VIEWPOINT

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Art, The Appraiser And Econometrics

Articles in professional journals are presumed to be weighty matter – informational sentences that open for the reader insight into a subject about which he or she knows little if anything, and for which enlightenment is sought.

This article is on what at first may seem to be a subject far from that of fine art appraising – Econometrics. It's a hotter topic than you might think initially, but it has been coming up more and more on the pages of newspapers and journals regarding art and art prices.

Of course you know, but just in case it's slipped your mind for the instant, Econometrics means economic measurement. It means a lot of other things of course, but for purposes of this article we will take it to be exclusively about how art is measured, in terms of variables over time and estimation of probable future occurrences. That's vague enough I suppose, but hopefully you get the idea that it's the way economists figure out the art market, where it is and where it is going. And because this has become the focus of many art world discussions recently, especially when it involves charts economists create to measure the past, present and future of the art market, we decided it was time to address the issue.

Curiosity causes me to wonder at appraisers' reactions to econometric quantification. To satisfy that curiosity I will provide some statistics on auction sales for artists from different periods and ask that you consider what the statistics tell you, not of course as economists, but as experienced evaluators of works of art. From my reading of numerous articles by econometrists it appears that only mathematical equations figure in their reasoning, without understanding or regard to outside factors. Let's see what you think.

Testing…testing…testing

Andy Warhol: Five times since the past top of the art market in 1989, Andy Warhol's 48 x 48 inch *Flowers* has been sold at auction. The date of creation for all of them was 1964. The first sale, in November of 1989, was for $605,000; the second, in November 1996 was for $519,500; the third was in 2000 and brought $830,000; the fourth in May 2003 and fetched $2,136,000, and the latest was in November of 2006 and brought $6,848,000. None of these were repeat sales. How would you analyze the results?

Julian Schnabel: One of this high-profile Neo-Expressionist artist's oversized work was sold in November of 1996 for $121,000; in November of 1991 a work of approximately the same size had sold for $48,300; from 1990 through 1992 there were several buy-ins of his paintings; in November of 2004 a painting sold for $253,900. How would an appraiser explain the decade's see-saw prices?

Jeff Koons: One of the biggest names in contemporary art. Koons' large scale painting of Saint Benedict sold in May of 2004 for $1,687,500 and again in June of 2005 for $1,158,400. What caused the $529,100 drop in price?

Willem can Aelst: In April of 2003 a still life on panel by this 17th century master, 16 x 13 inches, brought $55,900 at Sotheby's London. In January of 2007, at Sotheby's New York, another still life by the artist, of approximately the same size and quality, brought $348,000. Is there an explanation for this value acceleration over just three years?

Pity Me Please

Before writing this article I spent over twenty hours reading treatises on the econometric

measurement of art at auction. I would first point out that none of the data included in the economists' findings/charts/conclusions came from private sales, nor were any figures other than those found at public auction used in calculating the results. I thought that the results lacked important components and therefore, ultimately, I challenged their real accuracy.

My contention is that economists cannot realistically render a credible opinion on the nature of specific works of art without understanding how the private art market works, what social and political and historical factors are in play behind that public auction scene, and what other work by the artists in the surveys are available privately or in organizations and museums ready to deaccession. In other words, if economists do not have an understanding of the overall market, with its ins and outs, its outside the auction sales manipulations (Saatchi decides to sell off the work of one artist and put money into the work of a new name, for instance), there can be no true findings provided by mathematically organized "art charts" without accompanying analysis by art connoisseurs.

Views of Economists

This opinion appears to also be that of the anonymous author of a paper on an economic approach on art, published by the Tinbergen Institute of the Erasmus University of Rotterdam and the University of Amsterdam (last edited in 2006). "Even though the construction of a model which explains the prices of works of art is difficult, it creates a lot of insight. *Especially when the appraisal of the art connoisseur is used besides the econometric techniques."* (Page 7 of 8) – (Italics ours)

Richard Agnello, an associate professor of economics at the University of Delaware, agrees with the lack of private information. "Due to their private nature market venues such as dealer and gallery trade generally do not allow for the compilation of a large and representative data series need for price index construction."[i]

In the paper prepared by Agnello, the **Annual Art Sales Index** *(*Hislop, 1971-1996) was utilized for ninety-one "well-known artists born before WWII whose works are generally expensive, thus more likely to reflect investment rather than pure consumption…" Firstly, I question the use of only one art source when the use of several should be the norm. The author finds it surprising that in his study the auction prices at the top of the auction market concur with the quality as reflected in the views of art historians and critics. He concludes that the highest priced (highest estimated) yield the highest return. "What is not typical however is that high returns are not accompanied by extra risk……..Low end paintings have lower returns and comparable risk." Why did he do such an extensive study in order to know what anyone in the art field already knows?

At the end Agnello concludes that art and art investment probably is a floating crap game. "However our findings suggest that paintings may offer diversification value with a fairly attractive return especially for high end works." (Well, duh. Only economists come up with their findings through complex mathematical structures, appraisers have to look at the actual market.)

In an online newsletter article by Jim Pesando of the University of Toronto, "Art as an Investment: What Have We Learned?" the author looked at seventeen recent studies and concluded that "…art as an investment has a lower expected return, given its degree of risk, than do traditional financial assets….transaction costs for buying and selling art are very high relative to traditional financial assets…and contrary to the claim of most art market professionals, masterpieces do not outperform the market" which, by the way, I find a rather inaccurate statement if one follows the market in a realistic manner rather than trying to quantify it. The author never identifies what constitutes a "masterpiece" nor does he state with whom he conferred to come to that conclusion.

In an article by economists Alan Beggs and Kathryn Graddy[ii] the authors begin by expressing surprise that the price at a previous auction sale

has any effect on an auctioneer's pre-sale estimate when the work next appears at auction – that is, once an estimate is formed based on the characteristics of the painting and the current state of the art market.

I think it worth providing the exact quote from the article about how believe that an art expert goes about valuing a painting:

"He knows the price at which the current seller previously purchased the painting [at auction] and makes an initial judgment about price. Psychologists would call this partial information processing. He then goes about making a new and detailed valuation by taking into account the observable painting characteristics and the current state of the art market. The expert then revises his new valuation based on a proportion of the difference between the observable price that he has, i.e., his anchor, and his current estimate. We show that reference dependence based on 'rule of thumb' learning can be distinguished from reference dependence based on 'rational' learning." (Page 3)

The authors/economists also advise us that "A high selling price in the past is, *ceteris paribus* [all things being equal] likely to result in a higher estimate being set when the painting is next put on the market." Gosh, I am glad to learn that.

Next Step

Okay, now that we know this we can appraise the painting.

The economists wish to come up with a valuation, but Beggs and Graddy note that while the econometricians cannot always observe all the variables related to the valuing of the artwork, he can fold into his charted predictions and "can control for his poor predictions [by taking] the residual from his hedonic [characteristic] prediction and the actual price, and include it in his regression." (Page 7)

I realize that I've lost most of my readers by now, but I still think it important for appraisers to understand why the econometric measure of art lies, not in an understanding of how the art market operates, but in certain naïve assumptions about its operation. The art market is not a horse race, to which some economists have compared it.

Some quotes seem to an experienced appraiser as Art Sales 101. For instance, this same article, in speaking about second sales at auction of the same painting: "Although [the charts] are large in themselves, there is in actuality a relatively small number of sales that can be positively identified as repeat sales. This is a problem specific to working with sales of art. While there are some datasets, such as the dataset put together by Mei and Moses (2002), that deal with large numbers of repeat sales over huge expanses of time in varied locations, the large time intervals in their dataset between sales make it likely that the first purchaser of the painting is not the same as the seller of the painting." I wonder why this comes as a discovery to the economist who might have come to the same conclusion by looking at the provenance provided in the auction catalog beneath the image of the painting being offered.

One sentence in the article rather floored me. "…for Impressionist Art the estimates tend to increase the longer the time between sales. This coefficient is positive but not statistically significant for Contemporary Art." (Oh, and one more thing – the statistics were based on the hammer price, not on the hammer plus commissions, knocking off between 20 (below $200,000 or $500,000, and 12 percent above, of the actual price paid by the buyer).

Commentary

Appraisers will know that this is simply an indication that the value of significant Impressionist Art going up systematically since the 1950s while knowing, at the same time that Contemporary Art the prices have gone up astronomically, over shorter and shorter periods for the superstars of the field. So the economist's

findings are well behind that of an appraiser's current knowledge of the market. That is why I find it difficult to accept the econometric charts and measures.

The art market is a movable feast, unpredictable and un-measurable except in terms of gross calculations – the "market basket" approach. This was tried in the 1970s, tested over several years and then disappeared as the art market, fueled by high profile sales and huge gobs of publicity, became a media phenom. The results of all sales of certain schools of art – Impressionist, Old Masters, etc. – were lumped into one basket and used as measurement for the growth or decline of that market during a specific time period.

And this is, in my opinion, the best and highest use of econometrics in the world of art. For instance, it may be of interest and assistance to know that, according to William Goetzmann, a professor at Yale, that during the last art-market slump, which took place during and after 1990, Impressionist work fell by 51 percent and contemporary art by 40 percent, while Old Masters only saw a fall of 16 percent. This might indicate a reason to hold on to Old Masters (which, by the way, are currently enjoying a huge revival). However, Jiangping Mei and Michael Moses, professors at New York University, tell us that since 1970 the returns on contemporary art have outstripped those of Old Masters and 19th century paintings. So should we instead buy contemporary art and expect it to go up? What we have observed, and which is reaffirmed by a recent academic study is that the last art world boom (late 1980s), was closely tied to property values – particularly Japanese land values. Once again, property prices in several countries, including the United States, are beginning to look a little shaky. (At the time the article was written on which this information was obtained, the last sentence called the property values "at giddy heights." We changed it to reflect the 2007 real estate market.)[iii]

According to the Mei-Moses Index, each year an average of only two artists emerge whose work increases in value over time, although one can determine this by glancing through old copies of **Art News** or one of the other periodical devoted to the field. It might seem that two artists could be an overstatement.

"Over the 50 years through mid-2004, the broad Mei-Moses All Art Index appreciated at an annualized pace of 12.1%. That's half a percentage point higher than the return of S&P 500, dividends included, and 5.6 percentage points greater than 10-year U.S. Treasury bonds."[iv] But if you own a painting that loses half its value in the next art market bust you may wish the money had gone into Treasuries. It depends to a great extent on whether the art was purchased to provide pleasure or as an investment. Even when the value goes the pleasure should remain. Or can't we look at art that way anymore?

A final note on all of this – well, almost a final note. We still have to return to Warhol et al.

There are any number of firms that track art sales by maintaining databases that generate charts (themselves not verifiably accurate – but that's another story), and are somewhat akin to charts that follow the stock market. But limitations should be understood. While the Mei-Moses index provides a broad overview of the market, it cannot be considered an investment tool.

A spokesperson for one of the art investment funds, Bruce Taub of Fernwood, says that the databases take him only so far in evaluating works of art. "He requires more analysis…and "Before making a transaction, Fernwood considers a piece of art the old-fashioned way, examining its provenance, or ownership history, its quality and rarity, and the frequency with which it comes to market."[v]

So you appraisers out there can feel secure in hanging onto your professional hats. The art indexes may provide generalized, even long-term information about art that might be good for their fellow economists to use for their own articles, but if an evaluation about a work of art is needed that really tells it as it is, it is the appraiser who must do the telling.

And Now, to Really Conclude

As for the questions asked at the beginning of the article: If any appraisers want to venture an opinion on any of these four questions I will be happy to respond. (ele@otoole-ewald.com).[vi] The explanation for each may be a bit lengthier than any of the economists wish to consider since, for them, it is about the numbers, not the backstory.

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[i] **Agnello, Richard J.** "Do U.S. Paintings Follow the CAPM?: Findings Disaggregated by Subject, Artist, and Value of the Work. (University of Delaware, Newark, NJ: January 2006)
[ii] **Beggs & Grady, Kathryn, 2005.** "Testing for Reference Dependence: An Application to the Art Market," CEPR Discussion Papers 4982, C.E. P.R. Discussion Papers. (University of Oxford: March 2005)
[iii] **Top Drawer – The Art Market**. "The Economist." (The Economist Newspaper Limited – London, 2004)
[iv] **Uhlfedler, Eric, "Personal Journal** – Canvassing the Art Market ---Old masters and New Money: Getting Realistic Perspectives on Indexes that Track Prices." "The Wall Street Journal Europe. (Dow Jones & Company, Inc. – August 6, 2004, p.1)
[v] Ibid, p. 3
[vi] **The Art of Investing in Art Part 2**. In part from the "Chartered Financial Analyst, October 2003.
Hodgson, Douglas J. "Age-Price Profiles for Canadian Painters at Auction." Abstract, Universite du Quebec a Montreal

Mei, Jiangping and Moses, Michael. "Art as an Investment and the Underperformance of Masterpieces." Abstract, Department of Finance and Department of Operations Management, Stern School of Business, New York Unversity. Orley Ashenfelter, co-editor.
Beggs and Graddy. "Failure to Meet the Reserve Price: The Impact on Returns to Art." Department of Economics Discussion Paper Series, Oxford University, Cambridge, UK
McCullough and Vinod. "The Numerical Reliability of Econometric Software." **Journal of Economic Literature**, Vol. XXXVII (June 1999)