



# Art, for leisure or profit: an analysis of the movement of investment from equities into the 'Fine Art' market

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## Abstract

The trade and investment into 'Fine Art' dates back centuries. While investment into art is unique in that it captures emotional, social, political, traditional and cultural values, the modern investor would include portfolio structures that are a combination of bonds and equities and in some cases these portfolios would diversify into alternative investments which include 'Fine Art' as a mechanism that not only secures some form of future profitability or a store of value, but also include a cultural element that holds meaning for the investor. Art sales are increasing by volume of trade, and countries like South Africa are catering towards the art tourist, showing increasing levels of exports of art products. This paper examines the decision making of the art tourist and the related flow of investments from equities into the art market. While 'Fine Art' as an investment mechanism may not hold the same degree of mobility or liquidity as other asset classes, it still holds a store of value over a long period of time. The choice to hold art within an asset portfolio would be similar to someone who chooses to invest in commodities, yet the additional factor of owning something that appeals more to the cultural and emotive schema is a strong motive for including 'Fine Art' into their portfolio.

**Keywords:** Art Investment, Equities, Portfolio Diversification, Uncertainty, Hedging Art

## Introduction

The trade of art is increasing by volume, and South Africa among many other countries are exporting ever increasing volumes of art. Much of this increase in the international trade of art is driven by, what this paper would refer to as, the 'Art Tourist'. Some of this art been exported is fast becoming a part of investment portfolios. Thus the question of art been a leisure item, or, as part of an investment portfolio. The aim of this paper is to describe and analyse the process of portfolio diversification from equities into the market for 'Fine Art'. The market for 'Fine Art' is unique from many other market structures due to the inefficient (Baur, 2014) nature of the market and the high levels of uncertainty that exists within the art market. This uncertainty is amplified by the problem of stochastic stock liquidity, high transaction costs, long transaction time and without suitable tools for hedging (Ralevski, 2008), creates an additional challenge for investors in determining expected returns against risk laden odds. 'Fine Art', unlike many other asset classes, bares strong cultural undertones and relationships, and as suggested by Baur and Els (2014), this further makes the determination of 'price' for 'Fine Art', more often, highly subjective. Technically speaking, it is difficult to reach any consensus on determining a value for any unit of 'Fine Art', beyond the intrinsic materials from which it is constructed or the aesthetic pleasure created from holding such an asset, yet even then, opinion may vary.

Above all, the market for 'Fine Art' is entrenched by institutional rigidities within an environment where the quality, quantity and type of information may significantly influence the decision of an investor to invest into the market. Considering the general lack of public information about the real value of these assets, price determination is often greatly misunderstood.

This, in itself, may in turn affect the expected future returns of this type of investment. The movement from investing into portfolios and investing into 'Fine Art', (as an alternative investment), does not seem follow a simple progression or even have any clear cut trajectory. By examining the relationship of the movement of the Artprice index and other indices which



would make up an investment portfolio, the reason to hold art within the portfolio becomes more apparent. This is done by developing a regression analysis using ordinary least squares methodology, and then extrapolating the relationship between the major market indices and the decision to invest into 'Fine Art'.

### **The issue of subjectivity in art as a part of price setting behaviour**

Purchasers of 'Fine Art' face a basic problem of fundamental uncertainty (Beckert & Rossel, 2013). This is especially true since most art works are unique individual pieces, where the quality is entirely based on individually attributed induced psychologically aesthetic decisions. This makes it a challenge too for investors who choose art as a long term 'store of value', as the expected returns on 'Fine Art' performance, (as an investment good), cannot be estimated accurately. Any student of the arts would only be too proud to explain that there are stark differences between the different schools of art, and within each of the many schools, there are layers of different philosophies, each of which are important in underpinning unique time and place perspectives. Collectors of fine art would most graciously point to the unique historical or political undercurrents of the era in which a master work was created, the associated culture of the time, perhaps even share the dark nature of the artist or the subject matter of the artwork itself.

It is for this reason that a unit of 'Fine Art' could not be removed from its spatial origins (as in mass production), as it would be far too removed from the time and place where the original was created. Thus, despite attempts to reproduce 'Fine Art' in the form of prints and copies, the market for 'Fine Art' remains, among the wreckage of capitalism, a last sanctuary of the 'singular good'. Similarly, the art market still shows evidence of the commodification of culture, where a price tag 'trivializes' the unique value of art (Beckert & Rossel, 2013).

The lack of transparency, the dualistic (primary and secondary) nature of the art market, and the cultural undertones of individual preference and choice makes estimating the nature of the market a true challenge for any investor seeking a reliable gain on their investment into 'Fine Art', or a gain on their investment into any particular artist (Sommer, 2013). While portfolio assets in the form of shares or equities display grand and often volatile transaction volumes with the associated ease of liquidity across international markets, the market for 'Fine Art' displays relatively lower transaction volumes and liquidity, albeit still volatile. To date, the market for 'Fine Art' has literally no single standardised or universally accepted method of valuation with which to set prices. Cloud, Vincent and Klein (2016) suggest that the main hurdles of incorporating art into investment portfolios include the problem of determining art fund viability, the lack of liquidity of works of art, the lack of a consistent market to market valuation, the poor historical data of art which is irregularly traded across markets, the persistent problem of unregulated markets, the lack of an independent art council to help promote guidelines and also the lack of knowledge about the art market.

Ralevski (2008) stresses that much of the subjectivity in the fine art market is due to a number of key issues and much of this subjectivity is due to the role of information that is both acquired and interpreted by any respective investor. The lack of transaction volumes, unlike the equity market where transactions occur daily, art is traded through auctions which are often set days or even months apart. A large number of transactions for art, especially for the same work of art, or similar work of art, or even works of art from a specific artist, would create a pricing history which could be modelled so as to determine a fixed value for a work of art.. Many transactions for works of art occur in the secondary art market, and prices and volumes are not captured or recorded.

Many local and international intermediaries have contributed somewhat towards reducing this information inefficiency, yet at the cost of regulation. Cloud, Vincent and Klein (2016) suggest that the regulatory approach regarding regulated funds for investing in art is primarily driven by the complexity of this asset class. This complexity is notably related to the lack of understanding and knowledge of the functioning of the art market and the related artworks,



the hierarchies positioning of the artist combined with the related segmentation of the artworks and artists, the valuation processes of an artwork and artist. Notwithstanding the growing globalization of the art market, etc. Information on art sales, volumes of art sales, art prices and historical trade movements can be purchased from numerous bodies such as Mei and Moses, Citadel, Knight Frank, ARTPrice.com and others. Yet, due to the nature of art trade, there is still no real reliable source of information available on art investment performance.

Because of the non-homogeneity of art, another concern is in the inelastic supply for art, which in its extreme becomes perfectly inelastic, which is sometimes referred to as the 'museum factor', which still further contributes towards the subjectivity of investment prices. Furthermore, pricing is based on tight networks between dealers and clients and is often subject to intangible factors such as changing tastes and preferences. Artists or collectors may also hold stocks of art with a view to maximizing the life cycle of their earnings (Singer, 1990) at some future date. There is much valuable information about the systematic preferential factors within the decision-making process is limited (but not entirely lost) due to the focus of research data on trade and sales made predominantly in the primary art market (Singer, 1990).

Furthermore, pricing rigidities which are captured in auction sales data may have an upward bias. Prices set at auctions are often benchmarked on the previous auction price. This gives an illusion of an inflated expected return which may be higher than what would reflect in the true value. Singer (1990) expands on this idea by mentioning that dealers will often maximize their earnings in the future by overpricing the current art works, which in turn, reduce current trades. This tendency for evaluators to estimate a higher price over and above the 'true' value of the art been auctioned, with the hope of the dealer to increase the market value of the future sales of the art been traded. As an additional factor, there are often very high transaction costs including purchase tax, insurances, handling costs, legalities and agent fees (Ralevski, 2008) which also act as pricing rigidities. Apart from these rigidities, Erdos and Ormos (2010), suggest that when interpreting prices based on historical data, and by assuming that the 'value' of a specific unit of art could be determined through examining pricing of previous works of art established through the auction process.

However, when determining current art prices, there may be a need to take into account the unaccounted factors which arise within the decision-making process arising from the individualistic behavioural perspective from which these unaccounted factors are often already reflected within the most recent price statistically identified in the error term. Cloud et.al., (2016), raise some of the more important behavioural factors, and these include the emotional value of buying or holding art, the social value, the concept of holding a luxury good, the choice of art for portfolio diversification or returns to investment, a place of financial safety and a hedge against inflation.

There are still other systematic preferential factors which are not easy to differentiate from the error term captured in auction pricing, which would include, amongst others, the medium of the art, the size of the art, the age, the condition of the art being auctioned, the presence of a valid signature of the artist along with the status of the previous owner, all which may play a role in determining the price of the art sold at an auction (Baur & Els, 2014). According to a report by McAndrew (2011), cost factors influencing pricing decisions can be captured in professional fees (7.19%), hospitality and travel (9.49%), IT (8.8%), packaging and shipping (8.2%), insurance and security (9.56%), restoration and conservation (9.65%), art fairs (15.29%) and marketing (31.82%).

### **The distant shift from portfolio to alternative investments**

The aim of this section is to present a quantitative examination of art prices, as per the Artprice global indices, published by Artprice.com which is considered one of the leading art price



monitors. Thus, data is valuable for research in that it captures the characteristics of Eastern and Western markets auctioned in many of the global art market capitals. Artprice.com publishes specialist reports for the investor who wishes to invest into the art markets. The report provide a detailed analysis of the market segmentation by period and medium of art, and includes the effects of international free trade areas and the influence of new artists entering into the primary art market (Jie & Ehrman, 2014). The bases of their reports are constructed from hammer price data derived in the global auction houses for different types of 'Fine Art'. They predominantly analyse the market behaviour of the primary art market.

However, analysing the auction prices in the primary art market, tend to give a very limited view of the overall market, as most of the data relating to auction houses are situated in the largest of the global economies. From this perspective, and despite an in-depth analysis presented in the reports published by Artprice.com, the data is limited in terms of the 'real' fundamentals that are not always captured in the market. Artprice.com has developed a Global Artprice index, providing quarterly data from as far back as 1989. This index is divided into several sub-indices to include for different tastes and preferences. These sub-indices (represented later in Figure 2) include paintings, prints, sculpture, photography and drawings. Furthermore, they include in the sub-indices, additional divisions such as the old-masters, 19<sup>th</sup> Century Art, Modern Art and Contemporary Art. The Global Art Price Index is broken down into subsets, which

The methodology used in this paper is based on an analysis of the Artprice index as published by Artprice.com. The Artprice index will be compared to indices relating to other market indicators, such as the S&P Industrial index, the S&P 500, the Gold Price index and the IMF All Commodities Index. Additional analysis will be done by evaluating the Artprice index against a number of other market indicators, from which to gain some form of perspective, on the relationship between the Artprice index and the market.

The primary indexed data used in this study uses the 'repeat sale methodology' to track the performance of individual artworks that have sold more than once at auction. Sales from 4,500 auction houses are captured in the Artprice index, but generally not the results of online auctions, mainly because those results aren't published such as in the case of Christie's or because they are not sold through a live auction. However, its database does include results from some companies that run live online auctions (Tully, 2014).

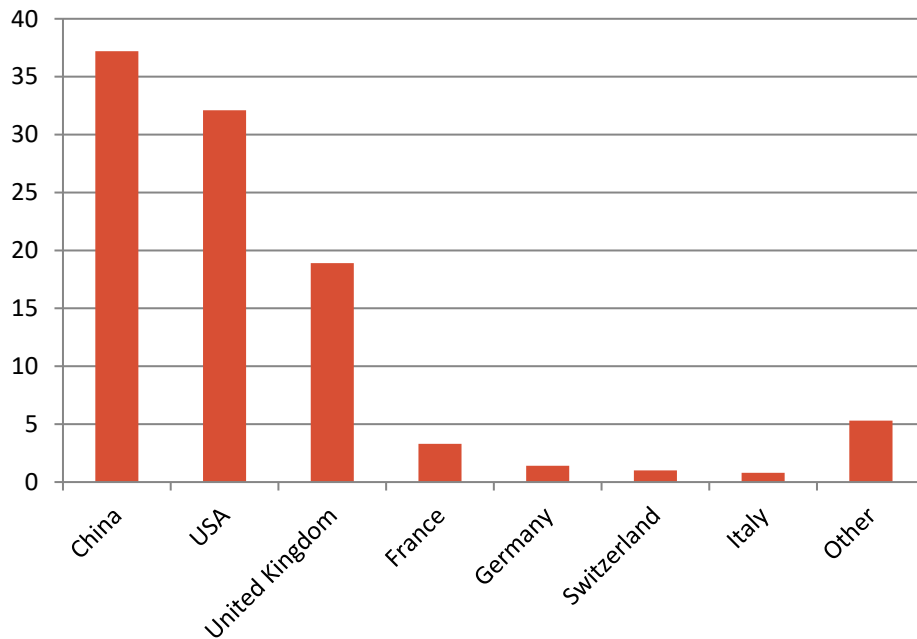
The analysis of the respective market indexes will be done using an Ordinary Least Squared (OLS) regression analysis approach. This analysis is undertaken to test the statistical relevance of the individual indicators against the Artprice index. The data analysis will maintain the principals of a 'Best Linear Unbiased Estimator' (BLUE). The time series analysis is based on quarterly data. For all indices used in this study, first quarter 1998 = 100.

### **Primary art trade turnover per country**

Figure 1 represents the auction turnover per country for 2014. China, USA and the United Kingdom have the largest share of auction turnover, considering that these countries including France, Germany, Switzerland and Italy make up 94.7% of all auction sales globally (Jie & Ehrman, 2014).



**Figure 1.** Auction turnover per country for 2016



Source: Derived from Ehrmann, T., (2016)

When analysing the relationship between the size of the economy (measured as a percentage of the contribution to world GDP), it can be seen that auction turnover within the primary art market is derived predominantly from the largest economies in the world, with a correlation of 89% between the Auction turnover in 2014 and Contribution to World Economy 2014 (Trading Economics, 2015).

**Table 1** Auction turnover per country for 2014 and the correlation between auction and other market indicators.

	Auction	% W GDP	GDP	Cons C	GDP/Capita	Market growth
Auction	1					
% W GDP	0.891321	1				
GDP	0.81181	0.599303	1			
Cons Conf.	0.227719	-0.11723	0.148062	1		
GDP/Capita	0.776303	0.603547	0.979009	0.001575	1	
Market G	0.549712	0.460407	0.824692	-0.17819	0.883518	1

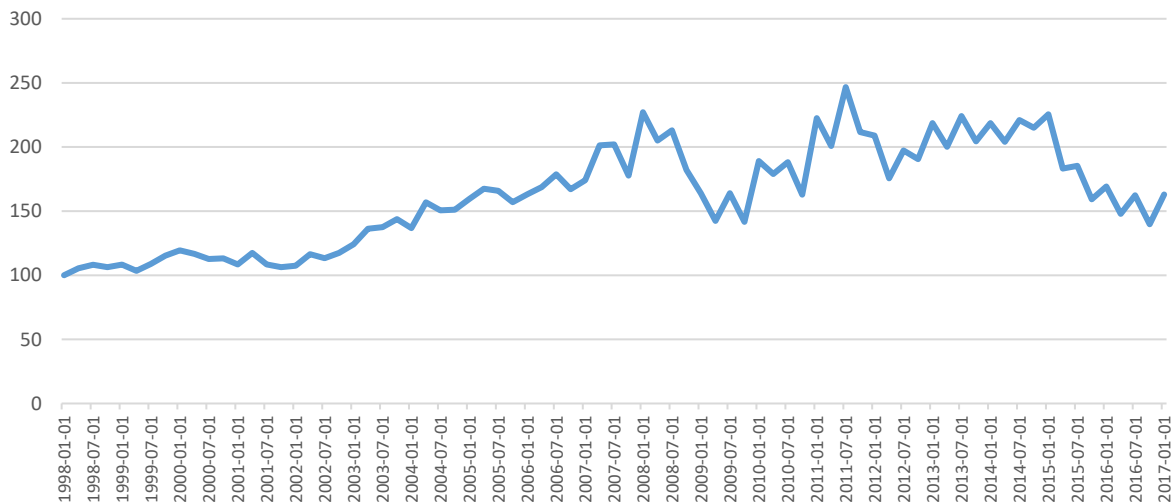
Source: Trading Economics, 2015

The overall size of the economy plays a very large role in auction sales for art. Thus the largest economies like the US and UK have established auction houses which have been trading in art, in some cases for several centuries. Christies and Sotheby's have incredible data records, which date back for much longer than the existence of auction houses throughout the world, and the information about the art market is decidedly established (Jie & Ehrman, 2014). Financial market growth and auction turnover have a very low correlation of about 55%. When looking at the correlation between auction turnover, the economic growth and growth per capita, which shows an 81% and a 78% correlations respectively. When examining the



correlation between consumer confidence for 2014 and auction turnover in 2014, it appears to have a rather low correlation of only 23%. This may suggest that the trade in 'Fine Art' may be completely independent of how consumers may feel about the overall market.

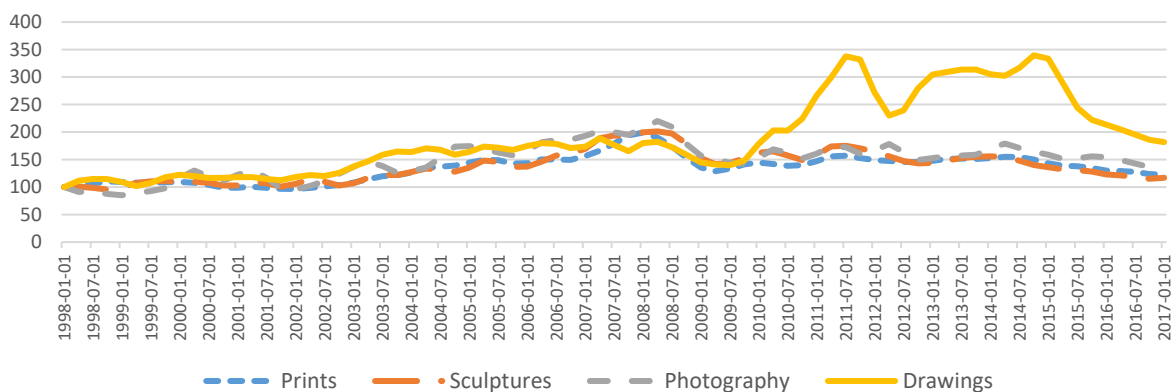
**Figure 2.** The global Artprice index from first quarter 1998 to first quarter 2017, 1998 as the base year.



Source: Derived from Artprice.com, 2017

Mamarbachi, Day and Favato, (2008) indicate that much of the literature alludes to the problem of volatility experienced in the art market. Interestingly, despite the fact that there is a smoothing of the data, a large amount of market volatility is still very noticeable in Figure 2. This data also captures the harsh impact of the 2008 financial crisis, which is very evident by the dramatic downturn from 2008 to 2010. This downturn induced by the 2008 financial crisis has had noticeable impacts on the financial markets too. The impact of the financial crisis of 2008 is assimilated into the data and is treated in this analysis as structural break in the regression analysis, which makes use of a 'Dummy' variable to highlight the impact of the financial crisis pre and post 2008.

**Figure 3.** Quarterly data for paintings, prints, sculptures, photographs and drawings from first quarter 2000 to first quarter 2017, base year 1998.



Source: Derived from Artprice.com, 2017

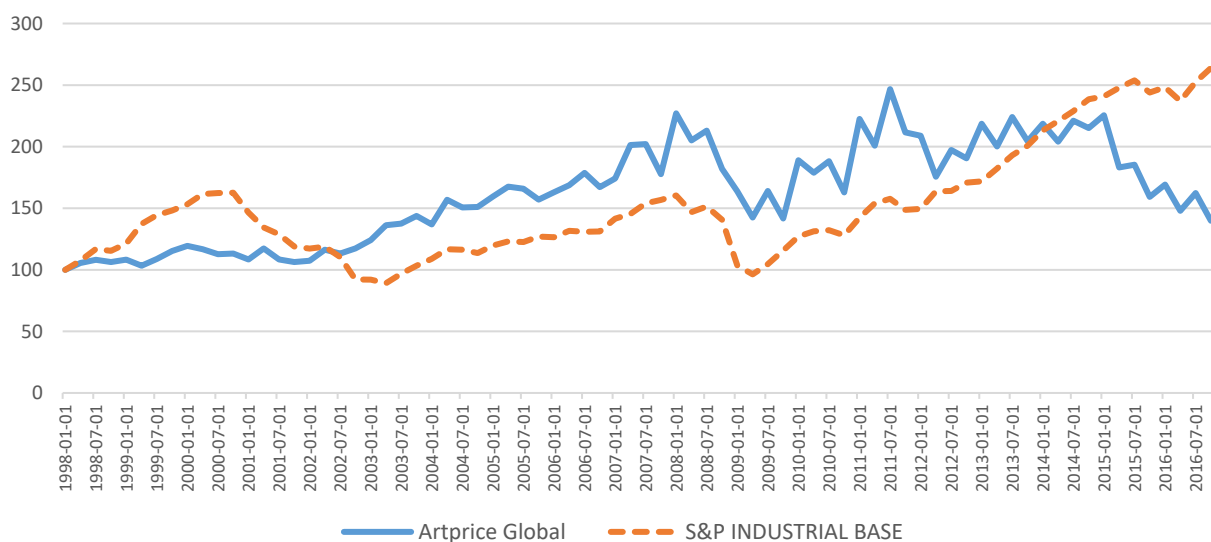


The change in the demand for drawings being auctioned has outgrown other types of art that was auctioned during the period of 2008 to 2016. Drawings has outperformed all the other categories by quite a margin. Paintings, prints, sculpture and photography show a lower, yet consistent growth trend. Some of this growth in drawings could be captured in the growth of demand for 'calligraphy art', derived from within in the Chinese art market (Jie & Ehrman, 2014).

### Art as an alternative investment

This analysis is done by making use of quarterly time series data from the first quarter of 1998 to the last quarter of 2016 by making use of the Ordinary Least Squared (OLS) method of applying linear regression models to determine the relationship between the variations of the Artprice index (dependent) variable and the variation in the Gold Price Index, United States Stock Market, namely the S&P industrial index, and the IMF Commodity Markets (independent variables). All the data was smoothed to adjust for volatility and a dummy variable was used in the regression analysis to simulate a structural break that emerged from the 2008 financial crisis. The relationship between the Artprice index and the S&P industrial index showed surprisingly low levels of correlation. The relationship between the Artprice index and the All Commodities index showed an equally surprising high correlation. Supported by the literature, the Artprice index shows that investment into the 'Fine Art' is outperforming the US stock market between 1998 and 2013. Jie et al., (2014) refer to this in their report on the art market by stating that: "The global Fine Art Market posted a new record level of activity in 2014, with a total auction turnover of \$15.2 billion, up 26% compared with 2013 (\$20.05 billion) and more than 300% compared with a decade earlier." (Jie & Ehrman, 2014, p. 4). From 2013 to 2017 there was a dramatic swing where the S&P industrial index outperformed the Artprice index. This can be seen in figure 4.

**Figure 4.** Artprice index and S&P industrial index showing performance of respective markets from first quarter 1998 to final quarter 2016.



Source: Derived from Artprice.com (2017), and Quantec (2017)

When considering the relationship between the Artprice index and the S&P industrial index, there appears to be a poor positive relationship. The adjusted  $R^2$  value is 0.18 which means that, despite the high degree of statistical significance, ( $t$ -statistic of 4.28) the market for art does not move in line or in relation to the equity market. By smoothing the data and applying dummy variables to account for the structural breaks of the financial crisis of 2008, and a



second structural break post 2013, the adjusted  $R^2$  to increases to 0.37. This further emphasizes that the relationship between the share market and the art market have a distinctly different purpose. Mamarbachi, Day and Favato, (2008) indicate that while art has several attractive return characteristics for investors, such as the low correlation with other asset classes, art tends to maintain market integrity within weak economic environments.

Yet, this would imply only one structural break, yet as can be seen in figure 4, there may be a second structural break that is identified by applying a second dummy variable to the data analysis, from October 2013.

When considering the correlation between the Artprice index, IMF Commodities Index and the S&P industrial Index (Table 1), it can be deduced that there is a far greater correlation between the Artprice Index and the IMF Commodities index of 0.91. The correlation between the Artprice index and the S&P industrial has a far lower correlation of 0.41. However, when analysing the relationship between the S&P 500 and the IMF Commodities index, there is a statistically significant relationship between the two indices, with a very low adjusted  $R^2$  of 0.15.

**Table 2:** The correlation between Artprice index, IMF commodities index and the S&P industrial index.

	IMF Commodities index	S&P industrial	Artprice global
IMF Commodities index	1		
S&P industrial	0.405798007	1	
Artprice global	0.913265923	0.445700585	1

Source: Data derived from Quantec (2017) and Artprice.com (2017)

The low correlation between the share market and the art market is mainly due to surplus liquidity in the financial markets. While capital markets can temporarily stimulate the art market in the bull market phase through profit taking and portfolio restructuring, Mamarbachi (2008) suggests that this may not help determine the long-run behaviour in the art market. Even in times of weaker growth and an unattractive capital market trend, the art market has managed to increase quite significantly. It is necessary to investigate this by replacing the profit motive function (as in the case of people who choose to invest in shares), with a 'store of value' function. A suitable 'store of value' function would be reflected in investments in gold bullion.

### Artprice index and the gold price index

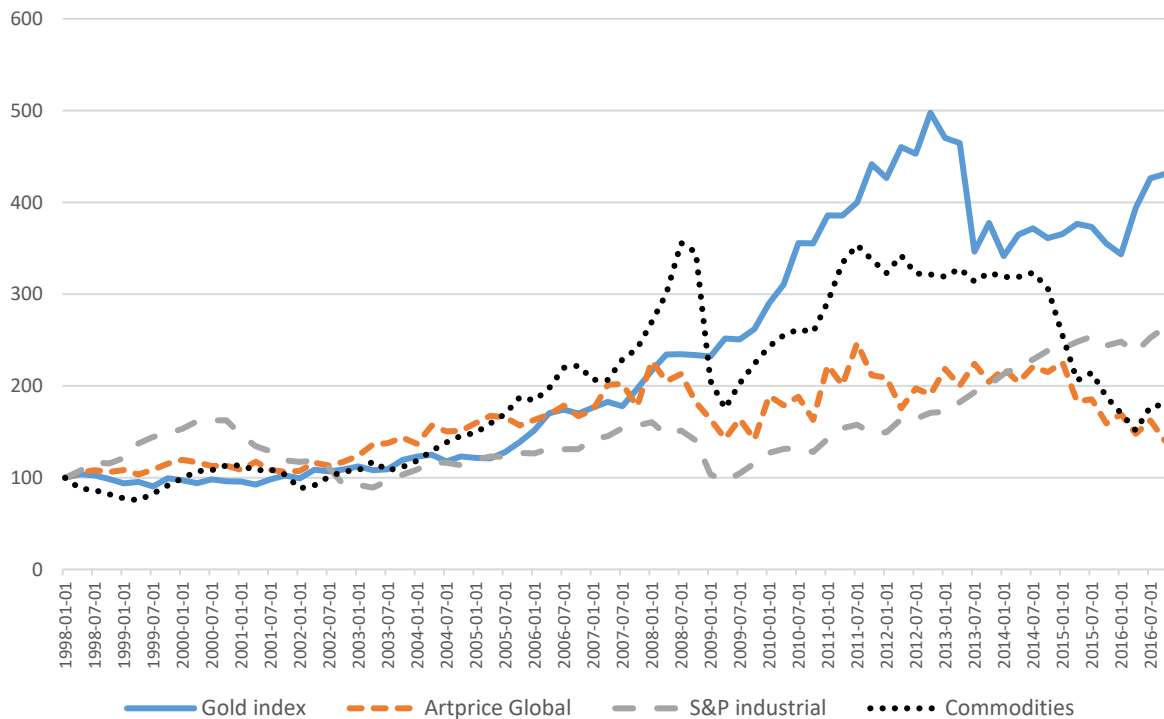
Gold is a 'store of value' which is useful if an investor wishes to have a high liquidity option (convert the asset quickly to cash) and diversify risk away from the stock markets. The gold price is an important market indicator, in that it not only indicates the desire to hold stock as a 'store of value', but also gives a very good idea in terms of market uncertainty. The option for an investor to hold gold, is used as a hedge against risk, especially in the currency market.

As gold hold a 'store of value' (beyond sudden disruptive increases in supply which may temporarily weaken the precious metals price), art too is cited as holding a 'store of value'. When examining the relationship that exists between the Artprice index and the gold price index, it can be seen that a high level of correlation exists of 0.81. The gold price index is measured in quarterly data using 1998=100.





**Figure 5.** Quarterly data for the Artprice Index and the gold price index for the period 1998 to 2016 (1998=100).



Source: Data derived from Quantec (2017) and Artprice.com (2017)

Figure 5 illustrates the relationships between the Artprice Index, Gold Price Index, Commodities index and S&P industrial index. The adjusted  $R^2$  shows that there is 0.65 correlation between the movement of the log of the Gold Price index and the movement of the log of the Artprice index, with a dummy variable indicating a structural shift for 2008. This indicates that ‘art’ as an investment item may have a ‘store of value’, which has very different behavioural trends from equity markets, where equities would be seen as a means of generating profit while the ‘art’ market may be perceived as a market for goods which hold profit.

Based on this data, there is evidence that the gold price index started to outperform the Artprice index only from 2008 onwards, post the effect of the 2008 financial crisis. In order to account for this financial crisis, a dummy variable is inserted into the data set to mimic the effect of the financial crisis on the economy. The adjusted  $R^2$  increases to 0.75. This implies that 75% of the price of art is captured in the movement of the price of gold, indicating that there is a very high probability, that the reasons for holding art may be very similar to those reasons for holding gold (as a store of value). Yet, the IMF Commodity prices index, when regressed against the gold price index shows an adjusted  $R^2$  of 0.76. This implies that 76% of the price of commodities is captured in the movement of the price of gold where the adjusted  $R^2$  value of 0.83 shows that the change price of art is also captured in the price of commodities. While the relationship between S&P industrial index and movements in the commodity index are very low (adjusted  $R^2$  of 0.15), there is a stronger relationship between S&P industrials and gold price (adjusted  $R^2$  of 0.45). Overall, with the strongest explanation of the change in art prices is found in the movement of commodity prices (adjusted  $R^2$  of 0.88), it appears that art prices, while traded as a commodity item, also have the added benefit of storing wealth. After an analysis of this data, by separating the structural breaks, the adjusted  $R^2$  increases

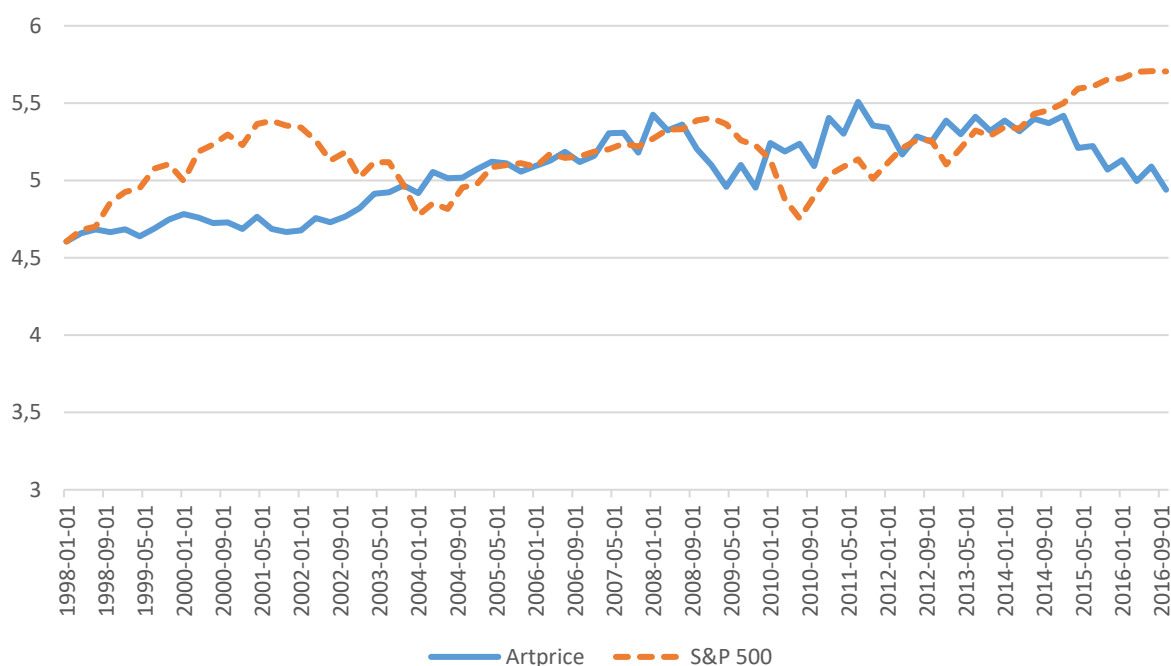


to 0.4, (with a 47% correlation) and the second structural break indicates a statistically significant negative relationship to the second dummy variable, which implies that the second structural break (post 2008) is important and should not be negated.

When considering the correlation between the Artprice index, and the two structural breaks, it can be deduced that there is a far greater correlation between the Artprice Index and the first structural break (2008) with a 61% correlation. The correlation between the Artprice index and the second structural break (2013) shows a lower correlation of 29%. Yet, by separating the regressions, one for before 2013 and post 2013, the market show a positive relationship between art price and S&P before 2013, and a strong negative relationship post 2013 (adjusted  $R^2$  of 0.36 and 0.33, respectively).

The low liquidity of the art market is observed in the lag, a chronological time frame to adjusting portfolios to include 'Fine Art'. When examining the relationship between the S&P500 index (Reuters, 2017) and the Artprice index, where both indices are smoothed to reduce the impact of volatility in the market, and then by including a lag of 4 quarters (1 year) to the S&P500 index, figure 6. The correlation shows an adjusted  $R^2$  value increasing 53% with a highly significant positive relationship between the dependant and independent variables. Without any lag to the data, the adjusted  $R^2$  value is only 35% and the independent variable (S&P500) fails statistically.

**Figure 6.** Artprice index and S&P 500 index showing performance of respective markets from first quarter 1998 to final quarter 2016.



Source: Derived from Artprice.com (2017), and Reuters (2017)

In order to better understand the shift between commodities and equities, the relationship was similar to that of the Artprice index, with a slightly stronger adjusted  $R^2$  values of (+) 0.6 and a (-) 0.5 prior and post 2013 respectively. By repeating this data analysis between Artprice index and commodities index, before and after 2013, the market show a very strong structural shift, adjusted  $R^2$  of 0.87 and 0.80, respectively, indicating a change in market behaviour, and the corresponding downward movement (Cloud, et al., 2016) in art market performance.

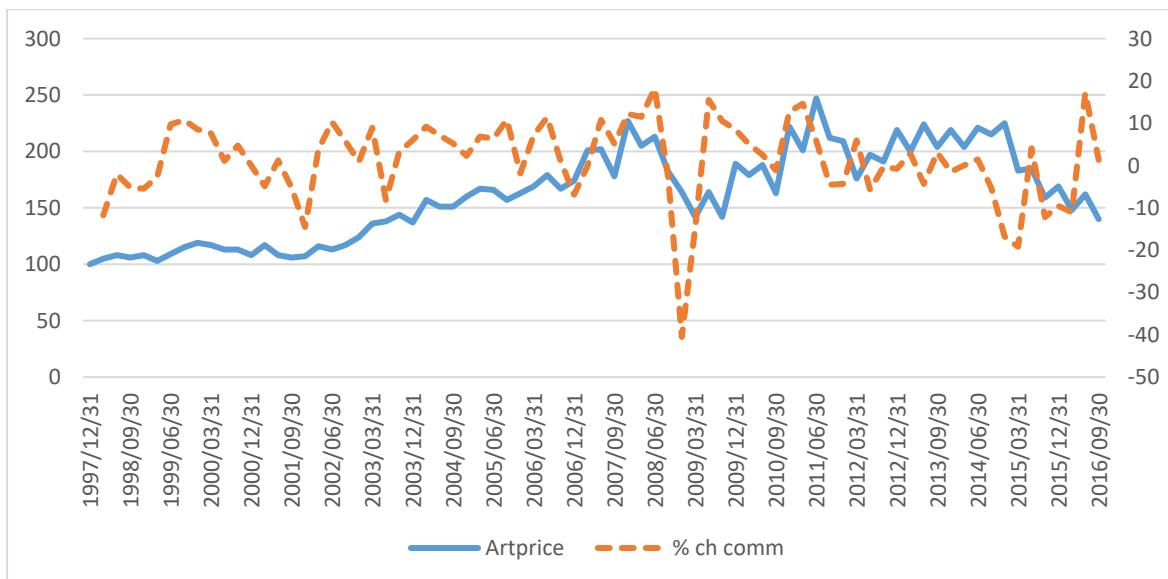


The gold price index is also clearly very sensitive to structural breaks. When analysing the relationship between the gold price index and the validity of the dummy variable to estimate a structural break, there was a very strong indication (with an adjusted  $R^2$  value of 0.82) that changes in the movements of gold price may be valuable to determine structural changes within the analysis.

However, by running an OLS regression analysis of Artprice index, the dependant variable against commodities as the independent variable, it appears that commodities themselves include within them the impact of market volatility as well as capturing the 2008 financial crisis, and thus by including commodities as an independent variable, shows that the model does not further require a dummy variable to indicate structural change. This argument was supported by Cummans (2015) who outlines that there was a large move by investors from equities to commodities. The benefit and challenge of using commodities as an indicator of structural change is that there is a large amount of volatility in commodity indices.

Commodities will pick up additional volatility driven by climate change, changes in industrial production, the growing interest in emerging markets, and the diversification of portfolios to hedge against sluggish market returns (Cummings, 2015). While commodities are not necessarily a store of value, it gives a clear signal of investor's beliefs in the art market. The poor performance of equities could be hedged with commodities in portfolios. The diversification of portfolios into commodities to protect against poor performance of equities. However, Stone (2016) suggests the spike in commodities is often a sign of pending inflation and according to Cloud et.al. 2016, investment into art is sometimes considered a hedge against inflation.

**Figure 7.** Artprice index and percentage change in commodity prices from first quarter 1998 to final quarter 2016.



Source: Data derived from Quantec (2017) and Artprice.com (2017)

Up until 2008, agriculture commodities were very bullish, displaying high levels of market volatility. Beyond the usual volatility, prices of commodities spiked in 2008 and then again in 2012 (Daniels, 2017). It was at both of these times that saw the start of another downward cycle for the art market, indicated by a drop in the performance of the Artprice index, both post



2008 and post 2012. In effect, considering the effect of commodities (18.67) and by lagging the S&P index by four quarters (3.58), and taking into account the impact of the 2008 financial crisis (-3.2), and accounting for spikes in the commodity index (2.79), the data analysis shows that an adjusted  $R^2$  value of 0.91, in other words, the impact of commodity spikes does have an impact on the structural change in the Artprice index.

### What happened after 2012?

Despite the share of investment in 'Fine Art' been considerably lower than the share of investments in the international stock markets, the performance of the Artprice index continued to outperform the stock markets for a rather large period of time, until the end of 2013, where the Artprice index was overtaken by S&P industrial index and the S&P 500 index. There could be many reasons for the decreasing performance of the Art market. Besides the typical problem associated with the usual market fundamentals, there should be consideration towards other cultural, cognitive and social reasons for holding art.

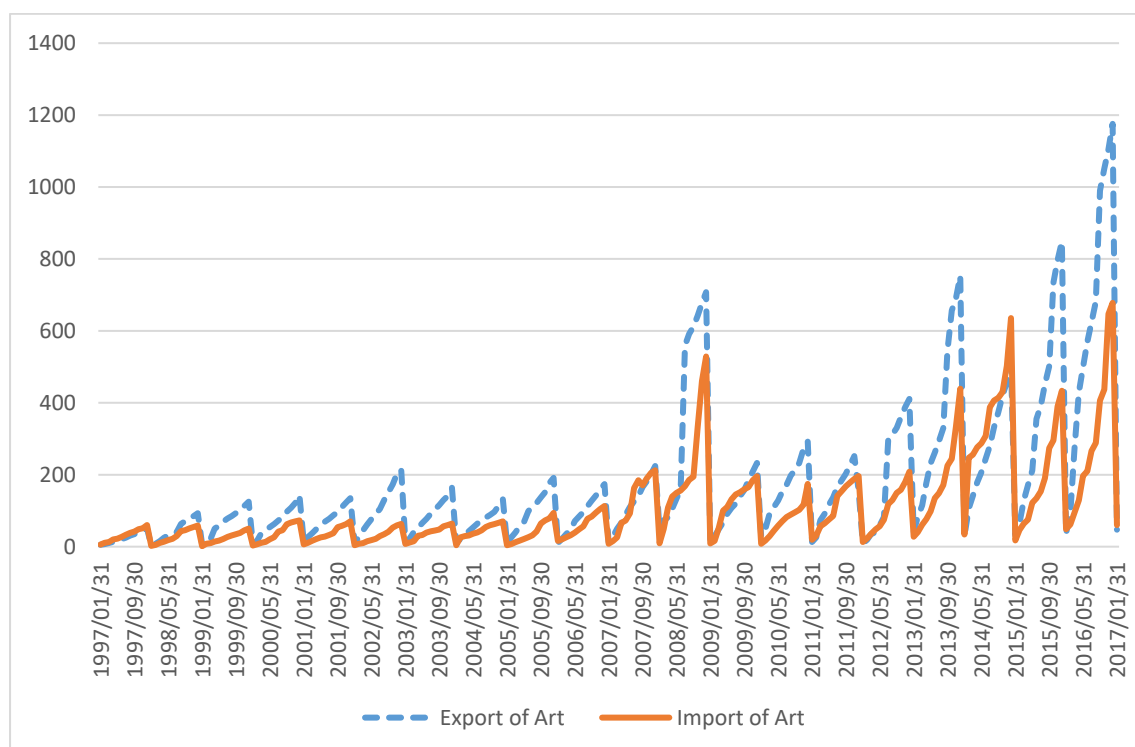
The number of sales in art rose by 3.2%, however, sales turnover dropped by 25%, almost entirely due to a reduced offer of major masterpieces (works priced over \$10 million). Compared to 2015, London art markets dropped 30% and New York art markets dropped 49%. While China's art market is still experiencing substantial readjustment (such as a new art market regulation introduced in early 2016 with measures expected to standardize China's domestic art market, further regulate trading behaviour, and protect the rights and interests of the artists, sellers, and consumers (Cloud, et al., 2016), and its overall unsold rate was at 64%, its total turnover on Fine Art only posted an increase of 18%. This was not only evident in the primary art market but also translated into the secondary art market with the poor performance of these two major cities naturally affecting the overall global secondary art market as a whole, for example China's secondary art market sold fewer lots which were down 22% (Ehrmann, 2016). Michelle Celarier (2016) highlights that stock markets around the globe were extremely volatile and the market for hedge funds lost billions of US\$. Simultaneously, Russian oil barons retreated to the uncertainty in the markets, and much of the new investment that had driven the global art market to incredible levels prior to 2013 dropped by the wayside.

Other factors that may have influenced the global art market include a clampdown on the art market in China, large money laundering scandals occurred and there were a number of high-ranking lawsuits in the art world. Greater awareness of the role of art in the black market combined with greater international exposure of art been used to hide funds as well as the role of art in money laundering schemes (Celarier, 2016). "Certainly no market is more susceptible than art to the shifting fortunes and tastes of the global elite, as it became the most speculative high end of financial assets, even less utilitarian than the \$100 million Manhattan super-skyscrapers that attract some of the same, often mysterious, buyers" (Celarier, 2016). Many works of art are stored in the Geneva Free Port, and the number of individual art pieces are estimated to exceed over a million units (including around 1,000 works by Picasso). The Geneva free port has the added value to clients, in that it maintains 'unanimity', and it has a reputation for storing items with "bound to be some with very shady provenance" for certain undesirable tenants is on record (Gompertz, 2016).

'Art Tourism' carries within its own value to international investment and portfolio diversification. South Africa too has also seen a large increase in the export of art, and art products. Much of this increase in the international trade of art is driven by the 'Art Tourist', where visitors to South Africa return to their countries of origin with works of art created by South African artists. Figure 8 highlights this rapid growth in in the international trade of art post 2013.



**Figure 8.** The international trade of art to and from South Africa from the first quarter 1997 to final quarter 2017.



Source: Data derived from Quantec (2017)

The relevance of 'Art Tourism', through portfolio diversification is quite significant, and should not be underestimated, particularly when examining the period around the 2008 financial crisis, which showed a sudden spike in 'Art Tourism' as investors begin hedging risk through the diversification of portfolios. This is then observed again post 2013, as the international art market continues to grow. While not all art is exported in the hands of tourists visiting South Africa, much of the art is also collected online, further facilitating the trade of art. Unfortunately, as in the case of the art stocks collecting in the Geneva Free Trade Port, much of this art may never really be seen by the public at large, held as a store of value or as a hedge against some risk, or another.

## Conclusion

Diversifying portfolios into the market for 'Fine Art' is not a clear-cut process. When examining macroeconomic and microeconomic variables, such as the contribution of countries to world economic growth, economic growth, GDP per capita, business confidence and even the growth in the financial markets of the respective countries, there appeared to be weak correlations and few sound theories to support the existing claims to the correlation between art prices and the market indicators mentioned in the early part of this paper.

However, the All Commodity index generated some stark findings, especially when analysing the behaviour of precious metals, and the high correlation coefficients that the gold prices induced. The reason for holding gold would be to hedge against inflation or the risk of a weakening financial market, most typically found in exchange rate portfolios. Therefore, it implies that the typical risk adverse investor would opt for gold in times of a weakening economy. Yet when the global economy begins to show signs of improving, there is an anticipated move from gold and other precious metals back to equities. Hence, at the same time, the relationship between holding precious metals and holding art is very highly



correlated. The implication that the main purpose of holding art would be as a 'store of value', following the same underlying principals, but on a much lower scale.

Furthermore, the increasing commodity index gives a good indication of growing production and trade. But a growth in trade of commodities would not imply an automatic investment into 'Fine Art'. Yet, as can be seen by the low correlation between the stock markets and the markets for 'Fine Art', not all investment is intended for wealth generation.

Supposing that an investor who invests into the stock market is a profit seeker, a person who invests into art would be looking for a 'store of value'. Precious metals, on the other hand offer greater liquidity options to the investor than investment into art. This becomes apparent when considering an investor who is hiding wealth, with the added benefit that art pricing is purely subjective (within certain constraints), and can be stored literally anywhere. Precious metals don't have, as such, the benefits of subjectivity in value. The investment into art may require a whole different set of objectives compared to someone who would invest purely into equities. While a stock market investor looks for profits or future returns, and would be more dependent on the liquidity requirements, an investor who invests into art is less concerned about liquidity, and chooses an investment which would better suit their tastes and preferences, with the added benefit of subjectivity of value. The international trade of art by the 'Art Tourist' indicates the growing value of portfolio diversification into the market for 'Fine Art'.

While an investor who invests into art may also invest in stocks, the desire to invest in art has a different set of criteria and possibly even very different personal characteristics that sets them apart from the conventional investor. It's from this perspective that when analysing art as an alternative investment, it is not the art as an asset that should be the focus of this research, but rather the investor himself and the specific 'social' and 'cultural' characteristics of that investor which should be analysed and understood.

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