

Calculating art investment returns: Why academic knowledge does not reflect the reality of investing in art

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Abstract

This article addresses the calculation of art investment returns. The literature review summarizes seminal papers assessing the rate of return on investment in art, focusing on how they handled auction price data, controlled for additional costs and biases, and calculated returns. It argues that omitting selection biases, transaction costs, maintenance costs, and handling costs results in an assessment of the rate of return on art investment that strays from reality. Building on existing knowledge, the article claims that correcting auction price data for these factors leads to more accurate return estimation, aiding comparisons with other financial assets and decisions on art in diversified portfolios. The factors that need to be considered when calculating the profitability of works of art are summarized to improve academic practice and enhance understanding of art investment. The conclusion yields speculations about further implications of correction suggestions and discusses the limitations art market studies face.

Keywords: investment in art, art returns, art market, auction prices, wealth management

Introduction

Art prices in recent decades have reached staggering amounts in auction sales. Collectors and investors regularly spent record amounts on acquisitions on the global auction market (Artprice, 2024). Simultaneously, an increasing number of investors and wealth managers are allocating proportionally larger shares of their portfolios to alternative assets, such as artworks. According to the Art & Finance Report 2021 (Deloitte Luxembourg, 2021), wealthy collectors allocate 10 to 30 percent of their wealth to art and collectibles which makes investing in art a significant aspect of wealth management.

The question of whether to include art in investment decisions for purely financial reasons has been the subject of attention of economists and academics for several years and is still a frequently debated topic. Since the 1970s numerous scholars have devoted their research to examining the prices of artworks, their development, and return on investment in such assets, especially in comparison with other financial assets. While the academic literature has traditionally found that art in general underperforms financial assets (Anderson, 1974; Baumol, 1986; Frey & Pommerehne, 1989; Pesando, 1993; Worthington & Higgs, 2003), some scholars are arguing that art, in general, or specific categories of artworks in certain time periods have the potential to generate higher returns than some financial assets (Buelens & Ginsburgh, 1993; Goetzmann, 1993; Barre et al., 1996; Mei & Moses, 2002). More recent studies pursue the idea of including art assets in diversified investment portfolios for their low or even negative correlation with other asset classes (Ashenfelter & Graddy, 2003; Campbell, 2008).

The above-mentioned studies and others trying to calculate the return on investment in art using indices face the same problems and shortcomings. Art is a peculiar asset, and its acquisition and ownership are

associated with several additional costs which require careful thought, understanding of art markets, and extensive data. Nevertheless, academic knowledge to date often neglects aspects related to investment in art and does not include all costs and biases in the calculation of returns on the artworks (Frey & Eichenberger, 1995). This omission leads to the fact that assessed performances are mere estimates of the real profitability art ownership represents and as such should be regarded as an upper bound on the average rate of return obtained by investors over the period (Mei & Moses, 2002; Renneboog & Spaenjers, 2013). Hitherto perceived low return on works of art and the high risk associated with the possession of these assets (Renneboog & Spaenjers, 2013; Kräussl, Lehnert, & Martelin, 2016; Stein, 1977) after correction for additional costs and biases will make an investment in art less profitable and riskier.

This paper addresses those shortcomings by conducting an exploratory literature review that aims to identify, how different papers dealt with examined data sets of auction prices, revised, and controlled for additional costs and biases, and calculated returns of art investments. Even though scholars widely acknowledge numerous aspects influencing the calculated rate of return on art, they frequently merely discuss them in the limitations and, for convenience, do not include them in calculations. The essay claims that neglecting selection biases, transaction costs as well as insurance, handling costs, and other additional costs or benefits results in misleading calculations of returns on artworks, especially when these findings serve for comparison of performances with other financial assets, or decision-making whether to include artworks in diversified portfolios.

This idea is supported by some of the recent studies, which demonstrate that correcting for a certain bias can significantly affect the results. Korteweg et al. (2016) imply that the average annual return on the corrected index is 28 percent lower than the average return on the uncorrected index. Given that this particular study checked solely on selection bias, controlling for other aspects would make the difference even more considerable.

Methods

This literature review employed the PRISMA framework (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) to pinpoint the essential papers on art investment returns (Rethlefsen et al., 2021; Page et al., 2021; Thomas & Harden, 2008). The articles were searched for via Web of Science search engine, Google Scholar, Scopus and AI search assistant Elicit. Data regarding used sample, chosen period for examination, method, calculated nominal and real return, comparison with other financial assets' performance and especially consideration of additional costs and consideration of selection bias were further analysed, pointing out major obstacles and shortcomings accompanying the usage of uncorrected auction prices. The essay then summarizes which factors need to be considered when calculating the profitability of works of art, convinces why it is important not to neglect them and formulates recommendations on how to avoid these errors in future research to create better academic practice and develop a deeper understanding of investment in art. The conclusion offers speculations on the broader implications of the proposed corrections and examines the limitations encountered in art market studies.

Furthermore, I argue that the insights into decades of academic knowledge presented in the study can significantly benefit art investors in practice by emphasizing the importance of a comprehensive and nuanced approach to evaluating art as an investment. Potential art buyers are usually informed that investing in art requires specific knowledge and long-term engagement in the art field. However, many commercial misleading statistics attempting to quantify the returns on art investments not only typically promise absurd profits but also completely overlook the reality of investing in art. The acknowledgment of art as a heterogeneous and unique asset class, coupled with the recognition of the challenges associated with its acquisition, ownership, and market's mechanisms, provides investors with a more realistic understanding of the complexities involved. By addressing and quantifying the commonly overlooked factors such as selection biases, transaction costs, insurance, handling costs, and other additional considerations, the text encourages a more thorough assessment of the true returns on art investments. This awareness allows art investors to make informed decisions, reducing the likelihood of misleading calculations and mitigating risks.

Artworks as investment assets

Artworks are heterogeneous commodities, where each unit of the artist's output differs from every other unit of output. Although works of art can be copied, they cannot be reproduced in the sense that, in the end, there is only one unique original of each work. Because works of art can be resold and their prices tend to rise over time, they have the characteristics of investment assets and as such may be sought as a hedge against inflation, as a repository of wealth, or as a source of speculative capital gain (Throsby 1994). However, Velthuis (2011) points out that in practice, almost without exception, substitutability for collectors exists to a certain extent. Due to their material nature, they are classified as real or alternative asset classes, similar to real estate, wine, classical cars, or other collectibles (Frey & Eichenberger, 1995). The art market is typically characterized by low liquidity, artworks are almost never divisible, transaction costs are high, and there are lengthy delays between the decision to sell and the actual sale. Even identical prints sold simultaneously can therefore achieve different prices (Pesando & Shum, 2007). Financial assets, on the other hand, are homogenous, diversifiable, sold on numerous, more diverse, and highly liquid markets. They have lower transaction costs and can be selected through a relatively small number of objective criteria, in comparison with art, whose perceived value depends on a set of numerous variables, which could be hard to apprehend, such as individual taste, fashion effects, or the actual location of the sale (Kräussl, Lehnert, & Martelin, 2016; Chanel 1995; Worthington & Higgs, 2003).

For calculating art investment potential and comparing it with financial assets' performance, numerous scholars and economists constructed price indices suitable for the art market, either using repeat sales regressions confined to commodities that have been sold more than once, or hedonic method controlling for non-temporal determinants of price variations (Chanel, 1996). All reviewed studies, including estimated returns to art, are summarized in table 1. The estimated returns to holding art are dependent upon the time frame studied. Even among authors looking at similar time horizons, the returns can vary. Ashenfelter and Graddy (2003) suggest the variation reflects the difference in data and differences in method, but it can be partly a consequence of omitting to correct the data sets of auction prices for additional costs and biases.

Findings

Earlier studies explicitly calculating the financial rates of returns of auctioned paintings (Anderson, 1974; Stein, 1977) followed by Baumol (1986), Frey and Pommerehne (1989), Buelens and Ginsburgh (1993), Pesando (1993), and Goetzmann (1993), suggests that returns to art generally appear to be less than the real rate of return on common financial assets. As Goetzmann (1993, p. 1370) implies: "While returns to art investment have exceeded inflation for long periods and returns in the second half of the 20th century have rivalled the stock market, they are no higher than would be justified by the extraordinary risks they represent." More up-to-date research done by Mei and Moses (2002), Pesando and Shum (2008), Campbell (2008), Hodgson (2011), Renneboog and Spaenjers (2013), and Öztürkkal, and Togan-Eğrican (2020) take a different view arguing that a diversified portfolio of artworks may play a somewhat more important role in portfolio diversification than discovered in earlier research. Although their estimates of the return to art are not significantly different from previous estimates, recent studies use larger data sets bearing an increase in the number of repeated sales and different time frames.

As Ashenfelter and Graddy (2003) point out, determining whether art outperforms or underperforms a market portfolio is not an easy question to address. Goetzmann (1993) draws attention to many problems regarding the calculation of the returns on art, beginning with selection biases in the data. Previous studies on the topic of art investment return also usually exclude transaction costs that can be quite high in contrast to stocks and bonds, insurance costs required in case of theft or fire risk, maintenance costs, and other possible additional costs or benefits. The following chapters of this paper summarize the factors to be considered in future research on the return on investment in art claiming that neglecting them significantly affects the estimates.

Table 1: Estimated returns and methodologies for handling data sets across analysed studies

Author	Sample	Period	Method	Nominal return	Real return	Comparison with other financial assets' performance	Consideration of additional costs	Consideration of selection bias
Anderson (1974)	paintings in general	1780–1960	hedonic	3.3 %	2.6 %*	underperform financial assets	no	no
	paintings in general	1780–1970	repeat sales	3.7 %	3.0 %*			
Stein (1977)	paintings in general	1946–1968	assumes random sampling	10.5 %		similar to financial assets	yes, insurance costs taken into account	no, discussed only
Baumol (1986)	paintings in general	1652–1961	repeat sales		0.6 %	underperform financial assets	no, discussed only	no
Frey and Pommerehne (1989)	paintings in general	1635–1949	repeat sales		1.4 %	underperform financial assets	yes, transaction costs taken int	no, discussed only
		1950–1987	repeat sales		1.7 %			
Buelens and Ginsburgh (1993)	paintings in general	1700–1961	hedonic		0.9 %	can outperform bonds, can outperform other financial assets depending on chosen time horizon	no	no
Pesando (1993)	modern prints	1977–1991	repeat sales		1.5 %	underperform financial assets	no, discussed only	no
Goetzmann (1993)	paintings in general	1716–1986	repeat sales	3.2 %	2.0 %*	can outperform other financial assets depending on chosen time horizon	no, discussed only	no, discussed only
Barre et al. (1996)	great impressionist other impressionist	1962–1991	hedonic	12.0 %	5.0 %*	outperforms stocks	no, discussed only	no
		1962–1991	hedonic	8.0 %	1.0 %*	underperforms stocks		
Chanel et al. (1996)	paintings in general	1855–1969	hedonic		4.9 %	no	no, discussed only	no, discussed only
	paintings in general	1855–1969	repeat sales		5.0 %			
Czujack (1997)	Picasso paintings	1966–1994	hedonic		8.3 %	no	no	no
Candela and Scorcu (1997)	paintings in general	1983–1994			3.89 %	underperform financial assets	no	no (sample including less popular artists at smaller auction houses)
Mei and Moses (2002)	American, impressionist, and old masters	1875–2000	repeat sales		4.9 %	outperforms corporate and government bonds, underperform stocks	no, discussed only	no, discussed only
Worthington and Higgs (2003)	eight major categories of paintings	1976–2001	average prices			underperforms annual returns on the global equity market in all examined categories	no, discussed only	no
Pesando and Shum (2008)	modern prints	1977–2004	repeat sales		1.51 %	underperform financial assets depending on sub-segment, possible for diversification	no, discussed only	no, discussed only
Campbell (2008)	paintings in general	1980–2006	average prices	6.5 %		can outperform other financial assets depending on chosen time horizon	transaction costs taken into account regarding portfolio allocation analysis	no, discussed only
Hodgson (2011)	French Canadian paintings	1968–2005	hedonic		4.34 %	outperforms average real interest rate, underperforms average real return on the stock index	no, discussed only	no (sample including less popular artists at smaller auction houses)
Renneboog and Spaenjers (2013)	paintings in general	1957–2007	hedonic		3.97 %	underperforms stocks	no, discussed only	no (sample including less popular artists at smaller auction houses)
Korteweg et al. (2016)	paintings in general	1960–2013	repeat sales		6.3 %	no	no, discussed only	corrected for selection bias
Özürkkal and Eđrican (2020)	paintings in general	1994–2014	hedonic		3.1 %	underperform financial assets	no, discussed only	no (sample including less popular artists at smaller auction houses)

*Because several surveys only provide nominal returns, some authors computed real return rates as followed: In the Anderson and Baumol studies, a yearly inflation rate of 0.7 percent was applied, derived from Baumol's assessment of inflation over the 300-year duration of his research using the Phelps–Brown and Hopkins price index. Goetzmann estimated inflation during his study period (also using the Phelps–Brown and Hopkins index) at 1.2 %. According to OECD statistics, French price inflation between 1962 and 1992 was 7 % (Ashenfelter and Graddy, 2003).

Selection biases

Most analyses are based on the only available art market data – the auction prices. As all of the sales prices are drawn from auction records, only those artworks, that have been re-auctioned are included. This concerns the illiquidity of the market and excludes both the high and the low end of the return distribution (Ashenfelter and Graddy, 2003).

Inherent or “survivorship” selection bias. As Frey and Pommerehne (1989), Pesando and Shum (2008), and Goetzmann (1996) point out, auction houses have an interest in high turnovers, record prices, and increased publicity, therefore they selectively accept works that promise to sell well and refuse to auction paintings whose selling prospects are weak. Artworks that fall drastically in value or are not generally in demand are not sold at auction. Auction houses might also avoid works with condition problems, which further distorts the data. There are reasons to assume that the estimated rates of return on investment in artworks may be biased upwards because of the inherent selection bias causing only generally successful art to be repeatedly auctioned and less successful art not the re-enter the market at all. Goetzmann (1993) adds that data principally reflect auction transactions that necessarily focus upon artworks that are in broad enough demand to attract several competitive bidders. Especially repeat-sales records will fail to capture the price fluctuations of paintings that are not broadly in demand. Inherent selection bias could be reduced by selecting large datasets that also include lesser-known auction houses.

The decision by an owner to sell a work of art. Some of the authors (Ashenfelter and Graddy, 2003; Goetzmann, 1993) highlight that owners’ decisions on whether to sell artworks at auction are determined by whether or not the painting has increased in value. This bias would also distort the estimated returns upward. Mei and Moses (2005) object that just because an object does not sell does not mean that it would have realised a poor or inferior return. They consider the owner’s decision to hold the object until it would transact at a level that would satisfy return expectations similar to decisions surrounding stocks. If that stands, the buyer’s loss-aversion aspect of art is not dissimilar to stocks. The decision by and owner not to sell artwork via auction also corresponds with Stein’s (1977) assumption, that very expensive paintings are relatively unlikely to be auctioned, because of the sliding scale of commission fees charged by auction houses.

Focusing on prominent artists’ work sold via prominent auction houses. Several studies estimating art investment returns focused solely on a limited number of selected well-established artists sold via major Anglo-Saxon auction houses. As Renneboog and Spaenjers (2013) point out, a few early studies required a work of art to be resold at a large auction house. The deliberate selection of the top of the auction market segment distorts the perception of the general financial performance of art and biases the returns upward. Such results should not be generalized to the overall art.

Museum collecting bias. Some academics argue that the subset of auctionable paintings is not fixed but decreases over time as top-quality works are skimmed off the market and accumulated in museums (Stein, 1977). Artworks that are donated or privately sold to museums generally do not reappear on the market.

In addition to these selection biases data sets are also distorted by the ***truncation bias*** – inclusion of unrealised transactions. As Ashenfelter (1989) and Beggs and Graddy (2008) points out, not all items that are put up for sale at auctions and hammered are sold because some final bids may not exceed the reserve price. The effect of auction buy-ins is systematically neglected in the construction of price equations. Even though the proportion of artworks brought-in, rather than sold, in the sample is usually unknown (Goetzmann, 1993; Collins, Scorcu, and Zanola, 2009) estimate that in typical cases such buy-ins may comprise 30–40 percent of the data available.

Because of these selection biases, the mean annual return to art investment provided by previous studies’ data must be regarded as merely approximate, likely as an upper bound on the average return obtained by investors over the period. A few academics tried to correct some of the selection biases and clarified the auction data. Korteweg (2016) found, that by adjusting for the resulting selection bias the average annual index reduces from 8.7 % to 6.3 %. Given the 28 percent disparity between corrected and uncorrected index, this particular study supports the claim, that the inclusion of biases into calculation can significantly affect the estimated return and impacts portfolio allocation. This is not the first paper to consider sample selection in illiquid assets, but one of the few that tried to apply it to art. Authors Collins, Scorcu and Zanola (2009) also dealt with the fact that art price indices typically rely on heavily biased samples. Correcting them using the application of the chained Fisher price index

and of the Heckman two step estimation procedure resulted in the development of a refined hedonic index which explicitly addresses such concerns. Their findings also support the idea, claiming that confusing or neglecting selection bias is likely to reduce the reliability of price indices in the art market. Similarly, Kräussl and Elstrand (2008) developed a novel 2-step hedonic approach to construct a more accurate price index for German paintings. Mitigation of selection biases can also be done by careful selection of data sets. As it is possible today to gather various data and not to limit your research to major auction houses prices, sales of less popular artists at smaller auction houses should be included for better general representativeness. For example Renneboog and Spaenjers (2013) tried to smooth the selection bias by analysing data set of more than one million auction transactions including mediocre artists sold by smaller auction houses.

Transaction costs

Another problem with using auction data that usually comprise hammer prices is that transaction costs are excluded. Transaction costs can be quite high, as much as 25 percent of the value of the object, considering both buyer's premiums and seller's premiums (Ashenfelter & Graddy, 2003). The buyer's premium is currently at 20 percent for an object sold for less than \$100,000 and somewhat less for higher-priced objects. The seller receives the sale price less a sales commission, which is typically 10 percent of the hammer price (Mei and Moses, 2005). Most studies disregard the high auction fees, which in reality range from about 10 to 30 percent because they can vary considerably between countries, periods, and auction houses. Even individual transactions involve different fees – in case of very high prices achieved, the shares of auction premiums are determined by bargaining and are likely to be lower for respected customers, in other cases they might be even higher (Frey & Eichenberger, 1995). Their size can significantly influence the calculated rates of return, but the exact size of auction fees in particular transactions are subject to private agreements between sellers, auction houses, and buyers.

Mei and Moses (2005) claim that the inclusion of transaction costs would only reduce returns slightly. They based this conclusion on a sample, where the average holding period was thirty years, and the transaction costs, including buyer's and seller's premiums when amortized over this period, are less than 1 percent per year. This shows that transaction costs are abated by the length of time an artwork is held by a collector, nevertheless, makes art less attractive as a short-term investment. Similar results indicate Campbell's (2008) study. According to the author, art's high transaction costs spread over 25 years equals 1.5 percent a year. Another examination which sought to overcome this shortcoming by considering the substantial transaction costs was done by Frey & Pommerehne (1989). The authors calculated the mean real return rate of return of 1.5 percent per year. Neglecting transaction costs, the mean rate of return would rise by 0.4 percentage points. This particular study considered only holding periods of 20 years or more, which implies that relatively high transaction costs do not favour short-term investments in art or speculations, and therefore their exclusion from a calculation should be carefully considered based on chosen sample's characteristics.

Other additional costs and benefits

In addition to selection biases and transaction costs, investment in art is associated with numerous additional costs and few benefits. Besides financial risks arising from price uncertainty, risks of changing attributions and fakes, and forgery, there is as well a purely material risk that artwork could be damaged or stolen, hence *insurance costs*. The annual cost of fire and theft insurance is estimated typically at 0.5 percent of the artwork's appraised value on average (Frey and Pommerehne, 1989, Stein, 1977). There are also substantial *storage, conservation, and restoration costs*, which are not only difficult to assess, but also depend on the period of time the artwork is held by its owner (Coffman, 1991; Barre, 1994; Renneboog & Spaenjers, 2013). Each segment of the art market would demand different conditions of maintenance and handling – sculptures require more space, older, and more fragile, artworks require specific environments, temperature, light, or humidity. As Landes (2004) pragmatically assesses, in extreme cases, the cost of storing and preserving artworks exceeds their monetary and non-monetary returns. According to Mei and Moses (2005), annual maintenance costs generally reach 1.5 percent per year.

Aspects regarding *taxes* could also be considered. Artworks are sometimes legally subjected to property tax or death duties, the inclusion of taxes or local sales taxes would reduce returns slightly for a holding period of decades since these costs arise only when paintings change ownership (Mei & Moses, 2005), but would make a significant difference over the short-span investment period. Tax incentives may also be considered as a factor influencing the return of the investment. In many countries investment in art is one of the major possibilities of escaping or at least lowering the tax burden, however, these tax aspects differ considerably between countries and periods, so little can be assumed in general. As it is often unknown where an art object bought is finally located and thus unclear which country's taxes apply, and what difference between formal tax codes and actual taxation is. Various authors may highlight the significance of the size of taxes involved as a major, but perhaps inevitable shortcoming (Frey & Eichenberger, 1995; Frey & Pommerehne, 1989).

Comparison to financial assets

As Frey and Eichenberger (1995) point out, almost all studies only make a rather superficial comparison to the rates of return for alternative investment opportunities. Most analyses make a comparison with interest rates on US and UK government bonds, or with US stocks. They usually neglect investments in other countries and in other assets such as real estate or other collectibles, which are often a closer substitute to art investments, and base their conclusions on their estimates of the art indices and simple correlations with bond and stock portfolios. Few of the works account for comparisons with similar collectible items. For example, Ashenfelter & Graddy (2003) used Ross and Zondervan's (1989) estimates of the real returns to holding Stradivari violins, or Graeser's (1993) estimates of the return to holding antique furniture. Burton and Jacobsen (1999) compare artwork return studies to those of wine, stamps, prints, antique furniture, coins, or ceramics. Ranneboog and Spaenjers (2013) estimate art returns to be inferior to that of financial assets, yet claim that art outperforms other physical assets, such as gold and real estate in the surveyed time period. When comparing the rate of return of art investment to other assets, especially for the purpose of investment portfolio diversification, usage of relevant real assets, collectibles, or financial assets should be contemplated in such a way that contextual comparisons of examined assets do not suggest misleading conclusions. An example of good practice can be Hodgson's (2011) analyses of pricing and returns in the market for French Canadian paintings when the author compared the investment properties of Canadian art with those of relevant Canadian government bonds and Canadian stocks. A similar study comparing geographically different emerging art markets of Russia, China, and India was done by Kräussl and Logher (2010).

Conclusion

This paper serves as an exploratory literature review endeavouring to elucidate the methodologies employed across various studies in handling examined auction price data sets, conducting revisions, addressing additional costs and biases, and computing returns on art investments. It shows that authors of major papers calculating the profitability of art investment systematically underestimate the effects of omitting selection biases and additional costs consequential to art investments. The claim that neglecting data correction is likely to significantly reduce the reliability of price indices in the art market finds support in some of the more recent studies. Namely the selection biases including the inherent selection bias, transaction costs such as buyer's and seller's premium, insurance, storage, conservation, and restoration costs, taxes, and bias by incorrect comparison to irrelevant financial assets are discussed. The essay aims to reduce the number of sentences like "No effort has been made to adjust or correct our numbers to account for selection bias and such costs as auctioneers' commissions, taxes, insurance premia, maintenance and restoration costs, etc." in future studies.

Even if future academics correct these shortcomings, examining the profitability of works of art as investment assets is not without several limitations. Restriction to auction prices only is the greatest limitation generating biases that are unlikely to be mended. The dealer market is largely ignored because of an absence of obtainable data. According to Campbell (2008), estimations of what percentage of the market is composed of dealers range from a 50–50 split between auction houses and dealers to a 70–30 split in favour of dealers. The absence of dealers' transactions from the art indices may have a significant impact on the rate of return reflected by the indices as dealers may buy art at lower prices but sell at prices with higher transaction costs. Thus, dealers enjoy a systematically higher and collectors

systematically lower rate of return than suggested by studies reproduced in table 1 (Frey & Eichenberger, 1995). The art market is generally not transparent and some of the required data for biases correction are simply not available or the selected methodology inevitably leads to certain shortcomings. Chanel (1996) notes that it is easier to take additional costs into account in a repeat sales model than in hedonic regression methods.

It is likely that due to the growth of established art funds, which act more like private dealers than auction houses, recorded art market returns are in fact much larger than the benchmarks used by previous overall auction market studies. By using their insider knowledge and expertise to exploit inefficiencies of the market, art funds focus on collecting art solely for financial reasons, therefore, act more like speculators rather than collectors. Participation in art funds allows investors to invest a relatively small amounts, in sum however, all investors combined have the higher purchasing power to acquire by leading experts in the field curated artworks promising higher investment returns, liquidity, and diversification. A fund structure can reduce costs associated with the purchase, sale, and holding of art. Some of the corrections suggested in this paper might not correspond with such funds, which are often able to negotiate advantageous fees and conditions with appraisers, auction houses, insurers, and other service providers that would not normally be available to an individual buyer or dealer, which them a convenient alternative for profit-oriented investors (Willette, 2010). Nevertheless, better conditions only inhibit mentioned effect but do not annul them.

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