Art as an Investment:
Empirical Study of Asian Contemporary and Chinese 20th Century Modern Art

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RRH: ART AS AN INVESTMENT

Abstract

Using 691 repeat sales of art from 24,200 art transactions in the years 2000 to 2009, this study shows that the returns on Asian Contemporary and Chinese 20th Century Modern Art during this time have exhibited higher returns (8.39%) and higher standard deviation (40.70%) than typical stock markets in the last decade. We also show that Asian Contemporary and Modern Art had a low correlation with stock market trends and therefore is a relatively attractive asset for portfolio diversification. Moreover, Asian Contemporary and Modern Art market indicated the existence of both a ‘‘Masterpiece Effect,” and “Main Auctions Effect.” (*JEL* Z11, G11, G14)

Key Words：Repeat Sales; Art Price Indices; Masterpiece Effect; Main Auctions Effect; Real Return

ABBREVIATIONS

CPI: Consumer Price Index

S&P: Standard and Poor

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I. Introduction

Art markets have experienced remarkable growth in the past decade, and have begun gaining popularity among regional and global collectors. Asian Contemporary Art and Chinese 20th Century Modern Art markets have experienced extraordinary growth due to the rising importance of Asia, and by extension, the world's increasing fascination and interest in Asian contemporary and modern art and culture. In 2005, Christie's Hong Kong was the first international auction house to present quality contemporary art from various Asian nations, including China, India, Korea, and Japan. Sotheby's first contemporary Asian art auction in New York in 2006 brought in $12.7 million and attracted international attention to China's contemporary art scene. Recently, Christie's sale (Autumn 2009) in Hong Kong brought in $50 million (389,307,000 HK) in Asian Contemporary Art and Chinese 20th Century Modern Art[1].

Although art as an investment has been thoroughly studied in American and European markets, relatively few studies have investigated this issue in Asian contemporary and modern art markets. This paper intends to fill this gap in the literature. We will construct an index of art prices and evaluate the returns as well as risk of art investment in this market. We further examine the existence of a "Masterpiece Effect," i.e., where more expensive artwork offers better returns. Finally, we test the "Main Auctions Effect," i.e., that art sales at main auctions have better returns than those at other auctions sales.

1. We will use the term Asian Contemporary and Modern Art to indicate "Asian Contemporary Art and Chinese 20th Century Modern Art" in this paper.

Using data collected from Asian Contemporary and Modern Art sales[2] in Hong Kong, Taiwan, and China, this study compiles 24,200 art transactions to construct a new dataset for the period 2000-2009.[3] We use 691 artwork repeat sales to construct a semi-annual index of art prices for the period 2000-2009. Since the repeat-sales method measures the sale-price difference for the same artwork in two periods and directly controls for differing quality[4], we employ it to construct the price index in this paper.

This paper discusses four questions. First, we re-examine whether Asian Contemporary and Modern Art is a good investment. Many researchers, Mei and Moses (2002), Worthington and Higgs (2003, 2004), Takato Hiraki et al. (2003), Hodgson and Vorkink (2004), Atukeren and Seckin (2007), Pesando and Shum (2008), Kraussi and Elsland (2008), have discussed the differences between western art assets and traditional financial assets. These studies show that returns on western art are positive, but lower than traditional financial assets. Furthermore, the same studies generally show that art has more volatile returns than other financial assets.

This study shows that the returns on Asian Contemporary and Modern Art from 2000 to 2009 averaged 8.39%, with a standard deviation 40.70%. Asian Contemporary and Modern Art have higher returns and higher volatility than an alternative stock market. In contrast to western art as a

2. Between the years 2000-2004, Asian Contemporary and Chinese 20th Century Modern Art were sold in regular auction, but did not have a specific auction for their sales.
3. Mok et al. (1993) studied modern Chinese paintings as a financial investment and found that the appreciation and return of these paintings outperformed traditional financial asset portfolios. Mok et al.'s data was based on 4000 auction sales records and 20 repeat-sale paintings.
4. The repeat-sales model (Anderson, 1974; Baumol, 1986; Pesando, 1993; Goetzmann, 1993; Mei and Moses, 2002) and hedonic price model (Ginsburgh, 1995; Barre, et at 1996; Graddy and Ashenfelter, 2003; Higgs and Worthington, 2004) are alternative approaches to estimating art price indices. The disadvantage of the repeat-sales method is that it does not use any data on single sales, and therefore discards a large amount of data and raises the possibility of sample selection bias.

low-return and high-risk investment, Asian Contemporary and Modern Art can be treated as an investment with high-return and high-risk. In the last five years, however, Asian Contemporary and Modern Art has achieved reasonably high returns (5.16%) and low standard deviation (8.02%), and seems to outperform several traditional stock markets.

Second, this study investigates whether Asian Contemporary and Modern Art could benefit an investor's portfolio. Mei and Moses (2002) argued that art has lower volatility and lower correlation with other assets, making it more attractive for portfolio diversification than previously thought. Ashenfelter and Graddy (2003) indicated that art is an attractive investment and can be evaluated in the context of its role in a diversified portfolio. Worthington and Higgs (2003, 2004) indicated the existence of opportunities for portfolio diversification in art alone or in conjunction with equity markets, even though the returns on art are much lower and its risks are much higher than conventional financial markets. Campbell (2004, 2007) proposed that an extremely low correlation with other asset classes makes art investment highly beneficial for portfolio diversification. Pesando and Shum (1999, 2008) indicated that modern prints have low systematic risk, and thus promote investment diversification.

Following papers studying western art markets, we intend to investigate this issue in the Asian Contemporary and Modern Art market. Asian Contemporary and Modern Art have a negative correlation with stock markets, suggesting that Asian Contemporary and Modern Art could benefit an investor's portfolio by providing diversification. This finding is consistent with previous

findings in the literature.

Third, this study investigates the existence of a "Masterpiece Effect" in the Asian Contemporary and Modern Art market, since previous studies in the literature provide mixed empirical findings in various markets on this topic. Pesando (1993) was the first to show that print masterpieces tend to underperform in the market. Pesando (1993) used the top 5%, 10%, and 20% of art auction prices as a proxy for a masterpiece portfolio and found no evidence that a "Masterpiece" portfolio of higher-priced prints outperformed the market as a whole.

Mei and Mose (2002) defined a masterpiece portfolio as the top one-third of paintings by price, and reported that masterpieces tend to have lower excess returns than non-masterpieces, and that systematic risk does not explain the "Masterpiece Effect." Their evidence is consistent with the view that investors overpay for masterpieces under the influence of auctioneer estimates. Graddy and Ashenfelter (2002) found that "Masterpieces" underperformed in the Contemporary Art sample, but not in the Impressionist Art sample, consistent with Pesando (1993) and Mei and Moses (2002) in Contemporary Art. Pesando and Shum (2008) reexamined the "Masterpiece Effect" in the modern print market from 1977~2004, but found mixed results.

This study shows that a ''Masterpiece Effect" exists in Asian Contemporary and Modern Art. Empirical results after spring 2005[5] reveal that high-priced art (the top 5% of prices) had an annual real return of 13.67%, and outperformed the overall market. Our findings are complementary to

5. Because the sale prices of art are becoming more and more expensive and market shares are over 90% for the most recent five years, we chose to estimate the masterpiece price index from data collected from spring 2005 to autumn 2009.

those in the literature, where most papers generally found no evidence to support that a "Masterpiece Effect" exists in western art markets.

Fourth, this study tests the "Main Auctions Effect" proposed by Pesando and Shum (2008). They uncovered the fact that prints sold at major auctions[6] had much higher returns than prints sold at other auctions world-wide from 1977~2004. We took this idea one more step forward and tracked where art pieces were sold and bought. This makes it possible to compare returns in four scenarios: bought at main auctions/sold at main auctions; bought at main auctions/sold at other auctions; bought at other auctions/sold at main auctions; and bought at other auctions/sold at other auctions.

This study indicates that art sales at main auctions outperform sales at other auctions. Results show that the annual real returns on art bought at other auctions/sold at other auctions and bought at main auctions/sold at other auctions were 2.64% and 2.29%. On the other hand, the annual real returns on art bought at main auctions/sold at main auctions and bought at other auctions/sold at main auctions were 3.77% and 5.31%. Thus, art pieces sold at main auctions have higher returns than art pieces sold at other auctions. Furthermore, we find that the "Main Auctions Effect" is substantially contributed to by art pieces bought at the other auctions/sold at the main auctions. However, it is very important to recognize that artwork bought at main auctions may not always outperform those bought at other auctions. Although artwork bought at main auctions/sold at main

6. Pesando & Shum (2008) defined the major auction venues as Sotheby's and Christie's in New York and London.

auctions received fairly high returns (3.77%), returns of art bought at main auctions/sold at other auctions were only 2.29%, well below the returns in other markets.

This paper is organized as follows. Section 2 describes the database, presents the methodology, and proposes hypotheses. Section 3 outlines the results. Section 4 presents conclusions.

II. Data, Methodology, and Hypothesis

This paper constructs a new data set of repeat-sales of art and estimates an art-price index for the period 2000-2009. Since auction sales for art consist of spring and autumn sales, this study uses semi-annual observation data. The dataset contains 24,200 full observations on items auctioned from Asian Contemporary and Modern Art sales in Hong Kong, Taiwan, and China at Artron.net[7].

This study identifies initial sale prices and resale prices for art that sold more than once. Each resale pair was considered a unique point, and the data for this period contains 691 price pairs, consisting of 252 price pairs bought and sold at main auctions, 90 price pairs bought at main auctions /sold at other auctions, 162 price pairs bought at other auctions and sold at main auctions, and 187 price pairs bought and sold at other auctions.

This paper uses the repeat-sales method to estimate art price indices. The repeat-sales method measures the sales price difference of the same artwork in two periods. The log-price

7. The transaction observations of our research are derived from datasets from Asian Contemporary & Chinese 20th Century Modern Art sold from Artron.net and defined as the auction dataset.

relative was calculated for each pair of sales: the log of the price on the later sales date less the log of the price on the earlier date. The log-price relatives were then regressed on a set of dummy variables, one for each observation of the log-price index, and for each observation of the dependent variable. The repeat-sale regression[8] is:

$$r_{ibs} = \sum_{t=1}^{T} b_t x_t + \varepsilon_{ibs} \qquad (1)$$

where r_{ibs} is the N-dimensional vector of log-return relative for N repeat sales of art i, with initial sale at time b and resale at time s. The term x_t is a dummy variable that equals +1 at the time of the second sale, -1 at the time of the initial sale, and 0 otherwise; b_t is the value of the log-price index in period t (to be estimated); and ε_{ibs} is a disturbance term. The log of the initial value of the index b_0 was normalized at zero, and the T subsequent values of the log-price index were estimated by the regression. *SE* in the table represents the standard error of the estimate.

We introduce the following hypotheses related to the performance of art investments:

Hypothesis 1

Compared to returns in stock markets, the returns in Asian Contemporary and Modern Art are positive and are a highly beneficial investment vehicle.

Hypothesis 2

Investments in Asian Contemporary and Modern Art assets have a low correlation with stock markets.

8. Following Pesando & Shum (2008); Mei & Moses (2002)

This study calculates the statistical average mean and standard deviation on the investment performance of art assets and stock markets[9], and compares the annual real returns and investment risk for both. To assess the diversification of the art investment, this study presents the correlation matrix of the annual real return on art and stocks markets.

This study examines a "Masterpiece Effect" and introduces the following hypothesis:

Hypothesis 3

Masterpieces have a higher expected return than non-masterpieces.

To demonstrate the existence of a "Masterpiece Effect," this study follows Pesando (1993) and Pesando and Shum (1999, 2008) in using the top 5%, 10% and 20% of art by auction price as a proxy for a masterpiece portfolio to estimate the price index. Because most masterpieces were transacted over the last five recent years, this study estimates the masterpiece price index based on data from 2005 to 2009 and applies the same repeat sales regression approach using Eq. (1).

Finally, this study investigates the main auctions market effect and proposes the following:

Hypothesis 4

Asian Contemporary and Modern Art pieces sold at main auctions markets have a higher expected return than those sold at other auctions markets.

Data from the main auctions were collected from three international auction houses areas, Sotheby (S), Christie (C) auctions in Hong Kong and New York, China-Guardian (G) auction in

9. In computing the return and risk of art investment, this study uses return indices from several different stock markets: S&P Total Return Index (SP), Hang Seng Total Return Index (HK), Taiwan Stock Exchange Corporation Weighted Index (TW), and Shanghai Stock Market Comprehensive Stock Price Index (SH).

China and Ravenel (R) auction in Taiwan. Data for other auctions were collected from Chingshium (Ch), Kingsley (K), Zhongcheng (Z) auctions in Taiwan, Poly (P), Council (Co), Hanhai (Ha) auctions in Beijing and Hosane (Ho) in Shanghai[10].

In a method that is different from Pesando and Shum (2008), we separate our sample by where art pieces are initially bought and where those art pieces were eventually sold, and apply the same repeat-sales regression approach via Eq. (1) to specifically estimate the four-market price index. By further identifying auction houses where art pieces are bought and sold, we were able to further examine our new hypothesis related to a "Main Auctions Effect."

Hypothesis 5

Asian Contemporary and Modern Art pieces bought at main auctions markets have a higher expected return than those bought at other auctions markets.

III. Empirical Results

Price Indices

The price index for Asian Contemporary and Modern Art is based on semi-annual observations from 2000 to 2009. Table 1 and Figure 1 show the market share of art transactions. The market share is 93.09% from 2005 to 2009, with Asian Contemporary and Modern Art transactions reaching record highs in global art markets in the previous five-year period. Using 691 repeat sales, Table 2

10. The samples from the main and other auctions represent a more than 90% market share.

and Figure 2 show the price index with the base-year index set at 1. There was a sharp spike in spring 2003 and autumn 2008 sales. This might respectively have been due to the SARS outbreak and the global finance crisis, which affected the Asian economies and art market.

TABLE 1

Market Share of art repeat sales from spring 2000 to autumn 2009

Period	Total Hammer Amount(USD)	Lots Numbers	Average Hammer Amount(USD)	Market Share
00-S	14,102,992	131	107,656	0.58%
00-A	7,854,330	106	74,097	0.32%
01-S	13,147,798	106	124,036	0.54%
01-A	11,162,664	158	70,650	0.46%
02-S	6,813,673	131	52,013	0.28%
02-A	7,825,318	100	78,253	0.32%
03-S	3,335,546	48	69,491	0.14%
03-A	16,565,364	354	46,795	0.68%
04-S	8,300,639	135	61,486	0.34%
04-A	36,197,323	528	68,556	1.49%
05-S	79,909,234	844	94,679	3.30%
05-A	102,990,738	1,104	93,289	4.25%
06-S	176,346,567	2,058	85,688	7.28%
06-A	256,315,914	2,415	106,135	10.58%
07-S	337,373,666	2,743	122,994	13.92%
07-A	393,919,297	2,706	145,573	16.26%
08-S	434,780,247	2,922	148,795	17.94%
08-A	146,892,766	1,779	82,570	6.06%
09-S	179,154,411	1,545	115,958	7.39%
09-A	147,776,135	1,187	124,495	6.10%

FIGURE 1

Market Share of Art Repeat Sales from spring 2000 to autumn 2009

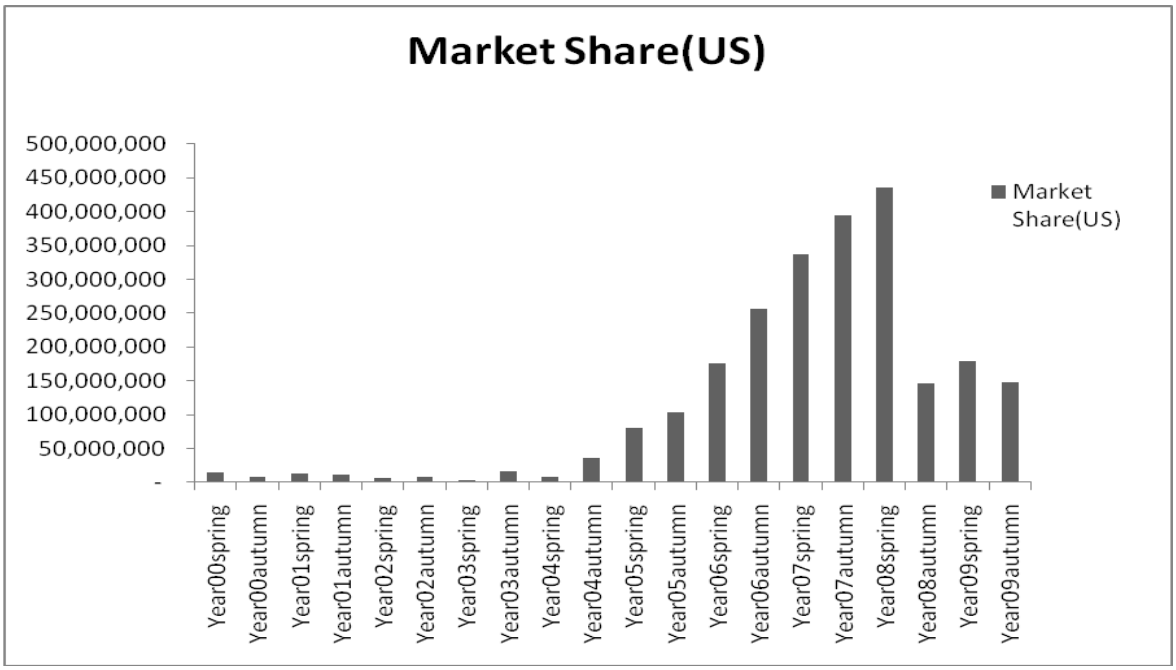

TABLE 2

Nominal Semiannual Asian Contemporary & Chinese 20th Century Modern Art Index: spring 2000 to autumn 2009[a]

Period	b=log index	SE(b)	b-b-1	SE(b-b-1)	EXP(b)
Year00spring	0	0			1
Year00autumn	-0.319120	0.183089	-0.319120	0.183089	0.726788
Year01spring	0.306884	0.194424	0.626004	0.286340	1.359183
Year01autumn	-0.074571	0.143384	-0.381455	0.274660	0.928141
Year02spring	-0.191535	0.161919	-0.116964	0.249571	0.825691
Year02autumn	1.097311	0.367049	1.288846	0.421045	2.996099
Year03spring	0.318879	0.370332	-0.778432	0.536077	1.375584
Year03autumn	0.320554	0.119852	0.001675	0.407273	1.377892
Year04spring	0.295875	0.176965	-0.024679	0.238861	1.344302
Year04autumn	0.409797	0.106983	0.113922	0.236111	1.506512
Year05spring	0.519917	0.102505	0.110120	0.191552	1.681888
Year05autumn	0.521832	0.097694	0.001915	0.190263	1.685112

Year06spring	0.687817	0.095363	0.165985	0.186441	1.989368
Year06autumn	0.721773	0.094570	0.033956	0.186014	2.058080
Year07spring	0.775102	0.097294	0.053329	0.188928	2.170813
Year07autumn	0.923647	0.100891	0.148545	0.195146	2.518458
Year08spring	0.908588	0.103366	-0.015059	0.200941	2.480818
Year08autumn	0.795966	0.108432	-0.112622	0.207642	2.216581
Year09spring	0.774393	0.111948	-0.021573	0.215211	2.169275
Year09autumn	0.776373	0.114266	0.001980	0.220674	2.173575

a $Y = r_{ibs} = \sum_{t=1}^{s_i} b_t x_t + \varepsilon_{ibs}$ Run OLS Regression, the results is significant from Year04autumn to Year09autumn. Base on Year00spring at 1% level, we calculate the EXP(b-$b_{year00spring}$) to graph the art price index.

FIGURE 2

Asian Contemporary & Chinese 20th Century Modern Art Index[a]

[a]Base Year: All auctions art index Year 2000spring=1 For the All Asian Contemporary and Chinese 20th Century Modern Art Index, regression statistics for linear repeat sale regression.

Risk and Return of Asian Contemporary and Chinese 20th Century Modern Art Indices

Tables 3 and 4 provide summary statistics of annual real returns for each stock market. This study computes annual real returns as the nominal return minus inflation using the CPI index. Compared to those in stocks markets, the annual real return of Asian Contemporary and Modern Art had a positive performance (8.39%) and outperformed returns of four stock markets, including the Hang Seng Total Return Index (HK), -0.67%, the Shanghai Stock Market Comprehensive Stock Price Index (SH), 1.58%, the S&P 500 Stock Index (SP), -7.01%, and the Taiwan Stock Exchange Corporation Weighted Index (TW), -4.46%. From the art index of Mei & Moses,[11] it appears that western art performed worse than the S&P 500 index for the past several years. Interestingly, we find that Asian Contemporary and Modern Art outperformed other stock indices.

Table 3 indicates that from 2000 to 2009 Asian Contemporary and Modern Art had higher returns and higher risk than other stock indices. On the other hand, we find that from the 2005 to 2009 data shows that art investment has higher returns and lower risk than other stock indices. The above empirical findings support Hypothesis 1.

11. The Mei Moses Art repeat sale index contains annual updates of the New York auction market, including returns, risk, and correlation comparisons with other assets for the last 25 and 50 years. This information is published in the 2010 Beautiful Asset Advisors® LLC

TABLE 3

Sample statistics of Annual Real Returns on Asian Contemporary & Chinese 20th Century Modern Art and Stocks Markets, spring 2000 to autumn 2009[a]

Base on Spring 2000			Base on Spring 2005		
	Mean	Standard Deviation		Mean	Standard Deviation
ART	8.39%	40.70%	ART	5.16%	8.02%
HK	-0.67%	19.05%	HK	2.55%	24.92%
SH	1.58%	29.97%	SH	18.29%	40.73%
SP	-7.01%	13.18%	SP	-6.15%	16.61%
TW	-4.46%	22.69%	TW	1.16%	24.39%

[a]We use the day return data of stock to calculate the HK, SH, SP and TW semiannual nominal return rate, and minus inflation using the CPI index to compute the annual real return. The art annual real return is calculated by the nominal return minus China CPI index.

Table 4 further demonstrates that Asian Contemporary and Modern Art has a low correlation to other stock indices and indicates the role of art investment in portfolio diversification. These results generally support Hypothesis 2.

TABLE 4

Correlations of Annual Real Returns on Asian Contemporary & Chinese 20th Century Modern Art and Stocks Markets , spring 2000 to autumn 2009[a]

	ART	**HK**	**SH**	**SP**
HK	-0.09(0.73)			
SH	-0.07(0.79)	0.73**(0.00)		
SP	-0.2(0.41)	0.86**(0.00)	0.51*(0.03)	
TW	-0.03(0.91)	0.7**(0.01)	0.45(0.05)	0.729**(0.00)

[a]Numbers in parentheses are probability values for the Pearson test of significance of correlation. An asterisk indicates significance at the 1% level.

Masterpieces Effect

Tables 5 and 6 indicate that a "Masterpiece Effect" exists in the Asian Contemporary and Modern Art market. From the 2005 to 2009 data we find that high-priced art (top 5% by price) had an annual real return of 13.67%, outperforming other artwork in the market. These results support Hypothesis 3.

TABLE 5

"Masterpiece Effect"--- Art Index[a]

Period	All Auctions (691 lots)	Top 5% of price (35 lots)	Top 10% of price (69 lots)	Top 20% of price (138 lots)
	b=log index	b=log index	b=log index	b=log index
Year05spring	0.000000	0.000000	0.000000	0.000000
Year05autumn	0.002371	0.132214	0.175349	0.038731
Year06spring	0.172273	0.228115	0.321835	0.142538
Year06autumn	0.193940	0.503922	0.315252	0.233639
Year07spring	0.239157	0.215986	0.409898	0.324305
Year07autumn	0.389575	0.405419	0.506697	0.393263
Year08spring	0.368952	0.364542	0.374062	0.361326
Year08autumn	0.251441	0.331689	0.293575	0.265458
Year09spring	0.233701	0.252316	0.472381	0.345838
Year09autumn	0.221605	0.604535	0.578303	0.366507

[a]We use Asian Contemporary and Chinese 20th Century Modern Art does repeat sale data to construct a masterpiece portfolio comprise all auction catalogues for spring 2005 to autumn 2009.

TABLE 6

"Masterpiece Effect"[a]

Annual real return --- Base on Spring 2005		
	Mean	Standard Deviation
All auctions	5.16%	8.02%
Top 5% of Art by Price	13.67%	19.15%
Top 10% of Art by Price	13.09%	11.01%
Top 20% of Art by Price	8.38%	5.71%

[a]Following Pesando and Shum (2008), used the top 5%, 10%, 20% of arts by auction price to proxy a masterpiece portfolio.

Main Auctions Effect

Similar to Pesando and Shum's (2008) findings, Table 7 and Table 8 show that art sold at the main auctions outperform art sold at other auctions. The annual real returns on art bought at other auctions/sold at other auctions and art bought at main auctions/sold at other auctions were 2.64% and 2.29%. On the other hand, the annual real returns on art bought at main auctions/sold at main auctions and art bought at other auctions/sold at main auctions were 3.77% and 5.31%. Thus, art pieces sold at main auctions had higher returns than art pieces sold at other auctions. These results support Hypothesis 4. Furthermore art pieces bought at other auctions/sold at main auctions have the highest return (5.31%).

TABLE 7

Nominal Semiannual Asian Contemporary & Chinese 20th Century Modern Art Index: spring 2005 to autumn 2009[a]

Period	All Auctions (691 lots)	Main /Main (252 lots)	Other /Other (187 lots)	Main/Other (90 lots)	Other/Main (162 lots)
	b=log index	b=log index	b=log index	b=log index	b=log index
Year05spring	0.000000	0.000000	0.000000	0.000000	0.000000
Year05autumn	0.002371	-0.041183	0.184900	0.143555	-0.046872
Year06spring	0.172273	0.131615	0.140235	0.131964	0.207072
Year06autumn	0.193940	0.054152	0.272438	0.257720	0.178436
Year07spring	0.239157	0.204639	0.253804	0.241225	0.103646
Year07autumn	0.389575	0.384639	0.331636	0.312089	0.324110
Year08spring	0.368952	0.374155	0.353142	0.362902	0.249308
Year08autumn	0.251441	0.284489	0.195243	0.173912	0.067233
Year09spring	0.233701	0.198887	0.223448	0.204159	0.122998
Year09autumn	0.221605	0.159041	0.108026	0.092469	0.228312

[a]Because most of other auctions are build up in 2005, so we use the repeat sales data from spring 2005 to autumn 2009 to construct the four market price index.

TABLE 8

The "Main Auctions Effect"[a]

Base on Spring 2005		
	Mean	Standard Deviation
All auctions	5.16%	8.02%
Main/Main	3.77%	10.84%
Other/Other	2.64%	10.57%
Main/Other	2.29%	10.06%
Other/Main	5.31%	13.93%

[a]We separate the main auctions and other auctions by art market shares

However, art pieces bought at main auctions/sold at other auctions have the lowest return (2.29%). Thus, we could not find firm evidence to support Hypothesis 5. In other words, we find that the art pieces sold at main auctions markets have a higher expected return than those sold at other auctions markets, but we also found that art bought at the main auctions may not have a higher return than those bought at other auctions.

VI. Conclusions

This study is the first to investigate the Asian Contemporary and Modern Art market. The results of this study partially fill the existing gap in research on Asian Contemporary and Modern Art as a financial investment and complement research on western art markets.

In summary, this study contributes the following items. First, this study constructs a new data set of repeat sales of art and estimates a semi-annual index of art prices for the period 2000~2009. Second, this study shows that investing in Asian Contemporary and Modern Art may bring higher financial returns. Third, this study shows that this type of art has higher volatility and lower correlation with other stock markets, demonstrating that art may play an important role in portfolio diversification.

Unlike other studies in this area, which indicate that the returns on investment masterpieces are much less than those in the overall art market, this study shows that the Asian Contemporary and Modern Art market is subject to a "Masterpiece Effect." In other words, expensive art tends to outperform the rest of the market, achieving higher expected returns than lower-level artwork.

Furthermore, we find that in Asian Contemporary and Modern Art markets, the art pieces sold at the main auctions outperform those sold at other auctions. However, we find no evidence to support the idea that art pieces bought at main auctions outperform those bought at other auctions. Our findings contribute to the literature by enriching our understanding of the "Main Auctions Effect."

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