THERE IS NO BUBBLE LIKE AN ART BUBBLE

A research on the relation between art market and economy, and the search for bubbles over the past century (1910-2010)

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Abstract

Stating that the market for art is not just any market is like forcing an open door. Features such as pricing mechanisms and the relation between supply and demand differ substantially from other markets, including the financial markets. Nevertheless, the emergence of 'bubbles' which is a reoccurring phenomenon in financial markets – think for example about the 1980s Nikkei bubble – also happens in the market for art, although the features do differ.

In this master thesis, research has been conducted on the concept of bubbles in the market for art, and the several features which have an impact on its development. Based on the market-specific characteristics, its relation to the economy in general, and the chronological overview of socio-economic developments, we have sketched a picture of an art market in flux over the period 1910-2010.

Keywords: Art markets – economy – 20th century – bubbles – Christie's

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I. INTRODUCTION

The art business, "a trade in things that have no price"
- Noah Horowitz, 2011

There is no market like the art market. Although this statement might appear to be a clincher, it is a fact that the market for art, with all its peculiarities and unique mechanisms, is an interesting platform for transactions where the simple logic of supply and demand is transcended.

Although the art market is rather unique, the emergence of 'bubbles', which is a reoccurring phenomenon in financial markets – think for example of the 1980s Nikkei bubble – is also present in this market, although the features do differ. A nice example to introduce the concept of 'market bubbles' is the 'Tulip mania' that occurred in the Netherlands in the seventeenth century. Over the second half of the 16th century tulip bulbs had become "the medium of speculation", and prices had lost "all correlation to [their] comparative value with other goods or services" (Sornette, 2003: 7). This bubble in the tulip market ended in an (unexpected) crash in 1637, and bulbs which had been worth huge amounts of money lost all their 'value' over a few months time. Robertson (2005a) also refers to this bubble, concluding that "[s]peculation and investment are attracted to anything which promises returns above the market average, be it tulip bulbs or art" (Robertson, 2005a: 228).

After writing a master thesis on the impact of the contemporary art bubble on the auction house Christie's, the question occurred to me whether this bubble had been a one-off feature, or more of these bubbles had emerged in the past. Research soon made it clear that over the past century the art market has exposed rather oscillating behaviour – whether or not caused by the emergence of bubbles – and a thorough analysis over the longer-term had not yet been conducted. Authors have been analysing two of the most important oscillations – the events in the periods 1986-1992 and 2006-2009 – but the further we go back in time, the more limited the sources and analyses become. Nevertheless, it is probable that not only elaborating the features of the bubbles, but also comparing their characteristics and developments, could function as a warning for the eager contemporary art market. Taking into account, however, the – as Robertson (2005a) articulates it – "extreme brevity of the financial memory", we could wonder when recently learned lessons will be forgotten again (Robertson, 2005a: 228).

In this thesis, we present a *status quaestionis* of the research that has been conducted on the oscillating behaviour of the market for art over the period 1910-2010. Furthermore, we introduce the concept of art market bubbles, and search for the art market-specific features which lie at the basis of their emergence. In order to do this, we use an interdisciplinary approach, in which evolutions in the art market are confronted with the economic developments over the same period, but also with events in the socio-demographic and historic sphere. Consequently, the following research question is posed:

What is the status quaestionis in the research on bubbles in the market for art over the period 1910-2010, and which influential factors can be determined in both the economic and art-historic sphere that have an impact on the emergence of such bubbles?

Structure master thesis

In the first chapter of this master thesis, the concept of bubbles is introduced in order to enable the reader to apprehend the basics before starting with the analysis of the several features influencing its emergence in the market for art. Chapter three focuses on the relation between the art market on the one hand, and 'the economy' on the other. After introducing the most – in the context of this thesis – important art market-specific features, we proceed with the identification of some important related economic concepts, and a chronological overview is presented of the relation between the art market and the economy for the period 1910-2010. In chapter four, the methodology used for similar research is analysed, and the method which was applied for this research is clarified. The results of the analysis of the database are then presented in chapter five, followed by a concluding chapter.

II. BUBBLES AND BURSTS, THEORY

2.1. Introduction

It is common knowledge that the emergence of bubbles is not a phenomenon strictly occurring in the market for art; it seems that almost every market is confronted with it at a certain point in time. There is a significant amount of literature written about the occurrence of bubbles and their bursts in several types of markets; be it for the financial market[1], the real estate market or the market for stamps, authors have described the phenomenon and have tried to explain it. A general consensus is that the build-up of a bubble is the underlying cause of a market crash, and several examples throughout market history prove this theory.

2.2. Characteristics of bubbles

A basic definition of a market bubble is "trade in high volumes at prices that are considerably at variance from intrinsic values" (Lei, Noussair and Plott, 2001: 831). The decoupling of the price from the value of an object is central in this and other definitions – see for example Brooks and Katsaris (2003) for a similar one – and is also crucial in the explanations that have been given for the phenomenon.

One of these explanations concerns the – rational or irrational – behaviour of the market players. The concept of 'traders imitating each other' is very straight-forward; certainly in the case where only limited or asymmetric information in available – e.g. in the art market – a way to decide on investments is to watch other investors' choices and act according to those. As Ruth Towse states, "[t]his behaviour may be rational, as it reduces the individuals' search costs" (Towse, 2010: 155). Consequently it can – in theory – depend on the behaviour of one market player how the market develops. If that investor expects positive returns for a certain good, demand for it will increase leading to higher prices. In the "presence of speculative bubbles" the increased demand will "force prices to diverge from the fundamental value", which is the basic definition of a bubble (Brooks et al., 2003: 321). The behaviour of the market players can therefore be considered as crucial in the emergence of a bubble, and consequently concepts influencing consumers' behaviour such as the snowball effect also

[1] A very thorough analysis of the most important financial market crashes over the past century – e.g. the crashes in 1929 and 1987 – is presented by Sornette (2003).

have their impact. Furthermore, the impact of so-called ‘noise traders’ on buyer’s behaviour is an important feature in the occurrence of bubbles; this will be elaborated in the following chapter.

On the question whether the built-up of a bubble is caused by rational or irrational behaviour, no consensus exists among authors. Several authors attribute the emergence of a bubble to “irrational investor herd behaviour” (Brooks et al., 2003: 320). As researchers in the past have questioned the rationality of investors (e.g. Shleifer and Summers, 1990), this argument seems to make case. Brooks et al. also refer, however, to the “rational bubble theory”, which rejects the idea of irrational investor herd behaviour as the reason for a bubble built-up and claims that investors have (often) *rationally* inflated prices because they were “being compensated for it” (Brooks et al., 2003: 320). This principle of ‘the rational investor’ seems to dominate the ‘recent’ literature on the topic of bubbles. Lei et al. for example, claim that the departure from the “fundamental value” is not caused by a “lack of common knowledge of rationality leading to speculation, but rather by behaviour that itself exhibits elements of irrationality”; the general behaviour of the trader, however, does not necessarily need to be irrational (Lei et al., 2001: 831). The authors also point at uncertainty about the rationality of other market players as an explanation for the occurrence of a bubble. As traders – due to this last feature – are not certain that “future prices will track the fundamental value” they “speculate in the belief that there are opportunities for future capital gains” (Lei et al., 2001: 832). Lei et al. conclude in other words, and by doing so they agree with the conclusion from earlier research by Smith, Suchanek and Williams (1998), that irrational behaviour is not a *condition sine qua non* for the occurrence of a bubble; it is enough for rational traders to observe “the presence of irrational actors” in order to built-up a bubble (Bocart, Bastiaensen and Cauwels, 2011: 11). This is e.g. what happened during the bubble period in the 1980s art market (cfr. infra). A general conclusion on this issue could be that the market is subject to rational and irrational behaviour, and that both may have an impact on the emergence of a bubble and its inevitable burst. It depends on the interpretation of speculative behaviour – as a rational or irrational act – to decide which behaviour triggered the development.

The lack of a correlation between the price and the fundamental value of a good can also be explained by “the incorrect estimation and analysis of the market fundamentals” (Brooks et al., 2003: 320), “overvaluation”, “trade and budget deficits”, “the presence or absence of limits on price movements”, “regulated margin requirements”, et al. (Sornette, 2003: 6-7).

Furthermore, as Roehner and Sornette (1999) point out, chance may also play a "crucial role in nucleating [a] bubble", a feature they document with an example from the stamp market (Roehner et al., 1999: 1103). It is enough for the price of – in this case – one particular kind of stamp to inflate, to cause a reaction of positive feedback, amplifying the effect and thereby triggering the emergence of a bubble for that kind of stamp (Roehner et al., 1999). The bubble "[feeds] on itself, reinforcing itself by the increasing attraction presented by [the particular kind of stamp]" (Roehner et al., 1999: 1103). The buyers have the idea that they will be able to sell their purchase in the (near) future with a certain profit, a feature that could also be observed in real estate bubbles and art market bubbles. As Roehner et al. emphasize, however, this process is only sustainable as long as there is "a reservoir of potential buyers [which] is continuously replenishing" (Roehner et al., 1999: 1103); when this condition cannot be met anymore, due to e.g. the economic situation, the bubble collapses and the market crashes.

2.3. The bubble theory and the market for art

Probably one of the most discussed features in the relationship between the art market and the economy is the occurrence of bubbles and the consequences of their bursts. Over the past century several of these bubbles have been observed and although many authors have reported on these events, only the two most recent bubbles – in the second half of the 1980s and between 2006 and 2008 – and their respective bursts have been analysed thoroughly. Previous bubbles did not receive such an extensive attention in the literature. The vast majority of the authors does not transcend the basic 'mentioning of the event' in the context of their research, as is for example the case for Mei and Moses (2002a) who state that their indices have identified "major price drops during the 1974-1975 oil crisis and the 1929-1934 depression" (Mei et al., 2002a: 1660-1661), but do not elaborate on these events, nor do they refer to authors who might do so.

A "boom-period" in the art market is defined by Locatelli Biey and Zanola (1999) as "characterized by high returns compared to the non-boom period" (Locatelli Biey et al., 1999: 218). During such a boom speculative investments can be observed on the art market, leading to a higher number of re-sales linked to a higher volatility. This number of re-sales decreases during a non-boom period, as the profitability over a short-period diminishes. It is important to emphasize that the authors here use the term 'boom' and not 'bubble', because booms in

the market pass without a crash at the end, while for bubbles this ending is inevitable. The definition of Locatelli Biey et al. does, however, also apply for the art market bubbles.
The impact of evolutions in demand on the occurrence of a bubble in a particular market was already emphasized, and just as in other markets, demand in the art market may be driven by speculation from the buyers' side. In the art market, however, the behaviour of actors on the 'supply' side and the distribution side may also have its impact, while this will be less the case in other markets. Although regulation has increased over the past decennia, it is still said that the art market is one of the last unregulated markets. Features such as 'cornering the market' or monopolies are highly regulated in other markets, e.g. by competition law, while in the art market these events may still 'pass'.
The behaviour of artists and sellers - individual sellers as well as galleries and auction houses – have proven to influence the built-up of bubbles in the market for art (De Strooper, 2010). On the supply side, two actors may have an impact: artists on the one hand, and (individual) sellers on the other. By responding to market demand, as for example Damian Hirst did during the past decennium, contemporary artists are able to boost the prices for their art thereby enabling a bubble to grow. As the supply for most art is limited and fixed, this kind of impact is strictly limited to the market for contemporary art. Therefore, this practice will also occur more in the primary market, where "work by living artists is bought and sold, and market supply depends upon the number of artists and the individual artists' current output", than in the secondary market (Towse, 2010: 78). The decisions by sellers to bring their art to the market or not may also have an impact on the built-up of a bubble. When prices are rising for a certain type of art – whether or not due to the emergence of a bubble – sellers will be more willing to sell, as higher 'profits' could be expected. The other way around is also possible: when the prices decrease due for e.g. the collapse of the bubble, sellers might keep their works from the market, as happened during the recent art market recession (cfr. infra), thereby strengthening the effect. Here, it should however be noted that withholding works of art from the market is not a mechanism which only occurs during bursts; it is also used in 'normal' market situations, for example to interact with an existing demand.
On the distribution side, gallery owners can drive up prices for their artists by creating the illusion of scarcity or by sending dummy bidders to induce genuine bidders to bid more – a practice on which e.g. Ben Lewis reports in his documentary *The Great Contemporary Art Bubble* (2009). Deploying such dummy bidders is parenthetically also used by auction houses and individual vendors, and can consequently also be used to corner the prices for non-

contemporary art. By doing so, precedents are created which do not reflect the 'real' value of the artists' work. Finally, the auction houses may also play their part in the emergence of the bubbles in the art market. By extending loans or credits to potential buyers – as e.g. Sotheby's did in November 1987 to enable Alan Bond to pay $53.9 million for Van Gogh's *Irises* (Lewis, 2009) – auction houses created unrealistic precedents and/or kept the prices for certain types of art – be it Impressionist and Post-Impressionist Art in the 1980s or contemporary art over the past years – at artificial heights. Business practices such as guaranteeing a minimum price to sellers, manipulating estimates, price fixing et al. strengthened the auction houses' impact even more.

2.4. Conclusion

In this chapter the concept of market bubbles has been introduced, and the main principles have been outlined. In the further course of this thesis, the emergence of bubbles will be the central concept in the analysis of the relation between the market for art and the economy.

III. RELATION ART MARKET – ECONOMY

3.1. Introduction

Although not every participant in the art world is eager to admit it, there is an important component of the art world which has a direct link with the 'economic sphere' – i.e. the collection of components which are generally associated with economics, such as financial markets, but also concepts which are harder to grasp like 'the state of the economy'. Although this link between art and economy can be found in several aspects of the art world, it is most obvious in the market for art. The economic features of this market are however not as straightforward as one might think at first; not every 'action' necessarily has the 'reaction' one would anticipate on e.g. the financial market due to the art market peculiarities which will be analysed in the following paragraphs.

In this chapter, the relation between the art market and the economic sphere will be analysed first on a more theoretical level and subsequently in a chronological way, elaborating on the 1910-2010 period. We will start with an overview of the aforementioned 'peculiarities' of the art market, focussing on those issues which play a role in the emergence of bubbles and their burst. The second paragraph will elucidate the relation art market – economy within the more general economic features, such as the impact of wealth and income distribution on market transactions, or the behaviour of the financial markets and the concomitant movements on the international art market. As Goetzmann (1993) states: "there is a basic connection between art and money" (Goetzmann, 1993: 1375), and this will be elaborated in the second part of this chapter. In the third part which discusses the relation chronologically, the evolutions on the art market over the past century are analysed against the background of the simultaneous social and economic developments.

3.2. The market for art

Before starting with the analysis of the relation between the art market and the economy, it is important to underline some of the intrinsic characteristics of the first. The knowledge of these particularities will lead to a better understanding of the specific features of the relation

between the two spheres, as they often explain the behaviour of the art market and how it reacts to certain events in the economic sphere.
There are, however, a few features one should take into account when talking about 'the art market'. First of all it is important to keep in mind that – although this term will also be used as such in this thesis – there is no such thing as 'the art market'. The market for art is far from one monolithic bloc; instead, it exists out of several submarkets, each with their own peculiarities and dynamics. Secondly, it should not be neglected that the art market influences the image of the art world, but that the art market is not the only representative. Because of the media attention given to the high prices on the art market – and more precisely on the auction market – the impact of the market has transcended that of strictly a forum where buyers and sellers transact, and has become a place where also 'signalisations' of quality are given. Several members of this art world do not thinks this is a positive evolution, as prices have overshadowed other quality-indicators such as prizes and critiques (Thornton, 2009: 17).

In the context of this market thesis, several choices have been made in order to keep it feasible. These choices will already become clear in this chapter, as only the intrinsic characteristics of the art market which are important for the further course of this thesis will be analysed. It should however be kept in mind that the picture which will be drawn here is only a partial one.

3.2.1. Structure of the market: (high) segmentation

As was already emphasized, it is inadequate to speak about the art market in singular terms; the art market is highly segmented on different levels, which interact but also move in different directions.

3.2.1.1. Primary and secondary market

The first level of segmentation is the division that has been made in literature between the primary art market and the secondary market[2]. The basic definition of the primary market is the platform where works of art are sold that come up for sale for the first time, which implies

[2] Robertson (2005b) notes that there once was a tertiary market, i.e. the auction market, which "is now undistinguishable from the secondary" (Robertson, 2005b: 18).

that prices have not been set yet for these works and information is consequently scarce. There are however small differences in emphases between authors, which makes this definition less obvious. Ruth Towse (2010), for example, defines the primary market as the place "where work by living artists is bought and sold, and market supply depends upon the number of artists and the individual artists' current output" (Towse, 2010: 77). By stating this, she excludes the works of deceased artists which were unknown in the past or never left a private collection before, and appear now for the first time on the market. Another interpretation is the definition of the primary market based on the organizations within, e.g. galleries.

At the other end of the spectrum stands the secondary market, which deals in works of art that have already been sold before, and for which a price has already been determined. Until relatively recently, it were mostly works of art from deceased artists which were sold through the secondary market but over the past decennia this has changed, as for example works by the only recently deceased Lucian Freud have found their way to e.g. the auction block.

Most often the secondary market is associated with auction houses, but dealers are also part of it – Gérard-Varet (1995) even refers to this market as "the dealer market" (Gérard-Varet, 1995: 511). The exact 'market share' of each of the secondary market players depends on the study and ranges from a 50-50 split to a "70-30 split in favour of dealers" (Campbell, 2008: 65). The most recent study on the topic by Clare McAndrew (2010) calculated that the share was approximately 45-55, again in favour of the dealers (McAndrew, 2010: 19).

When reviewing the available literature on art markets the segmentation of the art market as presented here is not reflected[3]. It rather seems as if the art market mainly consists out of the "highly visible, highly organised, sophisticated, international art market, consisting of sales through top auction houses and dealers" (Coffman, 1991: 84). Research on the primary market is scarce, as information about e.g. prices is not made publicly available, but research considering the secondary market has neither taken into account the whole segment. Although it is the quantitatively less important segment, most research has been focussing on the auction market, because information is easy available and reliable. In this master thesis the focus will also be on the auction market, and therefore the information that will be provided

[3] Note: Damien Hirst's "experiment" from September 2008, when he sold his own new art through Sotheby's has put question marks behind this old distinction primary-secondary market. It is, however, still the question whether this type of sale will be repeated in the (near) future.

from now on will review the characteristics and features of this segment. Consequently, not every aspect can be generalised for the entire the art market.

3.2.1.2. Organised and unorganised market

Based on this division between the primary and secondary market, Coffman (1991) also distinguishes between the organised and unorganised market, the first being the combination of galleries, international auction houses, art fairs and professional dealers. In the unorganised market art objects are sold on an informal base, through "garage sales, thrift stores, small antique shops, provincial auctions and so forth" (Coffman, 1991: 84). The author makes this distinction in his plead for more attention from researchers for the unorganised art market, which has not been addressed in the literature. For this thesis, we will however focus solely on one segment of the organised art market.

3.2.1.3. Other levels of segmentation

a. High-end and low-end

Although the media has been creating the idea that on the art market high prices are standard, this is not the case. In 2009, for example, the main part of the volume sold through dealer sales – i.e. 61% – were works of art priced under €5.000.

	< €5.000	**€5.000-€ 50.000**	**€50.000-€150.000**	**€150.000-€500.000**	**€500.000-€1m**	**> €1m**
Total Volume	61%	33%	5%	1%	0.4%	0.2%

Table 1: Volume of dealer sales by price range in 2009 (based on McAndrew, 2010: 80).

In the auction market, this segmentation is also reflected in the hierarchic organization. The most expensive works are – in general – sold by the duopoly Christie's and Sotheby's, which share 55% of the global auction market for fine art (McAndrew, 2010: 29). In terms of volume however, the group of 'lesser' auction houses, including Bonhams and Phillips de

Pury which occupy the second place in the hierarchy but also regional houses, has the main market share.

b. Segmentation based on characteristics of the object

The fact that the art market is highly segmented is also reflected on the level of the objects that are sold in it. It seems clear that within the entire market, “there are different media, such as paintings, sculpture, crystal, and antique furniture. Within each medium, there are different styles; in paintings there are such styles as Impressionists, Cubists, and Surrealists. And within each style, there are different artists, and each artist has different works” (Bates, 1983: 244). This high product differentiation has its consequences for the market itself (cfr. infra). Also on a qualitative level, important differences among objects can be observed which have an impact on the price.

c. Geographical segmentation: market segment

Based on the numbers of Clare McAndrew (2010), the combined Global Art Market Share in value from the Anglo-Saxon art market was in 2009 59% (McAndrew, 2010: 23). London has been the centre of the international art market for over more than a century (Barker, 2009: 328), hereby supported by the high value of the Pound Sterling against the U.S. Dollar, and its convenient geographical position that is easily accessible for Europeans as well as Americans (Barker, 2009: 329). Over the last decades, however, New York has been dominating the market, both in market share by value and by volume (McAndrew, 2010: 23-24).
More recently, the emerging art markets such as India, China and Russia have also inspired some researchers to conduct an analysis; for example Renneboog and Spaenjers (2009b) who analysed the Russian art market. The reason for this is clear: the upcoming markets are nibbling at the domination of the United States and the United Kingdom, a feature which is already reflected in the Global Art Market Share. In 2009 “Asia’s total auction revenue was substantially higher than USA’s ($155m vs. $142m) for the first time ever” (Artprice, 2011c: 7). Furthermore, it was only recently revealed that China now has overtaken the first position worldwide from the US in Fine art auction revenues (Artprice, 2011b), and has become second – instead of the UK – in the ranking of world’s largest art markets (Adam, 2011).

3.2.2. Characteristics

Most of the authors who have been researching the economics of the art market notified their knowledge of some of the basic characteristics that make art objects extraordinary economic goods. One of the key features of art that has been emphasized in literature is the fact that works of art are (extremely) heterogeneous goods: “they vary by the artist, its provenance, the genre, where they were created, what the subject is, what the condition of the work is and many other features” (Towse, 2010: 77). Buelens and Ginsburgh (1993) express it as follows: “paintings are the perfect example of heterogeneous goods; even when prices are known, it is difficult to draw inferences on return by comparing a Velasquez sold in 1820 with a Willem de Kooning sold in 1985” (Buelens et al., 1993: 1352). The substitutability between items is consequently (almost) impossible, since every object is a unique piece, “or nearly so” (Ashenfelter and Graddy, 2003: 765). Even works made by the same artist, or different impressions of the same print, are imperfect substitutes, which implies that the owner of a work of art has a monopoly position (Chong 2005: 90).
Another important characteristic of art that has been mentioned regularly is its *illiquidity*. Most art works only come up for sale on an infrequent base; sometimes after holding periods that are spread over several decades. This has its implications for the investment value of art, but also for the emergence of bubbles in the art market.

3.2.2.1. Stock of objects and art market supply

The distinction Ruth Towse has made between deceased artists and living artists – although questionable in its context – has its consequences for the stock of works that can be offered for sale on the art market. It is obvious that, except for a lucky discovery now and then, the stock of works made by deceased artists is fixed, which implies that – considering the already mentioned ‘illiquidity’ of the art market and the generally long holding periods – auctions of works by these deceased artists might suffer from ‘anaemia’.
Besides the “effective stock of past creative works”, there are also the “newly made flows” that compete with them (Caves, 2000b: 348). Certainly over the past decade this has become very clear, as a very large pool of living artists who were producing expensive art were competing for the highest prices with Old Masters and (Post-)Impressionist paintings. Question marks have been placed, however, at the value of this augmenting stock of

contemporary art, as these works still have to pass the test of time, while most works by deceased artists that come on the market already have passed this test.

Besides the problem of a (limited) stock of works that is available for certain artists, there is the issue of art market supply. The (in general) long holding periods have already been mentioned, and in this context, Caves (2000b) has argued that we can speak of a process "by which art disappears from the revolving circuit of collectors into the vaults of museums" (Caves, 2000b: 353). This statement can – and should – be complemented by referring to the vaults of private collectors, where art works sometimes disappear for several generations before they reappear on the market. In the case of private collectors, high prices for art works or the tree D's – death, debt and divorce – may still attract suppliers to the market (Towse, 2010; Mason, 2009). For museums, however, research by e.g. Frey (2000) has proven that they do not tend to sell the art they keep in their vaults – although they sometimes store more art than they could ever exhibit – and thereby not exploit the "opportunities available by selling at least part of the storage and putting the receipts to better use" (Frey, 2000: 38). Furthermore, it is also the case that "only a limited number of all artworks that have been sold on the primary market will ever appear on the market again", which also affects supply (Velthuis, 2003: 470).
Alongside these features, the argument made by Worthington and Higgs (2003) about "outmoded or outdated schools", for which there is no market anymore despite the existing stock, also has its place here (Worthington et al., 2003: 652). Therefore, fads, fashions and changing tastes will also have their influence on the art market supply.

3.2.2.2. Asymmetric information, risks and uncertainties

Two of the key features of the art market which underpin a lot of the evolutions which will be analysed over the further course of this thesis, are the problems with information and the risks of transacting in the art market. Baumol (1986) already noted that "ownership of a painting is a risky affair, aside from whatever financial uncertainty may be involved" (Baumol 1986: 12), and this argument has been acknowledged by many authors after him.

a. Asymmetric information and information problems

As was mentioned, one of the main characteristics of art works is their heterogeneity, which implies, as says Towse (2010) that "buyers need a great deal of information in order to make a satisfactory purchase and sellers want to reach as many buyers as possible to get the best price for the sale of their unique work(s)" (Towse, 2010: 77). Coffman (1991) goes even further by stating that asymmetrical information between buyers and sellers is one of the intrinsic characteristics of the market for art.

George Akerlof (1970) can be positioned at the basis of the analysis of this phenomenon, with his paper on asymmetrical information in the market for used cars. Since the definition – here by Towse (2010), but similar definitions are composed by e.g. Frey (2000) – for asymmetric information is that it is "the situation in which those on one side of a bargain have more information than the other parties to it and they are likely to use that for their own advantage", it is not hard to understand that this is a situation prevalent in the art market (Towse, 2010: 24). Gérard-Varet (1995) argues, however, that "[i]nformational asymmetries are essential features of the market and the auction houses, as the dealers in the secondary market, make profits by having information about the willingness to pay of collectors interested by specific art works" (Gérard-Varet, 1995: 511). In most cases, the asymmetric information benefits the seller, but, as mentioned by Frey (2000), it can also be the other way around, as is often the case when the object was purchased on the aforementioned unorganized market.
Besides the problem of unequal distribution of information, there is also the problem of a serious *lack* of information about and on the art market, making the market less efficient. The inherent uncertainty that exists on the market, regarding e.g. the quality of the commodities, the high information costs – which will be elaborated next – and the high barriers to enter the market both on the side of the seller and the buyer are direct consequences of this phenomenon (see e.g. Grammp, 1989; et al.). Thornton (2009) quotes Josh Baer who states that although people may feel like they have a lot of information on the art market, they actually know very little (Thornton, 2009: 37). In the art world, gossip is very important in order to gain information; it is all about "air-kissing, gossip and shenanigans" (Sooke, 2008).

b. Costs

When operating on the art market, other costs than just those for the purchase of art have to be paid. These costs include holding and maintenance costs, but also the high transaction costs which are characteristic for the art market. Authors referring to these costs include Ashenfelter and Graddy (2003), McAndrew (2010), and Renneboog and Spaenjers (2009a).
In the auction market, for example, these transactions costs take the form of buyer's premiums and seller's commissions. Although Ashenfelter et al. (2003) have calculated that average buyer's premiums vary between 10% and 17.5%, and mention seller's commissions of 10% – which means that these costs may be substantial – there are few studies taking these into account when calculating for example art price indexes. Research by Frey and Pommerehne (1989a) seems to be one of the few exceptions, including the transaction costs in their article *Art Investment: An Empirical Inquiry*. Nevertheless, Renneboog et al. (2009a) acknowledge that transaction costs "would reduce the reported art returns much more than transaction costs would alter the returns on financial investments" (Renneboog et al., 2009a: 28).

Besides the high transaction costs, there are the holding costs for owning the art work, which include the costs for maintaining, storing, and insuring the works. Clare McAndrew (2010) calculated that these holding costs vary "depending on the work and the context of the investment, but could run at anything between 1% and 5% of the net asset value" (McAndrew, 2010: 134).
Finally, there are the aforementioned high information costs which make the entrance or investment in the art market less evident. These costs cover the time and the resources that have to be spend "by the people who use, buy, and sell art" (Grampp, 1989: 30). Since the art market is the prototype of a market suffering from asymmetrical information, cfr. supra, these costs may run very high.

c. Financial and material risks

The financial risks that come with investing in art and the uncertainty that exists about its price – mentioned by e.g. Frey et al., 1989a – will be elaborated in paragraph on art as investment (cfr. infra). Many studies have proven that these are substantial. Authors have also

identified several financial risks linked to the ownership of art and the uncertainties surrounding it, such as uncertainty about authorship and (re)attribution, or fakes and forgeries (Frey et al., 1989a; Grampp, 1989; Worthington et al., 2003; et al.).
Besides these financial risks – whether or not related to material aspects – there are also the purely material risks of owning art which have been characterized by e.g. Agnello and Pierce (1996), Frey et al. (1989a) and Grampp (1989). These include uncertainty about restorations, obsolescence, fire and theft, and so forth.

d. Taste, fads and fashions

A final risk one has to deal with when entering the art market is that of changing tastes, fads and fashions, which is particularly important in the context of this thesis. Frey et al. (1989a) observed for example that whether a certain style, artist, or type of work is trendy or not, is reflected in their return (Frey et al., 1989a: 400), an observation sided with the (empirical) findings of Buelens et al. (1993), Caves (2000), Chanel (1995), Goetzmann (1993), Renneboog et al., (2009b), Worthington et al. (2003), et al. This "endogeneity" of the art market "makes forecasting extremely difficult" and consequently increases the risk of participating in one way or another in this particular market (Worthington et al., 2003: 667). This topic will be further elaborated in one of the following paragraphs.

3.2.3. The value of art

It is clear that art fetches high prices, and although the numbers which are paid since the end of the 1980s are extraordinary, these high prices have always been the case. Certainly if one puts the *rational* value of a work of art – based on used material and labour hours – next to the actual price that is paid, the result seems rather remarkable. This discrepancy which exists between the *rational* price and the *effective* price of art can be explained by the fact that works of art are "portable store[s] of value" (Buelens et al., 1993: 1354); they inhibit some 'external values' or a 'consumption value' which lift the *rational* price to these extraordinary levels. There are, in other words, more factors than just the interaction between supply and demand that determine the value and price of art.

3.2.3.1. External value or consumption value

Historians, sociologists, psychologists, economists, etc., all have spent time and paper on identifying different forms of 'external values' that cause the difference between what we have called the *rational* price and the *effective* price of art. Walter Benjamin for example makes the distinction between the 'cult value' and the 'exhibition value' of an artwork. Hutter and Shusterman (2006) in their turn have composed a list of ten different consumption values, ranging from 'art's communicative power' to 'art's historical value' (Hutter et al., 2006: 197-199). Another important external value that needs to be addressed is the component of 'conspicuous consumption' that comes with the possession of art (Shubik, 2003: 195). Some people simply want to own an art object because the ownership comes with the label of 'cultivated' or – and this is often true in the case of a well known painter or painting – 'very rich'. This feature is a result from the social aspect that comes with the consumption of art; the enjoyment of art as a social event.

Pierre Bourdieu argues that the consumption value of a work of art is "socially and historically constructed" and concludes that this value is thus "ultimately grounded in the social structures of cultural hierarchy and hegemony" (Hutter et al., 2006: 193), an opinion shared by Bonus and Ronte (1997), Shubik (2003), et al. This social construction of values results in the extra-financial value above the pure *rational* value, since most of the times the price of a painting seems to be based on convention or a consensus among some so-called 'experts', rather than on clear characteristics.

External values are also cited as a – or even the – reason for why one would want to invest in art in the first place, something which will be approached in the next paragraph of this thesis.

3.2.3.2. Economic value: the price of art

As stated, the price paid for a piece of art does not reflect the *rational* value but rather the total of the consumption values. In that sense, the price of a piece of art could indeed be considered a good measure for the *real* value of the work of art. The price becomes a signal of the value, and this signalling function is very important since information and cultural knowledge play such an important role in the art world, while the information costs are very high. It is therefore easier for consumers to accept and follow the signalling function of the

price, which is, as Bonus et al. (1997) state, "created by the interaction of various insider experts who are in command of *cultural knowledge*" (Bonus et al., 1997: 115).
These so-called 'experts' play therefore a very important role in the construction of what is by most consumers interpreted as the *real* value of the work of art, because they 'determine' in a certain way its price. By doing so, they also provide guideposts for collectors and professional art dealers in their search for (what would be) the right price for similar works of art. Auction houses fulfil this expert roll as well, since auction prices can be interpreted as "a consensus opinion on the value of art works", and it is stated by Louargand and McDaniel (1991) that those prices are actually efficient in the Martingale sense (Louargand et al., 1991: 62; Frey et al., 1989a: 397). The prices which are fetched during an auction can be interpreted as "the outcome of a competitive process" (de la Barre, Docclo and Ginsburgh, 1994: 150), be it that this process is not necessarily completely based on honest competition. Auctions houses have used business practices such as the guaranteeing of works, which have 'manipulated' prices to higher levels than they would have normally achieved, a feature which will be elaborated in the context of the 1980s bubble and its aftermath (cfr. infra).

A whole range of properties that determine the price for a specific painting have been identified by authors such as Anderson (1974), Ashenfelter et al. (2003), Gérard-Varet (1995), Ginsburgh and Jeanfils (1995), Pesando (1993), Sagot-Duvauroux (2003) and Worthington et al. (2003). These properties can be categorized into four groups: first, there are the so-called 'physical properties', which include size, support, material, subject matter, authenticity, condition, type of work, etc. Those factors are, according to Anderson (1974), intrinsic to paintings and they "all can be perceived by an experienced collector" (Anderson, 1974: 14). In other words, these features would determine the *rational* price of the painting. Secondly, less observable elements as artist's reputation, artistic merit of a particular work, and aesthetic quality have their influence on the pricing of a painting. It seems that within this group, the reputation of the artist is the most important feature: e.g. a painting made by Rubens will always sell for a higher price than a painting of an anonymous contemporary, simply because of Rubens' reputation. A third group of factors can be categorised under the label 'external influences', and contains features like date and place of the sale, conditions at the sale, whether it is sold by an auction house or a dealer, taxation and export regulations, buyer's income, rates of return on other assets, past and present pricing, amount of times the work remained unsold at an auction, provenance, etc. Finally, 'tastes and preferences' play a very

important role in the pricing of art, especially for the evolutions in the long run (Gérard-Varet, 1995: 516). Fase (2008) calls the art market a 'demand-market', as in the end it are the preferences of the buyers which determine the price level (Fase, 2008: 108). If a particular kind of painting or a particular artist suddenly becomes 'hot' in demand, investors may be willing to pay higher prices for these works of art than if they were not in fashion (Agnello et al., 1996: 372). It are these features that influence the aforementioned consumption value of an artwork, and in that way they also form the explanation of the discrepancy between the *rational* and the *effective* price. When this discrepancy becomes too large, we come close to the basic definition of a market bubble which was analysed before.

3.2.4. Demand for art

The demand for art is a complex concept – or as Thornton (2009) says it: the psychology of buying is complex, if not perverse – and is influenced by several features which each on their own are as complex (Thornton, 2009: 33). It is obvious that the income of the potential buyer and the price for the work of art play their role, but also a high inflation rate will increase demand. Furthermore, features as a positive "aesthetic evaluation" of the work or the artist by experts or its presence in an exposition or on an important art fair will positively influence demand for the work or similar works (Frey et al., 1989b: 85). In the case of the purchase for investment purposes, it additionally depends on the rate of return for alternative investments, such as stocks and bonds (cfr. infra). Finally, Goldthwaite (1993) points out that demand for art depends on "changing needs for certain kinds of things" (Goldthwaite, 1993: 2); which can directly be completed by referring to changing tastes.

In the context of this thesis we will not elaborate every aspect of the demand for art, although issues such as income and inflation rate will be elaborated further on. In this paragraph three issues will be analyzed: the geographical dimension of the demand for art, art buyers, the impact of taste, and finally also the issue of art as investment.

3.2.4.1. Geographical aspect

Nowadays the market for art is very globalised; buyers and sellers are – e.g. by the developments of the internet and applications – able to interact on the market platform from

every continent. Although the art market has always been relatively international – take for example 16th century Antwerp – the current level is unseen. When talking about the 1910-2010 period, it can be observed that over the first half of this period the most important cities for the art market were New York and London. These cities were linked in different ways through their similar *modus operandi* when it comes down to selling techniques but also in language and culture. During the second part of the sample period, the world has become more globalised than ever, and this is also the case for the market for art. The emergence of 'emerging countries' has been felt in every segment of the market. The import of works to China, for example, has more than trebled between 2002 and 2008, and auction houses report that sellers from China, Russia and India have taken an important place and have pushed the American buyers from their dominant position (Mason, 2009: 338). For now, the European buyers are dominant in the auction rooms, but one could wonder how long this will last.

3.2.4.2. Buyers

To repeat the aforementioned term used by Fase (2008): the market for art is a 'demand market'; in the end it depends on a buyer whether or not there is a market for the works, and which prices are achieved. There are several types of buyers in the art market, whose behaviour has influenced the results of the art market in both good and bad ways over the past century. Their impact on the art market developments and the occurrence of bubbles will be elaborated in the next chapter, but in the following paragraph we will start with the introduction of their specificities.

a. Types of buyers

If we would simplify the types of buyers acting in the market for art, we could reduce them to three categories: the *collectors*, the *investors* and the *speculators*. Although the lines between the three types may become blurry over time, these are in theory the most important groups.

Collectors

The ideal image of a 'pure collector' is a man or woman who buys art exclusively for 'art's sake' (McAndrew, 2010). Such a pure collector is supposed to be averse to investment gains, and the reselling of works is only done if necessary, e.g. due to one of the three D's or to

make space for new works. In theory, they are less concerned with changes in the value of the works, their future value and the related risks, or with the cost which come with owning art (McAndrew, 2010). The motives why these collectors buy art are manifold, ranging from the external benefits they hope to derive from the ownership to buying art for 'status motives'.
Among these 'pure collectors' Grampp (1989) identified a group of people "who buy art only because they enjoy it, yet cannot sensibly ignore how much it costs them to hold it" (Grampp, 1989: 154). This group of collectors is consequently concerned with the future value of their collections, as an increase in value of their collection will lead to an increase in holding costs due to opportunity costs.

Investors

According to Grampp's definition, the "art-as-investment people" believe they can buy a work of art and sell it for a higher price later, but enjoy it in the meanwhile (Grampp, 1989: 152). The choice to make the transit from a pure collector who only enjoys art to an investor who thinks about reselling, depends on the preferences of the individual and his or her financial means, but as will become clear in the paragraph on art as investment, the chances to become rich by investing in art are limited.
In general, three types of art investors can be identified: "risk-minimizers" or "risk-averse investors", "risk-neutral investors" who don't mind taking risks if they are compensated, and "risk-maximisers" or "risk-lovers" (Grampp, 1989: 135). These types will e.g. be reflected in the choices they make for specific types of art; while the first type will be more inclined to buy art which has already passed the test of time and/or is institutionalised, risk-maximisers will be more likely investing in contemporary art. The risk-neutral investors will buy works for which they expect prices to increase, and this could be both older and contemporary art. As the risk-maximising group takes the highest risks, they are more probable to lose money; when they make the right guess, however, these investors can gain the highest profits. It is a relatively small step from a risk-maximising investor to a speculator, but the difference is that investors still buy art for its extra-financial values, while speculators are not interested in any values but the financial ones.

Speculators

A speculator is prone to the financial possibilities of a market segment; if money can be made in the art market, they will enter, but if the situation overturns they will be the first to leave

and search for a new alternative investment class. Consequently speculators are only acting in the art market to resell the purchased art at a higher price, and they are "highly sensitive to price variations or their financial risk", as well as to changes in regulations or costs (McAndrew, 2010: 125). As Grampp (1989) points out, speculators will have in the end a lower yield than people who buy art for its consumption value, as art inhibits the risk of losing its financial value, while the aesthetic value which is yielded by a collector will remain the same.

b. Buyers' behaviour

As has already been made clear, buyers in the art market do not transact in a 'perfect' market. The problems with information, for example, also affect buyer's behavior and have consequences for the developments in the market. The emergence of a bubble in the market may be one of these. Furthermore, as Adamowska (2009) wrote it in her thesis, "[s]imilarly to e.g. January-, Holiday-, Christmas- or Small-firm-effect encountered on the financial markets, art market-specific anomalies might have an impact on art prices" (Adamowska, 2009: 43). Many of these anomalies are linked to the behavior of the market players, both buyers and sellers. It has been observed by Frey and Eichenberger (1995) that most behavioral anomalies affect private collectors more than speculators or professional dealers (Frey et al., 1995: 217). There are however also certain anomalies which affect the speculators rather than the collectors, because of their impact on the monetary aspect of the deal.

Noise traders

Before analysing the art market-specific anomalies, it is very important to consider the presence of so-called 'noise traders' – a type of investor common in the stock markets – in the art market (Shleifer et al., 1990). Such noise traders make uninformed decisions based on rumours rather than "fundamental news" (Shleifer et al., 1990: 19). In the financial market a noise trader is typically an investor who bases his or her decisions on the advice of a market guru or a forecaster. This form of irrational behaviour can lead to the emergence of bubbles as it may be imitated by speculators if it yields positive results – which is always possible as luck can play along.

Behavioural anomalies

As was said, the art market is also subject to several behavioural anomalies, which affect its developments. Some of the art market specific anomalies influence the prices which can be fetched in e.g. an auction, for example the 'declining price anomaly', and as 'pure collectors' are not interested in the financial value of their works, the anomalies have no impact on them. For investors and speculators, however, these do play a role. The anomalies which affect private collectors rather than speculators include the 'endowment effect' and the 'sunk cost effect' (Frey et al., 1995).

Declining price anomaly

The declining price anomaly – the 'afternoon effect' and the 'morning effect' – is a phenomenon indicating that the order of appearance at an auction and the lot number of a work may influence the final hammer price. Although most bidders – like economists – expect that identical lots are sold for identical prices, it appeared that for auctions of wine or other items such as paintings, this is in fact not the case (Ashenfelter, 2003). The existence of the declining price anomaly is subject to discussion in literature, but in general most studies acknowledge it (Adamowska, 2009: 43; Agnello et al., 1996; Beggs and Graddy, 1997).

Law of one price

"In the absence of varying transaction costs, as well as regulatory or other barriers, there should be no systematic differences in prices for the same or similar objects between distinct markets" (Adamowska, 2009: 63). This is the premise of the 'law of one price' which is proven by e.g. Ashenfelter (1989), Ashenfelter et al. (2003), Mei et al. (2002a) and Pesando (1993) to be violated in the market for art.

Burned painting anomaly

A study by Beggs and Graddy (2008) has proven that paintings that have failed to sale – are burned – at auction return about 30% *less* at the next sale in comparison to other paintings (Beggs et al., 2008: 302). This implies that paintings which remain unsold at an auction will yield a lower price at future sales. This anomaly is also acknowledged by authors including Ashenfelter (1989) and Ashenfelter et al. (2003).

Death effect

With the 'death effect', authors refer to the immediate increase in prices after an artist had died. Authors such as Buelens et al. (1993) or Kräussl and van Elsland (2008) question the impact of this effect and consequently its significance (Adamowska, 2009: 66; see Knebel, (2007) for an elaborated literature review concerning this particular anomaly).

Masterpiece effect

Another well-known anomaly that occurs only in the art market is the 'masterpiece effect', for which there is mixed evidence whether it should be interpreted as a positive or a negative effect. If this effect would be positive, that would indicate that investment in masterpieces would yield higher returns than investing in non-masterpieces. Most studies, including those by Mei et al. (2002a) and Pesando (1993), seem to have found that the effect was negative. A recent study performed by Renneboog et al. (2009a) has proved, however, the existence of a positive masterpiece effect, as did the results of the analysis by Agnello et al. (1996). Ashenfelter et al. (2003) found in their turn mixed evidence within their own analysis, in which contemporary masterpieces underperformed, but Impressionist masterpieces were subject to a positive masterpiece effect (Ashenfelter et al., 2003: 771).

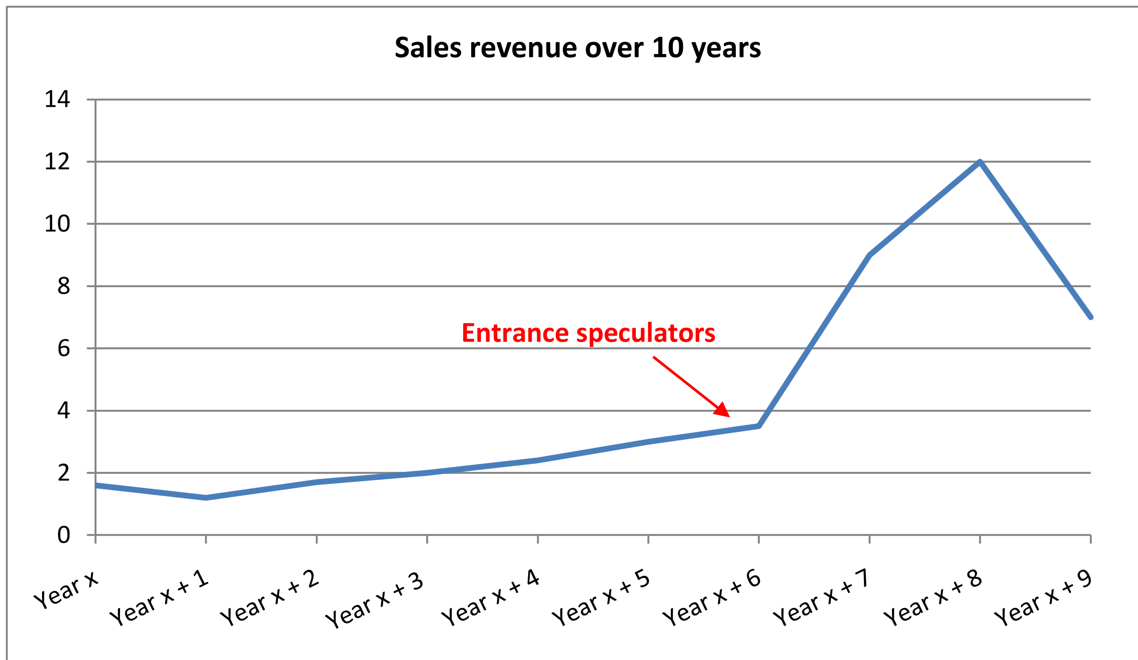
'Other effects'

Finally, Frey et al. (1995), Frey (2000) and Worthington et al. (2003) all argued that in the art market "many private collectors are nonprofit oriented" and are particularly subject to anomalies which rarely occur in e.g. the modern financial markets. These include the 'endowment effect' (if an art object is owned by someone it is evaluated higher, but this value is not necessarily financial); the 'opportunity cost effect' (for collectors who do not want to consider the returns of alternative investments), the 'sunk cost effect' (the fact that efforts made in the past to collect particular genres or schools have their impact), and the 'bequest effect' (works of art "given to their beneficiaries carry a psychic return over and above their notional value") (Worthington et al., 2003: 653; et al.).

Furthermore, there are several sociological effects influencing the behaviour of the market players; these will be elaborated in a next section.

Buyer's behaviour in the context of a bubble

In the graph below a fictive market situation is presented in which the causal relation between speculators entering the market and the occurrence of a bubble is simulated over a ten year period.



Graph 1: Fictive evolution of sales revenue over a period of 10 years, including a bubble

We can clearly observe that after a steady growth between year x + 1 and x + 6 – in which we can assume that investors and collectors have been transacting in the market and investors have been able to make (small) profits – a sudden growth has taken place between year x + 6 and year x + 8. The basic features of speculators' behaviour have already been summarised in a previous paragraph.

As we have seen, speculators tend to enter a market in which large profits can be obtained in a short time span. By entering the market, these speculators drive up revenues, but when their goal of making money on the short-term cannot be achieved to their full satisfaction, they leave. This is what we can observe in the graph above.

After the initial massive entrance from speculators between year x + 6 and year x +7 the steepness of the slope decreases, which can be e.g. the result of a smaller group of speculators entering the market or a group of speculators leaving because returns do not meet their expectations. The collapse in year x + 8 is the result of the interaction between the flee from

the market by speculators on the one side and the decrease in revenue in that market on the other side.

3.2.4.3. Taste

Demand is in general perceived to be influenced by price, income, education and learning experiences. But, these features are not adequate to explain consumers' behaviour towards creative goods and services, including works of art. The consumption of those goods can also be associated with 'emotions' and 'feelings' and that is where taste enters the picture.
Consumers' behaviour is said to be an indicator of their tastes and preferences (Towse, 2010: 136). It is however the case that "no one can tell [...] the strength of our taste from economic variables only" (Towse, 2010: 149). Taste is therefore hard to measure and not easy to approach as a variable in demand theory. The formation of taste on the other hand has been a topic for psychologists and sociologists over a long time, and cultural economists have also developed an interest in it, since taste is such an important concept for understanding consumers' behaviour and consequently the demand for art.

a. Taste formation

Art is considered an *experience good*, which implies that it "has to be tested or consumed before its true quality is revealed" (Robertson, 2005: 3). Furthermore, arts are – according to McCain (2003 – "cultivated taste" which means that "preferences are changed by experience" (McCain, 2003: 445). The taste for art is, in other words, influenced by and during the process of consuming. In this context of "learning by experiencing" the arts are, according to Throsby (1994), "addictive, in the sense that an increase in an individual's present consumption of the arts will increase her future consumption" (Throsby, 1994: 3). This thesis certainly counts for the so-called 'fine arts', such as paintings which one has to learn to appreciate and by building up a consumption capital for it, the demand for 'the product' and 'similar products' also increases.

In literature, authors have been observing several influencing factors which explain adult demand. These include 'childhood participation' or 'childhood exposure'[4], but in the context of this thesis the most relevant factors are third-party influences and social interdependence.

Third-party influences and gatekeepers

A common feature of creative goods and services is the information problem; since we are talking about experience goods, they have to be consumed before the 'intrinsic quality' of the product can be known, and consequently to form a taste for it. In that way, the development and refining of taste asks for investments from the consumer, both in terms of time and money; the so-called 'search and information costs'. Third-party sources and gatekeepers may help to overcome this problem, because they already make the distinction between 'good' and 'bad', thereby influencing the formation of taste (Cameron, 2003). It must be emphasized though that the opinions of third-party influences such as critics are not necessarily objective. Furthermore, they might also 'manipulate' the formation of taste for a certain type of art, thereby e.g. initiating a 'hype' which can lay at the basis of the emergence of a bubble.

Social interdependence

To say it with the 'subtle' words of Caves (2000a): "[c]reative goods are consumed in a social context, not by isolated hermits" (Caves, 2000a: 175). Certainly when looking to events as auction sales or art fairs, the social aspect of the art market becomes clear. Due to the social context in which the processes takes place, taste formation is also influenced by what Leibenstein (1950) has defined as "non-functional demand"; "that portion of the demand for a consumers' good which is due to factors other than the qualities inherent to the commodity" (Leibenstein, 1950: 189). This implies that the consumption of those products, and therefore the formation of taste for those products is also subject to the different social effects that occur in any process that takes place in a social context, ranging from herd behaviour and bandwagon effects to snob effects.

Herd behaviour

Herd behaviour is based on the idea that "better than deciding on just your own hunch you look to see what everybody else is doing" (Caves, 2000a: 178). This kind of behaviour has an effect on taste formation in the sense that it impels uniformity of taste.

[4] See e.g. Lévy-Garboua and Montmarquette (1996), Morrison and West (1986), et al.

Rational addiction

Definitions for rational addictions include: "the effect of experience and training on one's benefit from consuming a creative good" (Caves, 2000a: 208) and "the more you have the more you want" (Towse, 2010: 152).

Snowball or bandwagon effect, snob effect and Veblen effect

In the way Leibenstein (1950) defines these effects, a bandwagon or snowball effect is "the extent to which the demand for a commodity is *increased* due to the fact that other are consuming the same commodity"; a snob effect is "the extent to which the demand for a consumers' good is *decreased* owning to the fact that others are consuming the same commodity"; and a Veblen effect is "the extent to which the demand for a consumers' good is *increased* because it bears a higher rather than a lower price" (Leibenstein, 1950: 189).

Social pressure

Finally, the phenomenon of social pressure also has an influence on taste formation, in that sense that some tastes are not accepted by society and are therefore not expressed; nobody wants to like a certain product all by himself. This process relates to what McPherson (1997) calls "second-order preferences" or "meta-preferences"; "consumers may have preferences towards what their tastes should be", whether or not this is to be socially accepted (McPherson, 1997: 84).

b. Dynamic process

In literature a discussion exists on whether or not tastes are given and stable – which is the interpretation of neoclassical economist – or if they are able to change. The first idea is e.g. expressed by Stigler and Becker (1997) who think that "tastes neither change capriciously nor differ importantly between people" (Stigler et al., 1977: 76). Authors in the cultural field, however, have been opposed this premise, and e.g. Blondé and De Laet (2006) for 17th century Antwerp, and de la Barre et al. (1994) for the art market in the second half of the 20th century have proven that this is not the correct approach for taste for cultural goods. For the

arts, tastes do change, and this process may take place over several decades or – theoretically – overnight[5].

The fact that taste does change has some important consequences which have had their impact on the art market over the past century. Furthermore, its ability to change also makes taste 'vulnerable for manipulation'. As is suggested by e.g. Buelens et al. (1993), changes in tastes have an important impact on the changes in rate of return (Buelens et al., 1993: 1359). Consequently, the manipulation of taste – through e.g. the creation of hypes – can be very profitable. It is however not an easy thing to do.

3.2.4.4. Art as investment

A final feature of the demand for art which has to be elaborated is the issue of art as investment. Previously, it was mentioned that investors are a type of traders in the market for art, both interested in the financial and the extra-financial value of the works of art. Their behaviour will be analysed more thoroughly here.

Due to the huge media attention that has been given to the art market over the past thirty years, some kind of common belief has been created as would investment in art be a smart and lucrative thing to do. This attention has also created the perception of the possibility to become multimillionaire on the art market. Although market collapses such as those in the early 1990's or in the period between the second half of 2008 and the beginning of 2010 proved this idea wrong, the media renews "the story of the extra returns possible in art markets whenever prices show an indication of rising again" (Frey et al., 1995: 207); something they did at the beginning of the 1990's, as they are doing now. The media is not the only 'responsible authority' who participated in the creation of the idea that investment in art, and especially in 'Masterpieces', could be highly profitable. American banks for example also strengthened this trend by establishing 'art investment counselling', thereby suggesting that investing in art is "a financially rewarding activity to engage in" (Frey and Pommerehne, 1989b: 101). The increasing amount of art funds, art market advisory firms and art investment guidebooks confirm this even further (Renneboog et al., 2009a: 3). Another element that can explain the increased attention for the topic – although linked to the first explanation – is the idea of art as an alternative asset class. When traditional (financial) asset classes perform

[5] A good overview of how taste for art has evolved over the period 1910-1960 is presented by Reitlinger (1982).

badly, as they have been doing regularly over the past century, investors search for alternatives were high returns might be reaped. Besides the – as Campbell (2008) calls them – "traditional alternative investments such as real estate, commodity futures, private equity, and hedge fund investments" (Campbell, 2008: 64), art has been added to the list of possibilities.

This idea of art as investment has been a "major issue in recent debates" among researchers in the economics of the art market, and in particular the concept of "comparing the rates of return on investment in art with returns on other forms of assets" has been discussed (Gérard-Varet, 1995: 512-513). The questions remain: is it a smart thing to do, investing in art? And what kinds of art should be included in an investment portfolio? Economists have already been trying to answer these questions for a long time, but clear answers have not yet been found and disagreement exists.

a. Most important studies

The literature on investment in art is very contradictory and clear answers are not always given. The method used by most authors to find out if art is a good investment is the same: they calculated the rate of return for art objects based on price indices and made the comparison of the resulting rates of return with the returns of bonds and stocks. In that way they could conclude if art was a more lucrative investment than financial assets or other investment portfolios.

The first researcher who performed research on the topic of art as investment is assumed to be Reitlinger, but the first who focussed explicitly on the relation between art and economics was John Michael Montias, an economic historian. Since Montias, a number of authors have been writing about it, using different methodologies and "all facing the difficulty of accounting for the specifity of art production, which makes it hard to define the prices of individual works over time" (Locatelli Biey et al., 1999: 211). Some of the pioneering contributions were made by Anderson (1974) and Baumol (1986), and their research has formed the basis for further investigations by e.g. Agnello et al. (1996); Buelens et al. (1993); Chanel, Gérard-Varet and Ginsburgh (1996); Bruno Frey, sometimes in collaboration with fellow researchers such as Eichenberger (1995) and Pommerehne (1989a, 1989b); Goetzmann (1993); Pesando (1993); and more recently Renneboog et al. (2009a, 2009b).

b. Results

Returns

"The ever-resourceful Wemmick in Dickens's *Great Expectations* urges Pip to 'Get hold of portable property' [...]. Art and antiques are just that, but Wemmick might have been disappointed by their returns" (Robertson, 2005a: 249). This quote made by Iain Robertson captures the core of the results from the different researches that have been conducted on the investment value of art works: on a pure financial basis, it is inadvisable, but there are some 'rational' reasons proposed by several authors why one would invest in art commodities.

<u>Financial returns</u>

The calculated rates of return differ among the different authors. The explanation for this might be found in the use of different data samples, time periods and methods. Baumol (1986), for example, calculated a real rate of return of 0.55% over the period 1650-1960 and concluded that the art market was unlikely to "possess anything like long-run equilibrium prices, let alone reliable forces that drive prices toward them" (Baumol, 1986: 11). Chanel et al. (1996) find on the other hand a real rate return from 5.0% over the period 1855-1969 (Chanel et al., 1996).

But in the end, most of the results come down to the same overall conclusion: in general and in the long-run, the rate of return to art lies below that of financial assets, and is therefore less lucrative. This conclusion does not imply that there have not been time intervals in which investment in art was more lucrative than investing in stocks or bonds (as reported by Buelens et al., 1993; Chanel et al., 1996; Gérard-Varet and Ginsburgh, 1994; Goetzmann, 1993; Locatelli Biey et al., 1999; et al.). Furthermore, for long-term investment art may be appropriate because in that way the transaction costs can be spread over a longer period (Mei et al., 2002a: 1666).

The most recent findings in this context are those from Clare McAndrew (2010) who composed a graph in which the price indices for art, stocks and gold are drawn over the time period 2004-2009 (McAndrew, 2010: 139). It is clear from her data that over that particular period contemporary art, modern art, European Impressionists and Old Masters performed better than the price indices of stocks or gold. Frey et al. (1989b) also mention that for "those with inside knowledge not available to the general public" it may be possible to

systematically make profits (Frey et al., 1989b: 403). The existence of people in this position is, however, so far little or not known.
A particular unpredictable aspect is the effect of the length of holding a painting away from the market. Changes in tastes tend to lead to changes in rates of return (Buelens et al., 1993: 1359), and this will especially have effects on the long-run, because predictions on how taste will evolve are impossible to make. In the short-run, changes in tastes seem to be less important for changes in rates of return, but also here exceptional cases where a particular painter suddenly falls out of grace can be found. Cycles are observed, i.e. when a particular painter is 'in fashion' the rates of return in the short-run for this painter increase, but these rates of return may immediately drop when the painter gets out of fashion after a while (this might even be a very short period of time). So if one is lucky, patient, and happens to own a work of art that comes in fashion again after a certain time, it is possible to make huge profits. But these are the very rare exceptions that prove the rule, and such a lucky investment only occurs once in a while.

Consumption value

As mentioned before, the external values or psychic benefits of a work of art makes them worth investing in. This seems something most authors agree on: the financial loss an investor makes by investing in art is compensated by the psychic returns – or as Coffman calls it "direct utility returns" (Coffman, 1991: 86) – he or she gets from owning the work of art; the psychic return can be interpreted as the money one is willing to leave aside in order to own the work of art. Frey et al. state that this "high psychic benefit" is one of the several reasons an individual "may rationally choose this form of investment" (Frey et al., 1989b: 114). Other reasons they mention are that works of art might be "subject to property tax or death duties" or that investing in art may "allow a net reduction of the individual's tax burden" (Frey et al., 1989b: 114; Agnello et al., 1996: 360).

The not-financial benefits of investing in art are less obvious to measure than the financial returns. Bruno Frey mentions in different publications, sometimes with co-authors, that there are some methods one can use. For a long time, initiated by Baumol (1986), these psychic benefits were measured by "comparing the difference between the financial returns of art investment with the respective returns on financial assets" (Frey, 2000: 175). It is obvious that this is not the most applicable method, since the comparison between the two returns is not

unambiguously interpretable. The author proposes three other approaches that could be considered. First, the marginal willingness to pay for viewing art in museums could be gauged, which gives an idea of the WTP by consumers to simply enjoy the art without owning it. A second approach is to take a look at the rental fees for art objects; if a consumer rents a works of art, he or she is "unaffected by changes in art prices" since he or she is not the owner of the work and cannot obtain any financial returns. The third proposition the author makes is to analyse the prices that are paid for copies of the work of art. Since it is a copy, the price for it "exclusively reflect[s] user values" (Frey, 2000: 177).

Risks

Important downsizes of investment in art are clearly the risks that come with it, or, with the words of William Baumol (1986): "ownership of a painting is a risky affair" (Baumol, 1986: 12). Those risks have been emphasized by almost every author who was occupied by the subject.

Risks of investing and owning art are both financial and non-financial or material. Financial risks are especially high for investments in the short-run, although the largest gains can also be made then, since it is not certain that one will have high rates of return (Ashenfelter et al., 2003: 770). Baumol already indicated this: "large gains or losses are experienced only by persons who hold works for a relatively brief period (say less than fifty years)" (Baumol, 1986: 13). In the long-run however, it is probable that the rates of return for an artwork will remain stable, certainly when it is an established work of art, and this 'guarantee' cannot be made by financial assets. Or to continue with using the words of Baumol: "as the holding period increases beyond that the range [of fifty years] earnings narrow and approaches very close to zero" (Baumol, 1986: 13).

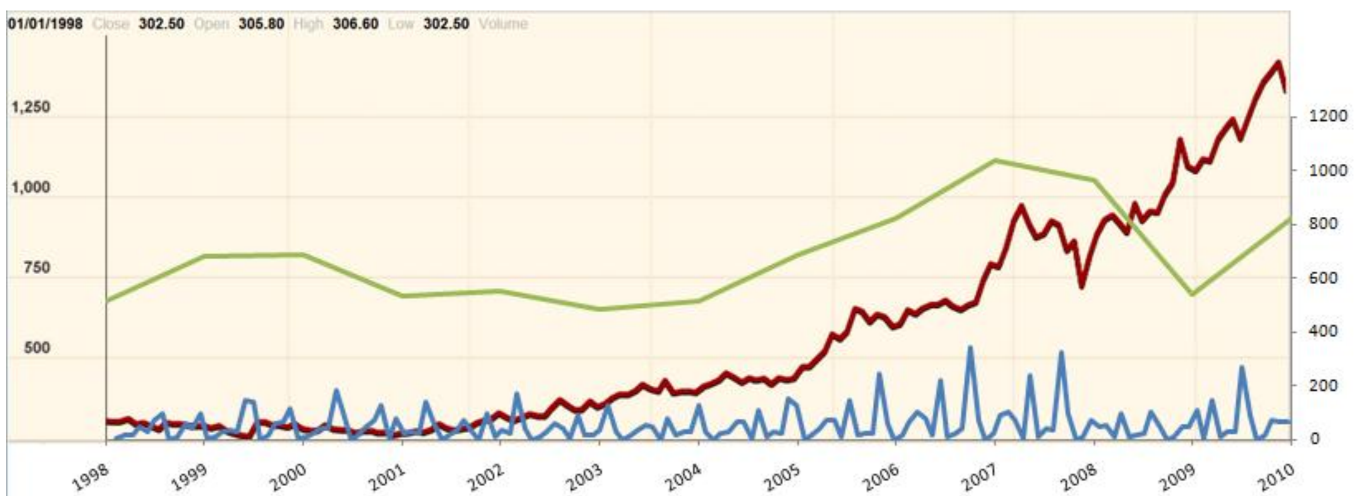
But it are the non-financial risks that form the biggest treat. An example of such non-financial risks of investing in art is the risk of an incorrect attribution; if a painting was first attributed to Rembrandt and after a while reattributed to an unknown painter, this will affect the price of the work. Other risks include the risk of buying fakes or forgeries, and the real material risks such as damage by fire or water, or theft. The costs for maintenance and restoration can also be interpreted as possible risks that come with the purchase of a work of art (Frey et al., 1989b: 101), just as the risk of change in risk, unexpected changes in taxes, unexpected changes in regulations and changes in genres and tastes (Frey, 2000: 172-173; Frey et al., 1995: 214-215). These risks obviously do not occur when investing in financial assets, but it

could be questioned if in the long-run the financial risks do not outweigh the non-financial ones, and as Chanel, Gérard-Varet and Ginsburgh (1994) reported, the risk of holding an art portfolio would be lower than the risk of any portfolio of national stocks (Chanel et al., 1994: 18).

Thus the risk-return criterion – when an asset is more risky, it should yield a higher rate of return to compensate this risk – is clearly not satisfied (Frey et al., 1989a: 406; Gérard-Varet, 1995: 514; Mei et al., 2002a: 1663). Or as Goetzmann (1993) states it: "Art, absent its aesthetic dividend flow, is only potentially attractive to an agent who would otherwise choose a relatively volatile portfolio" (Goetzmann, 1993: 1375; Agnello et al., 1996: 362).

c. Case study: auctioned art versus gold

In the graph below the comparison is made between the performance of the auction house Christie's in London between 1998 and 2010 based on its revenue and the gold standard[6]. The choice for gold was made because – just as is the idea about art – gold is generally interpreted as a 'save investment haven' when the financial markets are not doing well.



Graph 2: Evolutions gold price (red), Christie's London monthly revenue (blue) and Christie's London yearly revenue (green), 1998-2010.

The graph indicates, however, that the evolutions of the two 'alternative investment assets' did not move concomitant over the sample period. A more thoroughly analysis is definitely

[6] See paragraph 4.3. for contextualisation of the graphs.

needed considering this topic. Nevertheless, the graph above already shows that while the art market was clearly suffering from the consequences of the collapse of the bubble in 2008 and 2009, and the world was suffering from a contracting economy, the gold price was still increasing. Consequently we could state – taking the results of Christie's London as an indicator for the art market – that while art lost its attraction as alternative investment for stocks during this period, gold became even more interesting for investors.

d. Conclusion

It is common use in the economic world that in times of crisis, investors look for alternative investments, such as gold for which the value increases during economical bad times. Art objects have become another type of alternative investment. We have indicated, however, that this alternative investment value should not be overestimated, certainly in comparison with e.g. gold. When entering the 'world of investment' with the sole goal of making quick and high profits, the art market is, however, probably not the best place to do so; "the liquidity in the art market is simply too low to enable the necessary investment tactics to make pure speculation profitable" (McAndrew, 2010: 126; Baumol, 1986: 14), "there is not enough information about its return to enable them [investors] to make decisions about it" (Grammp, 1989: 154) and the risks are high. Finally, if one wants to invest in art – or any other good – with success, he or she also has to be able to predict the decisions other investors will make, which is not an exact science to say the least (Shleifer et al., 1990: 26).

3.2.5. Conclusion

As has been made clear, the market for art is not just any market; its specificities not only make it an interesting research topic, but also explain its behaviour in relation with the economy. Furthermore, its characteristics make the art market vulnerable for speculation and manipulation, and as it is one of the 'last unregulated markets' the occurrence of bubbles is not prevented in any way. In the following paragraph, we go further into the relation between the art market and the broader economy.

3.3. The art market and the influence of the broader economy

As Goetzmann, Renneboog and Spaenjers (2010) report: relatively little has been published on the "link between the art market and the broader economy" (Goetzmann et al., 2010: 5). When trying to get an insight in the complex relationship between the art market and economy in general, most authors use financial markets as representative for the latter. These markets are, however, only one variable. The impact of wealth and its distribution must also be emphasized.

3.3.1. Wealth

The first and most basic connection between the art market and the economic sphere is very straightforward: rich individuals have more (financial) opportunities to invest in art and culture than their poorer counterparts (Robertson, 2005b). Furthermore, in an economic advantageous situation, people simply have more money which they might invest in the art market. The accumulation of wealth makes people willing to spend on e.g. luxury goods as art works. As the "luxury consumption hypothesis" – which has been proven valid for the art market by Hiraki, Ito, Spieth and Takezawa (2009) – argues: for "durable luxury goods in inelastic supply" demand will increase according to "the concentration of stock ownership and associated wealth gains" (Goetzmann et al., 2010: 7). This statement is supported by e.g. Goetzmann (1993) who found evidence of a strong relationship existing over the very long term between the demand for art and aggregate financial wealth. He concluded that the demand for art was positively related to the wealth of art collectors (Goetzmann, 1993: 1370). The premise of this positive relation between conjuncture and art market was contradicted by Robert Lopez in a public lecture he gave a generation ago and was later written down by e.g. Richard Goldthwaite (1993). In this lecture, Lopez suggested that economic hard times – he used fourteenth century Italy in the aftermath of the Black Death as an example – "discouraged entrepreneurs from further ventures and thereby released more wealth for consumption, which was in effect a kind of "investment in culture" to achieve social status by men who saw their business prospects threatened" (Goldthwaite, 1993: 14). An economic decline does not cause an immediate loss of wealth, nor does it eliminate the possibility of its accumulation. In the short-run its impact may therefore be limited, but in the long run there will nevertheless be an impact.

Not only the presence of wealth or an increase in it explains demand for luxury products such as art; the "social structure of wealth" – its social and geographical distribution – and consequently the number of possible consumers plays its roll (Goldthwaite, 1993: 40, 67).
Wealth provides the opportunities to spend, but it also "fixes the limits for spending" (Goldthwaite, 1993: 12). It is only recently that authors have begun to acknowledge the "importance of the distribution of income in determining price levels" (Goetzmann et al., 2010: 7). The wealth of individuals, and more precisely of those who act on the art market, is a variable correlated to the overall wealth of their environment – be it a country or the overall state of the economy. Consequently, it seems common sense to expect that when average wealth increases, the willingness to invest in culture and art in general is higher than in times of recession. Goetzmann et al. have demonstrated in their 2010 article that prices for art may not only be affected by an increase in average or total income, but also by shocks in income inequality. As long as these are only limited, art prices "can be expected to move in line with overall income" (Goetzmann et al., 2010: 24). When income inequality rises quickly, however, art booms could be expected. Nevertheless, as one of their most interesting conclusions states, in the end "how wealthy the *wealthiest* are may matter more to the determination of art prices than total wealth" (Goetzmann et al., 2010: 3).
A final feature of wealth is its impact on art prices. Wieand, Donaldson and Quintero (1998) report that these reflect increases in wealth and the income flows that are associated with it (Wieand et al., 1998: 184). Certainly in the case of auctions, the price for which a work of art is sold depends on how many collectors are "willing and able to spend [money] on it" (Goetzmann et al., 2010: 3). Consequently, the buying power of the individual potential bidders influences the price of the work. Goetzmann continues on this subject suggesting that this has implications for art as an investment vehicle, as holding an art object as a collectable asset does not provide "a hedge against the fluctuations of the stock market" (Goetzmann, 1993: 1370). It is however that case that on the longer run the interaction between the prices for art and wealth is "still unclear" (Goetzmann et al., 2010: 6).

3.3.2. Market behaviour: a causal relation

It has been made clear that acting on the art market is influenced by wealth, income distribution, and 'other economic factors' (Chanel, 1995; Frey et al., 1989; Goetzmann, 1993;

Wieand et al., 1998; et al.). The mutual relationship between the art market and the several features of the economy is, however, complex, and consequently – as was already shortly mentioned – most authors have used financial markets as representative for the economy in general. Worthington et al. (2003) state that "[a]t first impression, art markets would appear to have little in common with pure financial markets", followed by the conclusion that one should not rely on first sights (Worthington et al., 2003: 653). These authors have observed that over the past years the art market – and more precisely the market for contemporary art – has moved closer to the financial markets and has adapted itself to the ideals set by the latter (see also Pas, 2008: 38).

In their research most authors observed a causal relationship between the art market – often represented by one or more segments of this market, e.g. the market for Impressionist art – and financial markets. Chanel (1995) concluded – as did Ginsburgh et al. (1995), Goetzmann (1993) and several others – that the two markets 'move together' in the short-run, but that on the long-run there is no evidence of any relation between the two spheres. Ginsburg et al. explain this by referring to the different "relative dimensions" of the two markets (Ginsburgh et al., 1995: 539, 548). Furthermore, it is observed that there exists a causal relation between financial markets and the market for art; the other way around this is however not the case.
The direct relation between the art market and the financial markets in the short-run could be observed in the 1980's, but also in 2006 and 2007, when high prices on the art market were accompanied by high profits made on the stock markets[7]. When after those "years of plenty", the "poor years" followed, the losses on the stock market were translated to less sales on the art market at the transition from the 80's to the 90's and in the years 2008-2009. The research performed by Hiraki et al. (2009) about the Japanese market in the 1980s-1990s, for example, resulted in the conclusion that "Japanese stock returns are positively and significantly associated with the growth rate of Japanese net imports of art of French provenance, a finding initially to wealth shocks in the Japanese stock market" (Hiraki et al., 2009: 1509-1510).

Another way in which the behaviour of the markets is related is in the way they respond to socio-political events. The terrorist attacks on September 11, 2001, for example, followed by the start of the war on terrorism in Afghanistan were felt on the financial markets and on the

[7] See appendix 12 for a case study in which a comparison is made between the evolutions of 4 financial indices and the evolutions in the auction revenue of Christie's London in the period 1998-2010.

art market, as players on the latter became concerned about the "impact of the slowing economy" on the one hand, and about "a drawn out period of armed conflict on the world art market" (Mei and Moses, 2002b: 7). Mei et al. (2002b) performed a research on the behaviour of art prices in periods of war and recession, concluding that during recessions, funds in general leave the art market for a short period and the price declined only 0.7%, although this only became clear in the second year of the recession; i.e. the time lag. Furthermore, there research revealed that during armed conflicts of certain duration in the past century – such as the two World Wars, the Korean and the Vietnam War – art indices outperformed the most important stock indices (Mei et al., 2002b: 8).

3.3.3. Time lag

Although later on it will be explained that not only the situation on the financial markets causes collapses in the market for art, there is a (causal) relation between developments on both markets. Consequently – as Chanel states – "stock exchanges may be considered as advanced indicators to predict what happens on the art market" (Chanel, 1995: 527).

What has been observed by several is the existence of a time lag between a major negative movement in the economic sphere – a recession – and its repercussions on the art market. About the size of this time lag there is no consensus, although most authors put the effects on the art market in the second year of a recession period. When considering earlier major stock market collapses, such as those in 1929 or at the beginning of the early 1970s, Robertson refers to a research that indicated that a time lag of 18 months could be observed in those cases (Robertson, 2005a: 247). For one of the most "dramatic" art market crashes at the end of 1990, a time lag of approximately three years is observed with October 19, 1987, known as Black Monday (Robertson, 2005a: 247).

Only few authors have presented a possible – but very rudimentary – explanation for the time lag. Chanel argues that a time lag exists due to the relative size of the art market on the one hand and the financial markets on the other, while Mei and Moses reason that it has more to do with the size of the 'change in wealth'. Finally, the idea of the art market as 'a safe haven' for investors might also explain the time lag, which then could be attributed to the initial flee from investors from the contracting financial markets to the art market, followed – when the money had 'evaporated' after a certain amount of time – by a flee from the latter. This

principle applies for gold as well as it is also perceived as a safe investment to put money in when there is uncertainty about other markets.

3.3.4. Conclusion

In a broader sense, it appears that the art market and the economic sphere/financial markets interact on several levels, and that this relation is not always as straightforward as one might expect. One of the conclusions of the research performed by de la Barre et al. was that "the randomness in the behaviour of prices [for art] is very limited, once the behaviour of the aggregate market is known" (de la Barre et al., 1994: 1). The difficulty is however to get a total overview of this aggregate market, as so many features play their role. Furthermore, evolutions can depend on the occurrence of relatively small indices and everything may change rapidly. "One relatively small (but unique) international market may correlate with one particular domestic asset market, systematically influenced through the consumption behaviour of the then globally richest group of investors" (Hiraki et al., 2009: 1510). The emergence of a bubble is one of the possible consequences of such developments.

Nevertheless, it should always be kept in mind that wealth and other economic factors are not the sole components influencing the demand for art, as was already made clear in the previous paragraph. Changing tastes are, for example, crucial in the long run and rumours and irrational buyer's behaviour can also determine evolutions, both in the long and the short run.

3.4. The chronological relation: 1910-2010

When tackling the relationship between the art market and the economy over the past century in a chronological way, the literature written about the topic becomes more limited the further we go back in time. Certainly when looking into the period before the 1960s, the dynamics of the art market have only been analysed by a small group of authors.

The most important contribution for the art market developments between 1910 and the 1960s has been made by Gerard Reitlinger (1982), who conducted research on the art market between 1760 and 1960. In three volumes the author summaries the most important changes in the art market during this period, analysing both trends in tastes and more general effects from major events such as wars or recessions. As his work is the only important contribution made for the first fifty years of our sample period, it forms the basis of the first part of the

overview. For the later decennia – certainly when focusing on the art market bubble of the late 1980s and its burst during the early 1990s, and on the even more recent events – there is more literature available. It is however the case that only the important events are reported; for more moderated or general dynamics, the literature remains limited.

3.4.1. The extended First World War period, 1910-1918

The event which characterised the second decennium of the 20th century was the First World War. Reitlinger (1982) claims that it was on the eve of this 'Great War' – in 1912 to be precise – that the art market was at a 'real peak'; the volume of the market and the prices which were paid were higher than ever before. Reitlinger describes the situation as follows: "[t]he money that was being spent on works of art at the outbreak of the First World War was not merely true money, based on gold, but its copiousness was a sound indication of the capacity of the white man's industrial output to expand and to find fresh markets (Reitlinger, 1982, vol. 2: 257).

When reporting on the art market during the First World War, Reitlinger concludes that the war's impact should not be overestimated; in comparison with the European recession from the mid-1880s, which the author uses as an example, the effect was "much less lasting" (Reitlinger, 1982, vol. 2: 226). Where the latter changed the profile of the art buyers in general – in Reitlinger's words "wealth derived from land no longer played any significant part in the saleroom", and the American buyers entered the art market *en masse* – the buyers who were leading the sales in the pre-war period did not disappear after the war. It was in fact this American support which "virtually cushioned" the art market from a total breakdown, as the European economy had become an "appendage" of the American economic system.
On another level the First World War did, however, have its impact on the art market, as for example the Russian Revolution and its aftermath caused a ban of private capital in Russia and large parts of Eastern Europe, and Germany – the European economic 'motor' – and its allies became impoverished for several years. Due to the already mentioned domination of American buyers, these events had only a limited effect. Except for a small group of artworks the price-levels kept relatively stable.

3.4.2. Interbellum, 1918-1938

3.4.2.1. "The false boom"

The period between the end of the First World War in November 1918 and the start of what is commonly known as 'The Great Depression' in 1929, was named "the false boom" by Reitlinger (1982). The 'roaring twenties' are generally associated with a growing American economy, cultural bloom and optimism, which gave an 'extreme rosy image' of the United States. This could, however, be sharply contrasted with the reality in Europe and the United Kingdom, where inflation 'reigned'. Consequently, the first years of these 'roaring twenties' were in Europe rather characterised by declining prices and wages, strikes, unemployment, and "above all the looming spectre of German bankruptcy" than by a rosy optimism (Reitlinger, 1982, vol. 2: 248). The pound, for example, did not regain its pre-war value and the year 1926 was in England nothing but a depression year. Consequently, a question mark could be put on the term 'false boom', as the economic situation outside America did not meet the necessary conditions for a boom.

Nevertheless, the art market moved concomitant with the American economy, with "considerable commercial expansion" on the one hand, but a real volume which was lower than it appeared to be (Reitlinger, 1982, vol. 2: 250). During the period 1926-1928 a – according to Reitlinger artificial – burst of high prices could be observed on the art market, and no sign of weakness could be seen.

3.4.2.2. The Great Depression and its aftermath

The positive impact of the American economic system which practically 'saved' the art market during and after the First World War, turned into a negative one after the system's crash in the fall of 1929. The Wall Street stock market crash on 'Black Thursday' October, 24, the absolute nadir after a couple of rough months on the American stock market, and the crashes following it, were the beginning of a recession period in the U.S. and Western Europe which lasted for almost the entire decennium. Between 1929 and 1933, the GDP per capita in the US fell by a third, thereby dragging along the European economy (Federico, 2005).[8]

[8] For a thorough analysis of the Great Depression, see Galbraith, J.K. 1997. *The Great Crash, 1929*. Boston: Houghton Mifflin.

Brooks et al. (2003) refer to the suggestion made by Jude Wanninski in 1978 that this crash was the result of "the presence of a speculative bubble" in the stock market (Brooks et al., 2003: 319).
The year 1929 was still relatively successful for the auction market, but starting from 1930 the consequences of the Wall Street crashes were reflected in a decreasing amount of pictures auctioned for over 1,400 guineas in London, from 130 in 1927 to 63 in 1930 and a further drop to 13 in 1931 (Reitlinger, 1982, vol. 1: 209). The devaluation of the pound continued and consequently the auction market became a 'cheap market' where one could buy art for a small price. This had, however, no positive impact on the sales results which were the worst in years. During the following years the international buyers stayed away from the London auction market. There was simply no interest in products which only a top layer of society could buy; "the years in which the plant which produced the things that not enough people could buy, simply lay idle" (Reitlinger, 1982, vol. 2: 258). The period 1931-1935 was a sequence of gloomy sales under the impulse of the crisis of the pound.

Based on stock market values, as is said by Reitlinger, "the worst was past in July 1932", but at the beginning of the war, the international trade volume had not yet recovered (Reitlinger, 1982, vol. 2: 265). Some categories of art, such as Old Masters, recovered already in the middle of the 1930s, but other segments such as eighteenth- and nineteenth century art did not manage to regain their pre-depression prices before the outbreak of the war. By the summer of 1936 the art market was partly recovered, and records were possible again, but during the second half of 1939, when everybody was anticipating war, the situation on the art market was already "less propitious", although it was not as bad as "one might imagine" (Reitlinger, 1982, vol. 2: 270).

3.4.3. The Second World War, 1939-1945

During the phase known as 'The Phoney War' – i.e. the period between the declaration of war by France and Britain in September 1939 and the end of May 1940[9], when the war was more or less a 'theoretical' given and no major military operations were launched (Cole, 1987: 455)

[9] The duration of 'The Phoney War' varies among authors. All agree, however, that the end can be situated in the spring of 1940 when Nazi armies invaded the Scandinavian countries, Belgium, the Netherlands, et al. For more information on this period, see Murray, W. 1981. The Strategy of the "Phoney War": A Re-evaluation. *Military Affairs* 45 (1), 13-17.

– the art market "faithfully reflected the conditions of 1914-1915" (Reitlinger, 1982, vol. 1: 219). The amount of sales and of important works at auctions was limited, but the prices were steady. After the capitulation of e.g. the Netherlands and Belgium, it was clear that the 'Phoney War' was over. At this point in time the general morale was more pessimistic than during the First World War; Reitlinger states that while during WWI nobody even considered a possible defeat, the idea that the end of the war might not be near and the fear for major destruction and hunger did exist in the minds of the people during WWII. This morale was reflected in several parts of society, also in the art market.

For the WWII period, it is important to keep in mind that while the main part of continental Europe was weighed down by the German occupation, the United Kingdom was not. Although several bombings did have their impact on daily British live, the influence of the war was relatively small in comparison to its influence on countries such as France, the Netherlands, Belgium, et al.[10] Consequently, the situation of the art market is also different for continental Europe on the one hand and the United Kingdom on the other hand. While art market activity in the UK 'could continue more or less as it did before the war', the system in e.g. the Netherlands changed under the German pressure.[11]
Another incidental factor of the war was the increase of Jewish and other European art dealers and collectors in the UK, but also in the United States. An example is the famous art collector Peggy Guggenheim who shipped herself, her family and her art collection to New York in 1941 (Dearborn, 2004). For the vast majority of United States citizens the horror of the war in Continental Europe was far away, and the domestic art market was swiftly recovering from the blow it received in 1929. The season which ended in July 1941 in New York was – as is claimed by Reitlinger – "the best since 1929" (Reitlinger, 1982, vol. 1: 221). For the author this was again proof of the dominance of the US on the art market, and of how little Europe meant.

For the sales on the art market in general, the period of the war was 'dull'. Unlike what could have been expected with huge inflation rates and "entire economic systems [lying] in ruins"

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[10] Note: the impact on daily live in the UK should of course not be underestimated. It is however the case that the UK government was not obliged to follow the rules of the occupiers, nor were 'new' public bodies such as the *Dienststelle Mühlmann*, where expropriated goods were traded in e.g. the Netherlands, set up on the island (Euwe, 2007: 24).
[11] For more detailed information on the changes in the continental art market during WWII, see e.g. Euwe, J. 2007. *De Nederlandse Kunstmarkt 1940-1945*. Amsterdam: Boom.

the art market remained inelastic; "[...] capital was short, credit was shorter and there was a feeling of guilt in buying fine things among the destruction and the sacrifices" (Reitlinger, 1982, vol. 1: 219).
Starting from the second half of 1943 the volume in the salerooms increased, and the buyers' public became "more international than ever", although the prices still did not catch up with the pre-war levels (Reitlinger, 1982, vol. 1: 220). This would take another year, until the March and June sales of 1944 in the Christie's wartime rooms in London. The market remained highly selective, but there was confidence about the future.

3.4.4. Recovery, 1946-1960s

After the war, the art market remained stable; nothing "spectacular" happened during the season 1945-1946 (Reitlinger, 1982, vol. 1: 222). This remained more or less the case until 1953, when the socio-economic situation – which had been depressing since the war – knew high inflation rates, and by 1953 the purchasing power of e.g. the pound had decreased to a fifth of what it was in 1914. Kaufman (1970) summarises the economic situation of the 1950s as being dominated by "frequent small cyclical swings" (Kaufman, 1970: 17).
In the early 1950s "the cheapest thing you could buy was a work of art" (Reitlinger, 1982, vol. 1: 220). Furthermore, although the cost of living in the UK had trebled between 1939 and 1952, there was remarkably little indication of this in the salerooms. Money had lost most of its value, and investing in 'the cheapest thing you could buy' could increase over time in a rate which could not be foreseen. Furthermore, a legislation which was launched in the 1950s made it possible for the Nation to "accept works in payment of death duties", which made investing in art even more attractive (Reitlinger, 1982, vol. 1: 228). The principle of 'art as investment' "lost any stigma that it might once have possessed" by the middle of the 1950s, which also meant an increase of resales (Reitlinger, 1982, vol. 2: 282). It should be emphasized that this holds for works which prices were situated in the middle or at the low end of the market. The top market responded to the inflation with a certain delay, due to restrictions on the freedom of currency exchange and the "relatively longer time which it took for middle-class incomes to catch up with the cost of living" (Reitlinger, 1982, vol. 2: 281). Consequently, the prices for these 'top works' remained high. Furthermore, it is indicated that in the fifties speculators whose primary motivation was financial gain were becoming attracted to the art market (Anderson, 1974: 15). This resulted in developments in the art

market towards more efficiency, and at the same time towards more similarities with the financial market, something Louargand et al. (1991) also noticed and reported on.

It would take until 1956, with changes in the American fiscal system and the removal of the restrictions on the export of foreign currency by the British government, for the inflation to be caught up with. For the art market this year meant the start of new prices in the London salerooms and consequently the beginning of an upward movement in the art market. In the 1960s the art market grew rapidly: “everything went up” (Reitlinger, 1982, vol. 3: 13). This period was, according to Kaufman, characterised by “strong growth trends”, but, as is also mentioned by the author, by the end of the decade the world was confronted with “an over-exuberant economy” (Kaufman, 1970: 17). In 1966 a credit crunch took place, followed by a sterling crisis in 1967 and a gold crisis a year later. The pound devaluated while on the art market works of art which were “suitable for millionaires and their State successors” increased their value by 200 to 300 percent, as the idea of art as a valuable alternative for money gained popularity (Reitlinger, 1982, vol. 3: 12).

3.4.5. 1970s: the oil and art market

At the end of the 1960s, the general picture of the art market drawn by Reitlinger appeared to be relatively positive: prices were increasing and the volume was considerable. This situation continued until 1973, the year in which several authors noticed that the market was changing, probably triggered by the economic circumstances. Wieand et al. (1998) quote Christopher Burge, the president of Christie’s in the US in the late 1980s, who summarised the period as follows: “[i]n 1973, things got very heated. There was a lot of money around. Foreign currencies were strong. The Italians and Swiss were buying. [...] Then the stock market fell, and we got all those people fleeing the stock market for a very dangerous five of six months, looking for a hedge. Then the oil crisis hit, [...] and the pit props were knocked out from under our market” (Wieand et al., 1998: 168).

The oil crisis to which is referred here were actually two oil “shocks”, a first between 1973-1974 and a second in 1979-1980, when oil prices were going through the roof (Pankikar, 1991: 479). As McCallum (1983) writes, “[i]t is widely believed that the two oil price shocks of the 1970s played a major role in the increase in inflation in industrial countries”, although

he also points out that this does not necessarily apply for each country individually (McCallum, 1983: 784).[12]

However it may be, on the art market, as is observed by e.g. de la Barre et al. a drop in art prices occurred in 1974, as buyers left the market after losing money in the oil crisis. The indices composed by Mei et al. (2002b) identified the same major price declines during this period. The authors e.g. analysed the price movements of Great Masters, concluding that after a price increase of 55% between 1972 and 1974, it decreased by 30% the next year (de la Barre et al., 1994: 155). Art prices in general remained stable after this short drop, and started to increase again by the end of the decade.

3.4.6. The 'Japanese' art bubble, 1980s-early 1990s

3.4.6.1. Before the bubble, 1980-1985

The 1980s are – in the art world – remembered for one important event: the emergence of a bubble in the market for Impressionist and Post-Impressionist paintings in the second half of the decade, followed by its burst at the beginning of the 1990s.

During the first half of the decade the art market was on the one hand still recovering from the 1970s oil shocks, which caused a steep fall in the price of crude oil and consequently a loss of capital for several art market investors (Panikar, 1991: 479). Furthermore, as Pesando (1993) reports, there was a short recession in the period 1981-1982 during which print prices – and art prices in general – fell. On the other hand, however, several authors observe a general upward trend in the prices for art over the pre-bubble years of the 1980s, which had already started in the late 1970s. De la Barre et al. identify, for example, a rise of 22% per year in the prices for Great Masters over the period 1980-1987. This turned out to be only the beginning, as starting from the second half of the 1980s prices for almost all art genres boomed. The most booming segment was, however, the market for Impressionist and Post-Impressionist art.

[12] For more information on the destabilising effect of oil shocks such as those who occurred in the 1970s, see: Bhattacharya, J. 2009. Oil Shocks: How Destabilising are they?. *Social Scientist* 37 (3/4), 25-32.

3.4.6.2. The emergence of a 'bubble'

Several researches have made it clear that there existed a positive correlation between the demand for art by Japanese collectors, the prices for art and the movements of the Japanese stock market between the second half of the 1980s and the first years of the nineties. By the end of 1989 the total market value of the Tokyo Stock Exchange was $4.611 billion, with the New York Stock Exchange at second place with $3.030 billion (Hiraki et al., 2009: 1491). The Japanese could benefit from a combination of high security prices, a strong yen and a booming Japanese equity market and were eager to invest in the (Western) art market (see e.g. Bocart et al., 2011; Wieand et al., 1998; Hiraki et al., 2009). The dollar fell in comparison to the yen, which reduced "the cost of foreign assets to Japanese investors" (Wieand et al., 1998: 184); and in the summer of 1986 a Nikkei bubble emerged, which, however, collapsed at the end of 1989 (Bocart et al., 2011: 9). Bocart et al. quote Lei et al. (2001) statement that "the situation in global art markets [at the] end of the 1980ies saw the existence of speculative opportunities" (Bocart et al., 2011: 12) and as their domestic economic situation allowed them, the Japanese buyers took advantage of them.

It is a logical step from the estimation of David Nash, former director of fine arts at Sotheby's, who said that in 1987 Japanese buyers "[made] up roughly a third of the buyers in this field [i.e. the Impressionist market]" (Wieand et al., 1998: 168) and the general observation that it were these investors who were buying the most expensive art works at auctions, to put the responsibility for the growth of a bubble in the same period on the Japanese. Therefore, a common explanation for what happened on the art market during this period, given by e.g. Hiraki et al. (2009), is that the enriched Japanese collectors "fuelled the ever increasing, unstable pressure on art prices in Western countries", thereby – consciously or not – creating a bullish art market (Bocart et al., 2011: 11). Recently, a debate has been launched on whether or not the Japanese were aware of the fact that they were fuelling an art market bubble. Bocart and his fellow researchers wrote an article in which they 'prove' by denominating the art index in yen instead of the usual US dollar that it did not seem for the Japanese buyers as if they were paying prices which reflected bubble-like behaviour for certain artworks. From a Japanese perspective, there was no bubble going on, certainly not when one defines a bubble as characterized by buyers who (consciously) pay prices for objects which transcend their actual 'value'.

It depends in other words on one's point of view – Western or Japanese – whether or not a bubble occurred on the art market during this period.[13] Bocart et al. conclude, however, that "what the West was experiencing was nothing more than the combination of a bullish art market led by enriched Japanese on the one hand and the strength of the yen on the other hand" (Bocart et al., 2011: 14). Furthermore, the asymmetry, "not to say absence" of information can also be mentioned as a catalyst for the *hausse* on the market for a certain type of art (Artprice, 2008: 4). As information on art prices or trends was scarce, the highest auction prices "served as benchmarks for the market as a whole" (Artprice, 2008: 4). Consequently, the high prices paid by e.g. Ryoei Saito – a wealthy Japanese businessman who bought several important works during the boom period – for Impressionist and Post-Impressionist art were interpreted as expressing the 'quality' of this type of art, thereby triggering high prices for similar works.

What is clear, however, is that during the second part of the 1980s art prices were rising at a unseen high speed. De la Barre et al. (1994) observed that speculation was going on during the late 1980s and that paintings were "circulating between art dealers" rather than being bought by collectors (de la Barre et al., 1994: 156). Furthermore, David Nash predicted in 1987 that "[i]f the stock market in Japan collapses, causing Japanese investors to repatriate the money, the false bottom could drop out of [the] top-drawer art market" (Wieand et al., 1998: 168). This prediction may have been inspired by the United States stock market crash in October of the same year; on October 19, 1987 the Dow Jones Industrial Average Index had lost 20%. Although this market crash "did not presage a general economic decline" as the crash in October 1929 did, it still made market analysts cautious (Leland and Rubinstein, 1988: 45). Hiraki et al. pointed at the fact that during the Japanese economic bubble, Japanese art investments "were directly backed by Japanese corporate assets or credits, making international art prices more susceptible to fluctuation in Japanese stock prices" (Hiraki et al., 2009: 1510).
By the end of 1989 the bubble in the Nikkei 225 reached its peak of 38.916 points, but then it 'disappeared'; a causal relation has been observed with a tightened Japanese monetary policy which was introduced by the end of the 1980s and led to a "sharp increase in interest rates in early 1990" (Allen and Gale, 2000: 237). The stock index collapsed during the first half of

[13] The article written by Bocart et al. (2011) is the most recent one on this topic, and a reaction from other researchers should be expected sooner or later, as the authors form a reasoning which has not been expressed or used until now.

1990, and combined with the general instability on the international financial markets due to the Gulf War in 1991 the Nikkei index eventually fell with 36% (Dehesh and Pugh, 1999: 158). Initially this had no direct consequences for the art market as the "optimism of Japanese investors persisted long beyond this point" (Hiraki et al., 2009: 1490). After a few months, however, it could be observed that Japanese buyers were 'moving out' of the market, which eventually triggered "the loss of about half the global asset value in art between 1990 and 1993 (Hiraki et al., 2009: 1490). Between 1990 and 1993 the prices for paintings in general lost about 50 percent (Artprice, 2008; Chanel et al., 1994). Mei et al. (2002b) present more details on this price decline, mentioning a 21% price drop in American paintings between 1989 and 1990, a drop of 16% between 1990 and 1991 for Old Masters and a 51% price decline over the same period for Impressionist paintings (Mei et al., 2002b: 5). The most cited reason for this market collapse by e.g. Ashenfelter et al. (2004), de la Barre et al. (1994), Hiraki et al. (2009), and Wieand et al. (1998), is the departure of Japanese buyers. Furthermore, the economic impact of the Gulf War and the concomitant oil crisis are also mentioned to have played their role by e.g. Artprice (2008).

The Impressionist and Post-Impressionist bubble?

One of the most important features of the art bubble from the 1980s-1990s is that it is mostly associated with Impressionist and Post-Impressionist art. As was stated, it were the Japanese buyers who were dominating the market during this period, and several authors emphasize that it was their taste which "played a significant role in the international art market" (Hiraki et al., 2009: 1499). This taste appeared to be very homogeneous, and was mostly focussed on the Impressionist and Post-Impressionist paintings. The preference for these genres was reflected in the auction results; for example the £24,750,000 which was paid for Van Gogh's Sunflowers at a sale at Christie's London on 30 March 1987.

Several authors have tried to explain the remarkable preference from the Japanese buyers for these particular genres. Hiraki et al. state that the Japanese buyers simply "focused on the most expensive works offered in the international art market", which were at that time the works of art with aesthetic links with Impressionism and Post-Impressionism (Hiraki et al., 2009: 1490). These authors also mention that "[d]ue to its fixed supply and exotic aesthetics (from a Japanese perspective), Western art, including, for example, Impressionist painting, holds a strong enough luxury appeal for Japanese buyers […]" (Hiraki et al., 2009: 1492).

They emphasize, in other words, the Western aspect of the art as a reason why the Japanese were investing in it. The opposite is claimed by Bocart et al., who identify the Japanese influences on the Impressionist and Post-Impressionist artists as the reason for their interest in the genre; "these movements stand for one of the greatest examples of Japanese influence on European art (Bocart et al., 2011: 1). The truth probably lies somewhere in the middle, and however it may be, Bocart et al. state that they did not find evidence that "Japanese buyers perceived Impressionist art as a speculative vehicle rather than a more classic consumption/investment asset" (Bocart et al., 2011: 14).

Although most authors emphasize the preference for Impressionist and Post-Impressionist art during the boom period, the other genres – whether closely related, such as Modern Art, or not, for example Old Masters – "suffered from lagged contagion" (Bocart et al., 2011: 11). Several authors, including de la Barre et al. (1994) and Bocart et al. (2011) emphasize this aspect. And not only paintings were being sold for high prices on the market. Pesando (1993), for example, observed a similar trend in print prices, with an accelerated increase after 1985 peaking in "the spring of 1990" after which they fell sharply (Pesando, 1993: 1079).

3.4.7. The aftermath of the 1980s bubble

The bubble of the second half of the 1980s and its collapse in the early 1990s are known as two of the most remarkable events in the art market over the last century. The total performance of the art market was affected by the events (Mei et al., 2002a), and "the market went into an agonising downward spiral that lasted almost five years" (Artprice, 2004: 1). The impact of these events, however, was felt for more than a decade after their respective peaks, and "recovery was uneven" (Robertson, 2005a: 247). It would take, for example, about fifteen years before prices for Impressionist and Post-Impressionist art regained their high levels of 1990 (Mei et al., 2002a), while other genres such as Old Masters returned faster to their pre-crash highs. Also among countries recovery time differed; while in the United States the market returned to its pre-1990 levels by the end of 1997, this would take the UK until the summer of 2000.
Another observation in the context of the aftermath of the 1980s bubble, made by Hiraki et al., is the reappearance of "formerly Japanese-owned Impressionist, as well as Modernist, paintings" on the auction market at the end of the 1990s – the "post-bubble period".

According to the authors, these works had "entered the possession of the seller as securities from art collectors who had defaulted on the loans" (Hiraki et al., 2009: 1511). 'Fire sales', as these kind of sales are called, were organised e.g. by Christie's and Sotheby's in May 1999. For these auction houses, the collapse of the market had meant the start of a difficult period, with a decrease in items being brought to auction and fewer bids leading to lower sale prices. This triggered "fierce competition" between Sotheby's and Christie's, the duopoly leading the auction market, which took the form of "drastically cutting commission rates paid by sellers, in many cases to zero, extending non-resource loans that amounted to financial guarantees to sellers, and also making donations to a seller's favourite charity if an item sold over a specified amount" (Ashenfelter et al., 2004: 5). These practices resulted in a price-fixing scandal, which ended in a public trial in 2001. Sotheby's was particularly hit by this trial as, besides the civil settlement of $256 million which both Christie's and Sotheby's had to pay, the auction house also had to pay a $45 million criminal fine, and saw its chairman Alfred Taubman being sent to jail for nearly a year (Ashenfelter et al., 2004).

3.4.8. The 21st century, a real bubble or an art market correction?

The art market in the first decade of the 21st century could be summarised as follows: in the first five years there was a general steady growth – with however a little offset in 2002 – but in the second half of the decennium this growth transformed into a boom which lasted until the first half of 2008. Eventually the market collapsed into "one of the biggest contractions in the art market since its previous recession in the early 1990s" (McAndrew, 2010: 19). This period has been well documented by Clare McAndrew (2010) who wrote *The International Art Market 2007-2009. Trends in the Art Trade during Global Recession*, in which she focuses – as the title suggests – on the period between the peak of the art bubble and its burst, although she also presents an overview of the years prior to these events. Furthermore, the yearly reports composed by Artprice, a website that engages in monitoring the art market, are a valuable source.

The new century started with a steady growth in annual auction sales turnover and transaction volume, in line with the trends of the last years of the 1990s (Artprice, 2003). In general, the prices would keep increasing steadily for almost a decade, until they really boomed starting from 2006. There are, however, a few events which had a short-time impact on the art market,

such as the terrorist attacks of 9/11 and the subsequent War on Terror, "bringing an end to five years of an almost unbroken upward trend in the Artprice Index" and causing a more "sombre tone" to spread throughout the art market (Artprice, 2004: 2). Furthermore, the effects of a stock market downturn in 2002 were also felt, and were reflected in a small offset in the general growth curve. These events would however not have a great effect on the market and by 2004 art prices reached their highest levels since the peak of the previous boom in 1990 (Jeffri, 2005; Artprice, 2005). A year later, prices were breaking records again and the art market boomed in a way it was not seen before (Artprice, 2006: 9). The largest boom could be observed in the United States art market, where prices lay on average 32% above their 1990 levels (Artprice, 2007: 4).

Artprice refers to the entire 1990-2007 period with the statement "when art rhyme[d] with dollars" (Artprice, 2008: 3). This might, however, be a more adequate description for the 2006-2008 period, when records did not even last a week, and the prices paid for certain art works were unseen. Never before in the history of the art market so much money had been invested in the art market, and art market analysts, collectors and the media began to wonder for how long this bullish market could last and when the art bubble would collapse (Thornton, 2009).

Record auctions were organised for Impressionist and Modern art, the department which had been dominating the art market in terms of value for several years. A more surprising, although not entirely new, feature of the 2006-2008 boom was the success of Post-War and contemporary art.[14] Between 2002 and 2008, this department had experienced the largest growth in sales value at auction, from €92 million to €915 million. In 2007 it even overtook the first place from the Impressionist and Modern art department and became the largest category by value. These evolutions made authors including McAndrew identify post-war and contemporary art as "the driver of the art boom up to 2008" (McAndrew, 2010: 88).

The first semester of 2008 indicated even further growth; at Christie's, for example, the results for the first half of 2008 lay 10% higher than in 2007 (Christie's, 2007; Christie's, 2008). In the fall of that year, however, the situation suddenly changed and 'the bubble' which had emerged collapsed.

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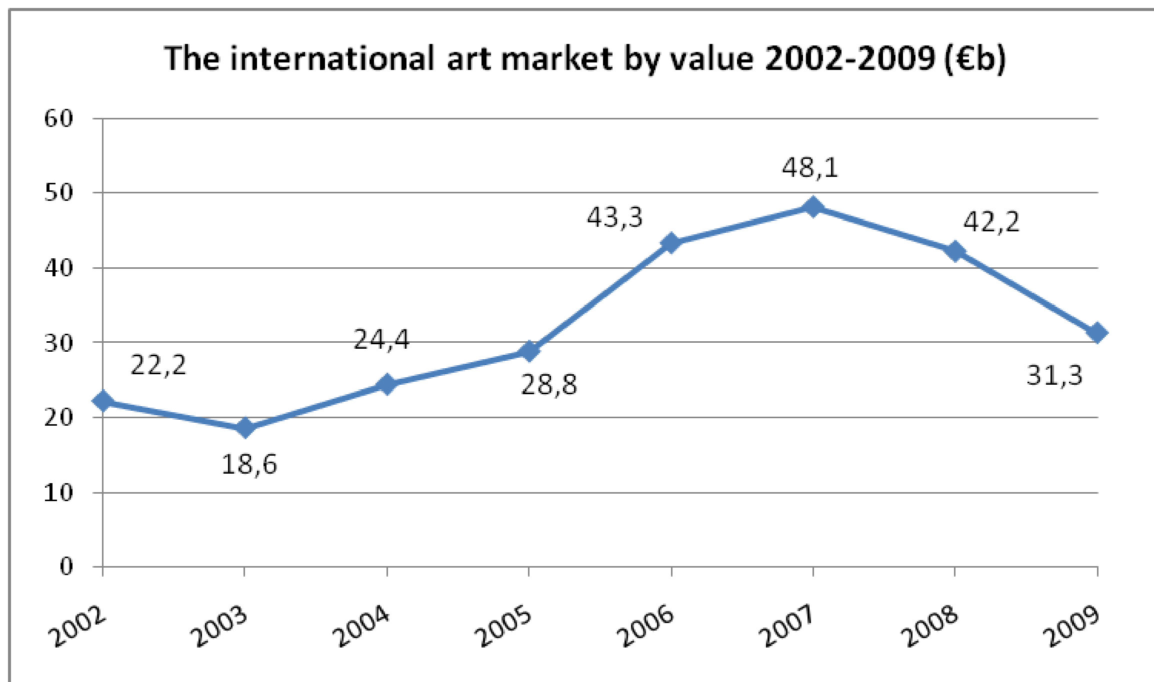
[14] At Christie's and Sotheby's *Post-War and Contemporary Art* are combined in one department. There are, however, authors such as McAndrew who define *contemporary art* as art made after the war. In order to prevent misunderstandings the term *contemporary art* is here used as art made by contemporary living artists.

Although Artprice claimed in 2002 and again in 2008 that the rise in art prices – which had been especially striking for contemporary art paintings – was not artificial, nor that is had been "driven by speculation", and that the chances on a crash were "practically zero", the market proved them wrong (Artprice, 2008: 4; Artprice, 2003: 5).[15]



Graph 3: The international art market in value 2002-2009 (based on McAndrew, 2010: 19).

Fact is that total sales in the global art market dropped by 12% between 2007 and 2008, followed by a further decrease with 26% in 2009. Furthermore, the number of transactions decreased from 49.8 million in 2007 to 36 million in 2009 (McAndrew, 2010: 22). Also in the average price for a work of art dropped the effects of the market collapse could be observed, as can be learned from the table below (McAndrew, 2010: 86).

	2007	2009	Decrease in %
US	€84.683	€28.485	- 66%
UK	€59.990	€32.153	- 46%

Table 2: Overview difference average price 2007-2009 in US and UK.

[15] In their 2011 report, Artprice 'corrects' itself and characterises the boom in the art market as a "speculative bubble" (Artprice, 2011a: 7).

Artprice claimed in its report on the 2009-2010 international art market that art buyers had "redirected their attention towards more affordable art and safer signatures" (Artprice, 2011a: 5). McAndrew's research demonstrated, however, that it was the middle market (in terms of prices) which was affected the most, while the high end and the low end fared relatively better (McAndrew, 2010: 88).

While during the previous recession period on the art market in the early 1990s, Impressionist and Post-Impressionist art seemed to have had the biggest blows, the collapse of the market was now felt most in the post-war and contemporary art department.[16] By the end of 2009 its value had dropped by nearly 60% to €378 million (McAndrew, 2010: 15).

Initially, the global economic recession was put forward as the main cause for the 'sudden' collapse of the art market. As had been observed in the early 1990s, buyers had to leave the market because they had lost their capital due to the economic crisis. After a certain time, however, it became clear that the 'collapse of the art market' appeared to be – for the art market in general that is – more a 'contraction' than a real collapse. In comparison with 2007 and 2008 levels, the results of 2009 appeared to be dramatic, but when one analysed the entire decennium, a different picture can be drawn. Both the total sales value and the number of transactions in 2009 were higher than they had been before 2006, the start of the boom. In 2005, the global art market value had been €28.4 billion, which was about 9% less than the €31.1 billion in 2009 and even compared with 2006 almost 4 million more transactions had taken place (McAndrew, 2010: 19). Therefore, it could be argued that the 'collapse' of the art market was perhaps more a normalization which had brought the art market back to the 'healthier' levels of the pre-bubble period (De Strooper, 2010). It was a "market correction" as Artprice calls it, rather than a collapse (Artprice, 2011a: 5). The art market, and especially the market for contemporary art, had reached an untenable level and a relapse had become inevitable. Consequently one could ask whether the economic recession might have determined the moment of the correction, rather than it was critical for the correction itself (De Strooper, 2010).[17] For certain departments such as post-war and contemporary art, 'collapse' was however the rightful term. It should, nevertheless, not be generalised for the global art market as a whole.

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[16] For a more detailed overview of the evolutions in the prices by sector, see McAndrew, 2011: 88-114. The author there analyses the evolutions of the prices for contemporary art, modern art, Impressionist and Post-Impressionist art, and Old Masters.

[17] See De Strooper, L. (2010) for a more elaborated version of this theorem.

It is on a more ‘psychological level’ that the actual impact of the economic crisis might be observed; due to the economic circumstances potential sellers anticipated a lower revenue if they would bring their works to auction, and decided to wait rather than to risk possible loss. This resulted in a lower volume of works for sale, and the works which came to the auction block were mostly of lower value. It was however noticed, e.g. by Artprice, that demand for ‘qualitative works of art’ had not weakened; investors had became more cautious and selective in their purchases but remained willing to spend money in art. The lack of trust from the sellers had become the problem of the market, perhaps more than a general lack of interest from the buyers’ side.
On the buyers’ side, the impact of the economic crisis was especially felt by the speculative – and often relatively young – investors, which were particularly active in the market for contemporary art. McAndrew identified a large group of “wealthy individuals with fortunes built up in several industries, but often with some links to finance and banking” being part of the buyers in the contemporary art market (McAndrew, 2010: 154). Within this group, she continues, “a small but significant portion of buyers” entered this market for purely speculative purposes (McAndrew, 2010: 154). As they often earned their money in the sectors which were affected the most by the credit crunch and the global recession, it were these speculative investors which had to leave the art market, and consequently the department they had been investing in, was affected the most. The reason which had attracted these investors to the department at first – the possibility of quick returns in “one of the most volatile and speculative sectors of the international art market” (Artprice, 2009; McAndrew, 2010: 93) – had become the reason for its downfall, as those who had been attracted for these reasons now had to leave the market.

Another important feature of the period 2000-2010, although it is not an entirely new phenomenon, is the ‘emergence of emerging markets’. Underpinned by their economic growth over the last decade, countries such as China, Singapore, Russia and India have become – or are becoming – important players on the international art market. As Artprice expressed it: “[t]he art market is a good indicator of the general economic prosperity of a country” (Artprice, 2007: 11). The results are concomitant. In 2009 “Asia’s total auction

revenue was substantially higher than USA's ($155m vs. $142m) for the first time ever" (Artprice, 2011c: 7)[18].

The presence of such a 'spread layer' of buyers – the new collectors from the emerging countries, sided by the 'traditional' buyers from Europe and the Anglo-Saxon world – made the art market "more stable than before" when it often was one group of buyers which dominated the market; the Japanese in the second half of the 1980s for example. When this dominant group left the market, this caused a problematic contraction in the early 1990s. In the more recent case, the spread buyers base formed a buffer for the outflow of the speculative buyers, thereby 'softening' the consequences of their departure (Renneboog et al., 2009b: 2).

3.4.9. Comparing apples and oranges

To conclude on the chronological part of the relation between art market and economy, a short comparison is made between the two most important 'bubble's' of the past century, the one at the end of the 1980 and the one between 2006 and 2008. It will become clear that although they have both been named 'bubble' this is a rather elastic notion and the interpretations of the concept can be divers. Most of the features have already been elaborated in the previous sections, but a few concepts will be accentuated here in the context of this comparison.

On a basic level, the general features appear to be similar: in the two periods, prices were paid for works of art which seemed to transcend the intrinsic value of the works many times. The type of works which formed the focal point in the respective bubbles was, however, different, and this had its consequences on the characteristics of the bubble. In the 1980s the focus was on Impressionist and Post-Impressionist art, which is a type of art subject to a fixed supply; during the 2000s the most important art department became art made by contemporary artists which were often still producing. This enables the artists to act upon the market evolutions and produce works which responded to the demand, something which was clearly not possible during the 1980s bubble. Furthermore, the different perception by the market players in the 1980s and during the more recent bubble is obvious: while in the 1980s Japanese buyers – as

[18] It was only recently revealed that China now has overtaken the first position worldwide from the US in fine art auction revenues (Artprice, 2011c), and has become second – instead of the UK – in the ranking of world's largest art markets (Adam, 2011).

is now claimed – were not aware of their impact on the emerging bubble, the speculators in the second half of the years 2000 were deliberately acting upon it. Also auction houses admit that not only they were aware of the recent bubble, but that they also “rode” it actively (De Strooper, 2010: 23).

Eventually, there is also the impact of the bubble’s bursts on the market which has been different in both cases. As was said, the recent bubble could be interpreted rather as a market correction and the upward trend which has been observed since the beginning of the 21st century continued immediately after the short blip. The collapse of the 1980s bubble had however an impact on the longer term, and it took several years to return to the pre-bubble levels.

3.5. Conclusion

It is clear that over the past century, the relation between the art market and events in the economic sphere has been complex, and that similar events did not necessarily had the same features and consequences. The general conclusion is that there exists a causal relation between the art market on the one hand and the economic sphere on the other, but that their mutual relationship in both the short- and the long-run are impossible to predict and easy to lay aside, as e.g. could be observed during the most recent bubble.

What has become clear over the course of this chapter is that although several topics have been analysed thoroughly, there are even more features which are left without any or too little research. In the further course of this thesis, we will attempt to open up new questions and analyse whether what conclusions which have been made before can be applied for auction house Christie’s.

IV. METHODOLOGY

4.1. Introduction

In order to investigate the relation between the art market and the economy, it is necessary to be able to compare the evolutions in both fields and look for mutual developments. As has been said before, most of the authors in existing literature have used financial markets whose evolutions have been captured in financial indices such as the Dow Jones Industrial Average Index and the FTSE 100 index, as representative for the economic sphere in their research on this relation. In order to present data relating to the art market in such a way that they could be compared with these financial indices, art indices have been composed in which authors have tried to capture evolutions in particular art market segments over certain periods of time. This method is used by several authors including Hiraki et al. (2009) and Mei et al. (2002b), and is e.g. also used to compare the value of art as an alternative investment with the value of stocks and bonds (cfr. supra).

In section 2 of this chapter, an overview will be presented of how price indices can be and have been constructed in the existing literature. Section 3 outlines the simple model we have applied for this research. Basic descriptive statistics were used in order to gauge at the relation between the art market represented by Christie's and the economy. In the next chapter the results will be analysed.

4.2. Methods used in literature: price indices

An art price index can – if well-conducted – "outline market trends, but also provide information on the diversification potential of art and makes it possible to look into the determinants of art prices and returns" (Renneboog et al., 2009a: 5). Although the strategy of composing an art price index seems to be common knowledge as it is frequently used, there does not appear to be a general agreement on how to calculate these indices; different methods have been developed and applied, all with their own benefits and disadvantages, and none of them with the same results.
The construction of a price index was developed for the computation of (historical) price evolutions of commodities or financial assets, but as an art object differs in many ways from

those commodities or assets, the methods used for the latter are not applicable for the first without considering some important drawbacks.

4.2.1. Dataset

Although different methods have been used to construct an art price index the basis of each index is a dataset on which the chosen method can be applied. A dataset is the compilation of data concerning the topic one wants to study, for example the auction results from a certain genre of paintings over a certain period of time. For the construction of such a dataset, however, different problems and biases occur which must be considered in order for the research to start on good grounds.

4.2.1.1. Specific characteristics of art objects

"[...] All [methods are] facing the difficulty of accounting for the specificity of art production, which makes it hard to define the prices of individual works over time" (Locatelli Biey et al., 1999: 211). As has been emphasized earlier in this thesis, art objects are not just any objects; their specific characteristics make them exceptions for many economic theories, and those features must always be kept in mind.

4.2.1.2. Sample selection

In order to get the anticipated results out of the art price index, a well thought-out dataset needs to be constructed based on the specific features of the research. Without an excellent dataset the further research is almost 'doomed to fail'. Several datasets have been compiled in the context of art market research, all with their own problematic aspects and biases.

General biases and problematic aspects

Some general biases and pitfalls are the following; the composition of the sample must be done with care since overseeing some important transactions or evolutions may bias the whole sample, and consequently the whole index. Furthermore, there is the issue of subjectivity which is also important in this context. Another general problematic aspect is that "in most studies the sample size is relatively small […]" (Renneboog et al., 2009a: 7), a critique which

will be further elaborated later in this chapter; and inflation is not always taken in to account. A final general issue that must be kept in mind is the risk of neglecting price inflation and exchange rates (Ginsburgh et al., 2006: 967). If forgotten, these aspects may result in a (severely) biased index

Auction results versus private sales

The most emphasized bias in the computation of a dataset for the estimation of art price indices is that until now many datasets – if not all of them – have been based on auction prices, while omitting private sales results. Using only auction prices may result in a biased index, since auctions represent only 30 to 50 percent of the art market, depending on the source (Ginsburgh et al., 2006: 950). The primary market is, in other words, left in the dark. In this context, Ruth Towse (2010) rightly asks whether "private sale prices and auction prices are comparable for similar works of art" (Towse, 2010: 79). If this is indeed not the case, the art price indices that have been composed until now lose (some of) their value, since they would not be representative for the art market as a whole, and generalising the results would therefore be invalid. The reason for this choice to disregard the quantitatively larger market segment of the private sales lies in the practical fact that auction data are easily available and reliable, while private sales data from e.g. galleries are "more difficult if not impossible to get" (Frey et al., 1995: 209).

Even if we assume that auction prices are representative for the entire market, their use still entails biases. One could for example ask whether or not 'bought-in' art works must be included in a dataset. Inclusion would mean that an estimation of the (secret) reserve price would be recorded as the sales price of the art work, and this would "bias[...] auction prices [and consequently the price index] upward since the reserve price was higher than the bid price" (Agnello et al., 1996: 376; Goetzmann, 1993: 1370).

A second factor that tends to bias the results is that the occurrence of a work of art at an auction depends on different external aspects, e.g. whether an art work is 'in style' or not will affect he intention to sell (cfr. Goetzmann's "stylistic risk", Goetzmann, 1993: 1371). Renneboog et al. (2009a) state in this context that art works which have "fallen out of fashion" are often not sold through an auction, but rather through a private sale (Renneboog et al., 2009a: 5). Both of these features affect the content of the dataset.

A third problematic aspect is that datasets often only include sales results from Christie's and/or Sotheby's, and no data of smaller auction houses. It is likely that this will bias the results upward since these houses attract the more expensive segment of the art supply.
In order to find the optimal dataset based on auction results, these features need to be kept in mind.
Finally, the fact that auction houses "have an interest in high turnover and, for reasons of publicity, in record prices" might also bias the rates of return upward (Frey et al., 1989a: 402; Frey et al., 1989b: 109).

Existing databases

Not all authors have composed a new dataset to base their research on; some of them, including Baumol (1986), Frey et al. (1989b) and Buelens et al. (1993), have based their sample on the dataset composed by Reitlinger between 1961 and 1970. Reitlinger collected thousands of observations on art sales between 1760 and 1960, and this dataset has been the "canonical source of data" for anyone who wanted to make an art price index for several years (Guerzoni, 1995: 251).
Despite the many erudite users of the dataset, however, several biases have been linked to it "which seriously distort the analyses based on this dataset" (Renneboog et al., 2009a: 7). The selection criteria that have been adopted for the construction of the dataset have been questioned, as they were based on Reitlinger's subjective choices (Agnello et al., 1996: 362; Candela and Scorcu, 1997: 177; Guerzoni, 1995: 251).
In his article concerning the Reitlinger's data series, Guerzoni (1995) lists the objections he has regarding this database (Guerzoni, 1995: 251). Although not all of Guerzoni's remarks have the same importance considering the composition of an art price index – one could e.g. wonder whether the exclusion of information about the buyer really affects an index – some of his critiques do touch on some important issues. He argues for example that the main part of Reitlinger's data was extrapolated from auction reports by Christie's, and that Reitlinger did not chose his data randomly. Another remark is that Reitlinger often only included observations involving famous artists (Guerzoni, 1995: 251-252). All of these issues are possible biases for the dataset and consequently the index. Researchers who want to use Reitlinger's database have to be, in other words, cautious in their application of the series.

4.2.1.3. Conclusion

Compiling a dataset is a work that needs to be handled carefully. As it forms the basis of any research, a good start is important. Making a totally unbiased dataset is nearly impossible and it should therefore be the goal for every researcher to select the 'least-biased' sample in order to get the best results.
The different methods used to estimate a price index all suffer from specific biases. Those will now be elaborated.

4.2.2. Methods

The use of price indices in order to calculate price evolutions of different objects is not unique for the art market; on the contrary: most of the methods used to compute price indices find their origin in totally different market segments. The hedonic price method for example was introduced by Court (1941) for the automobile market; and it has been used since for various markets, like housing (Gérard-Varet, 1995: 514; Chanel et al., 1994: 9). In general though these methods cannot be directly applied to art objects, due to the already mentioned features of the latter (cfr. supra). Therefore, 'method-related' biases and problematic aspects have to be kept in mind.
There are three main methods which are used to estimate price indices for art works: the 'average price method', the 'hedonic price method', and the 'repeat-sales regression'.

4.2.2.1. Average price method

The idea behind the average price method, as initiated by Stein (1977), is very intuitive and straight-forward: the calculation of the "average sale price of a sample of assets [in this case art works] in at least two subsequent periods" (McAndrew, 2010: 159).

a. Problematic aspects and biases

Although the method seems very comprehensible and straight-forward at first, several authors including Ashenfelter et al. (2003) and McAndrew (2010), have posit some concerns about it. First, there is the influence of the analysed time segment on the results of the index; during

booms “better paintings may come up for sale” (Ashenfelter et al., 2003: 765) which biases the results upwards, and vice versa. In order to reduce this effect, one might exclude the extreme results from the dataset, for example the 5 percent highest and 5 percent lowest prices, but this will only partially attenuate the bias. The second point of critique from these authors is that “[i]n general, average art prices will indicate some variability over time that is better described as movements in the heterogeneity of the quality of the objects offered, rather than as movements in prices for the same object” (Ashenfelter et al., 2003: 766). If the characteristics of the object change over time, this affects the price more than other features.
McAndrew (2010) complements this list with problematic aspects concerning the construction of a dataset. For the estimation of an “all art index” with the average price method, a great deal of subjectivity is involved in the composition of the dataset (McAndrew, 2010: 159). If, for example, one wants to use this method to construct an index based on the sales results of art objects between 1910 and 2010, choices must be made in order to keep the size of the sample feasible. These choices are not only subjective and random, but exclusion of certain objects might result in overlooking some important “micro-trends occurring within the different segments of the art market” (McAndrew, 2010: 159).

b. Refinements

The average painting method is a refinement of the average price method, and the only difference is that it estimates the index for one average painting over a certain period, instead of the average of a sample. This method has been refined by Candela et al. (1997) to the ‘representative painting method’ in which the authors “postulate the existence of one time-invariant price structure and look for the average price of the unique (fictitious) painting which is always representative of the price structure of the market in all time periods” (Candela et al., 1997: 180). It seems that this method has not found many supporters until now – on the contrary, it has received some very critical remarks by Locatelli Biey et al. (1999) and Frey (2003). The rejection can be comprehended because of the idea of a fictitious painting as representative for a whole market. Isn’t it indeed an important feature of the art market – as of any market – that it is always evolving, so a representative painting for this market would have to evolve concomitant?
Another version of the average painting method is the ‘yearly average transaction price method’, which, as defined by Renneboog et al. (2009a) considers “the auctioned objects in

each year as a random sample of the underlying stock of art works" (Renneboog et al., 2009a: 5). The authors describe this as an "unlikely assumption" and the resulting index will consequently not be a sufficient base for any research.

c. Conclusion

The average price method appears to be "most useful when examining a very narrow category of works and [...] can only serve as an indicative measure of past trends in the market" (McAndrew, 2010: 162). If one, however, wants to research the art market on a more general level this method will not satisfy, since it results in an index which remains stuck on a macro-level, and some short-term random fluctuations might be overlooked because of certain choices in the construction of the dataset.

4.2.2.2. Hedonic price method

As Sagot-Duvauroux (2003) demonstrates in his contribution to Ruth Towse's *A Handbook of Cultural Economics*: there are different features and properties which determine the price of a work of art (Sagot-Duvauroux, 2003). Most of these features and properties, such as the used materials and support or the subject matter, do not change over time, while other features such as the context in which the work is sold do. This notion underpins the 'hedonic price method', which Clare McAndrew (2010) describes as follows: "[t]his method identifies all of the measurable and identifiable characteristics of a work of art that contribute to its valuation [...] and then extracts these from the price so that what if left is the pure time trend (and the influence of random elements) or a "characteristic-free" index of art prices" (McAndrew, 2010: 163). In that way, the hedonic price method also controls for changes in the quality of the transacted art works, since implicit prices are attributed to specific value-adding characteristics (Renneboog et al., 2009a: 6). Possible hedonic variables include: attribution dummies, authenticity dummies, medium dummies, size, topic dummies, auction house dummies, month dummies, strength of attribution, et al. (Renneboog et al., 2009b: 5-6). The inclusion of a time dummy than captures the time effect.
This method has been used to estimate consumer price indices and to construct price indices for e.g. real estate, automobiles, dishwashers, "and more generally for cases in which quality varies over space and/or time" (Ginsburgh et al., 2006: 952). Authors who have applied this

method for the construction of art price indices include Anderson (1974), Frey et al. (1989), Buelens et al. (1993), Goetzmann (1993) and Chanel et al. (1994, 1996).
The hedonic price method has the benefit of being able to use all data available, sales and resales, which is not the case for the repeat-sales regression method (cfr. infra). Another advantage is that it allows giving a qualitative value to the different characteristics comprising the index.

a. Problematic aspects and biases

Besides these advantages and benefits, there are also different problematic aspects and biases that can be linked to this method. One of the main downsides seems "the strong assumption that a rather arbitrary and small selection of character variables captures all of the variability in the fixed components of price" (McAndrew, 2010: 163. See also Ashenfelter et al., 2003: 766). Although this is the basic premise of the method, it is indeed a fact that one should really make well-thought off choices in deciding which variables are used. Ginsburgh et al. (2006) argue that "in order for the index to be a little contaminated as possible by the heterogeneity of the sales mix over time, and account correctly for quality adjusted price changes, the choice of characteristics is important [...]" (Ginsburgh et al., 2006: 958; Chanel et al., 1994: 10). As is said by Candela et al. (1977): if one wants to use the hedonic price method, he or she must know and understand "all of the complex influences driving art market prices" to be able to determine the parameters that are price-explanatory (Candela et al., 1977: 178). In this context a subjective choice of variables also forms an important potential bias, and to capture all the characteristics of a work of art in different variables would make the equitation practically too long to solve.
Another question that should be raised is whether the characteristics which form the model's parameters are stable over time (Locatelli Biey et al., 1999: 211). If this is not the case, the validity of the method becomes less obvious. A last important issue is raised by Candela et al. (1997); they emphasize that market changes do not only occur due to changes in the (intensity of the) characteristics of the object – in this case art works – but also by changing social valuation of these characteristics, for example changed tastes (Candela et al., 1997: 178). This must be considered as it may affect demand and, consequently, prices.
Finally, the premise of the method causes another problem: it does not take into account the heterogeneity aspect that plays along in the art world: perfect substitutes do not exist.

b. Conclusion

Agnello et al. (1996) summarise the hedonic method as follows: "[t]he success of the hedonic model depends on an adequate sample and the inclusion of enough control variables to overcome the heterogeneity implicit in price variation across transactions. "If successful, the hedonic model will impute prices for various characteristics as well as the average rate of return" (Agnello et al., 1996: 364). But again, the problematic aspects and potential biases may not be overseen.

4.2.2.3. Repeat-sales (regression) method

Since each work of art is per definition an *unicum*, the best way to study its price change over time seems to compare the price for a work of art at a time *t(1)* with the price at *t(n)*. This approach was developed by Baumol (1986) as the 'double sale method', in which the standard compound calculation is applied to estimate the price evolutions for paintings that are sold at least twice during a certain period (Locatelli Biey et al., 1999; Frey, 2003). The double-sales method was later refined to the repeat-sale regression (RSR) method, in which an index is estimated by "regressing the change in the (logarithm of the) price of each work on a set of dummy variables" (Gérard-Varet, 1995: 513).
This method has proven useful in real estate studies, but the following authors have, among others, applied the theory to art markets: Agnello et al. (1996), Anderson (1974), Baumol (1986), Goetzmann (1993), Locatelli Biey et al. (1999), Mei et al. (2002a), et al.

An important advantage of the RSR method is that specifying different variables is not needed, unlike for the hedonic price method. It has also proven his use in specific types of research where results from the same painting must be compared over a period of time, such as the research by Beggs et al. (2008). There are though also many disadvantages in using the repeat-sales method for the estimation of an art price index.

a. Problematic aspects and biases

Probably the most important drawback of the RSR method is the size of the dataset: using this method means working with a restricted number of observations, since only sales pairs are

qualified (Ashenfelter et al., 2003: 776; Candela et al., 1997: 177; et al.). In a smaller datasets short-time fluctuations might be more easily missed. Consequently, the hedonic price method has the advantage of being able to use all sales data, including the single sales. This may also bias the results of the RSR because of differences in the characteristics of repeat sales versus single sales; it could be for example asked whether the works which are resold are the 'good' works, or on the contrary often "lemons" (Chanel et al., 1996: 2-3).

As is emphasized by e.g. McAndrew (2010) it is an important requirement for the RSR method that the work of art remains unchanged between transactions; otherwise, the premise of the method that it gauges the evolution of the relative price of one work is not met. Since variables such as the characteristics of the potential buyers or the image of the work usually do change between transactions, this has important consequences. Also the context of the sale plays an important role here: if the art market is booming the resale price might be biased upwards, and vice versa. If the value of the work has not increased since the purchase, an owner might be reluctant to sell unless necessary (Goetzmann, 1993: 1371). This results in an upward bias of the index. Also the earlier mentioned "stylistic risk" encourages to resell or not, and influences the index upward or downward. Finally the problem of private sales which may occur between sales at an auction house must be noted; if one only uses auction resale results, these fall out and the results are biased (Chanel et al., 1996: 2; Ginsburgh, Mei and Moses, 2006: 950, 966).

There are a few more drawbacks that are specific for the RSR method, and do not occur when the hedonic method is used. First, the time period over which the index is estimated must be longer, since the period between two sales may vary. Therefore, trends on a micro level cannot always been captured. Secondly, the RSR is not adequate to estimate price indices for smaller market segments, because the sample would be too small (Ginburgh et al., 2006: 966). A third drawback is that with the RSR method, "the effects of changing characteristics between two sales", e.g. restorations, reattributions or of damages, are not captured which is possible with the hedonic price method (Ginsburgh et al., 2006: 966).

A final and more practical remark was made by Chanel et al. (1996) who state that using all sales results would avoid the "the difficult work of searching for paintings [or other art objects] which have been sold twice" (Chanel et al., 1996: 2).

b. Conclusion

It seems that using the RSR method entails some important drawbacks, which do not occur in using the hedonic price method. In specific cases such as the research that was performed by Beggs et al. (2008) the method is very useful, but based on the possible biases, using the hedonic method appears to give better results in larger studies.

4.2.3. Conclusion

Thus far, an overview has been given of the process of constructing art price indices. It has been made clear that all of the methods that can be used have benefits and disadvantages, and one should always keep in mind that several biases and problems can occur. It is up to each author or researcher to choose the method that is most suitable for the purpose of the research, “given the shortcomings of each one, and in particular, their dependence on the numbers of observations, and the possibility to describe objects characteristics” (Ginsburgh et al., 2006: 951). Throughout the history of the economic research of art markets many art indices have been composed by different authors – each with their own biases – but none of these is sufficient for this research since their focus lies on different market segments. For this research a new ‘auction index’ has been composed, and this process will now be elaborated.

4.3. Methodology master thesis

As has been made clear in the previous chapter the market for art contains many levels and researching it as a whole would be too extensive for a master thesis. Therefore, the scope of the research was limited into focussing on the secondary art market – and more precisely the auction market – as more data are available for this segment. The auction market – good for 45% of global art sales in value in 2009 (McAndrew, 2010: 19) – is dominated by two international auction houses – Christie’s and Sotheby’s, both founded in the 18th century. This duopoly shares 35% of the global auction market for fine and decorative art, and up to 55% when looking only at the fine art market (McAndrew, 2010: 29). Since they are internationally known and have been auctioning art over the entire course of the century, they might give a clearer picture of the links between evolutions at the global level and the

evolutions on the art market than smaller houses such as Bonhams could. Due to practical reasons we have chosen for Christie's – the current market leader.

4.3.1. Dataset: Christie's London Auction Index (*CLAI*) and Christie's International Index (*CII*)

Two datasets were composed for this thesis: one based on the data from Christie's London and one for Christie's International, with the sample period 1910-2010.
The first index – to which will be referred as the *CLAI* from this point on – is based on the monthly auctions revenues of Christie's salesroom in London between 1910 and 2010. The Choice for London was made because it is the only salesroom where auctions have been taking place during the entire sample period. For the *CII* the auction numbers for Christie's International have been used, but is has to be kept in mind that until the opening of the Geneva salesroom in 1968, Christie's London and Christie's International were in reality the same.

4.3.1.1. CLAI

The *CLAI* was constructed based on the monthly sales which were organised by Christie's London between January 1910 and December 2010. The auction results starting from January 1998 are made available on the auction house's website (http://www.christies.com/results/), but for the period 1910-1997 the results are not digitalised yet. The auctioneers books in which all necessary information on the auctions organised since the first auction on December 5, 1766 can be found, are kept in the archives of the global headquarters of Christie's in King Street, London. Due to Christie's privacy policy – the "50-year non-disclosure period" for external researchers – it was, however, not possible to consult the auctioneers' books starting from January 1962. Consequently, no monthly data were collected for the period between January 1962 and December 1997. The *CLAI* thus analyses the monthly sales data for the period 1910-1961 and 1998-2010. For the first data group, no buyer's premium was added as it did not existed then; for the second data group all prices include this premium.
For each sale, the number of auctions and the auction results per month were added and adjusted, and put into an excel file. Then the half year and year totals were calculated (appendix 2 and 3). In order to compose an index that could present an overview of how

Christie's London evolved over the past century taking into account the inflation rate which influences the image, we also converted the currency rates into the 2010 value of the Pound Sterling using the inflation calculator of the Bank of England (http://www.bankofengland.co.uk/education/inflation/calculator/flash/index.htm). The results in converted currency are also presented in an excel file (appendix 4). Based on these datasets, several sets of graphs were composed which can be found in appendices 6 to 10. The results will be analysed in the next chapter.

4.3.1.2. CII

In the *CLAI* there is unfortunately a gap of 36 years due to practical issues. Fortunately, Lynda McLeod, Librarian at Christie's archives, was able to provide us with a document in which the yearly auction revenues – without buyer's premium – from Christie's International between 1959 and 2009 were listed[19]. This enabled us to compose an index for the entire 1910-2010 period for Christie's International: the *CII.* As was stated before, until 1968 Christie's London and Christie's International were in reality the same company, but starting from that year new salesrooms were opened and their revenues were added to the data for the *CII*[20]. For the *CII* the results were put in an excel file and also converted into the 2010 currency rate (appendix 5). The *CII* was consequently put into two four graphs, which can be found in appendix 11. These results will be elaborated in the next chapter as well.

4.3.2. Financial indices

For this master thesis, we have opted for a very basic approach: descriptive statistics are used to present the collected data in a clear and insightful way in the form of graphs (Slotboom, 1996: 21). One sample of these data has been compared with indices in which evolutions in the economic sphere were represented, and the results of this analysis have been presented in a previous chapter. For that part of the research we have opted to confront the *CLAI* for the period 1998-2010 with the indices of the FTSE 100, S&P 500, Nikkei 225 and the Dow Jones

[19] Note that the data which were provided were adjusted to millions. Furthermore it must be emphasized that the data for the *CII* were year revenues, while for the *CLAI* monthly revenues were also collected. Furthermore, it is not shown how many auctions were organised.

[20] See appendix 1 for an overview of the recent history of auction house Christie's in which it is also displayed when new salesrooms were opened. Starting from these years their year-revenues without premium become part of the *CII*. This information is not directly shown in the index.

Industrial Average Index (appendix 12 and 13). The choice to only use the *CLAI 1998-2010* was made for practical reasons: most financial indices do not cover the entire 1910-2010 period, as for example the FTSE 100 was only launched in 1984. The mentioned financial indices were chosen because they are the most important stock market indices at this moment. Furthermore, we composed a graph in which the *CLAI 1998-2010* was confronted with the gold index; these results were presented in the paragraph tackling the issue of art as investment.

The website of the Financial Times turned out to be a valuable source for the financial indices (http://www.ft.com/home/europe). As financial markets change every day, it was important to try to capture its effect in daily updated indices. For the correlation with the art market, we composed an extra graph, based on the monthly sales between 1998 and 2010, which can be found in appendix 10.

4.4. Problematic aspects

Although it will become clear in the next chapter that the composed indices present an interesting overview of how the auction house Christie's presented over the 1910-2010 period, there are several problematic aspects linked to the composition of this type of index. First of all, it should be emphasized that the results cannot be generalised for the entire auction market, let alone the art market as a whole. Christie's is one of the top-two auction houses and only attracts – and accepts – works of art of a certain 'level of quality'. Consequently, results will also be biased upwards in comparison to the auction market as a whole. Furthermore, results always depend on what is made available for sale, and as works of art are heterogeneous goods and subject to high illiquidity, no two auction years are even approximately the same. It is also the case that the auction house itself changed over the sample period, both as an organization and as a 'brand', which also has an impact on the results. And finally, it should also be kept in mind that the features which were analysed in the chapter on the art market play their role in the developments. Shifts in supply, demand, tastes and preferences can and have changed evolutions without the possibility for researchers to observe them in the present.

It is crucial to keep in mind that the results do not say everything. In order to receive information about the entire art market, other aspects such as the overall volume of transactions, the presales estimates or the bought-in rate also play an important role.

V. RESULTS

5.1. Introduction

In the chapter on the chronological relation between the art market and the economy, several events were introduced for which research has been performed, but one of the main conclusions was hat several topics have been left untouched. In this chapter a first attempt is made to fill the some of the existing gaps by making a thorough analysis of the developments at auction house Christie's over the period 1910-2010. The composing of the indices was already elaborated in the previous chapter, and now the results will be presented of the composed graphs.
In the second section of this chapter the evolutions of the *CLAI 1910-1961* and *CLAI 1998-2010* will be discussed, followed by the analysis of the *CII* in section three.

5.2. CLAI, 1910-2010

In appendix 8 two graphs can be consulted in which the evolution over the entire 1910-2010 period is drawn, including the gap[21]. As becomes clear from both graphs, the gap between December 1961 and January 1998 covers a difference of £469.6 million, which means that over less than 40 years the revenue of Christie's London was multiplied by ten. Consequently we can say that although we are in theory talking about the same auction house, there is an important difference between Christie's London before and after the gap. The London office has expanded with the opening of Christie's South Kensington in 1975, but also in terms of business organisation and branding the auction house has professionalised and adapted itself to the standards of an international company – probably partly caused by the competition with Sotheby's. We could therefore say that the context in which the auctions are organised has changed, and this is clearly reflected in the graph. To put the change even more importunately, we could give the example of the Impressionists and Modern pictures and sculptures auction from June 25, 1990 which yielded a total of £76.983.223 – i.e. £43.428.000 in 1990 currency. This implies that in one auction in 1990 almost double of the entire year revenue of Christie's London in 1961 was fetched.

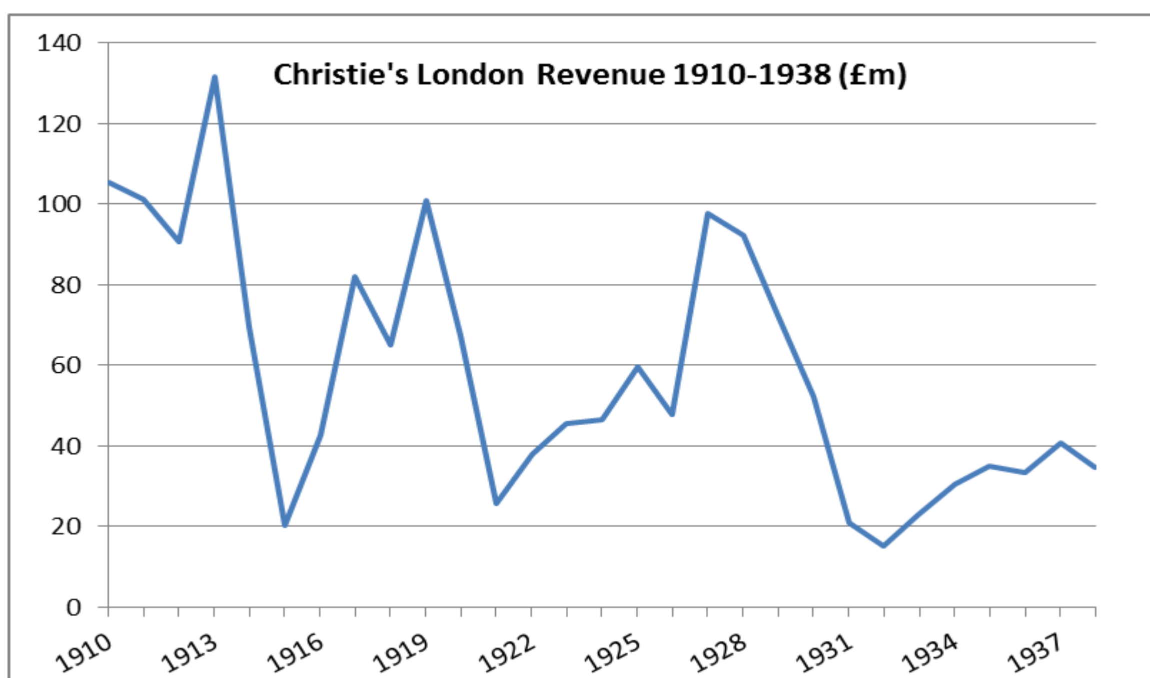
[21] In the second graph, we have plotted the y-axis on a logarithmic scale in order to represent the evolutions in such a way that the large difference in value between the periods before and after the gap does not influence the image too much.

Note furthermore that although we cannot observe directly which evolutions occurred during the gap, we can more or less suspect that despite the general growth – not to use the word 'boom' – over the sample period, important oscillations have taken place e.g. during the end of the 1980s and the beginning of the 1990s.

For the detailed analysis of the *CLAI 1910-2010* we have divided the entire index into three sample periods: 1910-1938, 1939-1961 and 1998-2010. These will be analysed and compared to the general art market evolutions over the period as documented in the chapter on the chronological relation between the art market and the economy.

5.2.1. 1910-1938, an oscillating curve

As was summarised in a previous chapter, the period before the outburst of the Second World War was one of ups and downs for the art market. It becomes clear from the graph below that this generalisation also applies for Christie's London. Peaks are quickly followed by sharp declines and one could easily relate this to bubble-like behavior. The 'essential' bubble-features – i.e. for example prices which do not reflect the intrinsic value of the works – are not mentioned in existing research, but further research is required in order to ascertain or contradict the hypothesis.



Graph 4: Evolutions Christie's London yearly auction revenue, 1910-1938.

What is remarkable about this graph is the absolute lack of any stability whatsoever. Nevertheless, the general trends do reflect the conditions of the overall art market as it was described in a previous chapter. Our results e.g. confirm Reitlinger's observations that on the eve of the First World War, the art market was peaking, although the absolute peak was not in the year 1912 but in 1913. During the war period from 1914 until 1918 the index is rather oscillating, but the main part of the drops and peaks can easily be explained. The drop with more than 84% between 1913 and 1915 can for example be linked to the drop in the number of auctions – and consequently also in the number of lots brought for sale – over the period from 84 to 47 (appendix 7). This large decline is followed by a fast recovery, both in revenue and in number of sales, to end in the last year of the war with another drop. Eventually, over the entire war-period a drop in revenue of almost 51% was felt by Christie's London. The virtual cushioning of the art market from the economic effects of the war by the presence of American buyers, to which was referred by Reitlinger, had apparently only limited effect on Christie's London. A research on the American share of the buyers at the auctions before, during and after the war could probably give some answers related to this subject.

The effects of the European depression following the war are clearly reflected in the *CLAI 1910-1961* as after a short flare in the aftermath of the First World War the index dropped again and almost reached a new nadir. Nevertheless, starting from 1921 a steady growth can be observed, while simultaneously the inflation rate also starts to increase from varying over 4.1% per year to 5% by 1930 (appendix 4). The depression year 1926 in the United Kingdom is also manifested in the index, as is the "false boom" following it.

What becomes clear from the foregoing graph is that the impact of the Great Depression on Christie's London was larger than the impact of the First World War, which is also the general insight about this period. It is however striking that already before the Wall Street stock market crash took place, the index showed signs of weakness, with a 'small' decline between 1927 and 1928 of £6 million[22]. This can be explained by the general economic instability prior to the actual crash. The effects of the Great Depression caused a new nadir in the *CLAI* in 1932, with a drop of 84% in sales revenue in comparison with 1927, and 88% with the absolute peak of 1913. It would take until after the Second World War – probably even until the early 1990s – for a similar 'crash' to occur. In the aftermath of the new nadir,

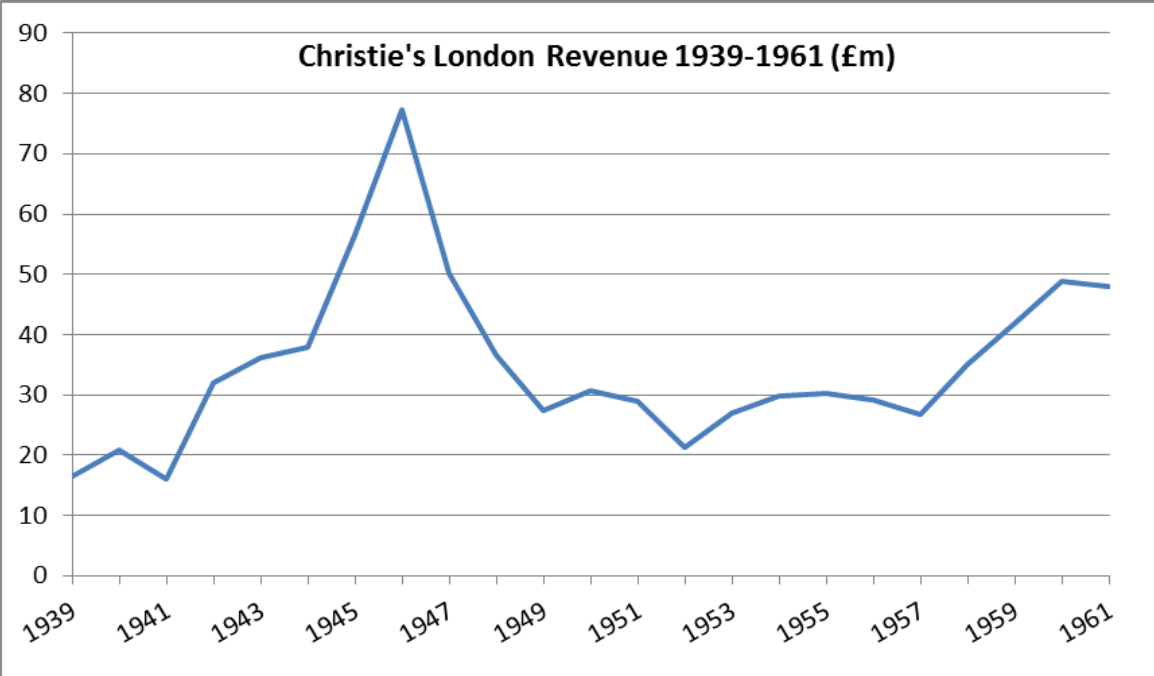
[22] All the numbers used in the further course of this thesis are converted into 2010 currency rate.

the *CLAI* remains more or less stable – i.e. no remarkable increases or decreases could be noted until the outburst of the Second World War.

It is important to emphasize that over this period besides the economic situation also socio-political developments and historic events had their impact on the index. There is of course often a causal relation between these and the evolutions in the economic sphere, but the impact of e.g. the First World War on Christie's London reached further than only the effects of the economic downturn. This will become even clearer during the following sample period, as e.g. bombings made it practically impossible to organise auctions.

5.2.2. The extended WWII period, 1939-1961

The auction revenues of Christie's London remained relatively stable after the impact of the Great Depression, and continued to be as such during the first war years.



Graph 5: Evolutions in revenue in Christie's London, 1939-1961

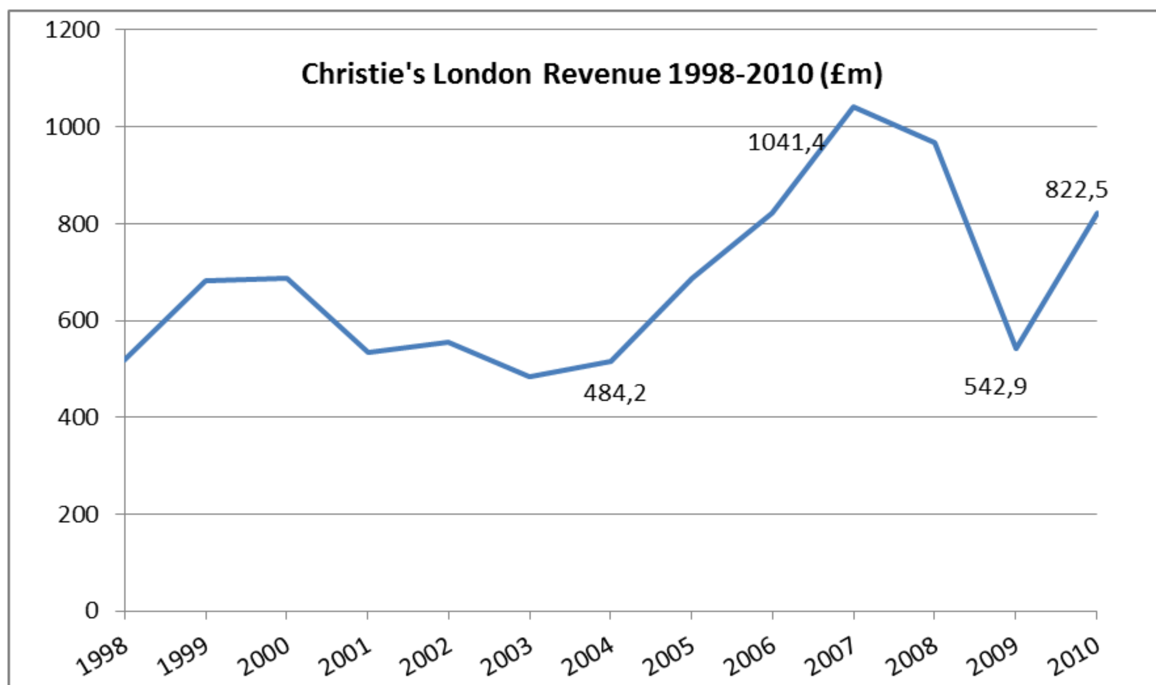
As was mentioned in the previous chapters, the United Kingdom was not affected by the Second World War as were the countries in continental Europe. This is also reflected in the index, as despite what one would expect during war times, there is a growth in auction revenue at Christie's London. The exception is a small contraction in 1941, but this is easily

explained by referring to the blitz in the night of April 14, 1941 when the King Street offices were bombed and Christie's was obliged to move its salesroom to Derby House, near Oxford Street. They would return to the King Street headquarters in 1953.
The observation made by Reitlinger that nothing spectacular happened during the 1945-1946 season is contradicted by the results for Christie's London. Although the peak in 1946 remained far below the levels of the previous peaks in 1913, 1919 and 1927, it would be the only 'peak' in the documented after-war period for several decades. After 1946, the *CLAI* reflects the depressing socio-economic situation, but by the end of the sample period a positive evolution seems to have started, as was also the case for the art market in general (Reiltinger, 1982).

For this sample period the same question imposes whether or not the doubling of the auction revenue in two years – from £37.9 million in 1944 to £77.2 million in 1946 – should be explained by bubble-like behaviour or by other factors as e.g. the end-of-war euphoria. A more thorough analysis of the period is needed before conclusions can be made, but it should be said that by no means the peaks in the *CLAI 1910-1961* could be compared with what happened during the following sample period: 1998-2010.

5.2.3. CLAI, 1998-2010

Before starting with the analysis of the *CLAI* for the 1998-2010 period it is important to emphasize again that we are actually talking here about a completely different auction house than in the previous periods, both in size and in professionalism. This implies that although at first sight the graph below might not seem as spectacular as the earlier graphs – as there are less subsequent high and lows – in reality the one peak which emerged during this period was more prominent than the multiple peaks in the previous sample periods.



Graph 6: Evolutions in revenue Christie's London, 1998-2010

We could divide the graph above in two periods – 1993-2003 and 2003-2010 – in which a somewhat similar evolution occurred; growth, stabilisation, and decline. The scale of both trends is, however, totally different.

At the end of the 1990s the market for art had largely recovered from the blow it received in the early years of the decade, and as the graph indicates the curve was going up. Between 1999 and 2000 the growth stopped however, which is remarkable as in the literature this has not been mentioned and for Christie's International (cfr. infra) the growth continued. There does not appear to be an explanation for this evolution, but it is probable that some internal developments lie at the basis.

The decline in 2001 and 2002 as a result of the economic instability in the aftermath of 9/11 has, nevertheless, been mentioned several times, e.g. by Artprice in their report on the 2002 international art market (Artprice, 2003). Furthermore, the impact of the lost civil suit in September 2001 in the context of the Sotheby's-Christie's price-fixing scandal which forced the auction house to pay $256 million, can also form an explanation for this short dip (Ashenfelter et al., 2004).

After this contraction, however, a new period started and a small growth between 2003 and 2004 broke loose into an absolute boom, eventually growing into a bubble which collapsed. Between 2003 and 2007 the *CLAI* rose with more than 53%, with the sharpest per-year increase between 2006 and 2007 when the revenue grew with 21%. The results of this bubble

have been emphasized sufficiently in previous chapters. Notwithstanding, attention should be drawn here to the last three years of the index. Although between 2008 and 2009 the index contracted by 44% – which is more than the contraction of 26% in the international market – the consequences did not last as long as they did for example after the crash in the early 1990s. On the contrary, already the year after the 'crash' the revenue boomed again. The use of the term 'boom' is not an exaggeration in this case as revenue increased with 34% between 2009 and 2010, which means that the gradient is even sharper than between 2006 and 2007. Although the market has changed and the conditions for the emergence of a bubble are not met at the moment, this result is remarkable and raises some questions on whether the market is heading for a new bubble again.

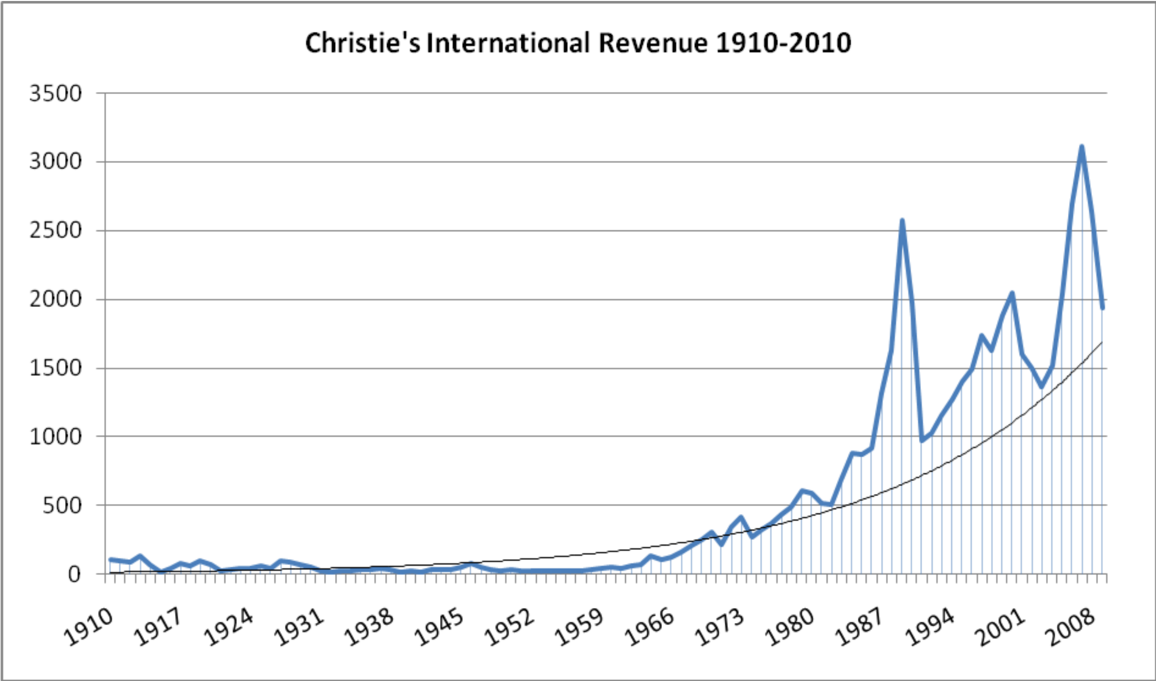
5.2.4. Conclusion

The analysis of the *CLAI 1910-2010* has made it clear that although research has been done on the behaviour of the market for art over this period, several evolutions still go without an adequate explanation. More research has to be conducted, certainly for the period before the 1980s, which has been studied extensively due to the emergence of one of the biggest bubbles in art market history. As auction houses have opened up their archives for the entire 1910-1960 period, there are no excuses left to leave the period aside.

5.3. Christie's International, 1910-2010

The graph below draws the picture of the evolutions of Christie's International auction revenue's converted into 2010 currency rate for the entire sample period. It leaves no openings for debate: the exponential growth of the auction revenues of Christie's during the second part of the sample period is remarkable. The search for an explanation for this phenomenon has not yet been conducted, but it is sure that features such as the further globalization of the market in general and changes in the distribution of wealth have had an impact. Also the opening of salesrooms outside London starting from 1968 is an explanatory factor, as their revenue is added in order to calculate the revenues of Christie's International. The relatively sudden growth in the index already started before the opening of salesrooms outside the United Kingdom, however, as for example between 1963 and 1964 the revenue

almost doubled. There are no clear indications which might explain this, besides the aforementioned 'over-exuberant economy' during the first half of the sixties.

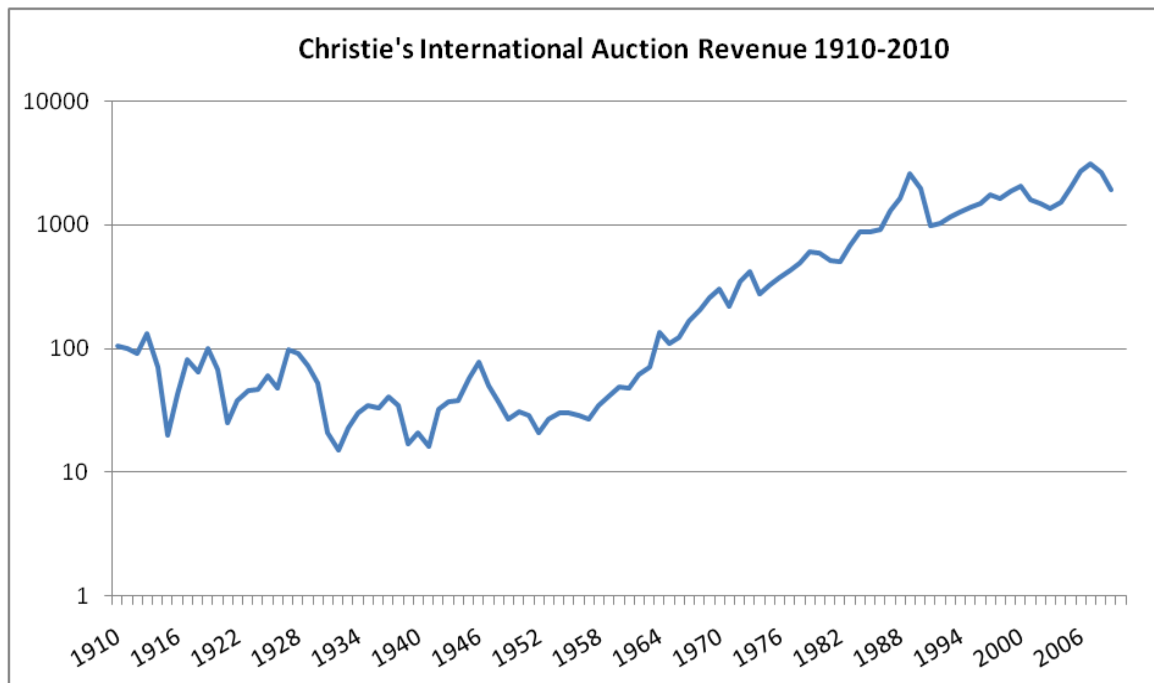


Graph 7: Christie's International auction revenue, 1910-2010

As has been emphasized, Christie's London and Christie's International were until 1968 in practice the same company. Consequently, the same issues which were elaborated in the previous paragraphs apply for the first 58 years of the *CII* as well and will not be repeated. In the following paragraphs we will focus on the evolutions after 1961, which are documented in the graph above and expose several interesting developments. First, we will however elaborate on the entire sample period using a semi-log graph which enables us to look at the evolutions of the CII 1910-2010 from an other perspective.

5.3.1. CII, Semi-log graph 1910-2010

Using a semi-log graph to present the data enables us to somewhat overcome the large difference in scale between the period before and after approximately 1963. The graph can however also give a biased image as e.g. the decreases during the First World War or in the wake of the Great Depression appear to be larger than those in the 1980s or 2000s which was in fact not the case.

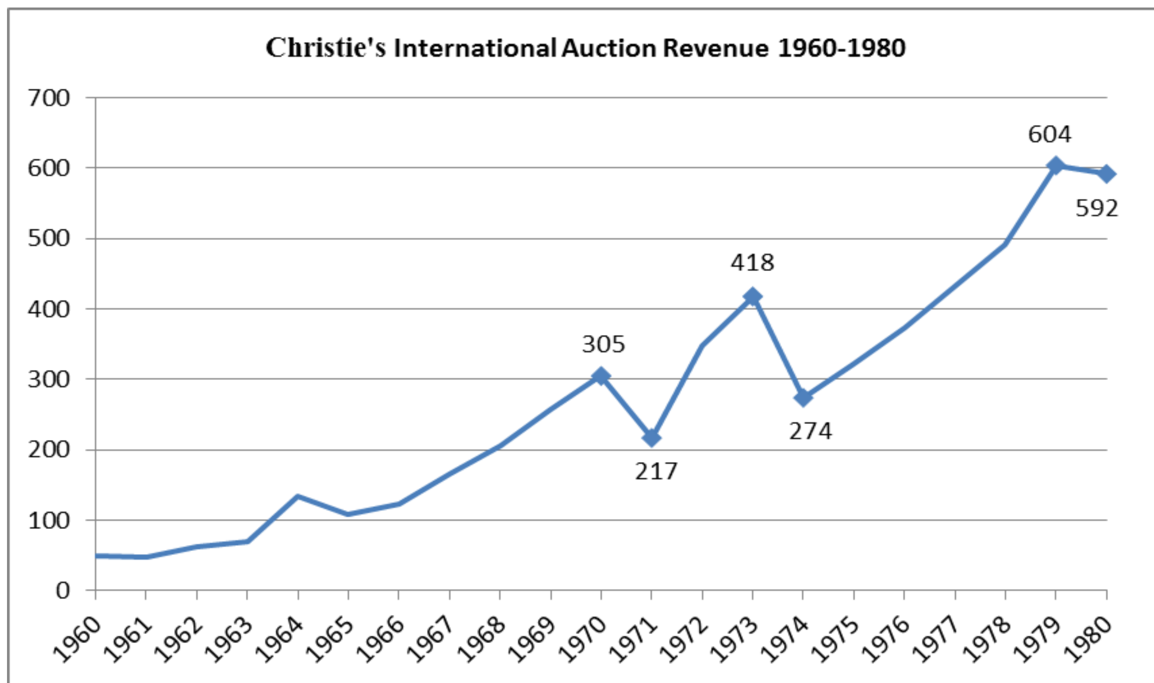


Graph 8: Christie's International auction revenue, 1910-2010; semi-logarithmic graph

Nevertheless, it becomes clear from the semi-log graph that the evolutions in the first half of the century should not be underestimated because of their smaller scale. More research is however needed in order to get a better understanding of the specific features which have driven the developments.

5.3.2. CII, 1961-1980

In the period between 1960 and 1980, the *CII* appears to reflect the general image of the art market which was documented in a previous chapter. As e.g. Reitlinger observed, the art market started growing in the 1960s, and between 1960 and 1970 the revenue of Christie's International grew with 84%. The credit crunch of 1966, the 1967 sterling crisis, and the gold crisis of 1968 are not reflected clearly in the graph, which can be explained by Reitlinger's statement that during this period the idea of art as an alternative investment became popular.

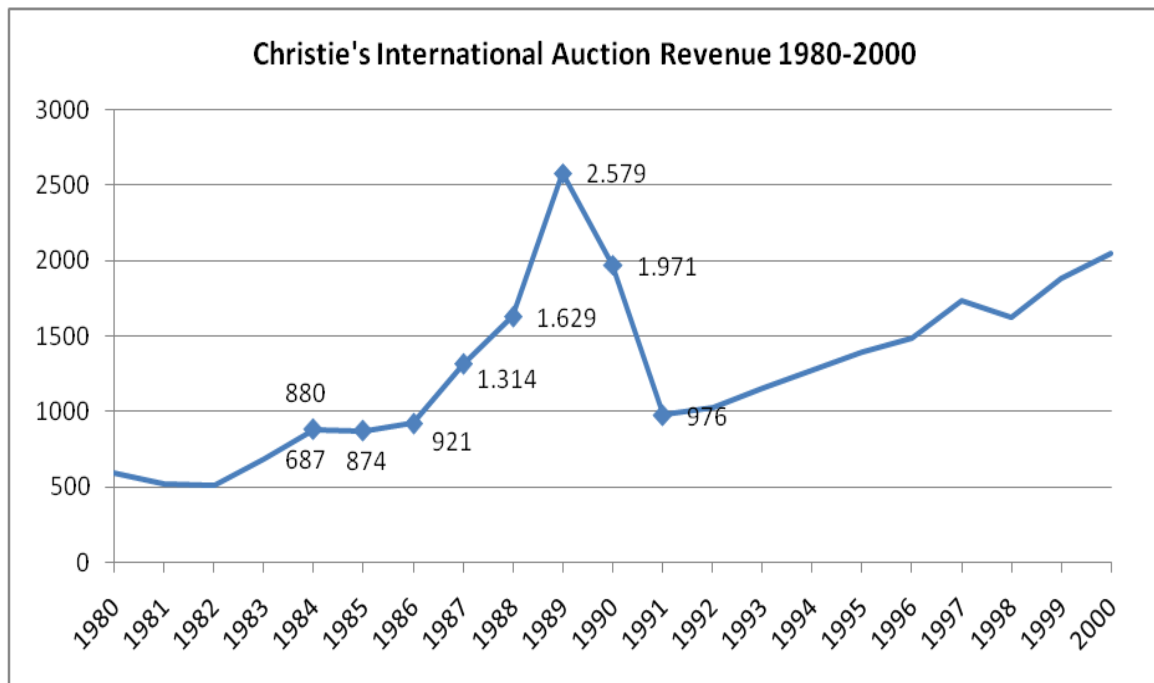


Graph 9: Christie's International auction revenue, 1960-1980

Over the next decennium, the revenue increased overall with 48%. The growth was, however, not constant: in the periods 1970-1971 and 1973-1974 there was a contraction with respectively 29% and 34%. There are no particular events explaining the first dip, but concomitant with the decrease between 1973 and 1974 was the first 'oil shock' which weighed on all markets, including the one for art. If there is a link between the short dip and Christie's becoming a public company operating on the London Stock Exchange in the same year has not yet been investigated. The second oil shock which occurred in 1979-1980 does not show as clearly on the index, although the revenue did contract with 2%.

5.3.3. CII, 1980-1998

The first graph representing the *CII 1910-2010* already draw attention to the 1980s bubble and its burst in the early 1990s, as it appeared to be the first major oscillation in the index. We already pointed out that this is a somewhat biased perspective, but nevertheless the scale of oscillation was unseen. The peculiarities of the events in the 1980s have been elaborated before, but based on the *CII 1980-2000* we can observe how the events impacted the developments of Christie's International over the period.



Graph 10: Christie's International auction revenue, 1980-2000

Expressed as percentages the evolutions for Christie's International over the 1985-1991 period are the following:

£m	1984	1985	1986	1987	1988	1989	1990	1991
Christie's International	880	874	921	1314	1629	2579	1971	976
%	+22%	-1%	+5%	+30%	+19%	+37	-24%	-50%

Table 3: Christie's International auction revenue, 1984-1991

This means that at the absolute peak of the bubble in 1989 the revenue of Christie's International was 66% higher than in 1985, and it was followed by a decline of 62% over the next two years. Note nevertheless that the 1991 revenue was still higher than the 1986 level, and consequently the general upwards trend was in fact not interrupted. A similar evolution was also observed for the most recent oscillation which was already elaborated before for the London branch of Christie's and will be analysed next for Christie's International. This feature does nevertheless raise the question whether it is something typical for an art market bubble that the oscillation occurs but does not change the general evolution of the – in this case auction house's – revenues.

It would take until 2006 to reach the 1989 level again, and it is probably no coincidence that this is the year in which the start of the 'contemporary art' bubble is situated.

5.3.4. CII, 1998-2010

Despite a small dip in 1998, the last decade of the 20th century had been one of steady growth for Christie's International, be it that the auction house was still recovering – as was the entire art market – from the burst of the 'Impressionist's bubble' in 1991. In the graph below, the evolutions of Christie's International and its London branch are compared, and a few interesting features can be observed. The difference in their evolutions over the 1998-2001 period was already mentioned before, and this is clearly shown in the graph. While the revenues of Christie's International keep increasing between 1999 and 2000, the growth flattens for the London salesroom. A clear explanation for these developments has not yet been found.

Graph 11: Overview auction revenue Christie's London – Christie's International, 1998-2009/10

The larger growth in the *CII* is also followed by a sharper decline in the aftermath of 9/11 and the aforementioned civil lawsuit, in comparison with the *CLAI*. It also takes longer for Christie's International to bend the curve into a positive trend, but a 'cautious' start with a growth of 10% launched the beginning of a new bubble.

Only 15 years after the collapse of the 1980s bubble, a new bubble emerged in the art market. That its consequences were also felt by Christie's is clear, but what is reflected in the graph above is that in comparison with its branch in London, Christie's International was more impacted by the bubble and its burst.

£m	2005	2006	2007	2008	2009
Christie's International	2034	2690	3108	2643	1941
%	+25%	+24%	+13%	-15%	-27%
Christie's London	687.2	823	1041.4	968.6	542.9
%	+25%	+16%	+11%	-7%	-44%

Table 4: Overview auction revenue Christie's London-Christie's International, 2005-2009

The same issues that could be observed in the graph are reflected in the percentages in the table above: during the 'bubble period' between 2005 and 2007 the *CLAI* is a less extreme version of the *CII*. This can be perhaps partly be explained by the fact that London was not the 'real' centre of the market for contemporary art, which was the segment were the main part of the high prices were fetched, but this explanation does not seems to be satisfactory. More research has to be conducted in order to explicate this feature.

Initially, the impact of the bubble's collapse was felt harder by Christie's International in comparison to the London branch, which is logical as it is known that e.g. Christie's Amsterdam had to send the best – read 'most expensive – works which were offered to them for sale to London, so they could be auctioned there in order to present relatively good results to the press. In the second year of the collapse, the *CLAI* is however more affected by the burst as it falls with 44% in comparison to a 27% decrease for the *CII*. A partial explanation for this evolution can be found in the table below.

	2007	2008	2009
Europe + UK	£1.315 billion (+28%)	£1.236 billion (-4%)	£1 billion (-17%)
Paris	£125 million (-6%)	£117.8 million (-6%)	£389.9 million (+231%)
Switserland	£92.5 million (+18%)	£77.3 million (-16%)	£64.2 million (-17%)
Amsterdam	£50 million (+18%)	£37.8 million (-24%)	£30.6 million (-19%)
United States	£1.323 billion (+15%)	£1.022 billion (-22%)	£599.6 billion (-42%)
Hong Kong	£234 million (+23%)	£248.5 million (+6%)	£217.6 million (-12%)

Table 5: Overview Christie's International revenue per country, 2007-2009 (De Strooper, 2010: 31-32).

A first striking feature which becomes clear from the table is the negative result for the salesrooms in the United States in 2009. Together with the fall in the revenues from the salesrooms in London it seems to be that the two branches were the most expensive works are sold in general and which get most media attention, are also those who were affected the hardest by the collapse of the market bubble. Besides these striking negative results for the salesrooms in the United States and London, there is another highly remarkable issue which explains the relatively good results for Christie's International, despite the disastrous figures for their two most important offices: the results of Christie's Paris are very high. This increase of 231% in comparison to the year before is explained by the extraordinary auction of the collection of Yves Saint Laurent and Pierre Berger, which made £304.9 million. Because of this sale, Christie's International could still flaunt with relatively good results considering the crisis-period in which they were operating, but the image that they presented was biased

taking into account that e.g. the number of works offered for sale decreased with 34% between 2007 and 2009 (Artprice, 2009: 12).

5.3.5. Conclusion

Over the past fifty years, Christie's has become an international company with branches in every continent. This has had an impact on the organisational aspects of the auction house, but also on its scale. As has been emphasized: the auction house Christie's in the 21th century differs more from the auction house in the first seventy – maybe even eighty – years of the previous century. This also means that externalities have to be taken into account when analysing the evolutions of the auction house, as e.g. internal reorganisations in the different branches will affect their revenues. A more thorough analysis needs to be conducted, but a cross was already given in this chapter.

5.4. Conclusion

The analysis of the *CLAI 1910-2010* and the *CII 1910-2010*, and the comparison with the evolutions of the art market in general as they were summarised in an earlier chapter have made it even more clear that speaking of the art market as an entity is not an adequate description. Christie's being an indicator of the absolute top segment of the auction market – and consequently also of the art market as a whole – has gone through evolutions which did evolutions which did not reflect the state of the 'general' art market, but rather were initiated by internal developments.

Although Christie's is definitely a good representative of the top layer of the market, an analysis of the other segments – both secondary and primary market, organised and unorganised market – has to be conducted in order to make statements about the entire market for art.

VI. CONCLUSION

Originating in a question on recent art market history, this master thesis has revealed that when it comes down to the bubbles that have been emerging in this market there are still large gaps in our knowledge. Although market researchers in almost every niche market – be it the market for stamps, tulip bulbs or stocks and bonds – have been analysing and defining the phenomenon for their particular market segments, art market research has left the subject more or less aside. Consequently, this thesis might function as a starting point for future research on the rather intriguing concept.

Throughout the research it has become clear that the emergence of bubbles in the market for art is a rather difficult concept – to say the least – and that it is hard to grasp the full extent of the phenomenon. It is indeed the case that there is no market like the art market, and it are these market-specific features – such as the fact that regulations are scarce, and the problems with (asymmetric) information – that make it vulnerable for the occurrence of oscillations such as the emergence of bubbles. For example relatively un-straightforward features like taste and sociological concepts such as herd behaviour or behavioural anomalies contribute to the creation of what is in fact a receptive market for this type of developments. We have searched and defined the features that induce these events, and have furthermore observed that the context in which the market acts also has an impact. Both developments in the economic sphere – e.g. recessions, changes in the distribution of wealth etcetera – and in the socio-historic sphere – for example wars – shape this context, thereby impacting the processes in the market for art.

As it turns out, it is a 'perfect mix' of economic, cultural, socio-political and other factors, which creates the 'perfect environment' for an art bubble to emerge. There are, however, several influencing factors and concepts which have only been introduced in this thesis, and need further elaboration in order to gauge at their specific importance for the emergence of a market bubble. The impact of value for example is one of these, and leads us back to the introduction of this thesis, and more specifically to the introductory example of the seventeenth century tulip bubble. A feature which tulip bulbs and art have in common is that they both have a limited intrinsic value. As the basic definition of a bubble, as it was formulated in the first chapter, is that the link between price and intrinsic value is lost, this raises several questions. Is it possible to define a bubble in the art market as based on the

relation paid price - intrinsic value if we cannot say whether a work of art is overpriced or underpriced? And how is the value of art impacted by the emergence of a bubble, both in the short- and long-term? Fortunately, we have been given the opportunity to elaborate further on this topic, and hopefully all these questions will find an answer in the near future as they will be the subject of a PhD with the same working title as this thesis, as it is clear now that there simply is no bubble like an art bubble.

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APPENDIX 1: Short Corporate history Christie's[23]

1941: Christie's suffers from blitz. Temporarily relocation to Derby House and later to Spencer House

1953: Return to re-built King Street premises

1958: Opening office Rome, Italy

1968: Opening salesroom Geneva, Switzerland

1969: Opening offices Paris, France; Melbourne, Australia and Tokyo, Japan

1973: Christie's becomes a public company on the London Stock Exchange

Opening office and salesroom Amsterdam, the Netherlands

1975: Opening salesroom South Kensington, London

1977: Opening salesroom Park Avenue, New York

1978: Opening salesroom Zurich, Switzerland

1986: Opening salesroom Hong Kong

1987: Van Gogh's *Sunflowers* sold for £24.750.000 at Christie's London

1989: Opening salesroom in Melbourne, Australia

1990: Van Gogh's *Portrait of Dr. Gachet* sold for £49.1 million in Christie's New York

1998: Artemis S.A. led by François Pinault acquires Christie's

1999: Christie's becomes private company

2000: Opening new American headquarters, Rockefeller Plaza, New York

[23] Sources: e.g. http://www.christies.com/about/company/history.aspx.

2001: Opening salesroom Paris, France

Civil suit Sotheby's-Christie's price-fixing scandal (September)

2005: Opening office Dubai, United Arab Emirates

2006: Opening salesroom Dubai, United Arab Emirates

Opening salesroom Milan, Italy

Salesroom Australia closed and becomes office

Launch of Christie's LIVE™

2007: Acquisition Haunch of Venison, contemporary art gallery

2009: Auction collection Yves Saint Laurent and Pierre Bergé in Paris, France

Launch iPhone application

2010: Opening office Moscow, Russia[24]

[24] Christie's now has 73 offices in 32 countries including 11 in the United States, and is represented in every continent.

Appendix 12: Christie's London 1998-2010 and financial indices

In the graphs below an introductory comparison is made between the performance of the auction house Christie's in London between 1998 and 2010 in terms of the auction revenues, and several financial indices[25]. These graphs clearly demonstrate how Christie's as an indicator for the art market reacts on developments in the financial sphere, in this case represented by 4 of the most important international financial indices, i.e. the FTSE 100, Dow Jones Industrial Average, Nikkei 225 and S&P 500.

FTSE 100

The FTSE 100 – short for Financial Times Stock Exchange as it was in 1984 composed by a joint venture between the homonymous newspaper and the London stock exchange – is an index which comprises "the 100 most highly capitalised blue chip companies, representing approximately 81% of the UK market" (http://www.ftse.com/Indices/UK_Indices/index.jsp).

Graph 1: Evolutions FTSE 100 (red), Christie's London monthly revenue (blue) and Christie's London yearly revenue (green), 1998-2010.

As we can observe from the graph above, there seems to be some kind of 'correlation' between the evolutions of the FTSE 100 on the one hand and the results of Christie's London on the other over the sample period, be it that this correlation is not particularly straightforward. In general, the trends move concomitant, but some of the short-term developments such as the dip in the FTSE 100 in the second half of 1998 are not reflected as such in the *CLAI*. There are some indications of the aforementioned 'time gap' between

[25] See paragraph 4.3. for contextualisation of the graphs.

events in the financial markets and the reaction of the auction world, but a more thorough and detailed analysis of the data is necessary in order to formulate conclusions regarding this topic.

Dow Jones Industrial Average

One of the most well-known financial indices in the world is the Dow Jones Industrial Average – also known under its other names 'the Dow Jones', 'the Dow 30' or 'the Dow'. Officially launched in 1896, the DJIA is a stock market index which includes 30 funds, and although its 'relevance' for the financial markets has decreased over the years, the index remains an important tool for historical research on stock market behaviour (http://www.dowjones.com/history.asp).

Graph 2: Evolutions Dow Jones Industrial Average (red), Christie's London monthly revenue (blue) and Christie's London yearly revenue (green), 1998-2010.

In comparison with the FTSE 100, the DJIA seems to have gone through more 'extreme' oscillations over the sample period. In general, the evolutions are however similar, and consequently the same conclusions apply for the relation DJIA-*CLAI*.

Nikkei 225

Launched in 1950, the Nikkei 225 is a national stock market index representing 225 Japanese shares. In the context of art market research the index is probably most known for its crash in 1989, the consequences of which are elaborated in this master thesis.

Graph 3: Evolutions Nikkei 225 (red), Christie's London monthly revenue (blue) and Christie's London yearly revenue (green), 1998-2010.

In comparison with the previous more 'western' – read: Anglo-Saxon – oriented indices, the evolutions of the Nikkei 225 are slightly different, but the general trends are rather similar. Therefore, more detailed research is required in order to compare the evolutions of each financial index with the evolutions of the *CLAI* over the sample period, as has already been done by e.g. Chanel (1995) for earlier periods.

Standard and Poor's 500

Although the agency was recently in the news because it lowered the credit rating of the United States, Standard and Poor's is also known for the S&P 500, an index which comprises 500 of the most important American companies.

Graph 4: Evolutions S&P 500 (red), Christie's London monthly revenue (blue) and Christie's London yearly revenue (green), 1998-2010.

As has been stated repeatedly, the evolutions of the *CLAI* reflect those of the financial index, and analysing these developments in more detail would enable us the formulate conclusions on e.g. the relation between the two spheres.