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The economics of aesthetics and record prices for art since 1701☆

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Abstract

Aggregate art price patterns mask a lot of underlying variation—both in the time series and in the cross-section. We argue that, to increase our understanding of the market for aesthetics, it is helpful to take a micro perspective on the formation of art prices, and acknowledge that each artwork gives rise to a market for trading in its private-value benefits. We discuss relevant recent literature, and illustrate the potential of this approach through a historical study of record prices for art at auction since 1701.

Keywords: Art; Auctions; Price formation; Price indexes; Private values; Record prices
JEL classification: D10; D44; D84; G10; Z11

1. Introduction

Over the last half century, a growing literature in economics has substantially improved our knowledge of the risk-return properties of diversified art portfolios, the correlation patterns between artwork characteristics and prices, and the impact of shifts in income and wealth distributions—and in market sentiment—on average art prices. These quantitative, econometric studies have been useful in documenting the integration of the market for art into a broader economic and social context, but this framework of analysis also has its limits. Focusing on the aggregate time-series dynamics and average cross-sectional pricing differences masks considerable idiosyncratic variation that is peculiar to the demand and appreciation of art, and is potentially highly relevant to economists seeking to understand how prices are set, to (typically undiversified) collector-investors, and to observers of the art market wishing to learn about the dynamics of art buyers' preferences from prices.

In this article, consistent with the spirit of *Explorations in Economic History*'s "Surveys and Speculations", we propose that, to further increase our economic understanding of the market for aesthetics, it is useful to examine the formation of art prices on a disaggregate level—using cases that elucidate the complexity of price formation. In a

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market characterized by private values, idiosyncratic tastes, and non-pecuniary benefits of ownership and display, sometimes the details can be as useful as the statistics in revealing fundamental market determinants. In econometric terms, a deeper understanding of outliers can reveal factors that would otherwise be difficult to capture through standard aggregate measures.

Our starting point is that anybody's valuation of an artwork should be a function of both the expected (non-financial) private-value benefits over the holding period and the expected (financial) resale revenues (Lovo and Spaenjers, 2014). The latter cashflow is in itself endogenously related to the distribution of tastes among potential buyers at the time of resale. Each individual artwork thus gives rise to a market for trading in its current and future private-value benefits. Within this framework, we discuss recent theoretical and empirical studies on the different forces that drive bidders' willingness to pay at art auctions. Conclusions that emerge from this body of work are that the enjoyment associated with art ownership is multi-faceted, that preferences interact with wealth in determining the magnitude of private values, that beliefs about resale revenues matter, and that the strategic choices made by the auction house prior to a sale can affect its outcome.

We then illustrate the relevance of a micro perspective to the formation of art prices through a particular case study. Based on historical research, we identify all 35 sales of artworks between 1701 and 2014 that set record prices—in nominal GBP terms—at auction. At one time in history each of these pieces held the special distinction of being the most expensive work of art ever sold through a commonly observed market. A review of these works reveals an interesting paradox: an extraordinary price does not necessarily equate to a unique or extraordinary artwork. Standard hedonic analysis would not have predicted such extreme values. Moreover, the timing of record transactions does not always coincide with general periods of price increases. Based on an in-depth study of the different sales in our series, we conclude that auction records may be set in situations characterized by one or more of the following elements: (i) extreme supply constraints, (ii) instances of social competition among "nouveaux riches", (iii) resolution of uncertainty about the potential resale value of the artwork, and (iv) idiosyncratic shifts from hedonic weights. These factors emerged from an outlier analysis of a very small but special sample of auction records, but they may have the potential to be tested in the future using econometric methods.

The remainder of this paper is organized as follows. Section 2 reviews the main strands of the literature on art prices. Section 3 proposes a new framework to understand art price formation, and discusses recent related studies. Section 4 presents our record series. Section 5 explains how it illustrates the relevance of a micro perspective on art prices. Section 6 concludes.

2. Main strands of the literature on art prices

2.1. Art price indexes

The first efforts to estimate the investment performance of art occurred in the early 1960s. A popular book by Rush (1961) presented indices for different artistic genres and even included a comparison with stocks. Early efforts to estimate the investment performance of art were hindered by difficulties in collecting price data (Coslor and Spaenjers, 2013). Academic interest in the topic grew with a number of contributions (e.g., Anderson, 1974; Baumol, 1986; Goetzmann, 1993) that used historical auction sales data compiled by art historian Reitlinger (1961) in his influential book "The Economics of Taste: The Rise and Fall of Picture Prices, 1760–1960". A popular methodology used to construct price indexes for infrequently traded assets in these early studies was the repeat-sales regression, which estimates average returns based on purchase and sale prices of items trading twice. An alternative approach is the hedonic regression, which constructs a price index by regressing all available transaction prices—so not only those of sales pairs—against time dummies, controlling for the quality-determining or "utility-bearing" (Rosen, 1974) characteristics of each artwork. Over the last two decades, researchers have applied these two methods to ever-larger databases of art auction sales. For example, Mei and Moses (2002) build a price index starting in 1875, based on resales at the New York offices of Sotheby's and Christie's. Goetzmann et al. (2011) do a similar long-term exercise using London auction data from Reitlinger (1961) and an online sales database. Other papers (e.g., Renneboog and Spaenjers, 2013) consider shorter time intervals but use data from a wider set of auction houses and locations.

Although different methodologies and sample periods yield slightly different conclusions with respect to the long-term return to art investment, estimated returns generally beat inflation but remain below the performance of equities. To illustrate this, Fig. 1 compares the real GBP investment performance of art to that of financial assets between start-1900 and end-2013. For the period 1900–2007, we rely on estimates of price changes in the U.K. art market from Goetzmann et al.