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## **Abstract**

This research explores the relation between subsidies for Dutch feature film production and box office revenues, in the context of policy objectives that have been formulated since 1997. The relation is calculated with use of a correlation analysis in which two types of correlations are used, the Pearson correlation and Spearman's rho, using subsidy and the production budget as independent variables and box office revenues as dependent variable. The results of the correlation analyses show a positive and significant relation between both independent variables and the dependent variable, but the correlations are too small to conclude that these variables determine revenues alone. At the same time, the required data for these calculations formed an interesting image on the development of subsidy allocation and box office revenues for Dutch film over the last decade. Together with the relevant cultural memoranda and literature on developments in the film industry, the data collection was used to draw conclusions concerning the effectiveness of subsidies in the light of policy objectives. The objectives were predominantly focused on: the increase of production volume; the improvement of quality and commercialization of film; entrepreneurship among producers; and attention to the audience. The main goal was to establish an economic viable film sector. Incentives managed to help increase the production volume of Dutch films, as well as the number of commercial films, but these successes were short-lived. In the end, the Dutch film sector did not become self-sufficient. Policy was focused too much on production and failed to implement measures specifically for demand. However, shifting the emphasis in policy to demand does not guarantee a better result, because all that is certain in the movie business is that nothing is predictable.

Keywords: Dutch film policy, Dutch cinema, subsidy, box office revenues, demand for film

## Chapter 1. Introduction

Investing in a movie product does not go without risks. The success of a movie in terms of revenues is highly unpredictable, surrounding the movie product with uncertainty. You never know in advance whether or not the vision of a producer or director will appeal to the audience. Before the movie reaches the audience a lot of steps are taken by many different parties. A tricky part of movie production is getting all these parties together at the same time with the same objectives. When production is wrapped, a film needs to be distributed and exhibited, preferably in as many theatres as possible in order to reach a big audience. To get people to the movie theatre in the first place, they need to know something about the film; hence the importance of publicity. Everybody from writer, producer and director to distributor, exhibitor and consumer form the value chain of a movie (Caves, 2002). In Hollywood this is the case, but in Europe, the government fills an important position within this value chain, due to the fact that production budgets consist largely of subsidies.

In the end, all interested parties want their investments to pay off, in other words, they wish to see their movie product become successful and make a profit. However, a high return is not guaranteed, because the supply of a movie will not automatically result in sufficient demand, due to the fact that movies are heterogeneous products and experience goods. The audience member can never be certain beforehand of enjoying a movie, because little information about the film is known. The choice to go and see a specific movie can be determined by several factors, for instance the characteristics of the movie itself (cast, genre, trailer, director, etc) or opinions of others about the movie that are gathered from sources such as reviews, magazines, papers or simply from conversation. Bottom line is that the response of the audience to a specific movie is hard to predict, because there is not just one factor that determines the choice of the moviegoer. The modeling of demand is therefore an uncertain process (De Vany & Walls, 1999, p. 286). This in turn makes investing in movies a high risk endeavor as well.

In order to reduce the risk for movie producers and investors, attempts have been made to discover what movie characteristics would result in a high demand. Unfortunately, there is no formula for a guaranteed successful movie. Even movies that have earned millions at the box offices do not form the blueprint for a successful movie in the future. Blockbuster movies seem to have all it takes to be a commercial success and can usually count on a large audience, resulting in high revenues, but there are just as many blockbusters that have bombed at the box office. Recent examples include movies based on comic books, such as SUPERMAN, BATMAN and SPIDERMAN. Many of them were indeed a box office success, which resulted in an increasing supply of these types of adaptations. However, the

second release round of comic based movies turned out to be far less successful than the first round, including movies such as CATWOMAN and AEON FLUX. This underlines the uncertainty of the behavior of the movie-going audience and of movie revenues. It also shows that movies that look alike can actually be highly differentiated products in the eyes of the audience; there exists no typical movie with an average box office revenue (De Vany & Walls, p. 286). In short, demand for a movie is not simply the outcome of the sum of movie characteristics and by the same token neither is the box office gross: both remain unpredictable.

Despite the infinite variety in movies, it is interesting to discover what *can* play a role in the success of a movie and influence demand, next to the movie itself. There is a wide range of possible variables and social processes that can influence the decision making process of the audience when it comes to films, but also when it comes to leisure activities in general. These choices are constrained by time and income. In order to save time and money, an audience member can turn to other people's experiences and opinions when deciding what to do or see (Bikhchandani, et al., 1992). For most popular activities or products the snowball effect occurs, but it is not always evident what sets it in motion. Also, analyzing a decision making process in detail is difficult. Still, facts on how information about a movie spreads; how it reaches its potential audience in the first place; and whether or not that piece of information will play a role in the consumer's decision making process, will be valuable knowledge for parties involved in movie making. Attempts to gain such knowledge do not cease to exist, considering the numerous amounts of conducted research on what factors can predict the success of a movie.

The majority of previous studies mostly focused on the effect of movie characteristics on revenues of Hollywood films. They form a starting point for my own research that focuses on Dutch movies and the Dutch film market, which deals with a high degree of government intervention. Similar to the rest of Europe, more than 40% of the total production costs for Dutch movies are subsidized by the government (Raad voor Cultuur, 2003, p. 3). Compared to Hollywood, this is quite substantial. Governmental policy will therefore have an effect on the Dutch film industry, on both a macro and micro level. This is hardly the case for Hollywood and policy is therefore seldom part of any research that focuses on predicting box office revenue. In Holland, cultural policy does not only shape the film sector, but the type of movies that it produces will also be affected by policy and its objectives. Consequently, the allocation of subsidy will probably have an effect on a movie's success in terms of box office revenues. Whether or not these assumptions can be justified will be explored in this thesis.

## Chapter 2. Research question

When it comes to researching the overall film industry, the focus usually lies on the American industry, but so much has already been said about Hollywood. The film industries in Europe, in this case The Netherlands, provide an interesting contrast to Hollywood. This mainly comes from the fact that European cinema relies on state support for its functioning and does so on a much bigger scale than Hollywood. The Hollywood industry is large enough to be self-sustaining, unlike the Dutch film industry. In fact, the revenue of just one Hollywood movie can easily exceed the total revenues of Dutch movies of one year, though uncertainty exists in both industries. Previous studies have focused on a variety of factors that could predict the success of a movie in terms of box office revenues, such as reviews (e.g., Eliashberg & Shugan, 1997; Gemster, et al., 2006; King, 2007), star power (e.g., De Vany & Walls, 1999; Bagella & Becchetti, 1999; Wallace, et al., 1993), production budget (e.g., Litman & Kohl, 1989; Prag & Casavant, 1994), distribution aspects such as the number of screens (e.g., Zufryden, 1996; Elberse & Eliashberg, 2003) and in a rare occasion, subsidies (e.g., Jansen, 2005). These studies have confirmed a positive relation between such factors and revenues, but could not pinpoint exactly what factors would generate what amount of revenue. Researching the relation between subsidies and the success of Dutch movies is a somewhat unexplored and interesting area, and therefore a relevant contribution to the studies mentioned above.

The amount of subsidy that is allocated each year to the Dutch film industry is presented in cultural policy every four years. The government makes up a budget for subsidizing the cultural sector and a part of that budget is reserved for film. This government support is both used for the production of film as well as distribution and marketing, and other affiliated projects such as festivals and educational activities. Some of these subsidies are allocated directly by the Ministry of Education, Culture and Science (Onderwijs, Cultuur en Wetenschap, OC&W) and some on behalf of the government. The latter applies for film production of which the subsidies are allocated by the Dutch Filmfund (Nederlands Fonds voor de Film).

The focus in this thesis will be on the financing of production, thus including the role of the Dutch Filmfund in the industry. However, film production cannot be examined on its own, for movies need an audience to become successful, which is reflected in cultural policy as well. If policy would focus only on supporting film production, the industry will fail to develop properly. After all, after financing and producing a film, it must be distributed and exhibited in order to reach an audience and create demand. For that reason, these phases

will be touched upon as well in this thesis, but to a lesser degree than the production phase. The end of the value chain of film is another important subject in this thesis, which are in fact the box office revenues or, in other terms, the demand for Dutch film.

On a global level the Dutch film industry is quite small and due to several reasons it relies heavily on state support in order to continue to exist. First of all, Dutch producers are able to release their movies on only a small market, because of language barriers. American movies dominate on that small market, which increases competition for reaching an audience. Also, the limited supply of Dutch films that attract a large audience and the lack of a so-called star system in the Dutch film industry sustain a weak industry (Meers, 2001, p. 152). Why would the government then support Dutch movies in the first place? The Dutch government, and the European Union, supports the national film industry on the basis of both cultural as well as economic reasoning. Though this support is also considered to stand in the way of an independent film industry (Meers).

The government considers movies to be important cultural goods for several reasons. Developments in communication technology increases people's exposure to information in different forms, originating from all over the world, of which audiovisual products dominate supply. Within this overload of images it is considered important that everybody is able to see representations of their own culture and film is one of the media that carries such imagery. Dutch movies represent the national and cultural identity of Holland in its own language and in a way that is recognizable for Dutch viewers (Nederlands Fonds voor de Film, 2004, p. 5). It is therefore vital that Dutch audiovisual products are part of this global information flow, especially when audiovisual products of mainly American origin increase their European market share (Jäckel, 2003, p. 67).

In the small Dutch film industry producers have to manage to complete a film with a relatively small budget. This makes it difficult to compete with foreign films that are produced with big budgets. Moreover, in Europe, films will achieve most of their success in their domestic markets (Jäckel, p. 119). Therefore, investing in a Dutch film will be risky for private parties, because the small market does not assure the recovery of all costs at the box office. Since it is nearly impossible to finance a film project with solely private sources, producers can count on government support by applying for subsidy at the Dutch Filmfund (Nederlands Fonds voor de Film). However, there is little room for producers to make a profit in a small market, which could be used for future projects. The point is that the Dutch film market allows for only a small turnover and from that the producers must pay back several parties, including subsidies, leaving just a little amount to break even or to make a profit.

The economic reasoning for government support is motivated by, among other things, these market circumstances. In general, economic reasons for governmental support are derived from welfare economics that assigns an allocative role to the state with the goal to maximize efficiency (Bailey, 1995, p. 17). In other words, government intervention is justified due to market failure. As a mixed good with externalities, the supply of film cannot be left to the market. Thus for efficiency, equity and paternalistic reasons, the government intervenes to correct any market failures, which will be discussed in the next chapter.

Film producers can receive subsidy for different stages of their film project, from (script) development to marketing and promotion. For every stage different criteria need to be met, depending on the genre, which are set up by the Dutch Filmfund in accordance with governmental policy. Subsidy applications for either drama, documentary or animation film will be reviewed by a commission of the Dutch Filmfund after which the board makes a final decision about allocation and the amount of subsidy. Next to that, the Filmfund supports projects that intend to increase production volume, such as the Telefilm, and it supports distribution plus the promotion and marketing of a movie through subsidies. The Filmfund works autonomously from the government, but is required to match its business plan with the objectives that are set out in cultural policy, which will be discussed further on.

This context of the Dutch film industry forms the backdrop of the following research question and subsidiary questions:

**To what degree does state support for Dutch movies correlate with box office revenues collected in Dutch movie theatres since circa 1997 and how does that relate to policy objectives?**

- Why does the government support Dutch film production?
- What is the position of film in cultural policy after World War II?
- What were the developments in film policy objectives since 1997 and to what degree have they been met?
- How is demand formed for Dutch film and what image does the audience have of Dutch film?

I assume there is a positive relation between subsidies and box office revenues, which I will try to confirm by conducting a quantitative research in order to calculate a correlation between the amounts of subsidy a movie receives and the amount of box office revenues it grosses. I will also use the production budget as an independent variable, because that can have an effect on the movie's performance as well (Gemster et al., 2006, p. 51). After all, the type of subsidy that is important for this calculation is meant for production, and thus part of

the production budget. I assume there will be a positive relation between production budget and box office revenues as well, because movie makers are then able to spend more money on the movie itself. A big budget makes it possible for producers to use better equipment, hire better actors, use high quality special effects, and spend more money on marketing. Whether or not this strategy works and will in fact attract a big audience, will hopefully be reflected in my results.

The correlation analyses form the starting point for the rest of my research after discussing government intervention in culture. An extensive qualitative study will follow to support my interpretations of the results from the quantitative part. It is imperative to look more closely to policy objectives that determine the allocation of subsidy. This will show, among other things, with what objectives subsidies are allocated and if these are met. In turn, this can demonstrate the effectiveness of policy, next to revenues. The outcome of the correlation analyses also need to be put into perspective in order to see if and how other variables affect the commercial success of Dutch movies. For that it is imperative to explore demand for Dutch cinema as well, because it can shine some light on why certain Dutch movies are successful and what that can imply for the current subsidy system for film.

### *Subsidiary questions*

As mentioned before, the Dutch state supports the domestic film industry through measures that are formulated in cultural policy. Placing the film medium in cultural policy shows that the government considers it as art or as a cultural good. On the other hand, media theory puts movies under the umbrella of entertainment, which makes it a consumption good like any other good (De Vany, 2004; Vogel, 2001). In chapter three I will elaborate briefly on the motives of government intervention from the point of view of welfare economics. This part is primarily based on the theory of Joseph Stiglitz (2003). He theorizes about the efficiency of markets and how market failures can stand in the way of realizing an efficient situation. As a result of that, the government intervenes.

Going back to 1997 was not a random choice. Much of the success of Dutch movies today comes from policy changes that were put in motion by the cultural policy of the Minister of Welfare, Health and Culture (Welzijn, Volksgezondheid en Cultuur, WV&C), Hedy D'Ancona, in 1991. She was the first to stress the importance of incentives for the wellbeing of the film industry (Wolfs, 2007). Since then a businesslike and economic approach to film policy was introduced, which was a clear break from the content of film policy of the seventies and eighties (van Dulken, 2002, p. 88). However, it was not until the policy of 1997-2000 that these measures were implemented. The proposed incentives had a significant impact on Dutch film itself and on the workings of the industry. Furthermore, the



focus on entrepreneurship in film initiated then still applies today, though in a different form. These developments and the position of film in cultural policy will be discussed in chapter four.

In chapter five I will present my correlation analyses, which will be followed by an exposition of developments in film policy objectives in chapter six. For both the quantitative part as well as the qualitative part of my research, I decided to look closer at changes over time in the total amount of allocated subsidies and of revenues grossed at the box office, instead of focusing on just one cabinet period. Hopefully, these changes can be linked to one another and to policy objectives that the government had set during that time. For this, I will limit my data by focusing only on movies that were funded by the Dutch Filmfund and that were labeled by the fund as a feature film (Lange speelfilm). Also, only the amounts that fall under the category of realization contributions (Realiseringsbijdrage) are part of the data. Other governmental institutions, like public broadcasters, support film projects as well, but it is quite difficult to obtain exact amounts. Therefore, these are not included in the data due to the limited time frame of this research. The quantitative analysis will cover a more extensive period (1989-2005) than the qualitative analysis (1997-2005), based on the data I was able to collect. After 2005, data on box office revenues were far less complete compared to the period prior to 2005 and is therefore the limit of my data collection.

Over the years, the Dutch Filmfund has made some minor changes within the category of feature film. Since 2002 a distinction was made between feature films and feature films specifically for a broad audience (Publieksfilms), resulting in two separate funding schemes within the Lange Speelfilm category. Since 2007 the funding for Publieksfilms has been replaced by a new arrangement, a so-called matching fund: the Suppletierегeling. These changes do not affect the data collection concerning the amounts of subsidy meant for the realization.

In this research, the success of a film in terms of box offices revenues is in fact the graduator for the effectiveness of government subsidies. Box office revenues are also a way to express demand. How demand is formed for Dutch movies will be discussed in chapter seven. Of course, theatres are not the only source of movie revenues. Demand for film also exists in affiliated markets and make up a substantial part of the total amount of a movie's generated revenue. These other exhibition outlets are predominantly markets such as video or DVD rental and retail, and television licensing for pay-tv and public television (Jäckel, 2003, 116). In fact, the success in these markets can be related to the promotional activities that come about for a theatrical release of a movie. In a way, theatre sets the stage for the second product life cycle of a movie on those subsequent markets. However, for this research the revenues earned on these markets are not relevant. I will focus only on box

office revenues, because cinemas have been the most important platform for film ever since the advent of the medium.

To sum up, this paper will take the form of a mix between a quantitative and qualitative research, basing my conclusions both on correlation analyses as well as on literature. The framework of welfare economics is especially important to elaborate on government intervention in culture and consequently film. Also, theories on movie economics and demand for cinema and leisure activities are relevant for the discussion of the quantitative results. In the end, the cultural memoranda themselves will be the most important source for illustrating the developments in the Dutch film industry, and for measuring the effectiveness of subsidy in light of policy objectives. In the end, the answer to my research question will determine whether or not and to what degree the mean of subsidy is an effective one for intervening in the Dutch film market.

### **Chapter 3. Economics of the public sector**

Before discussing the Dutch cultural and film policy in more detail, it is important to understand for what reasons the government wishes to intervene in art and culture. The economic motives mentioned in this chapter form in fact the basis of cultural policy objectives, which in turn depend on the accents in policy of each cabinet.

#### ***Why the government intervenes***

We live in a mixed economy where the private and public sector make up the whole. The government can therefore not be excluded when researching any market. The public sector influences the private sector by means of regulation, taxes or subsidies. In that way, the government plays a complementary role to the private sector with the main goal to optimize resource allocation within markets (Stiglitz, 2003). When it comes to media products such as film, the allocation of resources is concerned with how information and entertainment content is created for its audience (Owers, et al., 2004, p. 5). The government can intervene in this process using different means, but with every measure there is a chance of government failure as well when objectives are failed to be met (Connolly & Munro, 1999, p. 136-138). According to Stiglitz (2003), the government should therefore only intervene when the market is failing significantly and measures will cause considerable positive changes.

In an economic model everybody wants to reach their maximum utility and in order to achieve that, a market needs to be perfect. In a perfect market there would be an efficient allocation of resources so that every party will reach maximum utility. This means that producers produce the maximum output against minimum costs, using all available production factors, and consumers would buy only what they want, as cheap as possible for their given income, plus producers would produce what consumers demand. Such a situation does not exist in reality. The government intervenes to correct any distortions that create an inefficient market with the goal to maximize utility. In welfare economics it is theorized what the role of the government should entail when it intervenes with the purpose to achieve an optimal balance between demand and supply, which is also known as a Pareto-efficient situation. Such a situation exists when production and consumption are efficient and whenever somebody can be made better off without making other people worse off.

However, the Pareto-principle is only focused on efficiency. According to welfare economics, motives for government intervention are also based on equity, optimal distribution of total wealth, and externalities. The latter has to do with the effects of the

market on society as a whole (Stiglitz, 2003). The government needs to make a tradeoff between efficiency and equity when setting up a policy, since an increase of efficiency would lead to less equity and vice versa. This tradeoff forms the heart of the political decision-making process concerning policy objectives and is an ongoing process due to different interests. In the end, it lays out the path for art and culture during any cabinet period. The resulting policy incorporates economic or industrial politics, wherein finding a balance between artistic motives and economic motives is key in order to justify the implementation of certain measures.

### ***Market failures and the film good***

The government justifies its intervention in art and culture on the grounds of occurring market failures. For that it is imperative to disclose what type of good movies is. As art, film can be considered a public good or merit good, but as entertainment, film is considered to be an information good or experience good. Several market failures can be distinguished in economics of which only a few apply to the art and culture sector, and thus to film, due to the nature of the good. The different types of market failures do not stand on their own, but usually cause and reinforce each other. With regards to art and culture, the government has two more reasons to intervene, specifically paternalistic and equity reasons. These motives apply when the government intervenes even though a market *is* Pareto efficient. Then the government intervenes because it is convinced that the consumption of a particular good is important, but individuals undervalue the personal benefits of the good (Bailey, 1995, p. 28). This type of good is called a merit good. An inefficient allocation of this type of good can be improved by means of the law, by improving information supply or by allocating subsidy (Bailey).

Next to a merit good, film can be perceived as a good with public good qualities. A pure public good is characterized by being non-rival and non-excludable in consumption. This means that everybody can use it without any additional costs or without being excluded. There are only a few goods that contain both characteristics. Goods usually have only one or the other, even though it is actually a matter of degree (Bailey, p.31). In fact, these characteristics form the basis of where the market fails. If the supply of public goods, being non-rival and non-excludable in consumption, was left to the market, consumers might not be able to pay for it because of high prices, or because it would be impossible to charge the consumer for their usage in the first place. Therefore, the government steps in by supplying the good against a reasonable price. It does so by for instance covering the high production costs or the high marginal costs, which is the case for education (Stiglitz, 2003).

Film is an impure public good because only the non-rival characteristic applies due to its cost structure (Centraal Planbureau, 2005, p. 22). There are high fixed production costs that do not change if more or less people consume it. However, recovering these costs in the Dutch market is unlikely (van Dulken, 2002, p.81). To guarantee the continuity in film production, the government therefore covers part of the production costs through the allocation of subsidies. But why is film subsidized in the first place? As an art form, it contains certain values that characterizes it as a merit good and therefore receives government support (Towse, 1994; Klamer, 2003). First of all, people value the existence of art and culture, even when they don't consume it themselves. They also simply like to have the option to consume it and are willing to pay for its existence. Next to that, certain art or cultural goods exist just for the benefit of future generations. Finally, art and culture promote the national identity and cause beneficial spillover effects for the whole economy.

These so-called spillover effects make up for another relevant type of market failure: externalities. When the production of a certain good has a positive or negative effect on society, these effects can either be encouraged or limited by the government through policy. In this case, film is considered to have positive effects on society, due to the cultural values mentioned before, but also because of its multiplier effect. More investments can lead to more employment, more production, more (tax) income, and so on (van Dulken, 2002, p.87-88).

Another reason for government intervention is inherent with an important characteristic of an information good, which is asymmetric information that leads to information failure. In general, information failure occurs when both consumers and producers are insufficiently informed. In that case, the government intervenes for protection reasons. When it comes to film, it is usually the consumer who has a knowledge disadvantage. The viewer will only know he will like a movie after actually seeing it, which is also a characteristic of an experience good. Only the producer knows more about the content than the consumer. Audience members are therefore unsure what movie to choose, because it is not clear what the options actually are when going to the cinema (Centraal Planbureau, 2005, p. 22).

### ***Protecting the domestic film market***

As mentioned before, domestic movies are valued because of their representation of the national identity, which is carried out best by national film makers. Unfortunately, due to the domination of US audiovisual products in the domestic market, it is hard to reach an audience for a Dutch movie. This domination comes from the comparative advantages that US movies have in international trade, meaning that production costs for movies are the

lowest in the US compared to other countries (Hoskins, et al., 2004). When developments in communication technology change the market place for audiovisual products and, for instance, improve the accessibility to US films by means of the internet, it is not surprising that small domestic markets would want to impose protective measures for the sake of the national cinema. The comparative advantage of Hollywood movies comes from the fact that everything concerning movie making, from writers to distributors, is concentrated in one place, combined with a large English-speaking market on both a national and international level (Hoskins et al, p. 318-320).

There are several arguments for protective measures against this disproportionate comparative advantage of Hollywood movies in the international market (Hoskins et al, p. 320-321). First, domestic markets need protection against unfair trading, for instance due to extremely low prices. Second, domestic markets are sometimes not fully developed and therefore need protection. Third, the nation's wellbeing needs protection in order to prevent it from becoming too dependent on foreign goods. Still, discussion remains whether these are well grounded arguments for the protection of national film industries, since the comparative advantage clearly lies with the American industry. The smaller countries should therefore be better off by specializing in the production of goods for which they have the comparative advantage (Hoskins, et al., p. 328). However, this is refuted with the arguments for government intervention in culture due to market failures, thus continuing the discussion.

### ***Conclusion***

Art and culture, including film, are subject to scarcity like any other product and need resources for production. When the film market fails to allocate resources properly for maximizing the utility of consumers and producers, the government can intervene because then resource allocation can lead to a supply that is below the social optimum. Another reason for intervening is the fact that the government perceives art and culture as something the entire society should be able to consume, regardless of income level or education. According to the government, the production and consumption of cultural products are beneficial for society as a whole, due to positive externalities. This results in government support to cultural goods such as film, even though it is a continuing debate on what the extent or nature of these externalities are, especially in economic terms.

The motivation for government intervention in the art and culture sector is mostly based on increasing efficiency, but equity is just as important. However, state support affects the market as well. When one aspect in the market is improved, other aspects will have to give in. For instance, if quality in production is improved, it can be at the cost of diversity.

Next to that, intervening measures can have unexpected influences on the market causing it to fail on an entirely different level than what led to government intervention in the first place.

Through film policy the government implements measures in order to correct market failures that come from the nature of the film good. Movies are mixed goods with characteristics of both public goods as well as information goods. This causes uncertainty with regard to the decision making process of consumer and producers for several reasons. Film supply would for instance be insufficient or non-existent without government support due to high production costs and non-rival consumption. Also, information failure causes uncertainty for consumers about the movie, which does not help increase demand and with that, the opportunity to recover production costs in the market can be lost. In turn, difficulties arise with the implementation of policy if that were to focus on stimulating demand for film, which is uncertain to begin with. Information failure would also make it difficult for producers to rely solely on the market for investments in film and its distribution. Therefore, the government supports film production by subsidizing it on different levels. The means and effects of these subsidies will be discussed more thoroughly in the next chapters, but first, I will shortly discuss the position of film in cultural policy.

## Chapter 4. Film policy in the Netherlands: a historical overview

Film did not always hold an important position within Dutch cultural policy. Since the advent of the medium at the end of the 19<sup>th</sup> century, the Dutch government thought of it as being a bad influence on society and its moral standards. When Hollywood films started to reach Europe during the 1920s, the Dutch government even passed the Cinema law (Bioscoopwet) that prohibited the release of certain types of movies, which lasted until the 1970s when it was replaced by a rating system for children.

### *Film policy after World War II*

Government support to film in the Netherlands as we know it today slowly became apparent after the Second World War. At that time film became more appreciated by the government that started to perceive it as a medium containing cultural value. For that reason film would fit in cultural policy the government was planning to implement as part of rebuilding the country (van den Heuvel, 2004, p. 60-63). Even though this formed the basis for film policy in Holland, film was yet to be seen as an art form by the government, in spite of the attempts of film makers to get film acknowledged as such (van den Heuvel, p. 62). In the time of rebuilding, art was seen as “beauty containing educational value” acting as an “antidote to the entertainment industry”, whereas film was considered to be part of the latter (van den Heuvel, p. 71). Despite these negative comments, an official institution was established in 1956 to stimulate the continuity of production for the long feature film. This officially marked the start of financial support by the government to film.

The Production Fund (Productiefonds voor Nederlandse films) allocated only two types of subsidy: for the realization of films and for the development of scenarios. Both types of subsidy were allocated on the basis of genre and exploitation possibilities. This way, the government could support the supply of qualitative movies, which were meant to serve as an opposite to the Hollywood film. After several years, it appeared that the selection process of the Production Fund had to become stricter as more applications were coming in, but means failed to increase in order to grant all of them. It required changes in the subsidy system and in order to ensure continuity, the Council for the Arts (Raad voor de Kunst) pointed out that subsidizing the development of a film *industry* would avoid the need to increase the government’s budget (van Dulken, 2002, p. 75). This was in 1967 and it continues to be an issue in cultural policy today. Meanwhile, the popularity of the medium increased, especially for the artistic, non-commercial movie, which led to changes in film policy that are still relevant in today’s policy (Pots, 2000, p. 405).



One of these changes entailed that subsidies were no longer allocated for production only, but for every aspect within the film industry, including the conservation, production, distribution, exhibition, consumption and education of film. Minister Brinkman of WV&C was convinced that the Dutch film culture needed to be stimulated and for that reason the Fund for Dutch Film (Fonds voor de Nederlandse Film) was set up in 1983 (Pots, p. 405). The role of public broadcasters in the film sector was becoming more important at that time as well. Not only for production means, but above all for exhibition means (van Dulken, p. 78). This led to the establishment of two different funds in order to promote the collaboration between film producers and broadcasters: the Co-productiefonds Binnenlandse Omroepen (CoBO) in 1987 on the one hand and the Stimuleringsfonds voor Nederlandse Culturele Omroepproducties (STIFO) in 1988 on the other hand.

### *A shift in film policy*

In the eighties and nineties of the 20<sup>th</sup> century commercialization and professionalism became guidelines for both cultural policy as well as for film policy. It led to an increase of the budget that the government had reserved for the arts. In 1991 around 178 million euro was set aside, whereas in 2002 this amount had risen to 294 million euro (Ministerie van OC&W, 2002, p. 83). However, in the early nineties the success of the new film policy was yet to be seen. Film production was still modest and the industry was characterized by fragmentation. To prevent this from intensifying, the two separate film funds merged into the Stichting Nederlands Fonds voor de Film (Dutch Filmfund) under Minister D'Ancona in 1993. The merger would improve the efficiency of subsidy allocation and subsequently improve film production by focusing more on market developments instead of only on the product itself (Pots, p. 407). However, at the same time the market share of American films kept increasing in the Dutch market. Even though Dutch films were awarded at foreign film festivals, the Dutch audience did not seem to notice and went to see American films instead.

The merger of the two film funds marked the moment of the implementation of incentives that were meant to gradually let the Dutch film industry prosper into an industry that would not need government support. The mission of the newly established Filmfund remained in lines with the mission of the previous funds, which was to stimulate movie production in the Netherlands and to promote a receptive climate for film art (Nederlands Fonds voor de Film, 1996, p. 11). This would be achieved by mainly supporting film projects financially so that a substantial supply of high quality Dutch films would be maintained. For this, the Ministry of WV&C had set out new principles that would serve as a mean to divide subsidies (Nederlands Fonds voor de Film, 1995, p. 12) Most of them are still effective in the current policy of the Filmfund.

The first principle was focused on giving more attention to the development of scripts and the pre-production phase of a movie project. Secondly, other genres like documentaries, animation and youth films should deserve more attention as well. Next to that, the Ministry was convinced that more and better research on the improvement and extension of distribution would be beneficial for Dutch film. Finally, international co-productions should be stimulated. In the following years it stated in annual reports of the Filmfund that these principles paid off (Nederlands Fonds voor de Film, 1996; 1998). There was for instance a clear increase of movie productions based on scripts that had received subsidy for its development. The supply of other genres increased as well, resulting in youth films that were well received (Verstraeten, 2002).

During the first few years of its existence, The Filmfund received an increasing amount of applications for subsidy. As a result the Filmfund needed to be more selective when it came to honoring these applications, because the yearly budget remained more or less the same. Nevertheless, the production volume increased, which was also caused by the increase of film projects that were co-financed by public broadcasters (Nederlands Fonds voor de Film, 1998, p. 6). During the nineties, film policy changed greatly and set in a new era for Dutch film, which will be discussed in greater extent in chapter six.

### ***Conclusion***

After the Second World War the government's opinion on film had changed. It was no longer perceived as a medium with a bad influence on moral standards, but as a medium with cultural value. Film had become part of cultural policy, even though it took several years before film was recognized as an art form. The increasing popularity of film in Holland had resulted in the foundation of the Production Fund, which formed the prelude of subsidizing film production, specifically artistic films. It was not until the sixties that other parties involved in film making, such as distributors and exhibitors, had been enabled to receive subsidy as well. During the eighties the domination of American movies in the Dutch film market kept increasing, which resulted in the establishment of a second film fund in order to reinforce the position of the artistic movie. A new wind blew through cultural policy and film policy during the nineties, which focused on efficiency and market orientation instead of only on artistic aspects of film. This businesslike and economic approach to film formed a break with previous policies and set in a new trend that has yet to be changed. More details on this will be presented after analyzing the correlation between subsidy and revenues in the next chapter.

## **Chapter 5. The effects of subsidizing film**

My empiric analysis focuses on the possible effect of subsidies on box office revenues of Dutch films that have been released in Dutch theatres. This effect is expressed in a correlation coefficient resulting from calculating a possible correlation between the variables subsidy and box office revenue, and between production budget and revenues. As explained in chapter two, subsidies are part of the production budget as well. If there is a significant correlation, this means that the two variables may vary together whenever the situation changes, in either a positive or negative way (Seale, 2004, p. 506). Previous studies have shown that subsidy is not the only variable that can affect box office revenues. For the sake of this research variables such as budget, director, actor, distributor or prices are not included in the correlation analysis. However, these and other variables can intervene and thus affect the outcome calculated here even though they are not specifically measured. Therefore, this analysis will only show whether or not there is a relation between subsidy and revenue on the one hand and between production budget and revenues on the other. Discovering whether or not subsidy is a variable that has any effect at all is worth to explore. In the previous chapters I set out what the position of film is in government policy and arguments for why Dutch film production needs to be subsidized.

Why certain film projects receive subsidy from the Filmfund is a matter of government policy and its objectives, plus the criteria that are set in lines with current policy. Over the years, the focus of the film policy gradually shifted from stimulating the artistic, 'typical' Dutch film to the commercial one. From the mid-nineties the ministry of OC&W wanted film producers to focus more on the audience and not just on supply itself, which led to a more commercial and market orientated policy. For that reason, calculating only the possible correlations is not enough to gain insight about the effectiveness of policy. As a matter of fact, the strength of the correlation can be clarified by looking at the government's financial support to film over the years, including the box office revenues that function as a graduator for the return of subsidies. The development in the level of allocated subsidies over the years will be clarified with the use of graphs. That way, it is possible to figure out exactly which policy objectives could have been effective for increasing box office revenues and when. This will be explored in the next chapter.

### ***Collecting the necessary data***

In order to perform a proper research, you need reliable and valid data. Reliable in the sense that the measuring device for data collection, here a correlation analysis, can be used on different occasions and produce the same results (Seale, 2004, p. 509). The validity of data

comes from the fact that the measuring device has indeed measured what you were set out to measure (Seale, p. 511). I have collected secondary data published by the Dutch Filmfund and statistics provided by the Dutch Federation for Cinematography (Nederlandse Federatie voor de Cinematografie, NFC) that falls under the Dutch Association of Cinema Exhibitors (Nederlandse Vereniging van Bioscoopexploitanten, NVB). I contacted the Filmfund in order to retrieve data concerning the amounts of allocated subsidy to Dutch film. They were very helpful by allowing me to copy all necessary information from their annual reports that they kept in their archive at their office in Amsterdam. I was also free to contact them for additional information if that was necessary. I found the numbers on box office revenues online, on the website of the NFC. The overview presents film results of all movie releases in Dutch cinemas between 1991 and 2007. From that I filtered the relevant Dutch titles and their box office revenues and admission numbers.

Measuring the success of a film can be done by either looking at the amount of money a movie has grossed or by taking the number of visitors. Since the subsidy variable is expressed in monetary terms, choosing the box office revenues over admission numbers seems to be the best option, with respect to the consistency between the two variables. This will make for a reliable and valid research. To limit the scope of this research I am not taking other earnings into account, such as income from DVD sales, television rights and so on.

### ***Data on subsidy***

The Filmfund allocates subsidy per category, covering almost every aspect of film making. Different types of film like fiction, shorts and animation are subsidized, next to different production phases such as the writing, distribution and marketing of a film. The point is that the Filmfund supports the Dutch film industry on different levels. However, only data concerning the contributions for realization (Realiseringsbijdragen) are relevant for this research. After all, this is the most straightforward subsidy used for the production of a film and can therefore directly be linked to its return: the box office revenues. Next to the Filmfund other governmental institutions like public broadcasters support film projects as well, but these contributions are not as straightforward and it is quite difficult to obtain the exact amounts. Therefore, these forms of subsidy are not included in the correlation analysis.

The annual reports of the Filmfund proved to be very useful for the retrieval of the amounts of subsidy that film projects received in the form of a contribution for realization. I have only used the amounts of subsidy allocated to the long feature film, because these are more likely to have a theatrical release, unlike animation or documentary films. Also, the long feature film is usually what comes to mind when discussing film policy and in the end,

other subsidized aspects within film are mostly for the sake of the production of feature films. Film festivals, for instance, are in fact a promotional tool for feature films. Each year the Filmfund reports the allocations in a consistent way and in doing so, it generates reliable and valid data. The content and lay-out of these annual reports have remained more or less the same since its founding in 1993. The expansion of projects and affiliated activities that receive subsidy from the Filmfund led to a more extensive report, but the definition of a feature film did not change. But with policy changes the criteria for rejecting or approving applications did change, but that does not affect the reliability of the documented amounts.

In order to see the development of total amounts of allocated subsidy over the last two decades, data was retrieved from the annual reports of the Production Fund as well, since the current Filmfund exists since 1993. Unfortunately, the Dutch Filmfund did not have any annual reports of the Production Fund. Luckily, I discovered a few reports in the library of the University of Utrecht. The Production Fund provided contributions to the realization of film projects in the same way the Filmfund does now. The amounts found in those reports are therefore consistent to the amounts that fall under the same heading (Realiseringsbijdrage) nowadays. Also, most of the data was set in guilder. All relevant amounts are converted in euro using the rate of 2002<sup>1</sup> and after that, converted in real numbers with 2005 as the base year. For this I used the consumer price index from the Organisation for Economic Co-operation and Development (OECD).

I found the allocated subsidies for realization in the overview that is presented in the Filmfund's annual report where all film projects and other activities are listed. The amounts of subsidy are also presented in the appendixes of the annual reports, which include more details on the film project. For some projects the amount in the overview and the amount in the appendix did not correspond. These differences could come from the fact that other subsidies are included in the amounts in the overview. For instance, when a project received subsidy for promotion, distribution or script development in addition to subsidy for realization that year, these amounts were included in the overview of allocated amounts. Therefore, the appendixes were my primary source because that stated the amounts that were purely meant for realization. Also, several movie projects were mentioned two years in a row. Whenever this was the case, I replaced the amount of subsidy that was requested in the previous year by the allocated amount of the succeeding year. Consequently, I have used only the most recent allocated subsidies for the analysis. This also means that box office data were moved to that year in order to maintain a clear correspondence between the two variables.

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<sup>1</sup> €1 = Fl. 2,203711

Finally, I have put all relevant movie titles, the amount of allocated subsidy, the box office revenues, the admission numbers and any available data on production budgets in an overview. That way I had all the necessary data in one place. This overview also allowed me to calculate the accumulated amounts of allocated subsidy and the accumulated amounts of revenue for each year, which I used for the graphs that are presented in the next chapter.

### ***Data on box office revenues***

The data concerning the box office revenues are unfortunately incomplete for some years. It was not possible to find the amounts of revenues for each film that had received a realization contribution of the Filmfund since 1993. There are several explanations for this. For instance, the film project that received subsidy might not have been released in theatres, thus no box office gross could be earned. Or the project did not get produced at all. After all, film production requires the cooperation of many different parties and when it does not work out, producers simply pull the plug. The fact that some projects did not get made in the end is not that uncommon (Gubbels, 2001, p. 266).

The incomplete box office data do not necessarily affect the outcome of the correlation analysis in a negative way. It actually gives a random sample of the total of Dutch films that are produced and released each year. Taking only the films that receive a realization contribution also limits the population of the analysis, because each year other movies are produced that either received a different kind of subsidy or no subsidy at all. Also, the available box office data were quite divers, so fortunately, not only the top grossing films are part of the population. It turned out that revenues concerning subsidized movies after 2005 were mostly not available at all due to the time lag between production and release, thus turning 2005 into the limit of my data collection. Fortunately, it is not important for the correlation analyses *when* revenues are earned, but simply what movie earned what revenue in order to see the relation between the two. I have made the same calculations on the data concerning box office revenues as I did with the subsidy amounts: they are converted in euro and in real numbers.

### ***Correlation analyses***

The collected data are used in SPSS 15.0 (Statistical Package for the Social Sciences) for Windows to perform a bivariate analysis by calculating the Pearson correlation coefficient and Spearman's rho with a two-tailed test, meaning that there is no assumption about whether the relation is positive or negative (Seale, 2004, p. 333). For the analysis including Pearson's correlation coefficient, data need to meet a few conditions. The most important one is that the data consist of ratio variables, which means that measuring more or less can be expressed in a number and that data can reach a natural 0-level, like age does (Baarda &

De Goede, 2006, p. 186). This applies to subsidy as well as to revenues. Also, this type of measuring scale allows for calculations which are not possible with nominal or interval variables. For instance, twenty million euro is twice as much as ten million (ratio), but with temperature twenty degrees is not twice as much as ten degrees (interval) (Baarda & De Goede, 2006).

The second condition is that the variables of the population both have a normal distribution (Huizingh, 1999, p. 311). This means that each subsidy variable has a counter box office revenue value that has a normal distribution and vice versa. Whether or not there will be a linear cohesion between subsidy and box office revenues and production budget and revenues can be seen in the scatter plots below (Figure 1 and 2). The presented scatters are mostly located closely together, which allows for the assumption that there is a relation between the two variables. The correlation coefficient does not measure the association between any two variables, but only the extent to which that association can be shown in a straight line. The stronger the correlation, the more the scatters will form an ellipse-shaped cloud.

The plots in Figure 1 and 2 illustrate that the variables have indeed some relation, but due to the outliers and shape, this relation will not be that strong or linear. If the relation was linear, the correlation coefficient could demonstrate for instance that more subsidies lead to higher or lower box office revenues. If there is indeed a significant correlation, then the interdependence of the two variables is not coincidental, thus I can link conclusions to my results. However, the correlation coefficient does not say anything about the direction of causality or the effect of other, not included, variables might have on the dependent variable (Field, 2005, p. 128). Also, outliers can distort the outcome of the correlation analyses, which means I have to be careful with drawing conclusions.

### ***Spearman's rho***

Next to calculating Pearson's correlation coefficient, I will calculate Spearman's rank correlation coefficient. For this calculation, data must consist out of ordinal variables. This means that the distance between different variables are not equal, as is the case with ratio variables (Baarda & De Goede, 2006). Also, there is no assumption concerning the relation between any two variables: it does not presuppose a so-called normality. The reason why I include this calculation as well is because theory suggests that demand for film is formed by a dynamic process that is impossible to model (De Vany, 2004). For each week during the run of a movie, different amounts of revenues are earned because of a variance in demand.

Figure 1: Scatter plot subsidy and revenues

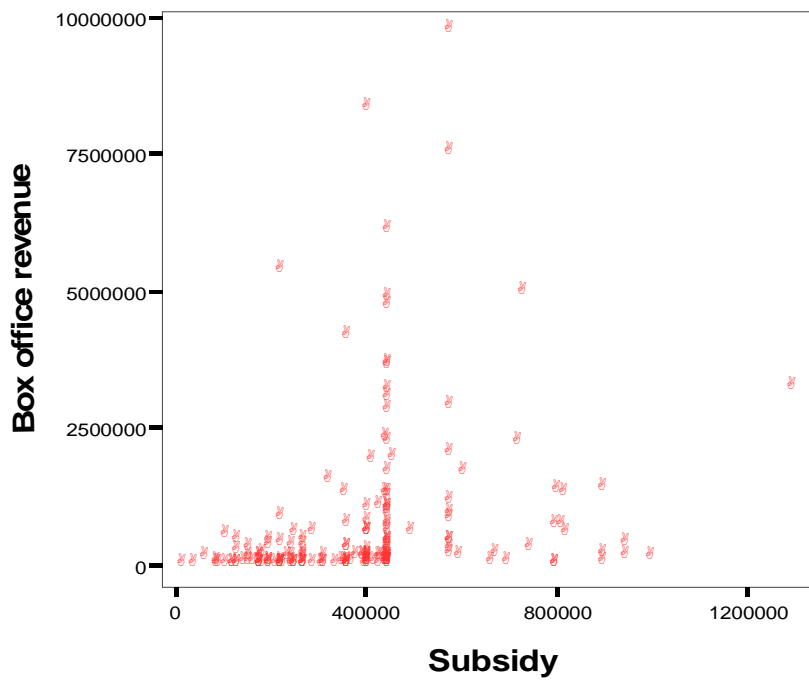
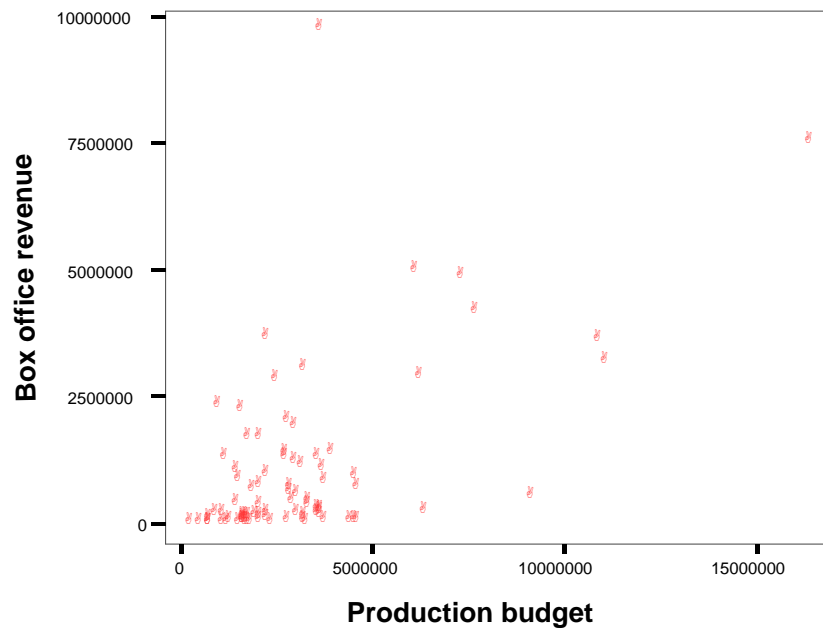


Figure 2: Scatter plot budget and revenues





The total amount of revenues for each movie is therefore earned in a different way, which can depend on for instance the amount of copies or on the length of a movie's run in terms of weeks. Such differences translate into different revenues, which have therefore unequal values as do ordinal variables.

Professor Arthur De Vany (2004) has formulated a theory that explains why demand is volatile and therefore uncertain, leading to unequal weekly revenues. Demand for film changes during the run of a film in theatres due to information. Before a release, only a few facts about a film are available, such as its director, stars or genre. Because film is an experience good, more information about it will be known and shared whenever more people go and see it. On the one hand, moviegoers will discover a film, and on the other hand, exhibitors and distributors will discover demand for a film and adjust supply accordingly, by for instance elongating its run. During the run of a movie, demand can change due to word-of-mouth. Such information can pull demand from the path of herding, which can occur right after an opening weekend due to a lack of information about a movie at the time. Herding indicates that audience members go see a movie if many people have gone before them. After a while, viewers do not base their decision simply on what other moviegoers have done, but on what information they have shared.

When a movie has a big opening weekend at the box office, demand can increase as a result, because that is the only new available information about the movie. When the audience bases its decision on that and demand increases, it follows the masses, which can be signified as herding. However, after a few weeks demand can decrease just as easily, when negative word-of-mouth spreads, which can result in a decrease of total revenues and perhaps a shortening of a film's run. Of course, it also goes the other way around. A small movie that opens in a few theatres, might see its revenue increase on a weekly basis due to positive word-of-mouth. At least, if it gets a chance to build an audience. This can be difficult after a bad opening weekend, even though a good opening weekend is no guarantee for continuing success either. Next to that, competition changes on a weekly basis and those movies face the same challenges concerning demand. Because there is no average way demand for film develops, box office revenues can be considered to be ordinal variables. In fact, revenues can be considered as an information variable for producers and audience members and such variables have no natural limit in scale or size, unlike ratio variables (De Vany, 2004, p. 7).

### ***Results and conclusion***

I performed a bivariate correlation analysis to test whether or not there is indeed a correlation between subsidies and box office revenues for Dutch movies. I have calculated

both the Pearson correlation as well as Spearman's rho, which I will discuss respectively below. The results in Table 1 demonstrate that there is indeed a significant Pearson correlation. It also shows that the population for films of which data on production budgets was available is much smaller. However, that does not neglect the fact that there is a significant correlation between budget and revenue as well. This demonstrates from a different perspective that subsidy is somewhat effective, if only in the sense that it provides better options for the film maker because he has more financial means for production.

Table 1: *Pearson correlation between subsidy, revenues and budget*

		Subsidy	Box office revenue	Production budget
Subsidy	Pearson Correlation	1	.210(**)	.158
	Sig. (2-tailed)		.004	.159
	N	184	184	81
Box office revenue	Pearson Correlation	.210(**)	1	.561(**)
	Sig. (2-tailed)	.004		.000
	N	184	184	81
Production budget	Pearson Correlation	.158	.561(**)	1
	Sig. (2-tailed)	.159	.000	
	N	81	81	81

\*\* Correlation is significant at the 0.01 level (2-tailed).

Table 1 suggests that subsidy is significantly correlated with box office revenue,  $r = .210$ ,  $p < 0.01$ . Therefore, the two variables are dependent of one another, but do not necessarily have a causal relation as well. Also, this test has used one film sample out of many which means other conclusion and interpretations than what is stated here are possible when a different sample is used. Still, subsidies do affect the variability of box office revenues. When squaring the correlation value for these two variables it shows that  $R^2 = 0.0441$ , in other words, subsidy can account for only 4,41% of variation in the box office revenue variable. The rest of the variability is accounted for by other factors (Field, 2005, p. 129). Some of these other factors have been addressed in previous studies and include film related aspects such as genre, star power, director, number of screens, number of copies, reviews, budgets and so on.

Because the budget is crucial for the production of any movie, I have included that in the correlation analysis as well. Table 1 shows that there is a significant relationship between production budget and box office revenue,  $r = .561$ ,  $p < 0.01$ . The same remarks mentioned above apply here as well. The significance of the variable production budget is in absolute terms larger than the coefficient of subsidy and box office revenue. The squaring value

Table 2: *Spearman correlation between subsidy, revenues and budget*

			Subsidy	Box office revenue	Production budget
Spearman's rho	Subsidy	Correlation Coefficient	1,000	,496(**)	,327(**)
		Sig. (2-tailed)	.	,000	,003
		N	184	184	81
	Box office revenue	Correlation Coefficient	,496(**)	1,000	,430(**)
		Sig. (2-tailed)	,000	.	,000
		N	184	184	81
	Production budget	Correlation Coefficient	,327(**)	,430(**)	1,000
		Sig. (2-tailed)	,003	,000	.
		N	81	81	81

\*\* Correlation is significant at the 0.01 level (2-tailed).

$R^2=0.3147$  shows that over 31% of variation in box office revenues can be attributed to the production budget.

The results in Table 2 demonstrate that there is also a significant Spearman correlation. It shows that there is a significant relationship between subsidy and box office revenues,  $\rho=.496$ ,  $p<0.01$ . This number is much greater than that of Pearson's coefficient. Table 2 also suggests that production budget is significantly correlated with box office revenue,  $\rho = .430$ ,  $p<0.01$ . This number is smaller than the Pearson coefficient. What is intriguing here is the fact that this number is also smaller than the Spearman's correlation for subsidy and revenues, while for Pearson's correlation it is the other way around: the correlation between production budget and revenue is larger than that of the correlation between subsidy and revenue. However, the difference between the absolute numbers of both coefficients is much smaller for Spearman's rho than for the Pearson correlation. Table 2 also shows a significant correlation between production budget and subsidy, which is not important here. Subsidy is simply part of the production budget, but makes up for different percentages of a budget for each film that can vary between 4% to almost more than 40%, which explains the small absolute number.

Even though both types of correlation show a significant relation between variables, the many outliers have probably distorted this image. However, that does not mean that there would otherwise be no correlation at all. Subsidies do have a minor positive effect on box office revenues, but for what reason is not clear. A way to establish that could be by exploring the expenditures of producers, since subsidies make up for part of the production budget that have some effect on revenues as well. Such information could help gain a better understanding of what matters in film production for the sake of revenues, such as equipment, actors or marketing.

Several studies have examined the relation between stars and revenues, which demonstrated that for the majority of the cases stars are an important part of the movie package for the purpose of attracting a large audience (Wallace, et al. 1993). In retrospect, stars matter for revenues, but these studies do not have any predictive power. Still, if a budget allows for it, spending a lot on stars will probably not be a waste of money. Expenditures on marketing is an important determinant for high revenues as well, and it has a positive relation with production costs (Prag & Casavant, 1994). This means that a higher budget can result in higher revenue, when it results in an increase of the expenditures on marketing as well.

Detailed information on the expenditures of film production can be insightful when formulating policy. It can help develop policy with objectives that create the proper conditions for producers in order to gather and spend their budget successfully. The results of the correlation analyses have indicated that subsidy matters for a movie's revenue and so do the production budgets. However, they matter only on a small scale. When governmental policy would emphasize the allocation of subsidy for the marketing of a film or the participation of stars, the effectiveness of policy might improve slightly. The implementation of such a policy might even help improve the position of the Dutch film in its domestic market, but again, only on a small scale.

This conclusion is based on an analysis using a few variables. Including other variables in a similar research might result in other ideas concerning policy. What also needs to be kept in mind is that demand is uncertain and develops unpredictably. Even though new policy would emphasize the importance of demand when allocating subsidy to producers, distributors or exhibitors, moviegoers could undo this effort by not going to see any new movies at all. In that case, it doesn't matter if subsidy has a positive relation with revenues; it is the audience that should get the government's attention.

## **Chapter 6. Developments in policy and film production since 1997**

The success of Dutch movies was at an all-time low during the early nineties: there were few productions that attracted only a small audience. During that time the call for change by the Dutch film sector intensified (Ruyters, 2004, p. 71). It was then the government that needed to respond in order to prevent the matter of going more downhill. The subsidy system at that time was too lenient with the allocation of its resources and as a result producers did not show any eagerness to make innovative and creative movies, leaving the industry in a so-called rut. In fact, the industry was caught in a vicious circle (Hoogendoorn, 1999, p. 45). The lack of success in movies discouraged private investors to participate in production, while at the same time production costs were increasing. Therefore, producers became more dependent on public sources, such as funds and broadcasters, but conditions are attached to that type of funding. Due to the nature of these sources, conditions were mostly focused on the cultural value of a film instead of the development of its commercial potential. Because artistic movies did not attract a big audience, it remained difficult to tap into private sources. This reinforced the dependency of producers on public resources and their attitude towards film making, which was passive and lacking innovation. The Council for Culture summed up the film sector in the 1990s as having no vision or reflection, being isolated, having no desire to be innovative on a content or artistic level, and producing movies that were seldom relating to cultural or societal developments (Wolfs, 2004, p. 144).

It was clear that film policy needed a change of direction. Minister D'Ancona paved the way by proposing to invest in the Dutch film industry through means of automatic and selective aid, a matching fund, and fiscal measures, of which some were implemented under her successor, Secretary Nuis. According to D'Ancona such means could support the continuity of production and its quality, which were slipping at the time (van Dulken, 2002, p. 80). Overall, the film sector required a market focused conduct so that quality could improve due to continuity in production that increased as a result of the development of professionalism and expertise in the field. For the latter, the input of television was just as important. In fact, together with film, television forms the backbone of the Dutch audiovisual culture (van Dulken, 2002, p. 83). Hence the recommendation of consultant agency McKinsey & Company (1993) for an ongoing cooperation between public broadcasters and film producers in the form of the Telefilm-project.

Minister D'Ancona did not only make suggestions on how to develop the Dutch film sector. Under her administration significant changes were executed regarding the features of Dutch film policy. The subsidy system needed to become more efficient, which was translated in the merger of the two existing film funds in 1993. Together they formed the

current Dutch Filmfund. This merger was also meant to improve the effectiveness of the subsidy system, since the fragmentation in the funding schemes would disappear. The newly established Filmfund embarked the road of industry politics. It was convinced that first the infrastructure of the Dutch film industry needed to be established properly, before giving way to artistic arguments. All this marked the introduction of the businesslike and economic approach of film making in Holland.

### *From D'Ancona to Van der Laan*

In Table 3 an overview is presented that expresses how this new direction took form in cultural policies after the resignation of Minister D'Ancona, plus the objectives proposed for the film sector. Secretary Nuis (1995) was convinced that art and culture should not depend that strongly on subsidies and to achieve that, the sector must become more market orientated. For film, this meant that the emphasis would shift from artistic to commercial films, so that the market could form a strong foundation for the development of high quality film. To improve the market structure it would then be important, among other things, to improve the collaboration with public broadcasters as well. Together they would be able to work out an efficient and effective way to deal with developments within the information and communication technology that occurred rapidly during the nineties.

The cultural memorandum developed by Secretary Van der Ploeg mostly continued on the same footing as his predecessor. The most important difference between the two policies was that Van der Ploeg (1999) emphasized the importance of diversity in demand, against diversity in just supply. He wished to see everybody participate in culture, no matter what background. For that, the interaction between the audience and creators needed to improve. Cultural policy was too much focused on the supply-side according to Van der Ploeg, and he thought it should be the other way around (Van der Ploeg, 1999). He was afraid that too much attention for film makers, without any consideration of the audience's wishes, would lead to the marginalization of Dutch film. Therefore, films should be made for the audience. Policy would have to create the proper conditions that allowed film production to be innovative, in order to draw a bigger and broader audience. Van der Ploeg's cultural policy was predominately formed by his plan to increase the participation in cultural activities, especially by young people and ethnic minorities. He was convinced that in order to achieve that "the best must be made popular and the popular must be made better" (van der Ploeg, 1999).

Van der Laan slightly changed the course of cultural policy that was set in by Van der Ploeg. Where he focused on the societal awareness in culture, Van der Laan (2003) wished to increase the cultural awareness in society. She believed people should become

Table 3: *Cultural policies memoranda and their objectives*

<b>Cultural policy memoranda and their main principles</b>		
<i>Shield or Backbone</i> 1997-2000 (Nuis)	<i>Culture as a confrontation</i> 2001-2004 (van der Ploeg)	<i>More than the sum</i> 2005-2008 (van der Laan)
Improve learning process for the decision making between activities	Invest in youth and education	
Form an intercultural field with a better representation of minorities	Promote cultural diversity	Improve cultural diversity with the improvement of the infrastructure
Improve the cultural city life and its supply of activities	Attention for cultural planning, especially for architecture and heritage	Different governments must work together
Focus on the development of new digital means of distribution and production of culture		Develop eCulture focused on digitalization and interactive means of creating and consuming culture
Be an international meeting point	Improve programming of cultural accommodations	Develop an international culture policy now when borders disappear
Help and support the development of cultural creators		Create better support structure by prioritizing supporting funds and institutions
More attention for cultural heritage	Make cultural capital visible with digital collections	
Support amateurs		
Promote the national language		
<b>Derived objectives for film</b>		
Increase production volume	Increase diversity in supply and its audience	Increase production volume
Improve quality of film: separate commercial from artistic film	Focus on quality and social function of film	Improve quality of both commercial and artistic film
More entrepreneurship and focus on market by producers	Focus on audience	More diversity to attract bigger and wider audience
More collaboration film and television	Focus on technology and economy	Improve exhibition
Decrease fragmentation	Encourage entrepreneurship and collaboration	Strengthening of sector

aware of what culture *is*, because that shapes the Dutch identity. Therefore, education and participation must be encouraged. In the film sector, the commercial movie was not favored over the artistic movie anymore. Film should be of high quality, despite it being commercial or artistic, although eventually the focus would shift from commercial to artistic movies. This development was a result from the outcomes of the measures taken by Nuis and Van der Ploeg. In the next part I will look at these outcomes more up close, using the data I have collected for my quantitative analysis by presenting it in a different form.

### ***Developments in allocated subsidies and revenues***

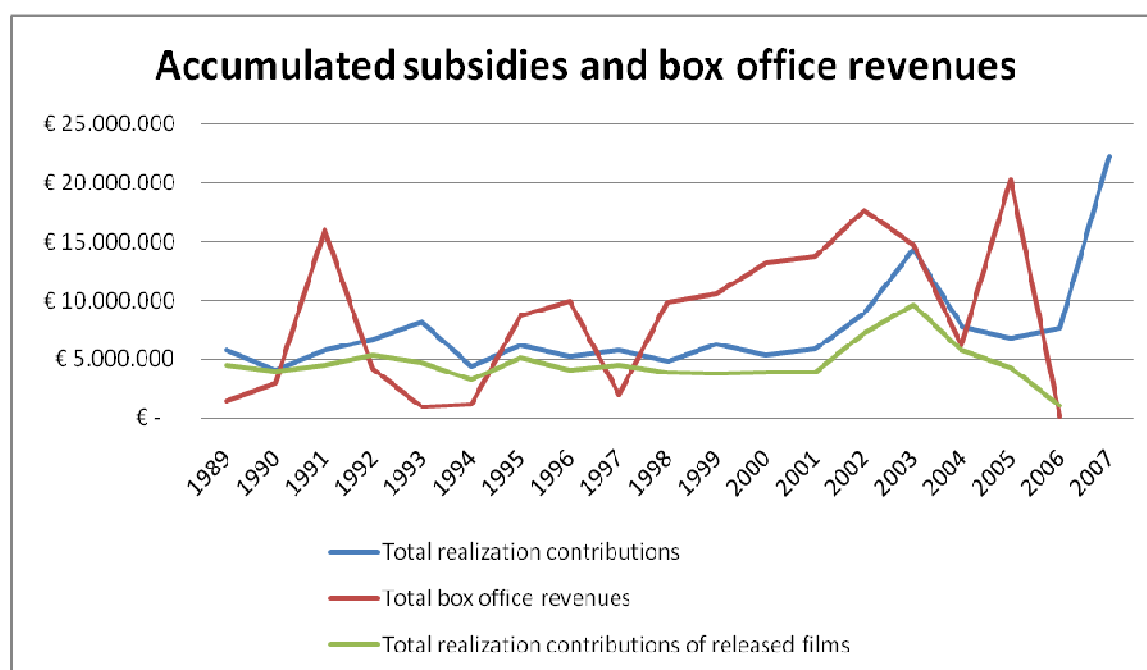
Graph 1 represents the development in box office revenues of Dutch movies that received a so-called Realiseringsbijdrage (contributions for realization) of the Dutch Filmfund and the total amount of allocated subsidies for the feature film for each year since 1989. A third line represents the total amount of allocated subsidies only for films that were released in theatres *and* of which data on box office revenues were available. To get a clear image of how these subsidized movies performed at the box office, their revenues are shown in the same graph. However, this line does not correctly reflect the development of the total amounts of revenue in time. Because film production is very time consuming, most projects that received subsidy during a certain year were released only approximately two years later. Thus the box office revenues for each year are actually earned later in time than shown in the graph. Moving the revenues back to the year a film project received subsidy makes for a better image, since the investment and its return are juxtaposed in one graph. Another note I have to make here is that the amounts do not correspond with the total of governmental expenditures on film or with the overall total of revenues, since other types of subsidies are not included here.

The data on box office revenues were not available for all the movies that received realization subsidies. For each year, data were missing of only a few movies, but that does not distort the overview, for the scatter plots have illustrated the overall interdependency (Figure 1 and 2). This was not the case for data after 2005. Because of the average two year gap between production and release, the data of box office revenues for films that were subsidized since 2005 are not as complete as previous years. The steep drop in revenues in 2006 shown in the graph and the decrease of contributions for released films after 2005 are a result of that. As said, 2005 is the time limit of my analysis.

The graph shows some interesting developments for both revenues as well as for allocated subsidies. The latter has been quite stable for over a decade, up until 2001. In the meantime, revenues seemed to fluctuate heavily in comparison. In the early nineties, box office revenues were particularly low considering that the allocated subsidies exceeded the revenues for several years in a row. The spike in 1991 was caused by the success of one



movie that earned over eight million euro: FLODDER IN AMERIKA. This setback in revenues did not go unnoticed by the government that concluded something must be changed. After



Graph 1: Allocation and revenues over time

Table 4: Number of movie productions that received a realization contribution

Year	89	90	91	92	93	94	95	96	97	98	99	2000	01	02	03	04	05	06	07
Total productions	6	9	13	14	21	13	17	13	20	18	23	14	17	21	27	19	16	19	34
Total productions released in theatres	4	7	9	11	13	8	13	10	15	12	11	9	11	15	16	12	8	3	2

all, the subsidy system did not seem to be effective when only one movie out of many is successful. In 1993 the Dutch Filmfund was established and after that, the revenues seemed to pick up as a result from the different course Minister D'Ancona and the Filmfund were taking. However, Table 3 shows that after the merger of the two film funds in 1993 the number of productions and releases slumped, only to pick up in 1997. Still, the few movies that were made had caused a slight increase in revenues. Among them were a few quite successful movies, grossing roughly five million euro each, such as FILMPJE! and ABELTJE. Apparently, the business approach set in by D'Ancona had paid off.

### ***Incentives***

In 1997 Secretary Nuis presented his memorandum and his objectives concerning film, which were to increase the production volume, improve quality and encourage entrepreneurial behavior among producers. This should in turn decrease fragmentation in the sector and increase the collaboration with television as well. The Filmfund adopted these

goals hoping it would stimulate the professionalism in the sector in addition, especially when it came to the distribution and exhibition of Dutch film (Nederlands Fonds voor de Film, 1998). So far, those aspects of film making seemed to work inefficient, given that demand lagged supply.

Together with the Ministries of Economic Affairs and Finance, the Ministry of Education, Science and Culture took significant measures in order to reach the stated objectives. Consultant agency KPMG presented the idea of an economic policy including relevant measures, which would lead to a transformation of the film sector. According to KPMG (1996) the government should *invest* in the film industry, rather than just subsidizing it. In other words, turn the Dutch film sector into an economic viable industry. This shift in film policy during the late nineties was possible because of the direction taken by the government in the early nineties which was, as mentioned before, focused on business and the market. Film was to be more commercial and cultural at the same time. Next to that, film policy needed to become more flexible given the technological developments that were about to occur in the media landscape (Nederlands Fonds voor de film, 1998).

The result was the implementation of four temporary incentives that would help increase production volume and the supply of commercial films (Nederlands Fonds voor de Film, 2000; van Dulken, 2002, p. 87-91). In the end this would strengthen the market altogether, creating the foundations for economic viability of the film industry. The first measure was that of the Telefilm-project, which would help increase production through the collaboration with public broadcasters. The Ministry of OC&W worked closely with the Filmfund for this project, with the prospects of increasing employment and professionalism, due to production continuity. The second measure was the establishment of Film Investeerders Nederland BV, also known as FINE BV, that served as an intermediary between film producers and private investors. The Ministry of Economic Affairs would guarantee FINE BV a budget for investing in movie projects, so that risks for private investors would be limited. This was possible by means of a film-cv<sup>2</sup>, wherein FINE BV would be a stakeholder as well. The cv-measure was implemented in 2001, because a new tax law required changes to the fiscal measures.

The movie project, or film-cv, in which investors participated was the responsibility of the producers, but investors were able to use this set-up for tax benefits. These benefits formed the fiscal measure administered by the Ministry of Finance. It allowed private investors to deduct the amount they had invested in film from their disposable income. The fourth measure concerned the installment of an intendant at the Filmfund, who would help stimulate the development of commercial films by initiating and guiding potential projects

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<sup>2</sup> CV stands for commanditaire vennootschap, which translates as limited partnership.

(Nederlands Fonds voor de Film, 1999). It resulted in a tight and successful collaboration between FINE BV and the Filmfund in order to find investors for the actual production and release of a movie.

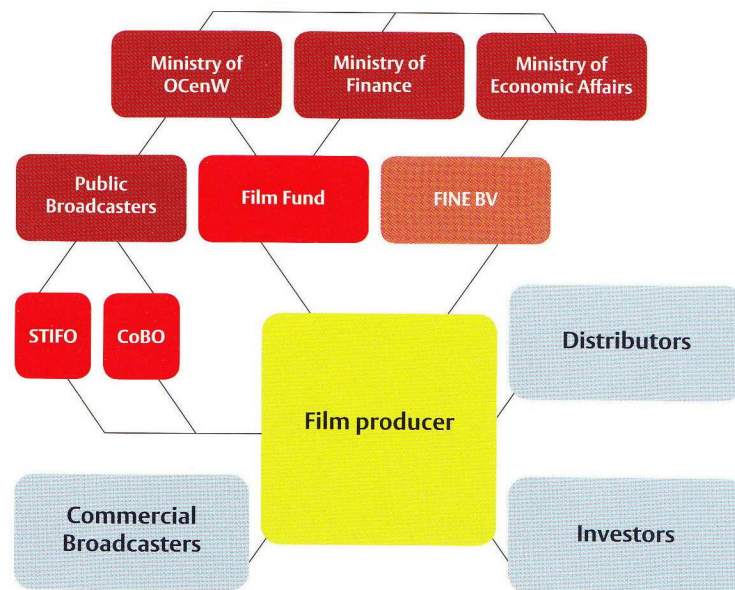


Figure 3: *The different resources for the funding of a film after the implementation of the incentives*

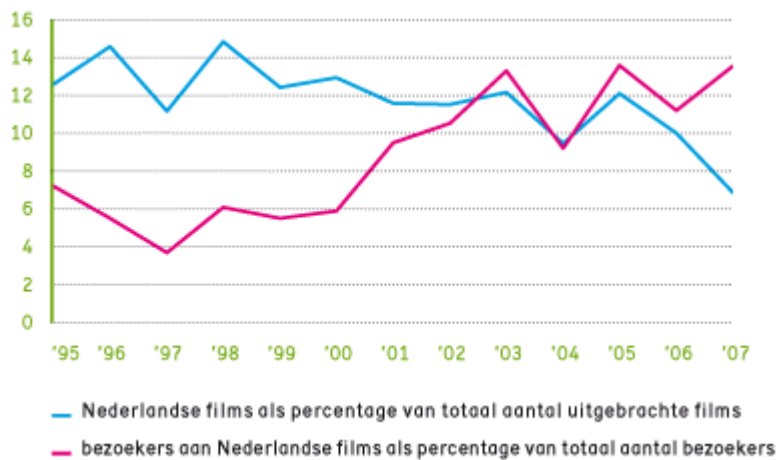
Source: Film facts and figures of the Netherlands. Edition summer 2003. [www.filmfund.nl](http://www.filmfund.nl)

### ***First results of the incentives***

In 1998 the measures were operational and approved by the European Union, after which results followed quickly. As Table 4 shows, more projects were subsidized, except for a slump in 2000 and 2001, and even though only a few productions were actually released in theatres, revenues increased. Up until 2001 the total amount of allocated subsidies did not change much, but revenues did increase quite rapidly. This could be attributed to the release of a few family films that were subsidized during that time, which earned several million euros at the box office. A few examples of these successes included movies such as KRUIJMELTJE (€ 6,085,883), THE DISCOVERY OF HEAVEN (€ 3,615,259), MINOES (€ 4,964,354), DE TWEELING (€ 4,167,684), JA ZUSTER, NEE ZUSTER (€ 2,819,603) and PIETJE BELL (€ 4,846,971).<sup>3</sup> The success of these Dutch movies was quite an unexpected development, because they were released between 1999 and 2003 when the general admission number for cinema was decreasing (van Dulken, 2002, p.93). It even resulted in an increase of the market share of Dutch film. The pink line in graph 2 represents this development, next to the development of the market share of Dutch films of the total number of released that is represented by the blue line. Despite the slight decrease of the

<sup>3</sup> All these numbers have been found on the website of the Dutch Federation of Cinematography at [www.nfcstatistiek.nl](http://www.nfcstatistiek.nl)

market share of Dutch movies of the total amount of visitors after 1998, the audience still managed to find the Dutch film among foreign releases.



Graph 2: *Development of market share Dutch films in Holland*

Source: Ministry of Education, Culture and Science

Actually, the amount of subsidized movies that received a golden film status in Holland were picking up as well after the turnaround in film policy, especially after 2000. Table 4 shows that after that year more films were produced and released, which apparently drew in a larger crowd than before. Movies are attributed a golden status whenever more than 100.000 moviegoers have seen it in cinemas. Appendix I shows an overview of the movies that gained such a status and their box office revenues. The movies that have been subsidized between 2001 and 2003 were more successful than others in terms of admission numbers. What is striking, is that most of these movies are family films, adaptations of books or both, which also applies to the movies mentioned above.

The success of the Dutch movie as of the late nineties could have been an outcome of the new direction taken by the government. However, it is difficult to establish what the exact relation between incentives and revenues are. The outliers mentioned before all had quite a large budget at their disposal. For instance, *THE DISCOVERY OF HEAVEN* had a budget of over ten million euro of which the amount of subsidy allocated by the Filmfund comprised just four percent of that budget. The same percentage applies for *PIETJE BELL* and *DE TWEELING*. High budgets means more money can be spent on the movie itself, on for instance computer generated imagery, or marketing and promotion, which can help to attract a bigger audience. Whether or not this was the case for these films is beyond the scope of this thesis. However, the examples do demonstrate that it was possible to obtain much higher budgets than was customary in preceding years. The implemented incentives

allowed for that possibility. The increase of admission numbers can also be credited to factors such as the improvement of programming, professionalism and investments in equipment and accommodations for exhibition (Bureau Berenschot, 2004).

What did become clear, was that the involvement of the intendant was successful. It resulted in the production of almost twenty films, half of which gained a golden film status. Movies mentioned before, such as MINOES and JA ZUSTER, NEE ZUSTER, were developed with help of the intendant, who was also part of the development of VOLLE MAAN (€ 3,010,110), PHILEINE ZEGT SORRY (€ 2,013,124) and SHOUF SHOUF HABIBI! (€ 2,308,496). However, most of these films aimed at a young audience, even though films such as DE TWEELING and NYNKE, showed the existence of an market for the older audience segment (Nederlands Fonds voor de Film, 2005).

Between 1999 and 2003 private investments were made in a total of 65 film projects through the cv-mean (Gubbels, 2001, p. 267). The production volume had thus indeed been increased in the Dutch film sector since the implementation of the incentives. Subsequently, the market share of Dutch film increased as well, which means that more people went to see Dutch movies. With that, the appreciation for Telefilms by both audience and producers had grown, as well as its volume from six to thirteen movies a year between 1998 and 2000. The collaboration between film producers and television thus appeared to be fruitful and led to a strengthening of this collaboration. The increase of admission of Dutch films released in cinemas could have been related to the appreciation of the audience for the Telefilm (van Dulken, 2002, p. 94). After all, television is an accessible medium for a broad audience and the broadcast of the Telefilm could have attracted new audience members for Dutch film.

### *Negative results of the incentives*

Looking at Graph 1 it seemed that after 2001 the incentives had no more leeway. The amount of allocated subsidy for the realization of film projects was increasing, but the return of those investments was decreasing: the box office revenues were not increasing as fast anymore. Movies that were subsidized after 2002 even set in a decrease. Even though the number of subsidized and released productions kept increasing, as Table 4 demonstrates, the audience lost their interest. The big success of movies such as KRUIJMELTJE and MINOES weren't matched for some years. The very few outliers did not even reach the four million euro margin in revenues. Only KRUISTOCHT IN SPIJKERBROEK (€ 3,186,890), PIETJE BELL 2 (€ 3,630,316) and HET PAARD VAN SINTERKLAAS (€ 2,221,273) were somewhat successful.

Still, more films than ever managed to attract over 100.000 visitors, especially those subsidized between 2001 and 2003, which is demonstrated in Appendix I. In 2002, a new

funding scheme became effective that allowed the Filmfund to allocate more subsidies to commercial films if at least 5% of its budget would be spent to marketing. This resulted in an increase of relatively successful productions. Among them were family films, but also genres such as comedy and romance, which were quite rare until then. However, the fact that this scheme led to commercial successes was not represented in revenues, which were actually decreasing.

The slump of revenues after 2002 in Graph 1 can be linked to other events, such as the changes the government had to make to the fiscal measures during 2001. A new tax law required adjustments to the means, resulting in the Film Investeringsaftrek (FIA), which in turn needed the approval of the European Union. This development caused a decrease of the amount of investments. Not only because of the uncertainty it had caused for investors and producers, but also for limiting the possibilities for foreign investors who benefited from the arrangement as well. According to Bureau Berenschot (2004, p. 77), the recession, the conditions of the adjusted fiscal measure and the negative publicity surrounding the cv-film were also to blame for the slump in admission and investments.

Next to that, the implementation of the fiscal measures appeared to have caused the film sector to become more fiscal orientated than market orientated, which resulted in high tax losses for the state. Over € 170 million was lost opposite an increase of the production volume to € 210 million between 1999 and 2003 (Bureau Berenschot, p. 6). Still, there seemed to be no concrete structural development in the market (Gubbels, 2001, p. 267).

Looking at Graph 1, the movies subsidized between 2003 and 2005 set off some heavy fluctuations in box office revenues that are underlined by the fluctuations in the market share after 2003, as shown in Graph 2. The implementation of FIA had resulted in a stagnation of film production, because of the uncertainty surrounding the continuity of the fiscal measures. This presumably attributed to the fluctuations in market share and revenues. Later, the amount of allocated subsidies in 2004 did not receive a high return. Some family films earned a reasonable amount at the box office, but other than that, there were no outliers. Then in 2005, two movies were subsidized which turned out to be both huge successes, namely ZWARTBOEK and ALLES IS LIEFDE. ZWARTBOEK even managed to obtain a historic large budget in the market of over sixteen million euro. Subsequently, it earned one of the highest revenues at the box office of Dutch film ever, earning € 7,521,206. ALLES IS LIEFDE on the other hand had a modest budget of over three million euro, but managed to almost triple that by earning € 9,737,000 at the box office. These rare successes in Dutch cinema were enabled due to the possibilities created by the implementation of the incentives.

### ***Film objectives met due to incentives***

Despite a few setbacks and some unforeseen effects, especially concerning the fiscal measures, the goals set up by Secretaries Nuis and Van der Ploeg for film regarding the incentives have been met for the most part. Nevertheless, under Secretary Van der Laan these incentives were about to be discontinued with the goal to minimize the dependency of the film sector to the government. Fortunately, the incentives did manage to transform the Dutch film market in such a way it would be possible to become less dependent on government's support. This is demonstrated by movies that were able to find a significant amount of funding by market parties, such as ZWARTBOEK and KRUISTOCHT IN SPIJKERBROEK.

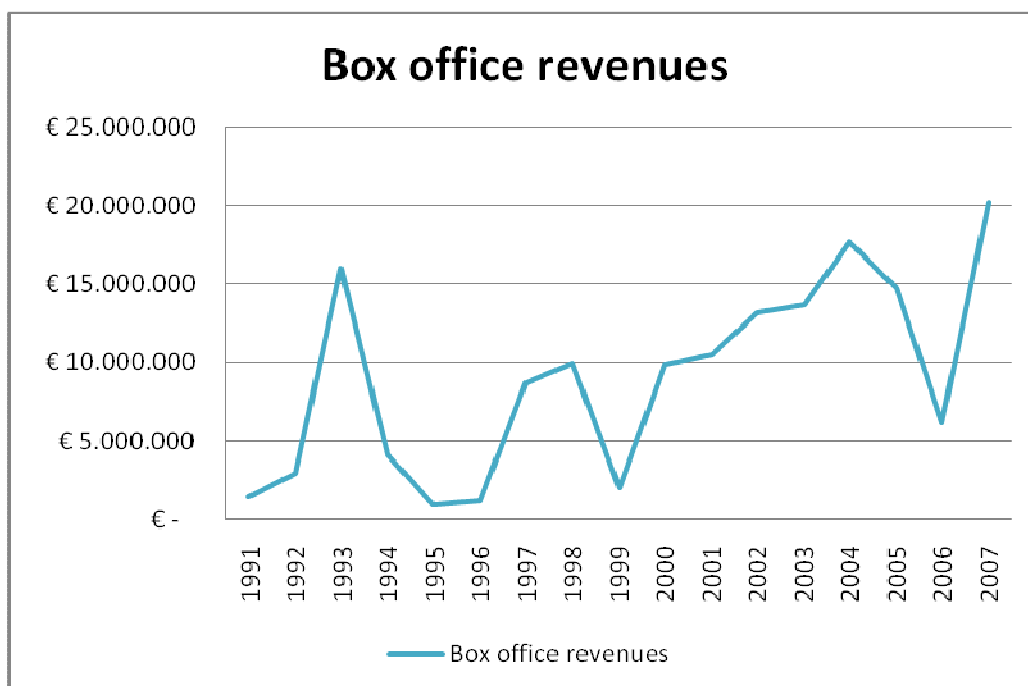
What became clear after the implementation of the incentives is that the Dutch film industry would not become an economic viable sector for a long time. Despite the increase in market share after 2000, the industry failed to become strong enough to stand on its own. Bureau Berenschot (2004) performed an extensive research on evaluating the measures that turned out to be quite effective. However, film policy did not state how the success of the incentives should be measured afterwards. Therefore, judging whether or not the market orientation, production volume and the overall structure of the sector had been improved, was done in Bureau Berenschot's own terms. Bureau Berenschot (p. 9) stated that these three goals have been met, though it would remain unclear whether the degree of improvement could have been better or that these successes could have been realized through other means.

According to Bureau Berenschot, the market orientation within the film sector has been improved: an increase in the admission numbers and in the market share has been observed. Investments in distribution and marketing have also increased, which is in lines with the goal to increase the commercialization of some Dutch films. FINE BV and the intendant of the Filmfund have been accredited by Bureau Berenschot for these improvements (p. 33). FINE BV managed to build trust between private investors and film producers in such a way, that it served as a label for trustworthy and high quality film projects. The intendant also performed a pivotal role in establishing more commercial projects by motivating writers to be more orientated on their audience, which resulted in successful family films such as MINOES and JA ZUSTER, NEE ZUSTER.

### ***Developments in revenues and budgets***

The observations regarding the market orientation are underlined by my own data collection. Graph 3 shows the development of box office revenues of movies that have received a realization contribution of the Filmfund corresponding with the year in which it has been released. The two year time gap of Graph 1 has thus been eliminated. The increase

of revenues that set in after 1999 is a result of the release of productions that were financed two years prior, in 1997. In 1999, the incentives were up and going and box office revenues kept increasing for several years, reaching another peak in 2004. During those years, the subsidized movies that received a realization contribution also acquired higher budgets (Graph 4). But Graph 3 shows in addition that the newly found audience did not last. After 2004 the revenues for the subsidized movies decreased again, presumably due to the stricter conditions surrounding the fiscal measures that created uncertainty for producers. In turn, this resulted in a decrease of venture capital obtained from the market. Assuming that budgets matter for revenues, the decrease in revenues can be related to the decreased capital.

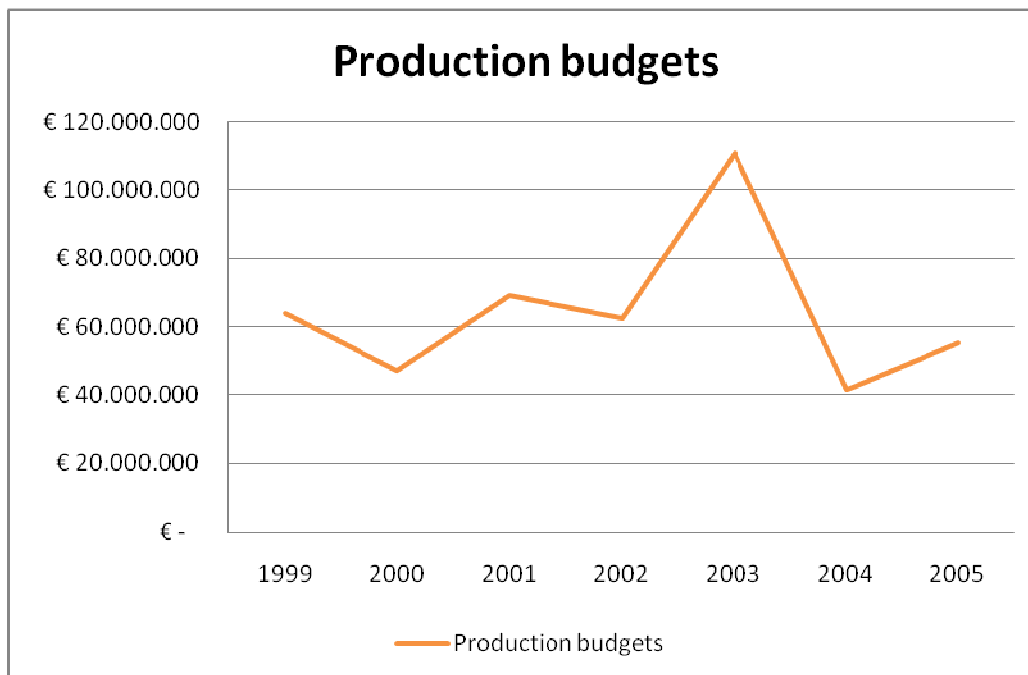


Graph 3: *Development of box office gross for films that received a realization contribution*

Graph 4 shows the drop in venture capital in 2004. After 1999 the budgets have slowly been increasing with a dramatic increase for 2003. In that year twentyseven projects received subsidy for realization, including three movies obtaining a budget of over ten million euro that were mostly international coproductions (KRUISTOCHT IN SPIJKERBROEK, MANDERLAY, MELTDOWN). These movies were released after a new peak in revenues was reached, around 2005 (Graph 1). The graphs shown here also underline the significance between budget and revenues that was found in the previous chapter. It forms an argument to assume the effectiveness of policy. After all, the implemented incentives were to persuade producers to become more market orientated by finding new ways to obtain money for realizing a movie project. The created conditions in turn led to an increase of production



volume and budgets overall, but as shown in graph 4, also specifically for the subsidized feature film.



Graph 4: *Development of total amount of production budgets of subsidized films*

According to De Vany (2004, p. 123) big budgets are part of a blockbuster strategy to gain an immediate big audience through wide releases of a star filled film. Such an aggressive marketing strategy is used with the goal to set in an information cascade that assumes that audience members follow the actions of other audience members. But word-of-mouth is just as important. A big budget creates opportunities for the use of special effects and for promotion, but it is not a sure win for a big audience in the long run. During the run of a movie in theatres, the competition changes constantly due to new releases every week. In order to keep demand high for a film, quality matters as well, which is discussed in reviews. Reviews might not correlate that highly with opening weekends unlike budgets, but they do correlate significantly with revenues earned weeks after a release, underlining the importance of quality in film (Eliashberg & Shugan, 1997).

The blockbuster strategy, getting a big audience during the first weeks of a movie's run, can explain the increase of box office revenues that occurred in 2004 and 2005 (Graph 3) as a result of the increase of production budgets in 2003 (Graph 4). However, this is not completely in lines with what De Vany claims. Films that were subsidized in 2003 probably had a big budget at their disposal since the number of productions did not increase as rapidly as the budgets, but it is not clear *when* most of the revenues were earned by these films. De

Vany (2004) claims that big opening weekends are not a guarantee for success, because demand can change during the run of a film due to an increase of information, such as positive or negative word-of-mouth. Moviegoers will base their decision on that as well. For instance, *ELLIS IN WONDERLAND* illustrates that a movie can attract a large audience without a big budget such as what *KRUISTOCHT IN SPIJKERBROEK* had. Both movies managed to gross a six-figure number at the box office. However, I do not know when there was a peak in revenues for either movies or how many weeks they were exhibited. Such information could for instance confirm that demand for *ellis in wonderland* increased after a few weeks of its run, supposedly due to positive word-of-mouth.

In short, I cannot jump to conclusions. After all, the measured significance in the previous chapter does not say anything about the direction of the relation between both subsidy and revenues as well as budget and revenues. It is for instance unclear why subsidy was allocated or why investors participated. Perhaps subsidy has been allocated because a movie project already had a big budget or because of its commercial potential. On the other hand, bigger budgets could have been acquired in the market due to the fact the project had received subsidy; a fact that might have persuaded investors to participate. The motives for investments by the government or by private parties can form a whole new research. Even if budgets are somewhat related to revenues, which is illustrated by my analysis and De Vany's theory, the use of the budget must be decomposed for every movie in order to see what expenditures have been made for comparison and how each of them can be related to admissions. For this, an audience research is necessary as well. Furthermore, other variables can intervene and perhaps play a more significant role for revenues than the two I have used here. Still, the positive correlation between subsidies and revenues and between production budgets and revenues slightly lift the veil on what *does* play a role for revenues, even though that significance is small.

### ***Other goals reached?***

Unfortunately, I cannot use the numbers presented in this chapter to decide if other policy objectives stated in Table 3 have been reached. Measuring the improvement of quality or diversity in film can form a whole new research on its own. Also, the improvement of the market structure and entrepreneurship are goals for which I have not used the proper tools in order to say something useful on the achievement of that. A research on this would require a different setup than what has been presented here. Nevertheless, other sources provided useful information on these aspects of the Dutch film industry, which I will briefly discuss.

According to Bureau Berenschot (2004, p. 79) the diversity of film has indeed been improved during the time the incentives were operational. Compared to the early nineties, more movies had been produced for specific audience segments, such as SHOUF SHOUF HABIBI! and VET HARD! for the youth. Also, with help of the funding scheme for Publieksfilms more types of movies had come out that weren't produced for some time, such as romantic comedies and coming-of-age films. This included movies as PHILEINE ZEGT SORRY and IN ORANJE, which managed to earn almost four million euro together at the box office. Still, for a short period of time the supply of Dutch movies ended up to consist mostly of family films and comedies, leaving little to choose from by the older audience segment. On the other hand, during the last decade or so, Dutch film supply had indeed become more diversified, with a growing number of comedies and original movies (see Appendix I).

Regarding the structure of the film sector, Bureau Berenschot observed less positive developments (p. 5). The fragmentation in production, distribution and exhibition was not resolved. There were, and still are, no signs of production houses developing as market leaders. A lot of production companies continue to make only a few movies here and there. Still, the professionalism in the sector appeared to have improved due to the increase of productions. This continuity resulted in the improvement of knowledge on not only film making, but on distributing and marketing as well (Bureau Berenschot, p.79). This has led, for instance, to an increasing amount of movies for which over fifty copies have been made for its release.

Yet an increase of productions alone is not enough to fundamentally improve the nature of the Dutch film industry. A few years after the implementation of the incentives, the effects seemed to wear off: the graphs have illustrated this notion. Apparently, a purely economic attack does not work for a medium such as film. The quality of Dutch film needs improvement as well. The incentives were too much focused on keeping *all* producers working, but that does not help develop their expertise (Hoogendoorn, 1999, p. 47). The role of producers has in fact been underrated for too long according to Hoogendoorn. Actually, Dutch producers confirmed themselves that they could not relate to the current policy, because of a lack of focus on producers (Nederlands Fonds voor de Film, 2006). Hoogendoorn (p. 47) is convinced that in order to acknowledge the role of producers in film making, they should get a bonus from the government for commercial successes. This would ensure them of a financial basis for any future projects, which in turn develops their expertise due to continuity. Marketing and promotional activities have played a small role in policy as well, but without an audience, there will be no successes. Therefore, these activities should get more attention as well.

Under Secretary Van der Laan the incentives were to expire. This prospect caused again uncertainty in the Dutch film industry. Would this expiration marginalize Dutch film? Van der Laan's cultural memorandum and its part on film was more concerned with quality and less with commercialization only, leading to the removal of the strict distinction between artistic and commercial films (Van der Laan, 2006). Nevertheless, the economic dimension in film policy had proven its importance. Strengthening the sector would therefore remain priority in order not to undo the results that have been produced up until that point. The fiscal measures would in turn continue to exist, at least until 2007 when a new measure would be implemented because of changes in the European policy regarding the support of film (Hogeschool InHolland, p. 71). This new measure would be a matching fund: the *Suppletieregeling*. It entailed that whenever at least 65% of the production budget is retrieved from the market, producers can count on the government to match the rest of the budget, without any regards to the content of the film. Unfortunately, these changes caused discontinuity in production again, because of the uncertainty surrounding the functioning of this new fund (Hogeschool InHolland, p. 65).

### ***Conclusion***

Minister D'Ancona of OC&W set in a new era of Dutch film production with the implementation of a film policy that started a new tradition of a businesslike approach towards film. Producers were expected to act more like entrepreneurs and the new Filmfund was told to use a business approach in their policy too. It did so by means of the incentives that were operational under Secretary Nuis and Van der Ploeg. Both secretaries introduced policy objectives that focused on: an increase of the production volume in the Dutch film industry; the improvement of quality; and the involvement of the market for both artistic as well as business investments in the film industry. The achievement of these goals should also result in: an increase of admission and market share; an increase of revenues; and in lines with that, an increase of production budgets, employment and diversity in supply. Even though it remained unclear with how much all these aspects should increase, according to Bureau Berenschot most of these objectives have been met.

These conclusions have been underlined by my empirical research on developments in the accumulated amounts of subsidies and box office revenues. It showed that after the implementation of the incentives, production budgets and revenues increased for some time. At the same time, the amount of allocated subsidies did not heavily fluctuate, meaning that the measures had been effective to some degree. The correlation analysis presented in the previous chapter demonstrated the significance of the relation between subsidies and revenues and budget and revenues. In other words, allocated subsidies have been relevant

for revenues, but because the significance is quite small, other variables are also, and perhaps even more, relevant for box office success.

Still, the incentives turned out to be the necessary instruments in order to breathe new life into the Dutch film industry. But the main goal of transforming the Dutch film industry into a self-sufficient sector proved to be unfeasible, despite several movie successes. Plus, there were some unforeseen effects. The fiscal measures resulted in a bigger tax loss than anticipated, which in turn led to several adjustments. Because of that, investors became reluctant to put in money for film production, which caused uncertainty and stagnation in production. Nevertheless, the incentives did ensure the proper conditions for a transformation of the industry, and the improvement of professionalism and market orientation by both producers as well as other parties.

Unfortunately, after several years there appeared to have been no structural changes in the Dutch film sector despite the increase of productions and their quality. There remained fragmentation in the supply side of the film market and although the market share of Dutch film had increased, the admission remained unsatisfactory. Next to that, the incentives did not manage to decrease fragmentation in distribution either. Distribution is an important tool for getting the audience to go and see a Dutch movie in theatres. Producers, distributors and exhibitors should be more alert to the wishes of the audience in order to increase demand for Dutch film so that supply can develop. It is therefore important to gain more knowledge about the opinions and expectations of the audience members about Dutch film and their decision making process, which will be discussed in the next chapter.

## **Chapter 7. Demand for Dutch cinema**

So far the supply side of the Dutch film industry and Dutch film policy has been discussed. In this chapter I wish to elaborate on another focus point of this research, which is the dependent variable of box office revenues, or in other words, the demand side of the Dutch film industry. In this context, success has been measured in terms of revenues and for that, film needs an audience. In Hollywood, the whole industry revolves around it, because the audience is essential in order to make huge profits from a movie. It is therefore not surprising that the audience has become priority in Dutch film policy as well. The evaluation of the incentives by Bureau Berenschot has also commented on the lack of knowledge about the Dutch audience and the industry's failure to pay them any attention when making films. Film production is not an isolated activity, but a part of the process of film making in which the audience plays an important role. It is thus crucial to know, as a producer, what the audience thinks of Dutch film and what their expectations are. It is also key to understand the decision making process of potential audience members when they choose a film. In the following paragraphs I will discuss these points more thoroughly.

### ***Research on the Dutch film market***

After the seventies, the interest of the audience for Dutch movies grew less and less. Since then, little has been improved for the small artistic film when attracting an audience. Fortunately, commercial films had more success gaining an audience, especially during the 1990s. However, this recovery in cinema attendance did not match the success of the seventies. Holland was actually one of the few countries in Europe having the lowest domestic market share in film (Verstraeten, 2002). Therefore, the Dutch Filmfund commissioned a market research on the Dutch feature film in order to find out how this could have happened. All facets of the supply and demand side were to be uncovered in it. For the latter, audience members of sixteen years and older formed the group of respondents for the market research. It turned out that the younger segment of the market is actually a large potential audience, even though most Dutch films are focused on a more adult audience (Verstraeten).

The majority of the respondents, in all age groups, have seen a Dutch movie from time to time, but rarely in theatres. Whenever they did watch a Dutch movie, it was either on television or on DVD at home. According to the respondents, Dutch film has improved in quality in comparison to American films and their technical standard. However, it remained having a weak position in the domestic cinema market. This came from the fact that Dutch movies were perceived as a second rate movie product. The audience had a

negative perception of Dutch film and was biased to its quality, or lack thereof, and therefore persuaded to go and see an American movie instead. The audience knew Hollywood movies would be of high quality and exciting. Especially audience members under 29 years old knew that Dutch films were made with small budgets and would therefore not be able to deliver on any high expectations when it came to spectacle, particularly for genres such as action movies or thrillers (Verstraeten, 2002, p.5).

This belittling view on Dutch film by the audience was also a result from the fact that marketing of most Dutch movies is quite mediocre and not that extensive. The market research illustrated this with examples of the few movies that did manage to attract a wide audience by using a more aggressive marketing strategy, such as MINOES and COSTA. However, such strategies are rare and the audience does not even know when a new movie is coming out, simply because there are no trailers on television for example (Verstraeten, p. 6). At the time of the research, different media reports about the film industry did not help to improve the image of Dutch film either. In fact, news about collaborations gone wrong, producers' skepticism about the incentives, especially the cv-measure, and other quarrels confirmed the poor image the audience had of Dutch film.

Fortunately, the respondents had some positive notes on Dutch cinema as well. The movies were appreciated for their value as cultural heritage and for carrying out the Dutch culture. It was this property, and the entertainment aspect of Dutch film, that was valued. The latter came from the fact that acting performances had improved according to the respondents, as well as the pace of a movie. The recognizable aspects of Dutch film, the authenticity and the realism are what attracts the audience to it. Dutch movies should therefore not want to resemble American movies. Some respondents are convinced that this is even infeasible due to the small budgets.

The successes during the late nineties and early 2000 had resulted in a bigger audience range, which could be attributed to the high expectations of the audience coming from previous successes (Verstraeten, p. 8). Even though the appreciation had risen for Dutch movies, it did not show in the numbers. Only a small group of the potential audience actually went to the theatres. Verstraeten concludes that it will remain difficult to attract an entirely new audience, especially among the older segments, because they prefer the small art houses of which only a few exist. The biggest problem then and now remains that cinemas simply do not attract that many people anymore, which is partially to blame on the increase of home cinema experiences, especially among the segment of 20 to 29 year-olds (Verstraeten).

### ***Demand for movies***

The market research discussed in the previous paragraph has shown that even though the appreciation for Dutch cinema has increased during the last decade, its image has not been improved enough to actually attract a bigger audience to the theatre. To clarify this, other factors than the Dutch cinema itself need to be considered when it comes to demand. The point is that potential audience members can choose from a whole array of activities to spend their time on and film is just one of the media related activities. It is therefore helpful to understand not only why the audience chooses a Dutch film, but film in the first place.

Demand for entertainment products or information goods such as film depends on the allocation of consumers' free time. They can spend it on leisure activities or use it to generate additional income. From an economic perspective, demand for films can be treated the same as the demand for any other product. If the price of the product increases, demand will decrease, and vice versa, until equilibrium is found where demand and supply intersect. However, when moving along the demand curve after price changes, demand can shift altogether to demand for substitute products; if budget constraints forces the consumer to do so (Vogel, 2001, p. 12). In other words, when movie tickets become too expensive for the audience member, he might wish to spend his money on other leisure activities altogether or watch a movie at home by renting or downloading it.

The sensitivity of consumers to price changes might increase when it is uncertain beforehand what gratification the product can give. Because movies are experience goods, the degree of gratification will be known only after consuming it. This can strengthen consumers' sensitivity to price changes, resulting in substituting film with another product due to this uncertainty. The uncertainty of gratification causes demand to be uncertain for producers as well, which in turn makes the production of movies and other entertainment goods a risky endeavor. Producers need to wait and see whether or not the sunk costs of production will be recovered. The unpredictable behavior of the consumer and his demand for film result in random revenues: there simply does not exist an average box office revenue, the diversity is in fact infinite, just like movies in itself (De Vany, 2004).

### ***The effect of the audience's behavior on revenues***

Because every movie is a discovery for the audience due to its characteristics of an information good, potential audience members are informed about it through information cascades (De Vany, 2004, p. 7). This can start by an aggressive marketing strategy. According to De Vany (2004) a wide promotion of a movie could indeed lead to big opening weekends at the box office, but these results do not guarantee success for the following weeks during the run of a movie. Competition changes on a weekly basis and every movie



release has its own promotion campaign to catch the attention of the potential audience. It is therefore impossible to trace who was confronted with what part of the marketing mix, resulting in an audience that behaves complex and dynamically, or in other words, unpredictably. The diverse outcomes in revenues among competing films are a result of that, claims De Vany (2004).

In such an unpredictable business, making choices between movies by both consumers and producers will be affected by this uncertainty. For producers, decision making during any phase of movie making involves taking a risk and is based on delayed information about consumers' behavior. Meanwhile, the movie market is constantly influenced by innovation of movie makers and the discovery of this by the audience that results from communication about film and imitating behavior (De Vany, 2004, chap. 3). The audience's reaction to innovation can either enforce the development of it, in for instance storytelling or special effects, or cause it to stop when demand is low. However, before this feedback reaches producers, there might already be more movies alike in distribution that will either be a success or a failure as a result. A recent example of innovation in movie making is the so-called mosaic way of storytelling: different storylines of people who seem to have nothing in common turn out to be intertwined in a surprising way. This innovation started with *MAGNOLIA*, but turned out to be successful years later after the release of movies such as *CRASH*, *BABEL*, *LOVE ACTUALLY* and *ALLES IS LIEFDE* in the Netherlands. The audience's positive response to such changes led producers exploiting this even more in new movies. However, at some point after seeing an innovation several times, the audience will have very high expectations of it in upcoming films, which can either be met or not. In the latter case, the audience loses its interest in such films and as a result, profits will decrease. During the run of a movie the audience's decision making between movies can change, which affects the feedback on consumption that producers receive. As said before, a successful opening weekend is no guarantee for continuing success and demand might be partially formed by herding, producers should not rely solely on that kind of information for future projects.

### *A changing market*

This dynamic interaction between demand and supply is subject to change due to technological developments leading to the converging of media and thus to an overlap between movie affiliated markets. Digitalization is primarily responsible for this convergence. It allows media content to be consumed outside their traditional outlets, because it all holds the same digital structure. This means that a television programme is not restricted to the television set in order to be consumed. It can also be watched on the

computer or mobile phone. The same development applies for movies, which can be watched outside of theatres as well.

Box office revenues are affected ever since television started to broadcast movies and the video cassette entered the market, which allowed viewers to watch movies at home instead of in the theatre. Video has gradually been replaced by DVD's, which also set in a new age of online distribution of film. Even though technological developments led to decreases in distribution costs, it remains to be seen if total production costs can be recovered through other ways than the box office (Vogel, 2001, p. 58). The point is that movies can be consumed in theatres, at home and online. These changes affect the current workings of the movie market and business models, on both an international level as well as on a national level. In turn, decision making by consumers will be affected when movie consumption expands to online and mobile entertainment. Such changes due to technological developments have already occurred in the music industry where CD's have nearly become superfluous and songs can be downloaded through different channels. The movie market might go down that same path years from now. In short, technological changes in media will affect demand and supply of film to some degree, which in turn requires adjustments in policy, for both film as well as other media.

### ***Policy and demand***

What has become clear so far is that film policy and its implementation are focused mainly on the supply side, specifically on film production. Though policy objectives mentioned here have been met for the most part, there was no structural improvement of the Dutch film industry. The market share of Dutch film remained too small for the industry to grow into an independent sector. Apparently, improving and diversifying production alone is not enough to let Dutch cinema prosper. Ways to do so have been based on only a few evaluations that have been performed on film policy and the Filmfund itself. The studies I have discussed here mentioned the audience, but only as a general and supposedly unchanging element within the value chain of film making.

The discussed evaluation by Bureau Berenschot was focused on the outcome of the incentives, as the government had commissioned. It presented conclusions on the basis of predominantly desk research and interviews with people from the many production houses. The Filmfund had commissioned an audience research and had evaluated the functioning of the intendant, but other than that, very little research has been performed concerning the film policy discussed here. One of the conclusions from Berenschot was that the production of movies for a broad audience had increased, which in turn improved the diversity in Dutch film supply. Movies that aimed on a broad audience could resort to funding of the Filmfund

that is reserved for so-called Publieksfilms. One of the conditions is that at least 5% of the budget must be spent on marketing and promotion. However, there is no mention on the preferences or expectations of that broad audience. In fact, there has been no follow-up to the audience research performed in 2002 on the image of Dutch film. With little information about that side of the market, it is no wonder that the market share of Dutch film failed to increase significantly during the last couple of years.

Demand for film is uncertain due to constant changes in film supply and the decision making process by moviegoers, causing the results of the Filmfund's audience research to be outdated. It would therefore be useful to perform an audience research on a more frequent basis. That way, it is possible to develop a better image of the audience's perception of Dutch film and perhaps anticipate on any trends. However, movie production is a time-consuming endeavor. Any outcomes from an audience research might therefore be outdated by the time a movie is released. Next to that, policy is even less flexible when it comes to adapting to changes in demand. Still, audience research can help discover any trends in the perception of Dutch film and in the decision making process of Dutch moviegoers. Nevertheless, it would take some time to see any effects of such research on the content of film policy and film production. Distributors and exhibitors could also benefit from this kind of information and might be more flexible to adapt to any changes in consumption.

The assessment of the outcomes of policy after its implementation will face the same challenges concerning demand based on the fact that it can change rapidly and unpredictably. Whenever measures are implemented to address one problem, either concerning demand or supply, new problems can arise during its execution. This is of course not limited to film policy only, but the film sector does face some typical challenges due to continuing changes in the market as described earlier. The digitalization and the converging of media affect the way film is produced, distributed, exhibited, but above all, consumed. Demand for film is volatile, but the way film is consumed is no longer restricted to theatres only and can be just as volatile as demand. Performing a product evaluation of film policy would let government base their new objectives on outdated information. A process evaluation would therefore be more productive, but in order to use the results, film policy should become more flexible and less specific in order to have room for quick adjustments.

A process evaluation of film policy can be less comprehensive than a product evaluation that therefore should not be ruled out altogether. Researching the effect of policy during its usual four-year run, allows for quick adjustments whenever changing trends in demand, supply or their interaction requires so. Statistics derived from audience polls can be valuable resources for that. The diversity of supply can then be matched to demand. Still, this would not eliminate any risks that producers take when making a movie. Competition

among movies will continue to change as well, as will the competition between movies and other media-related activities. However, regular audience research might prove to be beneficial for the market share of Dutch movies and in turn for the development of the Dutch film industry.

### ***Conclusion***

Observing the relation between subsidy and box office revenues can be beneficial for the design of future policies, but discovering what actually forms demand is just as useful. In fact, revenues represent the demand for a certain film, but also for a certain genre or type of film such as the Dutch film. However, numbers alone do not provide enough information. It tells in retrospect the degree of success of a film, but it does not explain why an audience went and saw that movie in the first place and what their thoughts about it were. These opinions are important for future productions, especially when the government wants supply and demand to correspond. Theories on demand and market research are helpful tools in discovering the motives of an audience, which can help improve the correspondence between supply and demand.

The market research discussed in this chapter has shown that the audience does not think highly of the quality of Dutch film, although opinions were more positive in 2002 than a decade before that. Still, the low image that the audience has of Dutch film keeps them from seeing it in the cinemas. The efforts taken by the government and producers to improve the quality do not seem to be enough. The negative bias of the audience might be improved through better marketing and promotion, which are unnoticed in their current state. It results in the majority of the audience knowing very little about new Dutch film releases. Getting their attention in time for a movie's release is a key aspect of drawing the audience to the cinema.

In addition to a market research, theories on demand could be insightful for producers and distributors as well. De Vany claims that the audience's behavior is formed by imitation and communication. For some audience members it is reason enough to go see a movie when a lot of people have gone before them. On the other hand, opinions or reviews can affect the decision making of a potential audience member. Promotion for the release of a movie is therefore important, but in the end, the quality of a film will determine whether or not people will continue to go see that movie in theatres.

On another note, competition is not refrained between movies themselves, but also between movies and other leisure activities that serve as substitutes. The audience has only so much time and money to spend on leisure activities. When people decide to see a movie in the first place, they will not automatically go and see it in cinemas. Other media can be

used just as easily for the consumption of movies and are therefore important competition of theatres. To put it differently, television, DVD and the internet can be used to watch a movie as well, which keeps the audience away from theatres. This complicates the decision making process of the audience when choosing between movies and other media. It also asks for more extensive marketing of a film, using different channels in order to find an audience. The intense competition between movies and other leisure activities confirm the need for another market research, especially for small movies such as Dutch movies. These types of movies will need to distinguish themselves more aggressively in order to grab the attention of the audience in a market that is dominated by Hollywood movies. Movies in turn need to compete with other media products as well, due to the digitalization and convergence of other media and their markets.

These changes in the market affect the way movies are produced, distributed and most importantly, the way movies are consumed. The uncertainty for producers concerning demand is then added with the uncertainty concerning the way movies are consumed. If subsidies continue to play a supporting role in the Dutch film industry, film policy should become more flexible in order to adapt to any changes in demand and consumption. A way to discover what adjustments in policy are necessary is by means of process evaluation. Instead of evaluating the effects of policy years after its implementation, its results and effect on demand should be assessed more often during when it is in effect. Next to that, objectives and measures should focus more on demand and the interaction between demand and supply. After all, demand for Dutch film is essential for the development of a strong industry.

## Chapter 8. Conclusion and recommendations

I have reached the end of my thesis. In the previous chapters I have discussed different aspects of Dutch governmental policy concerning art, culture and film on the basis of subsidiary questions that were presented earlier. The answers to these questions form the basis of the conclusion, in which I will address the main research question concerning the relation between subsidies for Dutch feature film production and box office revenues, in the context of policy objectives that have been formulated since 1997. The most important sources for the conclusion are the correlation analyses I have carried out in which two types of correlations have been calculated between the amount of subsidies and the amount of revenues and between the production budget and revenues. At the same time, the required data for these calculations formed an interesting image on the development of subsidy allocation and box office revenues for Dutch film over the last decade.

The results of the correlation analyses show a positive and significant relation between both independent variables and the dependent variable of revenues. However, there are some contradicting results between Pearson's correlation and Spearman's rho. The Pearson correlation suggests that subsidies have a smaller significant relation ( $r = .210$ ,  $p < 0.01$ ) to box office revenues compared to production budgets ( $r = .561$ ,  $p < 0.01$ ). Because the absolute number of the correlation coefficients is not very large, other variables not included in this research might affect box revenues to a stronger degree. The Spearman correlation suggests a somewhat stronger significant relation between both independent variables and revenues, but in this case production budgets have a smaller relation ( $\rho = .430$ ,  $p < 0.01$ ) to box office revenues compared to subsidies ( $\rho = .496$ ,  $p < 0.01$ ). Again, the absolute numbers are too small to draw serious conclusions from it. Therefore, the analyses form too weak a foundation to claim that subsidies, on its own and as part of the production budget, have a great effect on a movie's revenue. However, the significant correlations do suggest what factors are relevant for revenues, which includes at least subsidies and production budgets. Nevertheless, these factors account for only a small variance in revenues.

Some remarks can be made concerning these analyses. The lack of data on box office revenues might have caused a different outcome were this to be complete, which is also the case for data on production budgets that in turn formed a much smaller population. Also, results of the correlation analyses can be different with a larger population or when another set of films is used concerning the relation between only the production budget and revenues. Besides, the results are probably distorted due to the outliers and I have not included any control variables in my analyses that could be a solution for this shortcoming. Nevertheless, the population was large enough to give some degree of reliability and

stability. In this case, I have limited myself to the long feature film, distinguished as such by the Dutch Filmfund. Perhaps the use of data on animation or documentary would result in different outcomes as well, which can form an interesting contribution to this research. The same applies to research that includes the role of television in film production.

The dependent variable of revenues was limited to earnings of one market only. Including income generated on affiliated markets in the analyses presumably alters the outcome in a positive way. After all, total revenues of a movie will increase, while the budget and the amount of allocated subsidy do not change. Also, if production costs were to be recouped after all thanks to earnings in affiliated markets, it can affect the likelihood of the Dutch film industry being an economic viable sector. However, correlation analyses have little predictive power, thus an assumption like that requires a different kind of research in order to confirm it, such as a regression or multi-regression analysis.

The results of the correlation analyses suggest there is a positive relation between subsidies and film, which justifies government intervention in the film sector. Other reasons are formulated in welfare economics that theorizes on why the government intervenes in markets in the first place. When resource allocation does not maximize utility, the market fails and the government steps in to correct the Pareto inefficiency. Market failures are caused by the characteristics of the movie good, which are non-rival consumption and information failure. Without government support, the Dutch film industry will probably fail to exist because of high sunk costs of film production. These costs can hardly be recovered in the domestic market alone. Moreover, due to the language and the represented culture in Dutch film, it is difficult to release it outside the domestic market. Information failure causes uncertainty for consumer about the movie product. This creates an uncertainty in demand turning movie production into a risky endeavor. For normal consumer goods such a situation would lead to the discontinuance of the product due to lack of demand. However, the Dutch government considers film to be a merit good due to its cultural value and thus supports the Dutch film industry for equity reasons.

### ***Subsidies and policy objectives***

In order to develop the Dutch film industry, subsidies have been and still are allocated on the basis of policy objectives that encourage the independency of the industry, above all by promoting continuity in production. Because a correlation analysis does not say anything about objectives being met, I have linked the retrieved data to policy developments in a different way. The collected data show furthermore the development of the accumulated amounts of allocated subsidy for the realization of films and the total amount of revenues for released films. Together with the relevant cultural memoranda and literature on

developments in the film industry, I was able to draw conclusions from my own data concerning the effectiveness of subsidies in the light of policy objectives. The objectives were predominantly focused on: the increase of production volume; the improvement of quality and commercialization of film; entrepreneurship among producers; and attention to the audience.

In the early nineties, minister D'Ancona of OC&W introduced a businesslike and market orientated approach to film policy in order to reach those objectives. Under her administration the subsidy system became more efficient and effective because of the merger of the two separate film funds. In 1997, under her successor Secretary Nuis, incentives were implemented with the main goal to turn the Dutch film industry into an economic viable sector that would be self-sufficient. For that, the sector needed to become more market orientated and supply more commercial films. The most important to do so were the fiscal measures. This helped to attract private investors to support film production by facilitating tax benefits. However, after the introduction of the incentives problems occurred for which the measures needed to be adjusted several times. As a consequence, film production stagnated due to insecurities regarding the continuity of investments made by private parties. Despite these glitches with the execution of the fiscal measures, the production volume of Dutch films increased significantly, as well as the number of commercial films.

The increase in the number of productions could also be attributed to the development of professionalism and expertise in the sector and to the intensified collaboration with television. This collaboration provided producers the opportunity to make films on a regular basis on the one hand, and potential audience members to discover Dutch film via television on the other hand. The incentives also allowed for an improvement in the diversity of Dutch film supply, resulting in the production of for instance romantic comedies and coming-of-age films. The intendant played a pivotal role in this and managed to help create movies that aimed at new target groups, such as young adolescents. In turn, the increase in production volume and diversity had resulted in an increase of revenues and thus demand.

However, these successes were short-lived. After a few years, revenues started to decrease slowly, demonstrating that the audience lost their interest for Dutch film. Even though the implemented policy promoted the production of Publieksfilms as a mean to pay more attention to the audience, it failed to discover what the audience's preferences actually were. In a continuing changing film market, demand is difficult to model. Word-of-mouth plays a decisive role for the success of a movie, which is based on the quality of a film. Quality in Dutch movies might have been improved as well if government measures



managed to decrease the fragmentation in the film sector for the sake continuity and expertise.

In 2005 the incentives were planned to end, even though the main goal of developing an independent film industry was not achieved. The market share of Dutch film had remained too small for that. Unfortunately, there were no proper successive measures that would guarantee production not to collapse. Therefore, the incentives and the fiscal benefits continued to exist for two more years. In 2007 a matching fund was established that would ensure the completion of the budget whenever two thirds had been collected through other means. The allocation of subsidy is then based on financial facts instead of on the specific content of a film in order to push producers to be more market orientated and entrepreneurial.

So far, producers have been primarily benefiting from the measures taken by the government, while equity motives for government intervention illustrate that the public should benefit from measures as well. The discussed cultural memoranda have indeed stressed the importance of the audience, but no measures have been introduced specifically for their benefit. For that, the focus of policy should shift to other aspects of film making such as distribution and exhibition, which could help attract a bigger audience.

### *Policy and the audience*

The evaluation and implementation of the businesslike and market orientated film policy uncovered other weak areas in the Dutch film industry, which would require more attention in the future. Other branches of the industry were neglected in policy after 1997, because of the strong focus on production. This became apparent after the effectiveness of the incentives wore off, which resulted in a decrease of revenues. Improving film production alone is actually not enough to help develop the film industry: distribution and exhibition appeared to be just as important. However, these aspects of film making were not a high priority for policy makers. Next to that, demand was low due to the bad image the audience had of Dutch movies. Developing better marketing and promotion strategies for Dutch films might help to attract a big audience in the short run, since movies that did use aggressive marketing tools for their releases managed to do so. Without proper marketing, chances are Dutch film will be marginalized again, especially in a global film industry that continues to be dominated by US movie products. Dutch movies themselves need to be of high quality to attract audiences in the long run and cinemas need to be inviting as well. Moreover, cinemas must have the opportunity to show a Dutch movie in the first place, which entails the necessity of enough copies for each released movie.

It would therefore not be a bad idea if the government creates similar incentives for the improvement of marketing, distribution and exhibition. For instance by allocating subsidy when a substantial part of the production budget will be spent on specific marketing tools or by subsidizing distributors in order to make a substantial amount of copies. The point is that the problems identified in production apply for distribution and exhibition as well: there is a high degree of fragmentation. Continuity among producers is essential and part of policy objectives, so why not give the same attention to distributors and exhibitors. This could help the development of expertise and professionalism in these sectors as well. In the end, it is vital that fragmentation is decreased, perhaps with the prospect of establishing a few distribution and exhibition companies. Taking the digitalization and converging of media in mind, it might even be more beneficial for the industry when fragmentation is further decreased by the integration of production, distribution and exhibition. This would spread the costs and risks of movie production and improve efficiency, which in turn can improve the continuity of production.

What not must be forgotten is the audience itself. Film policy has mostly been focused on production with the notion that it should focus more on the audience, but there has been no research on what that audience actually expects or thinks of Dutch film since 2002. Audience research can provide information that can help determine what the objectives of film policy should be and how to reach them with the proper measures. Still, demand for film is not a given, for it is partially formed by herding and by communication. This results in an irregular development of box office revenues during the run of a movie. Also, past behavior does not say anything about demand in the future. Nevertheless, audience research can serve as a mean for producers in order to reduce risks if they are able to anticipate the decision making process of the audience. The fact is that audience members take risks as well when choosing a movie due to information failure. Since producers have the advantage of knowing what the film is about, they might be able to reduce the risk for the audience by providing enough information about the movie through marketing and promotion. Information on how to do so can be provided by audience research, which can also help producers, distributors and exhibitors with ways to keep demand high if the audience's expectations on Dutch film discovered.

### ***Future perspectives and future research***

The fact that the media landscape is changing drastically due to digitalization and the convergence of media will affect the Dutch film industry. Not only does this influence the way a film can be produced, distributed and exhibited, it affects the consumption of film by the audience as well. The details on these changes and effects can form a great research, for

digitalization can for instance reduce costs and increase accessibility, which in turn affect business models in film making. This requires adjustments in the production process as well as in governmental policy. Meanwhile, if media overlap and consumers can watch films however they want, policies focused on separate media will be outdated and should be replaced by policy that focuses on content, with less regards to specific media outlets such as cinema theatres or television. A comparative research between European countries including the role of the European Union and their media policy could be insightful. What the influence of technological developments on Dutch cinema will be and how policy would fit that new situation can be an interesting topic for future research.

As emphasized before, the demand side of the film market must not be neglected in future research. When media usage should become more interactive, in the sense that audience members have more control over when and where they see a film, it will probably require adjustments in the supply side. These adjustments can in turn be defining for future successes, assuming for instance that marketing plays a crucial role in getting movies and audiences together. Interactive usage of media is already happening. Internet and Video On Demand (VOD) are significant threats for cinemas in getting the attention of the audience. Together with big screen televisions and high quality sound systems, VOD can keep the audience at home for a cinema-like experience, because recent films can be chosen directly from television providers. Putting copyright aside, imagine the possibilities if providers are able to offer viewers a range of recent films from different countries. Were this reality, policy would need adjustments accordingly. Perhaps cinemas will be permanently replaced by other media outlets to function as primary markets for feature films, which would change the rules of the game entirely. To prevent that from happening, a visit to the cinema should have an added value compared to watching movies at home. The programming should therefore be diverse enough in accordance with the preferences of a broad audience. Moreover, film is an experience good and that experience should start in cinemas, not only in the screening room, thus it will be helpful to research how cinemas can promote that added value.

The fact that the audience already has a wide range of movies to choose from makes it difficult for Dutch movies to stand out and attract an audience. The supply of content can keep growing, but leisure time for consumers does not. If time spent on media and especially film becomes scarcer, quality will matter even more considering the audience's income and their sensitivity to price changes. Fortunately, Dutch films are appreciated because of their realism and recognizable elements which generates an audience either way. However, that audience will disappear if the quality of Dutch films would deteriorate. It is therefore important to pay attention to the audience, but not to lose sight of quality either, since that

can increase demand during the run of a movie. This might entail that each year less movies would be produced at the expense of more commercial ones of inferior quality, but in the end, producers need their audience. Researching the media usage among consumers per audience segment for content such as film, could result in valuable information on how to organize the Dutch film industry in the future. It can also help clarify what marketing tools and film qualities are likely to attract what audience member. Focusing on demand in policy could affect the sector differently than it did with its focus on production, but in what way cannot be predicted. It does not guarantee better films or higher revenues, because so many various factors play a role in the movie business, but it is worth to explore what this shift in policy could bring about in comparison.

What if we take a different tack on government support and explore whether subsidies are necessary at all. Film policy was set up by the Dutch government more than sixty years ago in order to support this type of art. Since then, a lot has changed for film itself and the market it resides in, especially during the last decade. Much has changed in the Dutch film industry, which can be attributed to the implemented incentives. Producers were encouraged to focus on the market for financing and to become more entrepreneurial. As a result, a lot of Dutch movies have been released since then without any government support such as subsidies. Much has changed in production, distribution, exhibition and consumption as well due to technological changes. Digitalization of film has caused costs to decrease, especially for distribution. The integration of activities in the supply side could result in a further decrease in costs and can be covered by revenues of all the movies produced within one company, which are in turn earned in theatres and in affiliated markets. Whether or not such developments would result in a self-sufficient market is therefore worth to explore in further research.

If government support would disappear, it would redefine Dutch film. There would be no policy to make sure artistic films would be produced or that Dutch films would contain certain cultural value. But without film policy, there would also be no constant wrangling between the government and artists, such as the producer, actor or writer. It would be interesting to explore if and what kind of film market there would be without government support. Producers would be forced to act in favor of the audience, which might result in a market without artistic films or with only a few major companies. Because now, policy maintains the fragmented structure by subsidizing everybody with a plan, resulting in a Dutch film industry where many different production houses coexist and circumstances can hardly change. Without government support, production houses would be forced to work together. This could result in a decrease of the number of productions, but could at the same time result in an increase of successful movies. The worst case scenario is that the

Dutch film industry failed to exist at all and in the present image culture that cannot happen. In the end, shifting the emphasis in policy objectives between the supply and demand side only feigns the sense of controlling the film market, because all that is certain is the fact that the movies business thrives on probabilities.

## Afterword

Here it is then. My final paper ever in my career as a student. I have been working on it for months and I am glad this thesis marks the end of my academic adventure. Fortunately, film is a subject that never gets old for me and I'm eager to catch up with new releases now I finally have some time to spare. Writing this very last part makes me feel relieved and nostalgic at the same time. Relieved, because this major piece of writing is finished, even though I could edit this forever. Nostalgic, because finishing this means I will leave this comfortable life behind that lasted long enough but will probably never occur again. Now I will have to face a new part of my life with a whole new array of insecurities and possibilities of which I have no idea how things will work out. But I can't wait to see what the future has in store for me.

Before I get started with this, I have to say thanks to my parents for letting me live that comfortable life during the last six years without any hassle, knowing I would land on my feet in the end. My student life would be boring as hell without my friends on whom I can count for the good times and the frustrating times, especially during the last couple of months. Luckily, I wasn't the only one graduating, which means I will also have some company for the coming job hunt. I cannot forget my supervisor, Christian Handke, who helped me greatly during this process with his useful comments and suggestions that allowed me to reach the right level in this thesis. Thanks for helping me during the summer as well, which I needed in order to finish everything despite my promising start. I always come through, but unfortunately, usually at the very last moment.

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Source artwork cover: Film facts and figures of the Netherlands. Edition Summer 2007. [www.filmfund.nl](http://www.filmfund.nl)

## Appendix I. Films with an golden status

Year	Title	Admission	Box Office	Genre	Subsidy
1989	Eline Vere	140,823	€ 729,399	Drama (based on book)	€ 363,024
1990	Oeroeg	145,072	€ 777,192	Drama (based on book)	€ 408,402
1991	De Onfatsoenlijke vrouw	108,235	€ 587,946	Drama/Thriller	€ 408,402
	De Blauwe Johnsons	193,023	€ 1,025,764	Drama/Horror	€ 408,402
	Flodder in Amerika	1,493,873	€ 8,305,214	Comedy	€ 408,402
	De Noorderlingen	114,241	€ 591,433	Drama/Comedy	€ 499,158
1992	Antonia	123,997	€ 578,471	Drama/Romance	€ 408,402
	De Kleine Blonde Dood	358,383	€ 1,935,929	Drama (based on book)	€ 462,856
1994	Lange Leve de Koningin!	104,07	€ 438,432	Drama/Family	€ 272,268
1995	Filmpje!	993,608	€ 5,367,811	Comedy	€ 226,890
	Karakter	204,061	€ 1,020,038	Drama (based on book)	€ 453,780
1996	Twee Koffers Vol	243,754	€ 1,270,490	Drama (based on book)	€ 444,704
	All Stars	298,658	€ 1,511,562	Comedy	€ 328,858
	Abeltje	900,597	€ 4,721,321	Family (based on book)	€ 453,780
1997	De Poolse Bruid	108,653	€ 55,797	Drama/Romance	€ 115,022
1998	Ik Ook Van Jou	144,274	€ 898,200	Drama (based on book)	€ 453,780
	Kruimeltje	1,136,054	€ 6,085,883	Family (based on book)	€ 453,780
1999	Discovery of Heaven	544,485	€ 3,615,259	Drama (based on book)	€ 453,780
2000	Nynke	302,301	€ 1,885,603	Drama/History	€ 417,900
	Minoes	837,592	€ 4,964,354	Family (based on book)	€ 734,491
	De Tweeling	635,520	€ 4,167,684	Drama (based on book)	€ 363,024
2001	De Passievrucht	107,531	€ 708,967	Drama (based on book)	€ 453,780
	Ja Zuster, Nee Zuster	460,701	€ 2,819,603	Family (based on tv show)	€ 453,780
	Oester van Nam Kee	143,624	€ 951,326	Drama (based on book)	€ 453,780
	Loenatik, De Moevie	145,142	€ 841,199	Comedy (based on tv show)	€ 226,890
	Van God Los	191,783	€ 1,258,351	Drama/Crime	€ 453,780
	Pietje Bell	820,792	€ 4,846,971	Family (based on book)	€ 453,780
2002	Pipo en de P-p-parelridder	190,919	€ 1,061,847	Family	€ 430,000
	Lepel	208,748	€ 1,209,686	Family	€ 453,780
	Volle Maan	454,672	€ 3,010,110	Comedy/Romance	€ 453,780
	Liever Verliefd	245,321	€ 1,658,297	Comedy/Romance	€ 453,780
	Simon	151,056	€ 1,000,026	Drama/Comedy	€ 453,780
	Shouf Shouf Habibi!	318,026	€ 2,308,496	Comedy	€ 444,705
	Pluk van de Petteflet	482,787	€ 2,873,503	Family (based on book)	€ 578,570
	Phileine Zegt Sorry	296,774	€ 2,013,124	Drama (based on book)	€ 578,570
	De Dominee	110,704	€ 787,004	Crime/Drama	€ 578,570
2003	Kruistocht In Spijkerbroek	481,866	€ 3,186,890	Family (based on book)	€ 453,780
	Ellis In Glamourland	193,426	€ 1,285,790	Comedy	€ 360,000
	Pietje Bell 2	594,290	€ 3,630,316	Family (based on book)	€ 453,780

	Erik of Het Klein Insectenboek	113,143	€ 679,848	Family (based on book)	€ 800,000
	Vet Hard!	199,295	€ 1,399,520	Comedy	€ 900,000
	Leef!	102,808	€ 674,813	Drama (based on tv show)	€ 817,675
	In Oranje	192,893	€ 1,130,880	Family	€ 578,570
	Floris	145,732	€ 922,987	Family (based on tv show)	€ 578,570
<b>2004</b>	Het Paard van Sinterklaas	377,338	€ 2,221,273	Family (based on book)	€ 453,780
	De Scheepsjongens van Bontekoe	186,081	€ 1,269,689	Family (based on book)	€ 820,000
	De Griezibus	227,204	€ 1,349,367	Family (based on book)	€ 804,770
<b>2005</b>	Zwartboek	1,056,002	€ 7,521,206	Drama/Thriller	€ 578,570
	Alles Is Liefde	1,214,000	€ 9,737,000	Comedy/Romance	€ 578,570
	ZOOP In India	296,57	€ 1,683,271	Family (based on tv show)	€ 607,546

The classification of genres is based on the division that is used in The Internet Movie Database ([www.imdb.com](http://www.imdb.com)) and the Nederlandse Film Database ([www.nfdb.nl](http://www.nfdb.nl)). The years correspond with the year a movie received subsidy from the Dutch Filmfund. All movies are based on original scripts, unless mentioned otherwise.