

**Report**

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# The role of **cultural industries** in the economy at regional and national level

**The report highlights** two aspects of measuring cultural industries economic influence. One describes how to capture direct and indirect effects of a cultural activity in a regional perspective, and the other discuss how the cultural economy can be measured as a part of the national accounts as a culture satellite account.



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## Foreword

The interest in describing cultural industries and its contribution to growth and development is increasing at both national and regional level.

The agency for growth policy evaluations and analyses, Growth Analysis and formerly the Swedish Institute for Growth Policy Studies (ITPS), have on certain occasions studied how these industries and their contribution to the overall economy can be described and understood. This report is the third part of this work.

The report partly discusses how culture can be understood as an ingredient in regional development processes. This section shows both the theoretical starting points and the methods for such work as concrete examples of attempts to capture the economic consequences of regional investments in cultural industries.

In addition, this section reports further discussion of Culture satellite accounts with particular focus on how to try to distinguish cultural industries within national accounts.

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Östersund, Sweden, May 2010.

Dan Hjalmarsson

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## Summary

Simply put, culture influences economics in three dimensions. The first dimension concerns what is often called social capital or factor X and is about the importance of culture in the relationships, networks and trust that connect the population of a region together. The second dimension sees culture as something that attracts outside visitors to the area. In this connection, this is most likely to be historical monuments or scenery. Recently, the atmosphere and excitement created by those who live in the area have also come to have growing relevance for describing the value of culture. Berlin's eastern areas and London's markets are examples of this. When culture attracts visitors in these ways, it is considered a form of service export. Finally, the third dimension deals with how culture can influence objects and services that can be transported from the region and thereby raise export earnings.

This report deals with two aspects of measuring the economic influence of cultural industries. One describes how to capture direct and indirect effects of a cultural activity or an investment, and the other how to attempt to see cultural economy as part of national accounts.

The first section describes two studies that illustrate the information a regional actor should develop in order to assess the value of a cultural investment's influence on the local economy. We have focused on the most necessary calculations which need to be made to have at the least a primary material that can be as supporting documentation at local and regional level. Calculations of direct and indirect effects are necessary to determine a culture multiplier, i.e., a form of return over a certain time. Here it is also important for the calculation to include the negative effects in terms of leakage. For a small region, the greatest challenge is perhaps that of mobilizing local resources so that they can be used in a flexible manner. One of the main conclusions is that input goods and services should, as far as possible, come from the region.

The second section highlights the problems associated with measuring cultural industries and culture's share of GDP, or culture satellite accounts. Calculating the proportion of national accounts (NA) made up of culture, which is the purpose of culture satellite I accounts, means that one must be able to define both the value added by cultural production and the definition of cultural activity. Experience from other countries demonstrates that certain improvements to the statistics will be needed in order to do this, something which will incur a cost, both in terms of time and resources. It is each country's economic statistical system that sets limits on how well economic activities that refer to culture can be identified. One difficulty is that, at present, countries use different definitions of cultural industries when calculating their culture satellite accounts. As a result, this decreases the ability to make comparisons between countries.

## Sammanfattning

Förenklat kan man säga att kultur har ett ekonomisk inflytande i tre dimensioner. Den första dimensionen berör det som oftast benämns socialt kapital eller faktor X och handlar om kulturens betydelse för de relationer, nätverk och tillit som knyter samman befolkningen i en region. Den andra dimensionen ser kultur i form av något som lockar externa besökare till området. Oftast tänker man här på historiska monument eller naturscenerier. På senare tid har även den atmosfär och spänning som är skapad av dem som bor i området kommit att få ett allt större intresse när man beskriver kulturens värde. Berlins östra delar och Londons marknader är exempel härpå. När kultur på dessa sätt attraherar besökare är det att betrakta som en form av tjänsteexport. Slutligen, den tredje dimensionen behandlar hur kultur kan ha inflytande på föremål och eventuellt tjänster som kan transporteras från regionen och därigenom inbringa exportinkomster.

Denna rapport tar upp två aspekter av att mäta kulturnäringsars ekonomiska inflytande. Den ena beskriver hur man fångar direkta och indirekta effekter av en kulturaktivitet eller en investering och den andra hur man försöker se kulturens ekonomi som en del i nationalräkenskaperna.

I den första delen beskrivs två undersökningar som belyser vilken information en regional aktör bör ta fram för att kunna uppskatta värdet av en kulturinvesteringens lokala ekonomiska inflytande. Vi har fokuserat på de mest nödvändiga beräkningar som bör göras för att åtminstone ha ett primärt material som kan användas som beslutunderlag på lokal och regional nivå. Beräkningar av direkta och indirekta effekter är nödvändiga för att kunna räkna ut en kulturmultiplikator d.v.s. en form av avkastning under en viss tid. Här är det också viktigt att även räkna med de negativa effekterna i form av läckage. För en liten region är kanske den största utmaningen att mobilisera ortens resurser så att de kan användas på ett flexibelt sätt. En av de viktigaste stutsarna är att insatsvaror och tjänster bör så långt som möjligt hämtas från regionen.

Den andra delen belyser problematiken med att mäta kulturnäringsar och kulturens andel av BNP, s.k. kulturräkenskaper. Att beräkna den andelen av nationalräkenskaperna (NR) som utgörs av kultur, vilket kulturräkenskaper skulle göra, innebär att man måste kunna avgränsa vad som är både förädlingsvärde från kulturproduktion och vad som är användning av kultur. Erfarenheten från andra länder visar att det krävs vissa förbättringar av statistiken för att kunna göra detta, vilket innebär kostnader både i form av tid och i form av resurser. Det är varje lands ekonomiska statistiksystem som sätter gränser för hur väl det är möjligt att urskilja ekonomiska aktiviteter som refererar till kultur. Ett dilemma är att länderna idag utgår från olika definitioner av kulturnäringsar när de beräknar sina kulturräkenskaper. Detta får till följd att möjligheten att göra jämförelser mellan länderna minskar.



# 1 Background/introduction

The agency for growth policy evaluations and analyses, Growth Analysis and formerly the Swedish Institute for Growth Policy Studies (ITPS), have reported on a number of commissions to both the Ministry of Enterprise, Energy and Communications and the Ministry of Culture relating to cultural/creative industries, the experience industry and cultural industries<sup>1</sup>. Based on the general commissions and Letter of Regulation missions of Growth Analysis, the reports have focused on the part of the industries that can be linked to commercialization, business activities and future growth, which in no way implies that culture from a cultural perspective is of lesser importance. The reports have, inter alia, looked at the problems associated with the various definitions that exist in parallel and the difficulty of statistically measuring a "sector" that does not adhere to traditional industrial logic. Over the years, small steps have nevertheless been taken to find additional ways to study and measure the value of this sector.

Business activities with the prefix 'creative' or 'culture' have in the past ten years received attention from the perspective of economic policy. There is an expectation that these sectors should have a higher level of turnover and employment than the average economy. In purely empirical terms however, it has been difficult to draw this conclusion. This is partly due to the different definitions apply to different industries which in turn yield different results, ITPS (2008). What all these terms and definitions have in common, however, is that they try to capture a societal phenomenon, which suggests that symbolic values such as aesthetics and experience have become increasingly important for the economy. A quest for the unique and what can not be copied is becoming increasingly attractive, and here, culture and cultural heritage have an important function.

This report should be seen as playing yet another part in trying to identify and capture the phenomenon arising from the marriage of culture and industry. Although it is difficult to measure the economic impact at an aggregate level, there are parts of cultural industries which one might become better at measuring in financial terms. When culture and industry meet, it may mean a change in business logic, while much is still rooted in traditional economic theory.

The literature on the influence culture can have on the economy is, as in many other areas, vast both in terms of the number of articles and of the number of approaches. The aim of this report is to offer, to a limited extent, what those already conversant in the field may perceive as conventional perspectives. The current agency and its predecessor have been involved in studying this field and the knowledge they have gained has sometimes quickly disappeared into the archives before it has even begun to be applied in practical policies.

Culture, whether it is the anthropological description of how people organize their daily lives, or consumption in the form of visits to theatre festivals or the production of traditional crafts for sale, these activities have economic consequences that can be measured. The difficulty however lies in determining the link and its constituent units.

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<sup>1</sup> Examples of previous ITPS reports are: *Design för innovation och tillväxt (Design for Innovation and Growth 2005)*, *En politik för design (A policy for design 2007)*, *Kreativ tillväxt (Creative Growth 2008)*, *Globalisering och kultur (Globalization and Culture 2008)*, *Tillväxtanalys rapport Kulturnäringsar förslag till definition och statistik (Growth Analysis' Report Cultural industries' proposals for definitions and statistics 2009)*.

Generally speaking, the expectation is that a cultural institution is to increase turnover in a municipality or region by attracting visitors, businesses and influx into the municipality. This in turn is also likely to entail an increase in employment, income and tax revenue, Navrud and Ready (2002). One should not however be led to believe that a cultural institution, event or the like make an invariably positive contribution to the regional economy.

### **1.1 The interest in culture and economy**

Is it possible to measure the value of a cultural institution?

Economic analysis of culture, both theoretically and empirically, has with time evolved into its own area of research, cultural economy. Armbrecht & Andersson (2010), Markusen & Schrock (2006), Power & Scott (2004) and Power (2002) are examples of research in the field. Much of the research into what is now regarded as fundamental for understanding the value of cultural institutions to individuals and society has its origins in other sciences such as economics and human geography (Baumol & Bowen (1993), Throsby & Withers (1979), Throsby & Hutter (2008)), fields that are today well accepted and even considered a natural part of cultural economy.

Part of the problem of measurability can be related to methodologies and quantifiability, but has also to do with difficulties that can be linked to evaluation systems and concepts.

Several studies argue that a basic condition for being able to offer opinions on economic key figures is to understand the input and output of cultural institutions, where input can be relatively easily described and measured in financial terms, because it does not differ from companies in general. In contrast, it is much more difficult to describe the output created by a cultural institution, especially if you intend to measure the contribution of a cultural institution in relation to its purpose. The number of exhibitions produced, the number of tickets sold or similar key Diagrams give only an inadequate picture of a cultural institution's output and activities, because they do not tell us the value a cultural institution creates (Throsby & Withers 1979).

### **1.2 Structure of the Report**

Chapter 2 begins with a description of how culture is treated as a developmental factor in OECD reports. Thereafter, follows a brief review of three different forms of economic processes surrounding a cultural investment and exemplifications of various parts of the processes. There is a report of two studies that have in various ways measured the economic effects of cultural investment. In chapter 3, there a further discussion of culture satellite accounts which means showing separate accounts for cultural industries as a proportion of domestic production, and the possibilities of implementing this in Sweden.

## 2 Culture in regional development processes

This section gives an overview of how culture can be perceived as a developmental factor. The overview focuses primarily on developmental dynamics in smaller towns.

The OECD report 'Culture and Local Development' (OECD 2005) addresses three dimensions of the influence of culture. The first dimension deals with how a society is structured in the form of networks and relationships between people in society. A Swedish example is Gnosjö, which is often highlighted and described as being different to other small towns in terms of networks and relationships. Here, culture is almost an aspect of social capital. The second dimension sees culture as something that attracts outside visitors to the area. Here, cultural heritage is the source of a form of service export (more on this in the next section). Finally, the third dimension deals with how culture can influence objects and services that can be transported from the region and thereby raise export earnings. This dimension, however, is not dealt with in this report.

Section 2.1 describes more generally how influence has been reported in various OECD reports. Section 2.2 presents more specifically the economic influence of cultural investment that is often reduced to mechanical 'multiplier' models, where the term mechanical refers to the fact that the models are too simple when placed into the social/cultural context as described by the first dimension.

Despite this simplification, the report will highlight these models as they still suggest the key economic factors that are appropriate to use for the collating of information to provide for a useful follow-up. This in turn can provide an important basis for local and regional decision-makers to make well informed decisions.

### 2.1 Culture as a development factor – Culture and Tourism

In 2009, OECD published the report, *The Impact of Culture on Tourism* (OECD 2009) that addresses the ever-increasing part of tourism that is linked with culture. According to the UN World Tourism Organization (UNWTO), the number of international arrivals increased by 66 per cent to 898 million arrivals from 1995 to 2007. Forty per cent of these journeys have culture as the reason for the journey. Culture travellers have also increased more than travel in general (OECD 2009 p. 21). The report states several opportunities (benefits) that cultural tourism can bring

- Develop employment and entrepreneurship, diversify regional business structures
- Increase tax revenue
- Increase the region's trademark and attractiveness to live there
- Build partnerships and strengthen social capital in the region

To develop partnerships between various actors is something the report highlights as necessary for a region to develop as a destination. Without the development of cooperation (partnerships) between the inhabitants of a region, and between regions with complementary interests, it is difficult to be successful. This is confirmed by the case studies the report presents. People talk about the importance of the partnership between the two sectors of culture and tourism, that private actors can be involved in the region's development.

Culture as the reason for travel and tourism has been previously linked to visiting monuments and historically important sites. This is still essential, but the report also points out that the culture and creative expression in general has become a reason for travel (OECD 2009 p. 24f).

The latter means that people living in a place are successful in creating or conveying an atmosphere that others want to experience. One example is the market in the Notting Hill area of London. It is one of a many markets in London and it is in an area that can hardly be described as 'beautiful'. But the nature of the atmosphere at the market in Notting Hill is something that has proven to appeal to many visitors outside the area which in turn brought increased publicity through the Hollywood film, which was set in this milieu. Another example often quoted as being linked to atmosphere is the curiosity people have in experiencing milieus they related to when reading books. In Stockholm, there is great interest in tours of the 'Millennium' districts, and trips to Ystad and Österlen are popular due to the success of the Wallander series of books (ITPS 2008).

The importance of collaboration was mentioned above. OECD (2009) argues that tourism as a purely commercial industry differs from cultural activities in terms of ethos since these are not profit oriented. It refers to Canada's estimates of how tourism revenues are distributed in various activities. Cultural activities in Canada represent about six per cent (the corresponding percentage in Sweden) of tourism revenue, while other activities such as transport and retail together receive nearly 50 per cent.<sup>2</sup>

But this is direct revenue. The importance of culture in creating attractiveness was mentioned above and is recognized by most. This attractiveness can be measured partly in direct revenue but also in indirect revenue i.e., the revenue flows that a destination receives in addition to pure entrance fees. The rest of the chapter looks at the importance of capturing this income and how this can be done.

## 2.2 Three models of economic influence

What is economic influence and how can this be monitored? This section briefly outlines the OECD report's description of the various processes that are often mentioned in studies and reports on cultural industries. Economic influence can be accomplished in different ways, *value chain*, *solar system* and *multiplier* (Diagram 1). There are no clear boundaries between them, but rather they overlap each other in some respects and thus describe the different perspectives. Basically it relates to:

- Identifying the components that add value, or
- Identifying the components necessary to realizing value, or
- Identifying direct and indirect effects of an 'activity'

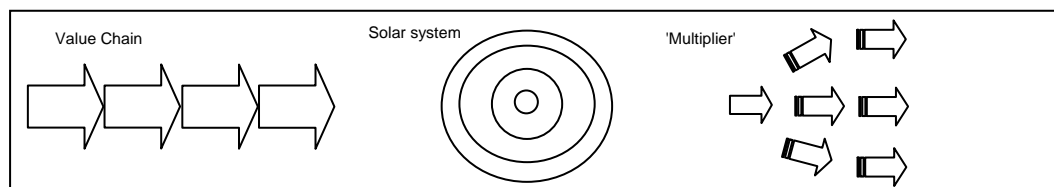
The value chain is to be interpreted as the established business model of 'value' processed/formed in a chain of functions. For example, the chain of events: concept, prototype, production, distribution and consumption describes such a value chain. Every part of this chain can, of course, be divided into even smaller components. In business

<sup>2</sup> Statistics from the Swedish Agency for Economic and Regional Growth for 2008 indicate that cultural services as a proportion of total tourism (SEK 244 billion) represented about 5.7 per cent or SEK 14 billion.  
(<http://www.tillvaxtverket.se/huvudmeny/faktaochstatistik/omturism/ekonomiochsyssestanning.4.21099e4211fdba8c87b800017287.html>)

economics, there is an extensive discussion of the value chain as well as alternative models of value production such as the value star, which indicates more loose, network-bound links. In this context we would like to stress that the perspective of the value chain indicates that there is a clear link between various stages in the processing of value (Wikström et al 1994).

The value chain model (OECD 2005 calls it 'sector studies') can be described as an archetype for the 'farm to table argument' about how value is created. Here, we have the phases of *creating, producing, distributing* and finally *consuming*. Of course, intermediate phases such as *launching etc.* can also be defined. The argument is no different from other similar approaches, namely the method is about identifying all those involved in the different stages from production (of a book, for example) to when it reaches its readers. The following summarizes the different steps in the chain adds value which is summarized in a total

Diagram 1 'Models' for influence processes



The second model of economic influence is 'the solar system' or ripple effect as it is also called (both names are misleading to some extent). The outer rings are inspired by the internal springs that act as passive input factors. If agreement arises between the inner and outer rings, this occurs more on the initiative of the outer rings. In other words, the inner ring cannot decide if 'the idea' will create economic value, it is the outer ring that decides this. For example, an advertising agency gets an idea to use a popular tune in the launch of a new product or service. The tune is used for its symbolic value, which leads to it creating attraction to the product or service. It was something one could not know or even calculate when the tune was first created. The value of the tune has been developed for other reasons and in a different time to the product the advertising agency is delivering for the goods/service.

An example of how the 'solar system' model is used is the European Commission's Green Paper, which states that

*“Creative industries” are those industries which use culture as an input and have a cultural dimension although their outputs are mainly functional. They include architecture and design, which integrate creative elements into wider processes, as well as subsectors such as graphic design, fashion design or advertising.*<sup>3</sup>

The third variant, the multiplier, has its origin in macroeconomics to describe the relationship between a change in an exogenous variable such as investment and its subsequent effects on the total income (Dickson et al (1986)).<sup>4</sup> The multiplier effect is a consequence of all types of economic activity, including culture-related ones. In the OECD report, the multiplier represents the sum of the economic consequences of consumption

<sup>3</sup> European Commission (2010) page 6. In the EU, the concept of CCI, Cultural and Creative Industries is used

<sup>4</sup> See the appendix for the formal description. Exogenous indicates a change outside the "model", i.e., something that the model cannot explain.

behaviour that is triggered by a cultural event (cultural investment, events or the like). Here we will call it the *culture multiplier*.

*Based on assumptions*

In order to make an analogy with the macro economically exogenous variable, the argument is based on what we call a 'cultural investment'. It might be a craft festival, the preparation of a cultural heritage site, the construction of a museum or the like. What it is important to remember is that every derivation of effects, as is the case of the culture multiplier, is based on certain assumptions. First the consequences indicated by the multiplier are to be compared to an investment not being made. This assumption spills over into an assumption that 'cultural investment' is the only reason that visitors come to the area/region during the period studied, or at least that the change in visitor numbers compared to an earlier period can be attributed to 'cultural investment'. If this assumption does not apply, the consequences must be adjusted according to how much influence the cultural investment has. One example is that you do not take into account the region's character. In a region with a large population and a diverse economy, a 'culture multiplier' will most probably be more or less impossible to calculate. In a more isolated location, Bowitz and Ibenholt (2009) refers to Røros, Norway, an investigation can be meaningful. In smaller towns with a good tradition of follow-up, the effects of an additional investment can at least be partially discerned.

A second assumption concerns the regional perspective, this means that the positive development of a cultural investment requires the availability of unused resources within the region and (if necessary) the ability of the investment to attract resources from outside. Bowitz and Ibenholt (2009) suggests that for most places in the countryside, it is reasonable to make the assumption about unused resources.

Further on in all theoretical summaries, there are a number of assumptions that must be taken for granted. Here we have also simplified the discussion of economic consequences where e.g., changes in relative prices are excluded.<sup>5</sup>

"Multipliers" are a ratio between the sum of direct and indirect effects of an investment. If the multiplier is greater than one, the investment has therefore achieved financial results that are greater than itself. Multipliers can be calculated in different ways. The calculations are similar in structure. What makes them different is that they are based on different kinds of data material.<sup>6</sup>

OECD (2005) describes three types of multipliers. The *input-output multiplier* requires the most information because this is a function of all flows between the industries in the region and export/import outside the region.

The "*Ad hoc*" multiplier begins instead in studies of different types of tourism-related expenditures (Archer 1981, Baijens et al 1997). It takes into account the different consumption behaviours of various types of tourists and monitors the effects of these.

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<sup>5</sup> *In a competitive and innovative economy, resources will go to those who can pay most for the resources. These are the ones supplying goods and services that generate the greatest willingness-to-pay. This leads to changes in relative prices.*

<sup>6</sup> *Investment is used here somewhat loosely. More strictly, it is an expense that is periodized when it is assumed to have a life of more than a year. If the whole investment is to be part of the denominator of the multiplier, effects which can be linked to the investment over several years should be included.*

Finally, the classic version is the "*Keynesian*" multiplier (see Appendix 1) that begins in an investment and is designed to capture subsequent stages that are in any way related financially to this investment. This differs from the input-output multiplier in the sense that it explicitly captures the effect of ripples on the water i.e., it captures the effects of an investment in more than one stage, as brought about by the investment.

In Section 2.3, we review the 'Keynesian' multiplier in a local perspective as it gives us an idea of what data should be collected at the local level in order to get a reasonable idea of the economic conditions that have been affected.

### 2.2.1 The reason for cultural investment - willingness-to-pay

OECD (2005) mentions that surveys of willingness-to-pay are used when a decision about a possible new investment is to be made and when you want to explore how the financing of this can be justified. In Section 2.5, this approach is described in more detail. From a neoclassical perspective, value is considered to be the sum of money which a person is willing to pay (willingness-to-pay) to get access to goods, services and experiences. It can also be used when one intends to change the organization of financing and production in a cultural institution.

## 2.3 To capture economic consequences

Calculations of direct and indirect effects are necessary in order to determine a culture multiplier, i.e., a form of return for a cultural venture over a certain time. OECD (2005) indicates estimated culture multipliers between 1.23 and 1.42 (Table 1) but warns against taking any level for granted.

Table 1 OECD reported culture multipliers

Population density	Museums	Theatres
High	1.42	1.40
Medium	1.28	1.26
Low	1.26	1.23

OECD (2005) Primary source: Myerscough (1988)

The values indicated in Table 1 give some indication of probable levels but also an indication that the 'effect' of an investment can be expected to be greater in areas with larger populations. This is a modified truth that needs some explanation. OECD (2005) emphasizes in several places that this should above all be interpreted as saying that the more resources that can be taken from within the region, the greater the multiplier (note that the discussion is limited to cultural investments, which means revenue through more visitors, that is, not through export goods). That the multiplier is higher for areas with high population growth can also be a result of the overestimation of the cultural investment effects. In such an environment, the likelihood is great that there are several reasons that led visitors to the region, which can be difficult to accurately discern the influence of. To present the result of a cultural venture as in Table 1 can be perceived as effective but is valid only if the underlying calculations are credible. We are assuming that a regional actor is in control and aware of the magnitude of the venture. We are therefore focusing on how to proceed in order to capture the economic consequences of a cultural venture. What do you need to know to make the underlying calculations credible?

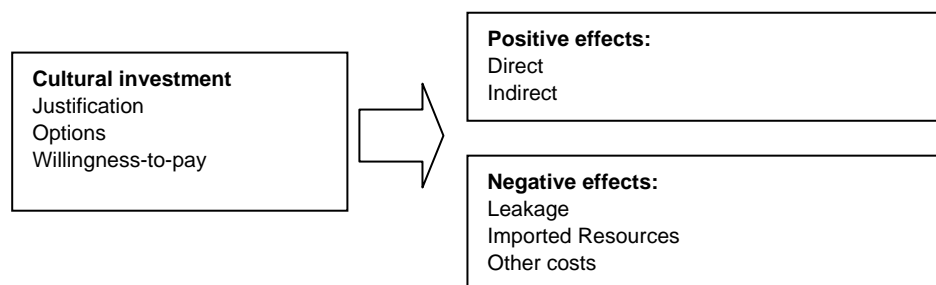
In the article *Economic impact of cultural heritage - research and perspectives* (2008), Einar Bowitz and Karin Ibenholt (IB) compile the principles of what is here called *culture*

*multiplier*. The article is a summary of their experience of assessing the economic consequences for Rösros<sup>7</sup> as cultural heritage. Their analysis of Rösros shows that about seven per cent of those employed are the result of Rösros' status as cultural heritage, see section 2.4 below.<sup>8</sup>

The article stresses that the importance of better financial monitoring of cultural investments are essential. They highlight the fact that many claims about great local economic consequences of cultural investments are often based on insufficient evidence and faulty reasoning.

Diagram 2 below shows schematically the most important components to quantify.

Diagram 2 Schematic multiplier model



The model 'starts' when a cultural investment is planned. In brief, it can be said that if the investment is financed with local public funds, these always have an alternative use. The consequences of a cultural investment must, in other words, be weighed against the consequences of alternatives. There is a rather extensive literature on how to measure willingness-to-pay for this type of investment.

If funding, on the other hand, is external the question of justification for the funding can be disregarded at the local level and focus be given only to its consequences.

#### *Positive effects*

The positive effects of an investment can be divided into direct and indirect consequences. The direct effects of a cultural investment consist mainly of two parts, firstly, the compensation for goods and services provided by individuals and companies established locally/regionally. Salaries for staff are a part of such compensation. Secondly, there are the direct effects of the revenue that cultural investment generates from visitors outside the region in the form of entrance fees.

An indirect effect arises for those who deliver goods and services to cultural institutions, restaurants and hotels. The increased income for those employed in the local economy is also an effect through increased purchasing power. In Diagram 3, direct effects are indicated by level 1, while levels 2 and 3 represent the indirect effects (level 3 and subsequent levels are called induced effects in OECD (2005)).

Indirect effects consist of local consumption of goods and services caused by level 1 (as shown in Diagram 3). It is common to measure changes in retail sales. Alternatively,

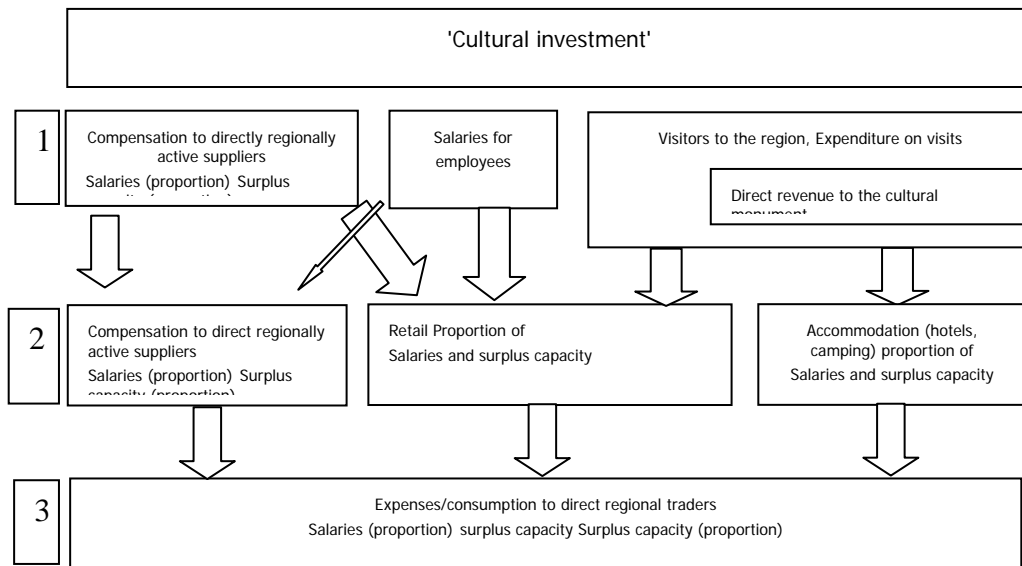
<sup>7</sup> city in Norway, a UNESCO World Heritage Site for its unique wooden buildings. In Sweden, famous for e.g., winter scenes in the Pippi Longstocking films

<sup>8</sup> The article is largely a compilation of experiences also reported by the OECD (2005).



surveys are used to ask visitors about the reason for their visit and how much they have spent and on what.

Diagram 3 sketch of the 'culture multiplier' or gross economic flows\*



\* Leakage and other costs are not included

### Negative effects

A negative effect of an investment consists of costs and leakage. Leakage refers to resources which, for various reasons, are purchased outside the region. Leakage can also be called displacement effects. For example, during the 2007 Alpine World Ski Championships in the Swedish village Åre, the 'usual' tourists were kept away during the event partly because it became significantly more expensive to rent accommodation during those weeks, and partly because it was fully booked. In an economic assessment of the economic consequences of an event, the downturn in 'normal' tourism must be deducted to arrive at the correct total (see Petterson (2007)). The extent to which this impacts the economy depends on the size and structure of the economy, such as the availability of labour, goods and services. If there are not enough resources in the local market, a leakage from the economy arises through the need to import the missing labour, goods and services. Growth in the local economy occurs when the income stream is greater than the leakage (Armbrecht & Andersson (2010)).

In addition to leakage, costs also arise. A cultural investment that leads to more visitors can also cause traffic problems, pollution and wear on culture and natural values which did not previously exist and which should be captured as costs.

The argument about regional economic consequences of culture is consistent with the experience reported in the tourism literature and may be said to follow the mercantilist principle that the more that is produced within a region, the greater the net export revenue.

The following sections 2.5 and 2.6 describe two studies on how it is possible to go about trying, in economic terms, to evaluate or assess the effects of an investment or attraction.

## 2.4 The Røros investigation

The consultancy firm Econ Pöyri and NIKU carried out the project "Cultural Heritage and value. Economic effects of cultural heritage in Røros" on behalf of the Directorate for Cultural Heritage in Norway in the years 2005 to 2008. The report "Economic value of cultural heritage" (notat 2008-036) summarizes the project, which consisted of seven sub-projects, one of which focused on the assessment of the economic value of Røros as cultural heritage. The project estimated that approximately seven per cent of employment in Røros could be traced to the status of Røros as a cultural heritage. Røros is one of Europe's oldest wooden towns and is characterized by mining from the 1600's until the 1980's in a hinterland of mountains. In 1980, Røros was placed on the UNESCO list of World Heritage sites. The following describes in brief the methods used to assess the economic values associated with Røros as a cultural heritage.

### 2.4.1 Visiting tourists

Since the direct effect is revenue from visitors to Røros, the primary information of interest to us is that of visiting tourists. Standard questions relate to the reason for visiting Røros, if the tourist is there for the day or has stayed overnight, the choice of accommodation, how much money has been spent and on what. Data from tourism studies are then complemented with data from other statistical sources, primarily tourism accounts.

In the Røros study, data was collected on the average amount of consumer spending for overnight visitors based on choice of accommodation and for tourists there for the day. Tourist spending causes a gross change in the overall demand for goods and services locally.

Norway has statistics on regional and local data for the number of overnight stays for various accommodation options. In the Røros study, two tourist surveys were carried out, one in 2005 and one in 2006, with a total of 1, 047 respondents. It was found that about 60 per cent of the tourists had chosen Røros because of its distinctive historical character or because it was a particularly beautiful city. That Røros also appeared to be original and authentic was the characteristic that tourists rated highest. This 60 per cent was distributed somewhat differently across various types of tourists, where hotel and conference guests had a lower percentage while camping and cottage tourists had a higher percentage.<sup>9</sup>

### 2.4.2 Direct effects

Demand related to culture is derived by only basing results on the expenses of the 60 percent, that is on 60 per cent of the total demand. Table 1 shows consumption. Here, proportions of each tourist group, i.e., the number of users per accommodation option, in the local tourism survey have been linked to the average values estimated by the national tourism survey.

The number of day tourists is calculated from the tourism survey by the relationship between the number of day tourists and the number of tourist hotel nights. This ratio is then multiplied by the ratio of the number of hotel nights and the average number of overnight stays. The number of conference visitors has been estimated after interviews with the hotels in Røros regarding the proportion of conference attendees that could be attributed to Røros as a cultural city.

<sup>9</sup> For most, there are more reasons for the visit. In this survey, only one answer was requested

Table 2 Tourism related to culture

Tourist by type of accommodation	Number of tourist days	Expenditure per tourist per day (NOK)	Total expenditure by type of accommodation, NOK million
Hotel	41,500	1 151	47.8
Hotel, conference	18, 300	1 151	21.1
Camping	25 000	341	8.5
Cottages	16 500	684	11.3
Day	24 500	275	6.7
Total	125 800	758	95.5

Source Fjose & Bowitz (2008) Table 5.1

Consumption is allocated among different goods and services. Other sources, such as Dybedal et al (2006), provide estimates of how different types of tourists (i.e., types of accommodation) distribute their consumption of various goods and services.

Expenditure per tourist in Table 1 (far right column) are allocated to different sectors producing goods and services in Table 2.

This table shows the relationship between turnover and numbers employed in each sector. The relationship sales per employee are an average for different industries that can be derived from business statistics. This is coupled to information on the nature of the consumption that visiting tourists have engaged in.

The increase in demand, the turnover increase, in money that tourists have brought with them has in this way been transformed into an estimate of how many new employees this growth has given rise to. Here, the direct effects on employment due to cultural tourism are estimated to be about 150 people (Table 2).

Table 3 Direct effect of cultural tourism consumption

	Turnover of cultural heritage tourism, in NOK million	Turnover per employee, in NOK million	Employment effect, number of people
Hotel and restaurant	55.9	0.5	105.6
Activities *	14.6	0.5	32.0
Transport	5.4	0.9	6.4
Consumer Staples	19.5	3.0	6.6
Total	95.5		<b>150.6</b>

Source Fjose & Bowitz (2008) Table 5.2 \* Here, statistics for personal services have been used

#### 2.4.3 Indirect effects

The activities which see an increase in turnover due to tourists pass a part of it on to their subcontractors. Here, the national average of each sector's proportion of output going into input goods has been used to calculate the value for Rörös. This proportion has been estimated for different activities from input-output tables for 2002. The output also includes the import of goods and services. The estimate of the proportion of demand that

'stops' locally must be reduced by this proportion. Here also, an estimated proportion is obtained from central registers of input-output flows.

Indirect effects (level 2 in Diagram 3) is estimated, in other words, by trying to find approximations to the following relationship:

*Indirect effects = Turnover growth \* Proportion of input goods \* (1 - 'proportion of import')*

Transferring the subcontractors' increase in turnover into employment, however, requires assumptions about where subcontractors place their consumption. The Norwegian researchers find it most appropriate to start with the average ratio between turnover and employment for enterprise in the whole country and to adjust it according to the regional income level, which in the case of Sør-Trøndelag is 90 per cent of the country. The result is *a ratio of NOK 1 million per employee.*

Table 4 Indirect effects among subcontractors

	Turnover growth	Input Trade in goods	Proportion of import	Subcontracting total (K1*K2*(1-K3))	Employed
Hotel and restaurant	55.9	0.39	0.7	6.5	6.5
Retail	19.5	0.39	0.9	0.8	0.8
Personal services and cultural services	14.6	0.38	0.5	2.8	2.8
Transport services	5.4	0.32	0.5	0.9	0.9
<b>Total</b>	<b>95.5</b>			<b>11.0</b>	<b>11.0</b>

Source Fjose & Bowitz (2008) Table 5.3

The estimated indirect effects total NOK 11 million, which converts to 11 employees. The direct and indirect effects lead to approximately 160 employees (150 + 11) in Røros. This means higher revenue which generates effects at a third stage. The table below compiles the calculation of these effects. The sums of the effects are: 150.6 + 11 + 5.4 = 167. Not measuring indirect effects can therefore lead to an underestimation of 10 per cent.

Table 5 Calculation of the indirect effect taking into consideration increased income

Increase in employment (direct and indirect)	162	People
Income per employee (average)	250,000	NOK/employee
Income increase	40.0	NOK m
Income after tax (taxed at 30%)	28.0	NOK m
Increased savings (savings rate of 5%)	1.0	NOK m
Increased demand for saving	27.0	NOK m
Increased demand for Røros' specific goods and services (import proportion 80%)	5.4	NOK m
Turnover per employee	1.0	NOK m
<b>Increased employment in Røros</b>	<b>5.4</b>	<b>Employed</b>

Source Fjose & Bowitz (2008) Table 5.4

#### 2.4.4 What did the Rörös study not take up?

The documentation on the Rörös study mentions some effects that had not been taken into account since the costs to obtain such information was too great. Moreover, it is reasonable to assume that the effects are relatively small.

1. Indirect effects at other stages. Here, we have not calculated, for example, the effects increase in consumption has on taxation, which in turn leads to a greater range of municipal services.
2. Indirect effects as a result of investment. An investment in increased capacity, e.g., an expansion of accommodation options, creates an accelerator effect when indirect effects are passed on to an even greater extent than before.
3. Effects in the form of increased influx of people.
4. The investigation has not considered if Rörös, in addition to cultural heritage in the form of buildings and the town's milieu, also has export revenue related to culture. Cultural heritage employs special craftsmen who, in principle, can produce replicas of Rörös artefacts, thereby generating additional heritage-related income.
5. Does a wealth of heritage sites mean the people of Rörös have less need of visiting cultural heritage sites in other places? If this is the case, increased consumption means a smaller leakage, given that 'culture' is a 'luxury' with an income elasticity greater than 1.

The effects that have not been considered are all of the kind that can be expected to be positive, which means that the estimate made above represents an underestimation of the true multiplier effect.

Of course, it would be interesting and valuable to study these issues in more detail, but it is complicated and time consuming to carry out these analyses.

## 2.5 Investigation of Vara Concert Hall

The study on Vara Concert Hall highlights the relationship of culture and cultural ventures to economic development in a municipality. It studies the effects that relate to the economic and socio-economic values of Vara Concert Hall by exploring the willingness-to-pay of both visitors and non-visitors to the concert hall. The research project is divided into three parts and was carried out by Armbrrecht and Andersson at the School of Business, Economics and Law at the University of Gothenburg.

In 1998, the Vara City Council voted to initiate a cultural venture. On 1 January 1998, Region Västra Götaland was created, and Vara Municipality suddenly found itself in the middle of the new region. Building work began in March 2002, and on 5 September 2003, the new venue for culture, schools and conference in Vara was opened. Vara Concert Hall is run by the municipality with the support of Region Västra Götaland, with about 50, 000 visitors and 140 performances in 2010<sup>10</sup>.

The authors point out that in order to understand how a cultural institution can contribute to local development, it is necessary to understand the mechanisms that can lead to measurable changes. Generally, there is an expectation that a cultural institution will enhance regional attractiveness and contribute to increased employment and tax revenue.

<sup>10</sup> <http://www.vara.se/omoss.4.58aef784115b28a58298000324.html>

However, it is not obvious that it contributes positively to the local economy. In the simplified model there are numerous complications that can result in effects not necessarily being positive. Rather, many retrospective studies had problems in even being able to measure the impact, and effects often bear little or no importance (Baade, 1996).

### 2.5.1 Comparison of economic development in Vara and in the reference municipality

In the first part of the project, the focus was on effects that arise at a municipal level. The purpose is to identify differences in the development of two municipalities as a consequence of a cultural investment. In order to conduct a comparative study, two municipalities were chosen, Vara Municipality, which has invested resources in a cultural attraction, and the Municipality of Falköping, which has not made a similar commitment.

Another criterion was that the venture must have taken place more than five years ago, so as to be able to track the effects of the cultural investment as well as to be able to monitor municipal trends in the data. Otherwise, it was considered important that the municipalities were as similar as possible, which means that, apart from the cultural investment, they were to be comparable in e.g., size and location. Based on existing registry data, the two municipalities are compared with the aim of seeing if it is possible to discern, purely statistically, any effects in municipal development over the last 10-30 years.

The analysis showed that there were signs that the concert hall has changed the municipality's development to an extent that it can be identified in the statistics. From the material, a positive impact on the tourism industry for the past four years could be discerned. First and foremost, there had been an increase in accommodation units, which in turn meant that the number of available beds had increased significantly. The positive development meant that more companies were started and the number of jobs increased. Although companies pay taxes and generate income for the municipality, it is not a given that people who own and work in the new companies live in Vara Municipality.

### 2.5.2 A description of economic effects in Vara Municipality

The second part of the project builds upon the results of the first part. Part 2 is supplemented with a questionnaire survey to study in more detail the economic effects of Vara Concert Hall in the municipality.

#### *Willingness-to-pay – Contingent Valuation*

Valuing public goods and services such as culture or cultural experiences is a relatively new field that asks hypothetical questions to measure economic preferences. Here, the researchers chose to use the Contingent Valuation method (commonly abbreviated as the CV method or CVM). The method lacks an established translation, but sometimes 'contingent valuation' or 'hypothetical valuation' are used. The method is used under certain conditions to measure so-called existence values. For example, road safety research makes use of this methodology, which was developed to measure the willingness-to-pay for benefits that are not usually obtained in the market Hultkrantz & Svensson (2008). Closed yes/no questions are often used, such as 'would you pay SEK X for Y?' where the cost varies in different parts of the survey to calculate a demand curve. The method is also used to estimate natural resources, such as the valuation of clean water, by introducing a hypothetical market in which a change in the availability of an environmental product is described, Navrud and Ready (2002). Thereafter, a random sample of people evaluate the

change by means of a questionnaire or interview, That money is used as the unit of evaluation has the practical advantage of enabling comparison of the environmental change with the cost or with the value of other societal changes.

Difficulties with socio-economic analysis are identifying and evaluating intangible and non-economic costs to society. To identify them, a useful instrument must be used to measure these costs and revenues. Examples of intangible revenue may be that the 'investment' contributes to an increased interest in investing in the region or people's pride in their own region or a cultural resurgence. Examples of intangible costs can be congestion, congestion at the attraction or an increase in crime and damage. In the pursuit of monetary method of being able to evaluate intangible posts, several studies have chosen to use a method in which the visitor is asked about his willingness-to-pay (WTP) in terms of revenue and willingness to accept (WTA) in terms of cost <sup>11</sup>. In this way, visitors are asked to place a value on their experiences in terms of a measurable unit. Which of these two dimensions should be used is determined largely by the public utility or type of attraction examined <sup>12</sup>.

In the study of Vara Concert Hall, visitors have been asked to fill out a questionnaire with questions about what they would be willing to pay and what they actually paid. The difference between these two values is called the consumer surplus (CS in Diagram 4) and describes the fact that the visitor has spent more or less money than the perceived value. The measure indicates whether the visitor expected more or less than they experienced.

Data collection for Vara Concert Hall is based on a sample of (nine) performances and included all the visitors during a particular performance. The results from the questionnaire survey shows that most visitors were aged between 50 and 70 years and had an average income higher than the national average, which the authors view as positive because Vara belongs to a group of municipalities that are below the national average. Over 90 per cent of visitors came to Vara primarily to visit the concert hall. Approximately 79 per cent of visitors had travelled (more than 20 km), and the same proportion were "repeat visitors". However, only six per cent of visitors had travelled more than 100 km. In the study, cash flows were categorized in terms of admission tickets, shopping, food and beverages within and without the concert hall, accommodation and other activities. The survey also shows that those who have travelled spend significantly more than the local population.

Diagram 4 below shows the results linked to the nine selected performances. It shows what the respondent said he was willing to pay for the entire evening, the hypothetical cost,

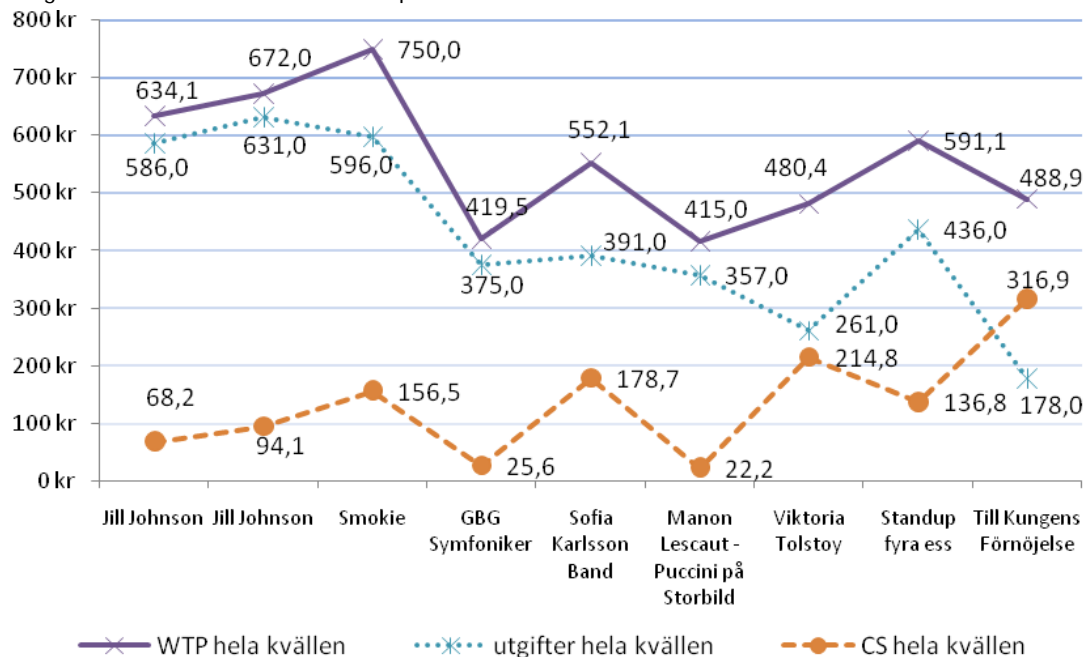
(WTP) – entire evening's spending (the actual cost) = CS (consumer surplus).

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<sup>11</sup> *Andersson, T. D., & Samuelson, L. A. (2001)*

<sup>12</sup> *Andersson, T., Rustad, A., & Solberg, H. A. (2004)*

Diagram 4 below shows the relationship between WTP and CS



Source: Armbrecht and Andersson

For example, the evening that Gothenburg Symphony Orchestra (GBG Symfoniker) had a concert, every visitor had spent on average SEK 375 (utgifter hela kvällen). When they were asked about how much they would, hypothetically, be willing to pay for the evening (what they thought the evening was worth), the average per visitor was SEK 419.50 (WTP hela kvällen). This gives a consumer surplus of about SEK 25.60 (CS hela kvällen). Synonymous, we can study the performance 'Till kungens förnöjelse', where the cost of the evening was SEK 178, while the willingness-to-pay was SEK 488.90, which resulted in a considerable consumer surplus of SEK 316.90.

The authors estimate that Vara Concert Hall had 35,000 visitors in total in 2008. With that as a starting point and the average perceived value of SEK 528, the aggregate willingness-to-pay is SEK 18.5 million, total expenditure SEK 8.2 million (an average of SEK 234) and a consumer surplus of SEK 10.3 million (an average of SEK 294).

### 2.5.3 The effect of the cultural venture in the region

The third part of the project studied the regional impact of the cultural investment in terms of value, quality of life and attractiveness. It attempted to identify the values that Vara Concert Hall creates among different population groups regardless of whether they have visited the concert hall or not. The study uses the term 'non-use value' which was divided into *option value* (spreading value to other parts of the region) *bequest value* (preserving value for future generations) and *existence value* (the ability to influence individuals' identity and welfare by its very existence), The Swedish National Heritage Board (2002).

Through a random process, 250 respondents from Vara (the municipality) and 350 from Västra Götaland (the region) were selected for telephone interviews. The questions include if they have visited the concert hall, if its repertoire corresponded to their cultural interests, if the concert hall contributes to improved quality of life, if one is willing to pay tax to keep it, and how much. Tables 5 and 6 below show the non-use values of Västra Götaland



and Vara. In brief, it can be said that the closer to the concert hall a respondent lives, the greater the value the concert hall has.

Table 6 Västra Götaland

Category	Number	Max	Min	Average	Std
Option value	241	0	1400	84	165.9
Bequest value	246	0	700	90	151.1
Existence value	267	0	650	29	70.3
Total value	252	0	2100	203	332.1

Source: *Armbrecht and Andersson*

In the table above, we can infer what people in Västra Götaland were on average 'hypothetically' willing to pay for the concert hall in SEK. To convert these results into a regional dimension, the values are multiplied by the total population in Västra Götaland over 16 years of age and from that conclusions are drawn about the overall value created at a regional level.

For the population of Vara Municipality, the concert hall is of greater importance. The Diagrams below show that, locally, the average willingness-to-pay is somewhat higher. Notably, the existence value is not substantially different locally and regionally.

Table 7 Vara Municipality

Category	Number	Max	Min	Average	Std
Option value	185	0	1500	122	219.3
Bequest value	186	0	1000	149	229.5
Existence value	201	0	1000	38	107.1
Total value	185	0	2500	309	474.6

Source: *Armbrecht and Andersson*

By aggregating the non-use value at municipal and regional level, it is possible to draw a conclusion about the total value created in Vara Municipality and Västra Götaland. For example, the study assumes that the total population over 16 years old in Vara municipality is 12, 966 people by multiplying the number of people by the average. In this way the total value of the municipality is gained.

Table 8 Accumulated values for Vara Municipality

	Option value	Bequest value	Existence value	Total value
Mean value	122	149	38	309
Number of people	12, 966	12, 966	12, 966	12, 966
Total value in SEK	1, 584, 772	1, 937, 170	495, 514	4, 006, 494

*Source: Armbrecht and Andersson*

In conclusion, we note that the first part attempts to capture the effects of the concert hall in the existing data, while the second and third parts try to measure the economic contribution the concert hall has created locally and regionally. The authors believe that a large percentage of the value is created outside the municipal borders, which indicates that the region as a whole benefits from the concert hall. Furthermore, the authors point out that in the second part of the study it was revealed that there may be contradictions between the business objectives of Vara Concert Hall and the socio-economic objectives that politicians have through public funding. Creating a cultural attraction in a smaller town such as Vara means, on the one hand, a large financial investment and organization, on the other hand, it can create change in society that also creates relationships between individuals and builds networks and relationships which in turn promotes local development.

## 2.6 Concluding remarks

In this section, we have included those elements we have especially wanted to emphasize. Our starting point has been one of the three dimensions of development dynamics in which culture plays a role, especially in smaller towns the one of cultural investments as tools to enhance the region's attractiveness to outside visitors.

Calculations of the effects of cultural ventures, like many other efforts in the economic area, can be virtually unlimited in complexity. We have chosen to focus on the fact that very few studies of the effects of cultural investments have been carried out to date. We have focused therefore on the most necessary calculations which should be done to have at least a primary material that can be used as an indicator of possible trends.

The regions in the two reported studies share the common starting point of creating regional development through a cultural attraction. The two examples cited have chosen, however, to illustrate this from two different perspectives. The study on Vara highlights cultural investments as a tool for creating regional identity and attractiveness. The Rörös study's main focus, however, is to highlight a more strictly economic way of measuring the effect of cultural attraction, e.g., in terms of employment. The studies on Rörös and Vara describe in practical terms how investigations can be conducted and what information a regional actor should develop in order to estimate the value of a cultural investment's local economic influence. The economic effect as measured by willingness-to-pay can be seen as a complement to the multiplier approach.

### *National responsibility*

Responsibility for improving knowledge can be divided nationally and regionally. We consider the following division of labour to be realistic and relevant. The country is responsible for tourism accounts being reliable and having a high level of accuracy.

Regionalized culture satellite accounts could also be an area for development, see the next chapter.

Both the study on Vara Concert Hall and on Röros are examples of how averages estimated from national statistics, such as input-output tables, industry data and tourism accounts, have been used to derive regional magnitudes of direct and indirect effects. These effects are estimations that contain errors to the extent that the averages are not representative of the region. The country's responsibility is to provide national statistics that have a low sampling error. One advantage is if these estimates can also be calculated at a regional level. The next chapter indicates that there are possibilities of developing the national statistics in this respect.

### *Regional responsibility*

In connection with ventures that have the purpose of strengthening the local brand and attractiveness, local impact studies should be carried out regularly. At the regional level, the responsibility for conducting such investigations lies with the regional actor. It is in other words the regional actor's responsibility to:

1. Have control over the size of (the local part of) the cultural investment.
2. Conduct credible visitor investigations
3. Implement estimates of direct and indirect effects. In these, it is important that various forms of leakage are identified.

The purpose of a tourist/visitor survey in this context is to derive the proportion of visitors who come for a particular reason and the nature of the expenditure these visitors have had. OECD (2005 p. 87) illustrates with some examples the importance of how questions are formulated.

- *Would you come here even if culture venture xx had not been carried out?*

(If the visitor answers NO to this question, it can be assumed that 100 per cent of expenditure in connection with the visit is caused by the cultural venture) if the answer is YES you have to try to qualify the expenditure that can be derived from the cultural venture. The next question is then appropriate to proceed with

- *Would you reduce your expenses if the cultural venture xx had not been carried out?*

If the answer to this question is NO, the cultural venture has not affected expenditure at all. However, if the answer is YES, you can proceed to qualify this more accurately.

For a tourist visiting for the day or for someone living in the region, an alternative to the first question above should be asked.

- *Would you have visited or spent money on anything else if the cultural venture xx had not been carried out?*

If the answer is NO, all expenditure can be attributed to the cultural venture. Carrying out visitor surveys also involves other technical difficulties, such as correctly identifying a group of visitors, which refers in part to traditional market research methodology.

The above illustrates that it is possible, with appropriate questions, to estimate the proportion of visitors to base calculations on when working out direct and indirect effects for which national statistical estimates can be used.

### *Afterword*

In addition to the general meaning of conducting visitor surveys and capturing direct and indirect effects when implementing a cultural venture, the OECD (2005) emphasizes the dimensions that affect the size of multipliers and finds that the following experience can be gained.

- Input goods/services should as far as possible come from the region

For a small town, the greatest challenge is perhaps that of mobilizing local resources so that they can be used in a flexible manner. The usual story of the town population being unable to welcome tourists and provide service means that resources leave the town when temporary workers leave.

The town's ability to use its 'social' capital can be the difference between failure and success.

- Support complementary activities

This may sound obvious, but the art of utilizing resources optimally is precisely about finding how they can reinforce each other.<sup>13</sup>

- Durability is important

There is still a lack of good studies that calculate credible multipliers from different types of ventures. Recurring events, i.e., building a tradition, has been seen to have greater results than individual ventures. A newly published anthology illustrates the conditions and problems that may arise when one tries to act at the regional level, including examples from the Hultsfred Pop Music Festival.<sup>14</sup>

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<sup>13</sup> *Lindeborg & Lindkvist ed (2010) "Kulturens kraft för regional utveckling" (Nilsén "system för kreativitet") SNS förlag 2010*

<sup>14</sup> *ibid*

### 3 Measuring the economic contribution of Culture by means of Culture Satellite accounts

The previous chapter dealt with the regional dimension, and in this chapter the focus is on the national and, to some extent, international level. That there is a desire to measure the importance of cultural industries and culture in economic terms in the form of the proportion of GDP is primarily grounded in the increased attention received by cultural and/or creative <sup>15</sup> industries in the past 15 years. If the cultural industries' proportion of GDP increases over time, this is evidence that policy must increasingly relate to this sector. In this section, we are however only using the term cultural industries as a concept for these interests.<sup>16</sup>

Internationally, countries such as Finland, Canada and Spain have established culture satellite accounts, and more countries have begun to explore the possibility of doing the same <sup>17</sup>. This chapter highlights the problems associated with establishing these types of accounts.

One problem is that if countries are using different definitions of cultural industries when calculating their culture satellite accounts, this affects the ability to make comparisons between countries <sup>18</sup>.

The following issues will be addressed:

1. What are culture satellite accounts?
2. Is it possible to establish culture satellite accounts in Sweden?
3. Can Swedish culture satellite accounts be compared with those of other countries?
4. Is it possible to establish regional culture satellite accounts?

#### *The meaning of accounting*

National Accounts (NA) is the most established model for studying the economy from a holistic perspective. The background to this is partly its relationship to macroeconomic theory and partly to the standardization developed over many years in the UN System of National Accounts (SNA).

The EU, OECD and IMF ordains the use of SNA to describe a nation's economy, for example as a basis for economic policy and economic planning. Sweden, as a member of the EU, follows ESA 95, the manual for the European system of national accounts. ESA 95 prescribes which information tables each member state is to produce and what definitions to use for the statistics. Data collection methods for the underlying statistics of the national accounts vary from country to country. Some countries' data are based largely on the index data on populations, while other countries have sample surveys for data collection.

The concept of accounting is used because the system is set up with accounts that add up to equal totals in a similar way to traditional accounts in accounting. The balance of resources

<sup>15</sup> *Cultural and relative industries (CCI)*

<sup>16</sup> *See discussion ITPS (2008) and Section 3.4 below*

<sup>17</sup> *Ministry of Education, Finland 2009:13*

<sup>18</sup> *Gordon and Beilby-Orrin*

is the sum of the accounts for the nation's assets, and this must be the same as the sum of the accounts that constitute the total use of these assets.

Table 9 Balance of resources, production and use

Assets	Use
Value added	Private consumption
Import	Public consumption
	Investments (gross and stock)
	Export

Assets are what the nation imports or produces. Production can be divided into input goods and value added. Input goods are what a company needs to buy in order to produce. Value added is the value a company adds during production.

For a painter, canvas, paints and brushes are the input goods in production, and the value added is the realized value which is added by the artist in the form of salary/surplus capacity from the sale of the piece. The work may also have an 'artistic' value that can be described in other terms than value added, but this belongs to another discussion.<sup>19</sup>

Use is what we utilize or what we choose to invest or export rather than consume. For the artist, the painting can either be bought by private collectors (private consumption) or purchased with public funds as part of the decoration of public space or for an art collection in a museum or the like. The work can also be considered an investment if a company buys art in order to increase job satisfaction in the workplace in order to achieve increased production.

GDP, which is a measure of overall economic activity in the country during a period, can be summed up through the value added from the 'assets side'. From the 'use side', GDP is equivalent to the sum of consumption, investments and net exports. Calculating the proportion of national accounts (NA) made up of culture means that one must be able to define both the value added by cultural production and the definition the use of culture. It is each country's economic statistical system that sets limits on how well economic activities that refer to culture can be identified.

### 3.2 Culture satellite accounts

All economic activities that can be linked to culture are already in the NA since these cover the entire country's economy. In order to separate culture in economic terms and call accounting cultural accounts, we need to use the same data sources and adjustments for the statistics as in the NA.<sup>20</sup> There it sets out which parts of national accounts are culture. This method is called satellite accounts, when accounts on a certain themes – in this case culture satellite accounts – are established within the same system, but alongside.

Other areas where satellite accounts have been established to account for a theme are: tourism, health and environmental accounts.<sup>21</sup> Previously, IT accounts have been important

<sup>19</sup> Value added arises only when something is sold. Unsold cars have no value added, but include only those costs consumed in their production.

<sup>20</sup> The adjustments required to ensure that assets are equal to use.

<sup>21</sup> Statistics Sweden (SCB) 2007:5

in connection with the discussion about measuring the 'new economy' (SOU 2002:118), but this was not realized.

Culture satellite accounts mean identifying the value added from all cultural production and the sum of all uses of culture. This definition or identification of production and use constitutes a problem. It is each country's economic statistical system that sets limits on how well cultural economic activities can be identified.

Experience from the work of Finland, Canada and Spain on culture satellite accounts shows that there is a need to make improvements in the statistics to be able to distinguish cultural industries from other activities. Canada and Spain have implemented changes in existing data collection and have also collected new statistics in order to measure cultural effects.

### 3.3 International comparisons

If one compares the Swedish definition of cultural industries proposed by Growth Analysis (see Appendix 2) with those used by Spain and Finland in their culture satellite accounts, the biggest difference is that Sweden's proposed definition is more narrowly based on the core of culture. Both Spain and Finland have large parts of Sweden's definition, but also include production in close proximity to cultural production. For example, Finland counts the production of black goods<sup>22</sup>, trade in cultural goods and cultural training, not included in the Swedish definition.

Today there are several attempts to harmonize the cultural statistics of different countries. UNESCO has developed an international framework for cultural statistics which Canada, Finland, Spain and Sweden do not follow<sup>23</sup>. Sweden is involved in work initiated by the European Commission in cooperation with Eurostat<sup>24</sup> and will continue until 2012.

### 3.4 Swedish culture satellite accounts?

#### 3.4.1 Cultural Production

The following paragraph focuses on how well, and if, it is possible to measure culture in parts of the assets and use, based on existing statistics in Sweden. This part is somewhat technical, but the aim is to describe the complexity of setting up culture satellite accounts. Where there is difficulty in defining culture, possibilities for improvement were discussed. Cultural assets are divided into private and public cultural production where data sources are different.

Growth Analysis delimited Swedish cultural production in the statistics as a 'trident' (see below) with a number of industries, products and occupations<sup>25</sup>.

- An industry, according to industrial classification, is counted when its main product can be attributed to Thorsby's culture nomenclature, such as publishing, museums and artistic activity, etc.

<sup>22</sup> *Goods intended to record or play back audio and video. E.g., TVs, cameras, stereos, computers, blank DVDs, etc.*

<sup>23</sup> *UNESCO 2009*

<sup>24</sup> *ESSnet*

<sup>25</sup> *See Appendix 2*



- In two cases, there have been products which are mostly cultural, but the industry as a whole cannot be classified into the definition of cultural industries. In those cases, they have chosen to specify the production of computer games and advertising design as cultural products.
- An occupation's contribution to production may be cultural, but the industry needs to have a high proportion of cultural values in its production. A designer who works in the car industry is an example of this.

*The culture trident*

The total output of cultural values should be theoretically estimated with the sum of value added by what this cultural production represents. The values added include both salaries given to the employees and the surplus capacity these salaries can be attributed to. Diagram 5 below describes the production of the so-called "trident". The three grey fields are the areas that constitute the economic 'cultural sector'. It is made up of 'cultural' professions employed in 'cultural industries' and of 'non-cultural professions' also employed in cultural industries, probably in a 'support role' for cultural producers. Lastly, the sector consists of those in cultural professions employed outside the cultural industries.<sup>26</sup>

It is reasonable to assume that the salaries paid to these professions are part of the value added in terms of the culture produced outside the cultural industries. The trident approach is thus a way to capture the size of the entire economy in a designated area. Only using the production of cultural value by cultural industries leads to an underestimation of the production of cultural value in the NA. By using the trident approach, this underestimation of the production of cultural value is reduced.

Diagram 5 illustration of the total production of cultural value, the culture trident

		Industry / Product	
		Cultural industries	Other industries
Profession	Cultural professions	Salary including social security contributions	Salary including social security contributions
	Other professions	Salary including social security contributions	
		Surplus capacity	

<sup>26</sup> This trident model, based on three fields with combinations of cultural activities in the form of professions and industries, has been used by Stephen Higgs and Stuart Cunningham of Australia, NESTA in the UK and the French Ministry of Culture. Canada also defines culture based on industries, professions and products. Statistics Canada (2004) Higgs, Cunningham & Bakhshi (2008)

The method of using the trident approach has significantly improved the ability to capture cultural production than in other countries which only define cultural activities by industry, i.e., by main business sector affiliation. In Sweden, about 40 per cent of those employed in cultural production come from activities defined by product or profession<sup>27</sup>. The disadvantage is that this places somewhat higher demands on the national statistical system.

The foregoing definition that only includes activities where the value added is dominated by cultural value gives greater opportunities to find the uniqueness of cultural industries. One consequence of using this definition, however, is that there will be fewer cultural industries than in those countries which include related activities, such as distribution and marketing, in their cultural industries.

### *Private cultural production*

Cultural production is defined by industry, product and occupation. We will look at the possibilities of measuring value added, employment and salary costs.

The cultural range offered by companies at industry level<sup>28</sup> can be obtained from Statistics Sweden's business statistics, which are also used by NA. The statistics on companies is based largely on records and are of good quality, which provides good conditions for being able to define cultural industries and their value added and employment<sup>29</sup>.

In two cases, the industry classification was too basic to be able to identify cultural production. In these cases, we instead opted to use the products:

6 201 003 Computer games (original)

7 311 102 Advertising design and concept development services

To calculate value added, employment and salary costs related to the product in an industry, Statistics Sweden suggests that the proportion of the industry's turnover that is made up of the product's turnover correlates with the product's corresponding proportions of value added, number of employees and salary expenses. For example, if a product's turnover is five per cent of industry turnover, it is assumed that the product also has five per cent of the industry's value added, employment and salary costs.

Information on the product computer games is not, at present, collected separately. During this study, Statistics Sweden announced a review of the possibility of collecting information on product games separately. For advertising design and concept development services, all production is conducted in one industry<sup>30</sup>. There, the product's proportion of turnover is 2.7 per cent of industry turnover, and it is assumed that the product also has 2.7 per cent of salary costs, value added and employment in the industry.

For professions which are a part of cultural industries, the economic effects are already included in the accounts thanks to industry data. In addition to these professions, we want to capture the culture satellite accounts of professions that add value in terms of cultural value, but operate outside the identified cultural industries. In calculating the value added

<sup>27</sup> *Growth Analysis report 2009/054*

<sup>28</sup> *Swedish trade and industry classification in 2007 (SNI07)*

<sup>29</sup> *See Appendix 2*

<sup>30</sup> *SNI 731 Advertising activities*

of cultural professions, salary costs are used instead of value added. Salary costs are assumed to reflect the value that work adds to production in terms of value added.<sup>31</sup>

One problem with the occupational statistics is that the gap in the statistics is large, mainly for companies with 0-1 employees. If professions are to be able to be used in culture satellite accounts, it is important that occupational statistics are improved for the smallest companies. A development of occupational statistics would also provide new opportunities to study how the labour market functions, such as the matching supply and demand for labour. Detailed information on opportunities to improve occupational statistics are available in Appendix 4.

### *Public cultural production*

In the Swedish National Accounts, public productions of cultural values are reported in the category: Leisure, culture and religion. To find a finer subdivision of public cultural production, we need to look at micro data in the public finances. The Swedish Arts Council has shown in 'Cultural Financing 2002'<sup>32</sup> that it is possible to report culture on a finer level. A further development of this is urgently needed, so that the report also takes into account the definition of culture in industries, occupations and products if culture satellite accounts are to be established in Sweden.

It is also noteworthy that in public cultural production one should include public institutions which have the purpose of funding or running cultural activities that are not covered by industry classification for cultural production in the cultural economy, such as the Swedish Arts Council.

### 3.4.2 Use of culture

Consumption is divided into private consumption and public consumption since the collection method of the economic statistics are different. Public and private consumption of culture are often linked. For example, when a person visits a theatre or museum, the total consumption is divided into private consumption, which is the price of the ticket, and public expenditure, which is the subsidy of the theatre performance. The use of culture also includes cultural investments and net export.

### *Private consumption*

There are many products which, for a consumer, consist solely of a cultural value, such as a theatre visit. A large part of cultural production will not come to the consumer as a pure cultural product, but only as a small proportion of another product's value. This could be a promotional photo company that adds cultural value to a non-cultural product, or it could be a designer's work at a car company that adds cultural value to a car.

Should we only measure the products which contain a large measure of culture and accept that there will be a difference between production and consumption, or should we try to measure all products and try to measure the proportion of their consumption value that is cultural?

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<sup>31</sup> *These professions' contribution to surplus capacity for industries outside the cultural industries are not included, however, which results in an underestimation of the value added by cultural production*

<sup>32</sup> *The Swedish Arts Council 2003:6*

One method is to examine private cultural consumption, where the cultural consumption of goods with a lower proportion of culture is also registered. This would mean having to expand the information on consumption with the cultural value, practical benefits and other values of consumption for each product. Practically, this could mean additional questions in the survey on household spending. If one is content to measure the products that contain a high proportion of culture, the data in the survey of household spending is quite detailed and there are good possibilities to distinguish what is cultural production.

The problem that remains unresolved is how to separate the part of production which is intended for the consumption of goods with high cultural value and the part that has a low proportion of culture. Consumption of goods with a low proportion of culture can arise from cultural production either being the input goods of other production or from an occupation contributing a small proportion of culture to a product. Canada has solved this by dividing production into cultural production for consumption and cultural production that are input goods in other production<sup>33</sup>.

If you choose to investigate the proportion of culture in all private consumption by type of goods, the investigation will be very expensive. If, instead, you only measures the consumption of goods with a high proportion of culture, there will be a discrepancy between use and assets in the culture satellite accounts, and you will have to do something similar to Canada and divide production depending on whether it is for consumption or for input goods in other production. The question of how to measure private cultural consumption and how it should be related to cultural production needs to be studied further based on what is practical and economically feasible.

#### *Public cultural consumption*

On the use side, a breakdown of consumption expenditure for public consumption is done classified by purpose according to COFOG<sup>34</sup>. Statistics Sweden reports on public cultural consumption under the title: Leisure, culture and religion. We need a finer division to be able to include public cultural consumption in culture satellite accounts. One possibility to estimate public consumption is by going through public production since public production is by definition public consumption at cost less charges (e.g., ticket revenue).

#### *The production of culture as an investment*

Measuring cultural investment means that one needs to examine business and public sector consumption and cultural production as the purpose of investment. An example might be a company's purchase of art for the premises in order to increase job satisfaction among staff, which will generate better production. All EU states have estimates of investment in artistic and literary originals. These statistics need to be expanded to cover more parts of cultural industries. Neither Spain<sup>35</sup> nor Finland<sup>36</sup> has estimated investment in culture satellite accounts

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<sup>33</sup> *Statistics Canada (2004)*

<sup>34</sup> *Classification of Functions of Government*

<sup>35</sup> *Ministry of Culture of Spain (2009)*

<sup>36</sup> *Ministry of Education of Finland (2009)*

### *The net export of culture*

Net export can be divided into goods and services as well as export and import. The method of data collection is by product, and the statistical method is the same for export and import.

In the case of the net export of goods for the 32 industries and two products contained in cultural production, there are 10 product groups that relate to cultural industries and cultural products for import and export of goods in foreign trade<sup>37</sup>.

Net export of services, i.e., foreign trade with services, are reported by basic divisions where cultural services can be found under the sub-headings: *Computer and information services, licences/royalties* and *Personal services, culture etc.* This basic division means it is not possible to account separately for the proportion of culture in export and import services. For culture satellite accounts, it is, in summary, desirable to better be able to distinguish cultural and other products in foreign trade statistics.

### **3.5 Regional culture satellite accounts**

Is it possible to establish regional culture satellite accounts?

For the supply side, we rely on statistics from data sources from corporate finance, product data, the occupational register and public finances. Corporate finances are based on registry data, and it is possible to present statistics for most municipalities<sup>38</sup>. Occupation statistics are also based on registers and registry data, and even here it is possible to report down to a relatively fine geographic division. For public cultural production, the Swedish Arts Council has shown that it is possible to account for public cultural production down to county level. According to Statistics Sweden's product data, it is not possible to divide a region and retain good quality. The products computer game and product design are, however, a very small part of culture on the asset side.

From the use side, it is more difficult to estimate culture at a regional level. This is mainly because private cultural consumption comes from a range study, which becomes much more uncertain at a regional level, because the range is too small.

Overall, there is a relatively good possibilities of estimating culture satellite accounts at the regional level from the supply side, except for cultural products. From the use side, the data material becomes less reliable at the regional level. Further studies are needed to study the conditions for regional culture satellite accounts in more detail.

### **3.6 Concluding remarks**

There is potential for beginning the process of culture satellite accounts in Sweden, and if there is an interest in monitoring the development and significance of the cultural economy in society, the development of culture satellite accounts is important. Canada and Spain are examples of such requests resulting in adjustments in the statistics in order to better separate culture in the various parts of culture satellite accounts.

The best position to report on culture is found on the asset side. An improvement of professional statistics and a finer description of culture in public production can be implemented within a reasonable time frame. The improvements that need to be done to

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<sup>37</sup> See Appendix 2

<sup>38</sup> *Growth Analysis report 2009:06*

get good occupational statistics is costly both in terms of resources and an increased burden on respondents, but it would provide improved opportunities for studies of labour market function both within and without the cultural sector. From the user side, there are several elements that need to be studied further in order to set boundaries on what is cultural use. There, we primarily need to look at how to measure private consumption. There is also a need to have better boundaries of the net export of culture and measurements of cultural production as investments.

At a regional level, there are relatively good opportunities for establishing culture satellite accounts from the asset side, except for the cultural products of computer games and advertising design. From the use side, it is more difficult to estimate use of culture at a regional level.

The opportunity to make comparisons with other countries is small in the absence of an international definition of what culture is in the form of products, industries and occupations. Today there are several attempts to harmonize the cultural statistics of different countries. Sweden is involved in work initiated by the European Commission in cooperation with Eurostat<sup>39</sup> and will continue until 2012. If the EU Commission chooses to make this a common public definition of cultural industries, there is great potential in the future to make comparisons by country.

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<sup>39</sup> *ESSnet -European Statistical System Network Project on Culture Statistics Development*

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## Appendix 1 Multiplier Derivation

The multiplier argument is based on the simple and basic macroeconomic presentation of the relationship between income, consumption and investment.<sup>40</sup>

We use the following terms:

Y = income

I = investment, exogenous variable, i.e., determined outside the model

C = consumption

b = consumption propensity, i.e., proportion of income used on consumption,  $0 < b < 1$ .

a = constant (since the model is in linear form)

And the following relationships

$$C = a + bY$$

$$Y = C + I$$

In addition, the following assumptions are made

- 1) that there are spare resources in the form of labour and real capital
- 2) that these are available for use
- 3) stability conditions or equilibrium

Since there is spare capacity, a change in investments can set in motion a process, the end of which may be derived from a rearranging of the terms above.

$$Y = a + bY + I$$

And

$$Y = \frac{1}{(1-b)} a + \frac{1}{(1-b)} I$$

A change in I results in a change of  $1/(1-b)$ . This latter is called the multiplier, in that when b is less than one (but not zero), the ratio will therefore be greater than 1. An investment results, given the assumptions, the income being greater than the increase in investment.

The explanation for this is that the exogenously determined change in investment leads to an equally great change in income, Y. Then in the next stage, increased income leads to increased consumption. This increased consumption leads to increased revenue for the consumer goods industry. In a third stage, increases in the consumer goods industry leads in turn to increased consumption, etc. ad infinitum.

The sum of the effects can also be derived as the sum of an infinite geometric series

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<sup>40</sup> Dickson H Lukkainen *PA och Sandeling B (1986) Termer i Nationalekonomi, Liber*

## Appendix 2 Table of cultural industries, product groups and occupations

*Table 2.1 Cultural industries on the basis of the Swedish industrial classification SNI 2007*

(The Swedish industrial classification is identical with NACE rev2 with the exception of the fifth digit that is specific for the Country)

58110	Book publishing
58131	Publishing of daily newspapers
58140	Publishing of journals and periodicals
58190	Other publishing activities
58210	Publishing of computer games
59110	Motion picture, video and television programme production activities
59120	Motion picture, video and television programme post-production activities
59130	Motion picture, video and television programme distribution activities
59140	Motion picture projection activities
59200	Sound recording and music publishing activities
60100	Radio broadcasting
60200	Television programming and broadcasting activities
63910	News agency activities
71110	Architectural activities
74101	Industrial and fashion design
74102	Graphic design
74103	Activities of interior decorators
74201	Portrait photography
74202	Advertising photography
74203	Press and other photography
74300	Translation and interpretation activities
85521	Activities of municipal culture schools
85522	Other cultural education
90010	Performing arts
90020	Support activities to performing arts
90030	Artistic creation
90040	Operation of arts facilities
91011	Library activities
91012	Archives activities
91020	Museums activities
91030	Operation of historical sites and buildings and similar visitor attractions
91040	Botanical and zoological gardens and nature reserves activities

Table 2.2 Cultural product groups that are not covered by cultural industries

(The Swedish nomenclature SPIN is identical with the European nomenclature CPA, Classification of Products by Activity)

SPIN 2007	
62.010.03	Computer games software originals
73.111.02	Advertising design and concept development services

Table 2.3 Cultural occupation groups

SSYK (ISCO-88)	Title
2141	Architects, town and traffic planners
2413	Advertising and marketing professionals
2431	Archivists and curators
2432	Librarians and related information professionals
2442	Sociologists, anthropologists, and related professionals*
2451	Authors, journalists and other writers
2452	Sculptors, painters and related artists
2453	Composers, musicians and singers
2454	Choreographers and dancers
2455	Film, stage and related actors and directors
2456	Designers
3118	Draughtspersons*
3131	Photographers and image and sound recording equipment operators
3132	Broadcasting and telecommunications equipment operators
3429	Business services agents and trade brokers not elsewhere classified
3471	Decorators and commercial designers
3472	Radio, television and other announcers
3473	Street, night-club and related musicians, singers and dancers
3474	Clowns, magicians, acrobats and related associate professionals
3476	Stage or unit managers and property managers
4140	Library clerks
5113	Travel guides
5122	Cooks
7312	Musical instrument makers and tuners
7313	Jewellery and precious-metal workers
7321	Abrasive wheel formers, potters and related workers
7322	Glass makers, cutters, grinders and finishers
7323	Glass engravers and etchers
7324	Glass, ceramics and related decorative painters
7330	Handicraft workers in wood, textile, leather and related materials
7341	Compositors, typesetters and related workers
7342	Printing engravers and etchers
7343	Bookbinders and related workers
7344	Silk-screen, block and textile printers
7421	Wood treaters
7422	Basketry weavers, brush makers and related workers
7431	Tailors, dressmakers and hatters
7432	Furriers and related workers
7433	Textile, leather and related pattern-makers and cutters

7434	Sewers, embroiderers and related workers
7435	Upholsterers and related workers
7441	Pelt dressers, tanners and fellmongers
7442	Shoe-makers and related workers

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## Appendix 3: foreign trade in goods

Table of foreign trade in goods by industry in 2009

<i>Cultural industries</i>	<b>Foreign trade in goods with a breakdown by product</b>	<b>Import of goods, adjusted for loss, SEK thousand</b>	<b>Export of goods, adjusted for loss, SEK thousand</b>
<i>58110 Book publishing</i>	58.110 book publishing services	1, 395, 002	929, 183
<i>58131 Publishing of daily newspapers</i>	58.131 publishing services for daily newspapers	111, 870	50, 385
<i>58140 Publishing of journals and periodicals</i>	58.140 publishing services for journals and periodicals	701, 951	215, 034
<i>58190 Other publishing activities</i>	58.190 other publishing services	1, 347, 309	1, 548, 171
<i>58210 Publishing of computer games</i>			
<i>59110 Motion picture, video and television programme production activities</i>	59.110 motion picture, video and television programme production services	2, 278, 310	2, 527, 725
<i>59120 Motion picture, video and television programme post-production activities</i>			
<i>59130 Motion picture, video and television programme distribution activities</i>			
<i>59140 Motion picture projection activities</i>			
<i>59200 Sound recording and music publishing activities</i>	59.200 Sound recording and music publishing services	551, 138	525, 354
<i>60100 Radio broadcasting</i>			
<i>60200 Television programming and broadcasting activities</i>			
<i>63910 News agency activities</i>			
<i>71110 Architectural activities</i>	71.110 architectural services	8, 276	5, 418
<i>74101 Industrial and fashion design</i>			
<i>74102 Graphic design</i>			

74103 Activities of interior decorators			
74201 Portrait photography			
74202 Advertising photography			
74203 Press and other photography	74.203 Press and other photography services	1, 227	108
74300 Translation and interpretation activities			
85521 Activities of municipal culture schools			
85522 Other cultural education			
90010 Performing arts			
90020 Support activities to performing arts			
90030 Artistic creation	90.030 Artistic creation	120, 559	146, 746
90040 Operation of arts facilities			
91011 Library activities			
91012 Archives activities			
91020 Museums activities	91.020 museums services	224, 419	85, 150
91030 Operation of historical sites and buildings.			..
91040 Botanical and zoological gardens and nature reserves activities			

Source: Statistics Sweden



## Appendix 4. Improvements to occupational statistics

Statistics Sweden's ambition for companies with more than one employee is that job classifications will be up-to-date for 5 years. The great problem with gaps in the occupational register lies with individual traders and companies with one employee.

Statistics Sweden is working with methodological improvements of the occupational register. For example, it is investigating the possibility of combining industry with the educational background of individual traders. In cultural professions, there are several private companies that are likely to be captured by industry classification, e.g. photographers and architects. For craft, it may be harder to capture the occupation through the industry. E.g., the occupation blacksmith or forging companies are not a separate industry, but are classified in terms of the product they produce. E.g., wrought iron garden chairs belong to a different industry than forged staples for blacksmiths.

If you want to raise the level of ambition for sole traders and companies with one employee to the ambition Statistics Sweden has for larger firms in the form of an expanded survey, Statistics Sweden roughly estimates the cost to around SEK 1.5 million and a respondent burden of 1, 600 hours. This means that it would take five years to reach the same level as for larger companies. A specific measure to update all sole traders and companies with one employee in the space of one year is equivalent to a cost of SEK 5 million and 6, 400 hours' respondent burden.

Occupational statistics are divided into SSYK 94<sup>41</sup>, which is based on the international classification ISCO-88<sup>42</sup>. It would be desirable to change to ISCO-08 which has a finer breakdown of the services sector and would improve the possibility of selecting cultural occupations.

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<sup>41</sup> *The Swedish Standard Classification of Occupations*

<sup>42</sup> *International Standard Classification of Occupations*

**The Swedish Agency for Growth Policy Analysis (Growth Analysis) is a cross-border organisation with 60 employees. The main office is located in Östersund, Sweden, but activities are also conducted in Stockholm, Brasilia, Brussels, New Delhi, Beijing, Tokyo and Washington, D.C.**

**Growth Analysis is responsible for growth policy evaluations and analyses and thereby contributes to:**

- stronger Swedish competitiveness and the establishment of conditions for job creation in more and growing companies
- development capacity throughout Sweden with stronger local and regional competitiveness, sustainable growth and sustainable regional development.

**The premise is to form a policy where growth and sustainable development go hand in hand. The primary mission is specified in the Government directives and appropriations documents. These state that the Agency shall:**

- work with market awareness and policy intelligence and spread knowledge regarding trends and growth policy
- conduct analyses and evaluations that contribute to removing barriers to growth
- conduct system evaluations that facilitate prioritisation and efficiency enhancement of the emphasis and design of growth policy
- be responsible for the production, development and distribution of official statistics, facts from databases and accessibility analyses.

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