

Beautiful Assets

Art as an Investment

by Jianping Mei and Michael Moses

For centuries wealthy individuals and institutions have collected art for aesthetic pleasure. As fine art has appreciated in value over time, it has become an area of interest to investors. The data presented here provides information that may serve useful to those considering the addition of fine art as a long-term investment. As a caveat, financial decisions should always be made based on the risk/return and time horizon preferences of the individual investor as well as with the advice of experts.

In an effort to track the investment history of works of art, we established a database gleaned from public information in auction records. To determine changes in value over time we focused our research on art that has sold more than once at auction. We further honed the study to the American art market, principally New York. The period of study ranges from 1875 to 2004 and includes American, Old Master, Nineteenth-Century, Impressionist, and Modern paintings. If a painting's provenance stated it had been sold outside New York at some point, that price was also included in the results.

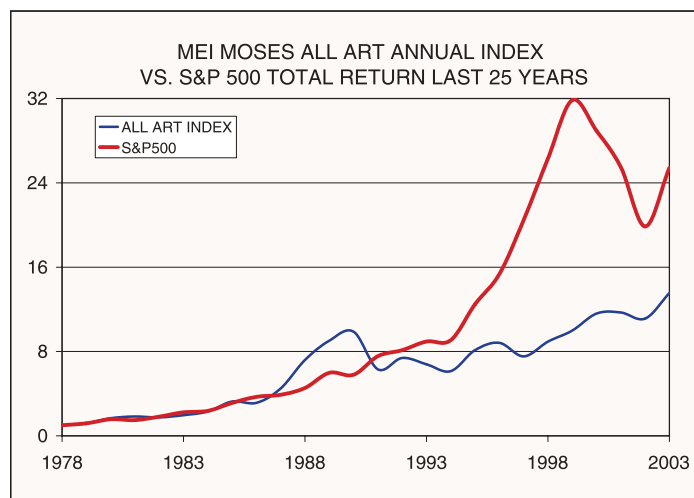
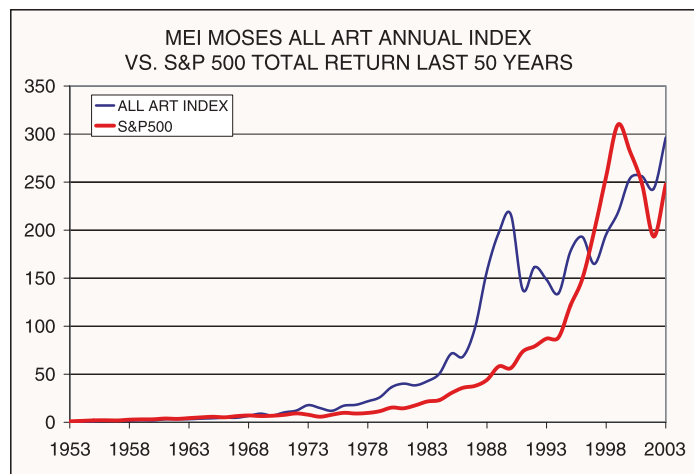
As well as analyzing our data as a totality, we also separated it into three popular collecting categories: American paintings principally created between 1700 and 1950 (1,261 pairs representing 345 artists); impressionist and modern paintings created between 1875 and 2000 (2,160 pairs representing 241 artists); and Old Master (a category that we expanded to include works dating back to the twelfth century) and nineteenth century paintings dating before 1875 (3,232 pairs representing 1,503 artists).

The repeat sales data allow us to create an All Art Annual Index that starts in 1875. For example, Figure 1 provides a graphic plot of the index over the 1953–2003 time period with the base year index arbitrarily set to be 1. The index is estimated with over 7,100 pairs of repeated sale prices for over 2,000 artists.⁷


Figure 1 shows a sharp rise in prices in the late 1980s, with the art index peaking in 1990 followed by a 36 percent drop in 1991. We can also see that it took eight years of market adjustment until the index recovered from its high level of 1990. Thus, performance was much affected by the bear market in art of the last ten years of the twentieth century. While the boom and bust in the art market was well documented, the price index allows us to estimate

the precise time and magnitude of the price change. Our indices have also identified major price drops during the 1974–1975 oil crises and the 1929–1934 depression.

Table 1 provides summary statistics on the behavior of nominal returns for each of five asset classes. For each variable, we report the mean, standard deviation, and its correlation with other assets. During the 1953–2003 period, art had an annual compounded return of 12.06 percent, comparable to that of stocks, and art outperformed bonds, treasury bills, and gold. When we consider the last twenty-five years (Fig. 2), our results are quite similar, although the performance gap between art and stocks is now in favor of stocks. During the last five-year period (Fig. 3), the art index once

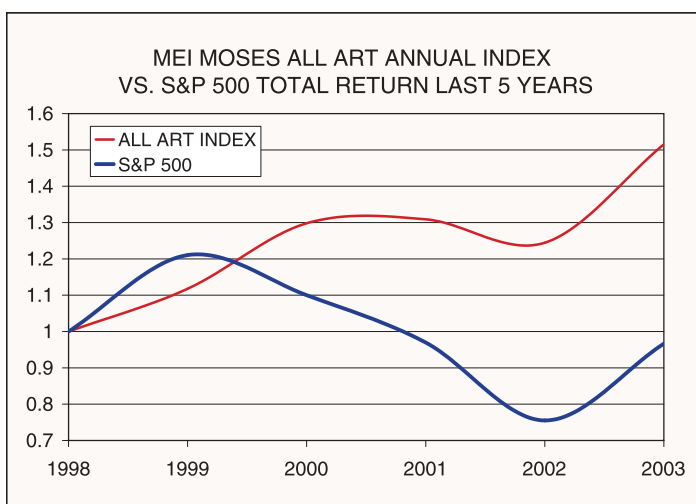


again out-performed all other financial assets. Moreover, we found that the volatility of the art market price index, as indicated by its standard deviation (S.D. in table 1), dropped from 23.4 percent during the 1953–2003 period to 10.6 percent during the 1998–2003 period. The art index is more volatile than the S&P 500 for the fifty- and twenty-five-year time periods. To avoid the vagaries of a particular starting year we computed the risk and return of all the ten- and fifteen-year holding periods between 1953 and 2003, and found that our art index on average outperforms the total return index of the S&P 500 by about 1 percent a year with about the same risk.

Our findings demonstrate that art has had returns similar to stocks over the last fifty years, although there are clearly some periods when stocks outperform art. It is also clear that our art index illustrates art has a greater volatility than stocks, which is, however, mitigated by the art index having low correlation with other assets. As part of a diversified portfolio, art differs from stocks in that art has the added benefit of being aesthetically pleasing. 

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1 Our reported art index is based on the three-stage-least-square procedure proposed by Case and Shiller (1987). The Adjusted R-squares for the estimation is 0.64, suggesting the art index explains 64% of the variance of sample return variation. The F-statistic equals 104.32 with a significance level equal to 0.000, indicating the index is a highly significant common return component of our art portfolios.



Mei Moses and Other Assets — Summary Statistics of Returns						
		All Art Index	S&P500	Gov Bond	T-Bill	Gold
1953-2003	Mean	12.06%	11.65%	6.52%	5.43%	5.04%
	S.D.	23.40%	17.80%	9.84%	2.93%	27.66%
1978-2003	Mean	10.99%	13.82%	9.69%	6.52%	2.13%
	S.D.	20.75%	16.05%	11.79%	3.30%	31.01%
1998-2003	Mean	8.67%	-0.68%	6.69%	3.28%	7.57%
	S.D.	10.57%	22.62%	5.35%	2.15%	12.17%
Correlations Among Annual Returns (1953–2003)						
All Art Index		1.000				
S&P 500 Index		0.043	1.000			
Ten Year Treasury		-0.153	-0.129	1.000		
U.S. Treasury Bills		0.061	-0.073	0.306	1.000	1.000
Gold		0.054	-0.208	-0.209	0.124	