Million of which € 18.6 Million were collected by the state. The public revenues from the sales tax were € 0.3 Million and the gains from social security payments were € 12.8 Million. In sum the public generated almost € 32.9 Million due to the activities of the Wiener Staatsoper GmbH.

In the financial statement 2007/08 the grants from public means for the Staatsoper are numerated with € 52,211,787. It follows from the fact that the operating and other revenues were € 159 Million that the state finances one third of the operating business of the Staatsoper.

The net transition rate:

By subtracting the taxes and social security contributions - € 32.9 Million - from the public subsidies - € 52.2 Million - the calculated net transition rate is € 19.3 Million. This amount has to be financed either by credit or by tax gains. What has not been taken into account are the taxes and other payments made by the preliminary and processing industries that benefit from the activities of the Staatsoper either by producing intermediate goods (building sector, costume makers, etc.) or by using cultural output of the opera house (tourist sector, gastronomy etc.). Considering these sectors would reduce the net transition rate further and might even create a surplus for the public.
Conclusion

In my work I tried to find out if there is a rational behind the special treatment the sector of arts and culture receives from the public.

In the chapter “Empirical Evaluations” the sector arts and culture is treated like any other sector in the economic scenery. The multipliers for the cultural sector are neither much above nor much beneath the average of the multipliers for other sectors presented within the Input-Output system. This indicates that the state could also support other sectors, that have higher production or employment multipliers, such as the sector “motor vehicles, trailers and semi-trailers” which triples every Euro that is invested into its production (production multiplier = 3.219).

This argument ignores the fact that there are effects that are not, or not yet, measurable. Arts and culture produces a wide range of such external effects that might not be traceable for the short run but therefore not less important. The reputation of a nation or a city relies much on the artistic scene, and this does not only attract tourists but also new companies and citizens. Besides this rather pragmatic view, the arts can be seen as an educational feature that tells us something about history and life and needs to be supported today to ensure that it does not get lost for future generations.

The pure joy of listening to music, watching a play on stage or, as simple as that, going to the movies is not taken into account either. It is important to mind the fact that every part of our modern culture is standing on the shoulders of preceding artistic activities and is itself only an intermediate good that might work as a stepping stone for future artists and creators.
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Appendix:

Zusammenfassung:

Diese Diplomarbeit beschäftigt sich mit der finanziellen Unterstützung von kulturellen Einrichtungen und künstlerischen Tätigkeitsfeldern, wobei ein Schwerpunkt auf die öffentliche Subventionierung von kulturellen Institutionen gelegt wird. Die Arbeit diskutiert die verschiedenen Möglichkeiten öffentlicher und privater Unterstützung und die Gründe derselben.


Ein Vergleich der beiden größten Opernhäusern in den untersuchten Systemen, der Wiener Staatsoper und der Metropolitan Opera in New York, zeigt, dass die unterschiedlichen Systeme zu ähnlichem Output führen.

Die messbaren ökonomischen Effekte des Kultursektors im Allgemeinen und von bestimmten Institutionen im Besonderen können durch eine Input-Output Analyse erfasst werden. Diese wird in einem Abschnitt der Arbeit vorgestellt und in einem anderen auf die Wiener Staatsoper angewandt.

So soll die wirtschaftliche Bedeutung des Opernhauses für die österreichische Volkswirtschaft sichtbar gemacht werden.
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