The Market for Contemporary Art

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Beneath its glossy veneer, the market for contemporary art is as opaque as can be. How work produced by artists in their studios ends up in the homes of collectors or the halls of museums is little known to those outside the art world, and even to many inside that world. Much of the reporting on the contemporary art market amounts to little more than a ticker tape of who paid how much for what. My interest is not to add fuel to that fire, but instead to cast a little light on how artists, galleries, and collectors combine to form the contemporary art market, and to provide some economic analysis of those interactions.

The art market is different to most: you don't buy a Luc Tuymans painting at Macys. Much of its uniqueness derives from the fact that many buyers (collectors) cannot evaluate the quality of artwork without help.[1] Even the most experienced collector of contemporary art is routinely confused. Is there a concept behind the artwork? How does is relate to other works? Is this a reasonable price? With such goods, consumers often need considerable reassurance before they buy, and many of the institutions and practices of the art market revolve around providing such reassurance. This results in a number of unusual outcomes.

First, consumers use brand names as a certifier of quality in a host of different settings. (For example, we trust that Mercedes make good cars.) There are two natural brands in the art market: the gallery and the artist. Gallery brand names derive from a highly organized hierarchical system where their position in that hierarchy attracts collectors. For many collectors, they have little else to go on. This gives galleries a degree of influence that affects some of the practices below.

Artists are also brands, particularly when they are well known. This has two unusual implications. For most goods that we buy, how we value them does not depend on what the provider of that good subsequently does. For example, we don't like a popular movie more if the director's next film is good, and how we value our house is not much affected by what our property developer does from now on. This is not true for contemporary art: as artists are brands in the eyes of collectors, the value of an object that I buy today depends importantly on what she does in the future (and, indeed, the past). The second unusual aspect of brands in the market for contemporary art is a "Winner Take All" feature, where a large fraction of expenditures on art are concentrated on a small number of artists. This has always been a structural feature of the art market, as collectors associate an artist's authorship with quality, and so purchases are concentrated on particular artists (and galleries). This tendency towards concentration has become exacerbated recently by the globalization of the

[1] I am not, of course, saying that all collectors fit this profile. The varying information and motivations of collectors are discussed below.

contemporary art market.

Second, prices do not always answer to the same rules as elsewhere. In the canonical textbook market, prices are set to clear markets through equating marginal revenue and marginal cost. In that textbook setting, if a consumer is willing to pay the price asked, she gets the good. This is not true for much of contemporary art. First, some artists' prices are "too low", below what one might consider market prices. Work by these artists is rationed, with many collectors excluded from access. Second, galleries often have objectives other than current profit maximization: at times they seem to price according to what they feel that the market *should* pay rather than what it will pay. Third, the market for many successful artists is very thin, with few serious buyers. Prices for these artists seem to be aimed at the rare high valuation buyer. Consequently, their work typically fares poorly at auction as their markets are not deep. Finally, primary market art prices are stickier than in most markets, and almost never fall. One reason is that when the quality of a good is hard to determine by consumers, price reductions can be interpreted as indicative of a lower quality good. In this case, galleries fear that a price reduction is interpreted as an artist's career in decline.

Third, art is a durable good that (mostly) does not physically depreciate. For almost all such goods, there is a healthy secondary market. We sell our houses, our cars, and even our furniture on well developed secondary markets. However, for most art bought from even top galleries, there is no well functioning secondary market. There is a thriving auction market for superstar artists, but this only is a tiny sliver of the art market. I argue below that this occurs because of a combination of thin markets allied to the pricing policies of galleries. An unfortunate rhetoric also exists here, with sellers branded as "flippers", yet there are many entirely appropriate motives for engaging in any secondary market. Seen from overhead, the absence of a healthy secondary market is one of the most startling aspects of this marketplace.

An implication of the issues above is that investing in the primary contemporary art market is hazardous. An obvious reason is its inherent risk: the monetary value of a piece of art may depend on what its maker does over the next twenty years, which is highly unpredictable. Furthermore, most contemporary art is highly illiquid: most artists' work is very hard to sell, even for those with thriving careers. Yet those who pay off tend to pay off big because of the "right tail" feature. Buying art for investment purposes then becomes conceptually similar to investing in start-up companies, in the sense that most purchases return next to no financial return and - if lucky - a few pay off big. However, finding the relevant set to invest in - let alone picking the few winners - is no straightforward task. This is especially so because of the enormous amount of inside information in this market. Unless a collector is very well connected, investing in contemporary art seems like fool's gold.

Fourth, it is not hard to identify quality from prices in most markets. Mercedes are priced higher than Fiats because consumers value them more, and houses in better neighborhoods cost more as home owners like good neighborhoods. Much more care is needed extrapolating quality from prices for contemporary art. Prices for art (roughly) reflect the willingness to pay by collectors. There are a number of systematic reasons why this may deviate significantly from perceptions of quality held by others. These include a preference by collectors for certain kinds of media (painting largely), a premium that collectors pay for option value and liquidity, and a willingness to pay for status. This is meant as a warning not to overestimate the role of the market in the art world, and additionally suggests that the fascination of the art press with big collectors is misplaced.

Fifth, much like firms in other markets, galleries compete with each other. In most markets, firms compete through lower prices or higher quality, and the principal beneficiaries are consumers. Because of the more complex roles played by prices in this market, price competition does not work as well here. As a result, galleries compete through other domains. One way is through increasingly opulent gallery spaces. The beneficiaries of competition are then not collectors but rather the landowners of certain parts of London, New York and other major cities. Another outcome of competition in markets is that the highest returns flow to the scarcest resource. I argue below that the scarcest resource in this market may not be the obvious candidate - artists, but rather access to top collectors, which has led to remarkable stability at the top of the gallery food chain.

Sixth, and this is more speculative, the contemporary art market seems to have bifurcated over the last decade. Press reports are replete with discussions of a contemporary art boom. Obviously, huge sums of money are slushing about the auction houses and blue chip galleries for the very top artists. This right tail has had a second beneficiary, with collectors also focused on certain young artists, who are being collected partly as lottery tickets that may pay off big in the future. Yet this structural shift, exacerbated by the globalization of the art market, seems to have left many highly respected (typically mid-career) artists behind. Instead of the exuberance cited in the press, one senses for many of these artists and their galleries something closer to quiet desperation.

There are considerable barriers to entry for those interested in collecting contemporary art: potential collectors don't know where to look, how to evaluate what they see, and how much to pay. And if they make a mistake, they are likely stuck with the work. Since the advent of the internet, other markets have developed an elaborate and effective set of crutches for buyers who have such concerns. These include product reviews, the existence of warranties, the ability to return goods to the store, and so on. Few such crutches exist in the art market and, for many collectors, buying art is like throwing darts at a dartboard. While galleries give collectors valuable information, they still want you to throw at their dartboard. The art market would benefit enormously from reliable information from sources that do not have a financial stake in collectors' purchases. This has become the default solution in other markets - many of us check out the likes of Yelp before even spending $20 in a new restaurant - but is largely lacking for contemporary art.

Perhaps the most disturbing aspect of the contemporary art market is its focus on the wealthy. It is hard to think of any other cultural endeavor whose market has such little reach outside the richest slice of society. There are many reasons for this. However, two of the issues above likely play a role. First, without good independent advice, it is hard for many collectors to know if they are making good choices. Furthermore, if they make a mistake or their personal circumstances change, there is little recourse. As a result, contemporary art has become the ultimate luxury good, where only those who have (say) a five figure sum as throwaway money can partake.

Before beginning, let me offer a few clarifications. This paper is not about the machinations of the superstar market: how a Gerhard Richter painting that now sells for $20m was only "worth" $4m a decade ago is not the subject of the paper. The paper's focus is largely on art that costs less than the average annual family income of households in the United States. Even for galleries that show at the very best art fairs, this is probably 80% of their artists.[2] It is also important to remember that the paper is oftentimes impressionistic, as much of the data one would need to make more concrete statements is not available. (Galleries almost never publish primary market prices, for example.) As such, there is a (happily acknowledged) margin of error here. Finally, this essay is aimed not only at people who already know the art world but also at those less familiar with its players and institutions. As a result, at times the essay may seem pedantic to insiders. Yet hopefully there will be enough in what follows to be of interest.

[2]Much of my experience comes from being involved in an art collection for the Booth School of Business at the University of Chicago with some friends (art.chicagobooth.edu).

1 A Brief Primer

For those not well versed in the art market, I begin with a brief primer. An artist produces a work in her studio. What happens next? Most collectors of contemporary art buy through the intermediary of her gallery. Galleries represent their artists' interests, with the typical gallery having a stable of say 20 artists. Galleries (usually) hold exclusive rights on an artist's work in a geographic territory.[3] Galleries present exhibitions by their artists, bring their work to international art fairs, locate collectors and museum curators for their work, publish catalogs, set prices, sometimes fund production costs, and so on.[4] Galleries also negotiate discounts with collectors, with 10% being common. In return, galleries take the almost universal 50% of any sales.

Galleries compete in a highly organized hierarchical system, with blue chip galleries selling working for many millions down to the basement galleries of recent MFA students. These galleries are vertically differentiated, with some are seen as better than others, where their artists command higher prices.[5] Among aficionados, there is almost a running ticker of how various galleries are ranked, and galleries try to affect their position on the totem pole through their choice of artists, their exhibitions, the collections in which they place their artists' work, and their role in increasingly ubiquitous art fairs.[6]

It is also difficult to write about the contemporary art market without noting the range of motivations and knowledge of collectors. There is little to say here other than that they run the gamut. First, they vary in what they know. At one extreme are well informed collectors, who avidly acquire information on contemporary art.[7] At the other extreme are new uninformed collectors, often searching in the dark. Motivations for collecting also vary. At one end of the spectrum are those who buy a piece simply because they like how it

[3]So for example, an artist will typically have one gallery in New York, another in London, and so on.

[4]Prices are common for an artist across the different galleries representing the artist.

[5]There are a variety of metrics for identifying quality: museum shows for their artists, featured in the best collections, finding the best new young artists to represent, selected for the best international art fairs, and so on.

[6]Galleries are also differentiated in a horizontal sense, where they show different kinds of art. The most common source of differentiation is geography, where some show primarily Latin American artists for example. However, some partially specialize in different artistic media, with some galleries having a preponderance of video art, with others specializing more in painting.

[7]For them, it hardly matters how the work is sold: as long as the work is authenticated and the artist known, it could be sold on eBay. Those collectors know existing artists' work well, but an important role for galleries for these collectors is to find new unknown artists, as many collectors need the imprimatur of gallery representation.

looks. For them, the views of others matter little. Yet many collectors care about how others perceive work that they are considering. One reason is constructive: others have useful information on the quality of the work. (This is why we read product reviews for other goods.) Yet for many collectors, the desire is to collect the "winners" anointed by the art world. This could be for (i) the "warm glow" of knowing she has collected the stars of her generation, (ii) a way of attaining status from others, by showing her friends and other collectors the quality of the market, or (ii) for investment returns.[8]

2 Markets

Most goods are easy to evaluate before we buy them.[9] For others, we need to try them out to see if we like them: these are called experience goods. If they are cheap, this is not a problem: a new brand of toothpaste comes out, so we try it at little cost. For more expensive purchases - buying a house or an appliance, for example - we don't buy one to try it out, and people worry about making mistakes. Finally, there are some goods where even after we consume them, we still unsure of their merits. These are referred to as credence goods.[10]

For many collectors, contemporary art is a credence good: not only can they not evaluate it before they buy it, they won't even know afterwards. One reason is that for much of contemporary art, especially at its conceptual end, new work can only be interpreted through the lens of previous work, and many collectors are not privy to that information.[11] Furthermore, copying is often quite easy, so the visual appeal of a piece of art is often little to go on (a colleague of mine has a quite passable knockoff of John Currin's *Thanksgiving* on his wall, done for $1,000 in a village in China).

There are typically three ways to reassure consumers in such settings: brand names, trusted advice, and recourse if a mistake was made. Take the decision to buy a TV. We've maybe heard that Samsung is known to make good products, so that brand becomes our primary screen. Beyond that, we can read reviews, where these reviews are usually offered

[8] I know little about the strategy of collecting art as a way of avoiding taxes, so this will be ignored here.

[9] This is usually because we have consumed them before: we've all eaten enough bananas in our lives to know what we are getting if we see them in the supermarket.

[10] A good example might be when you visit a dentist, who tells you you need to have a costly procedure. Sometimes you don't know even afterwards whether it was necessary.

[11] A useful analogy here is music: cover versions are usually not as valued as original songs. However, we usually know a cover version when we hear it. With contemporary art, many collectors can't tell the difference between a cover version and an original, and fear that they are being asked to pay the price of an original for what might actually be a cover version.

by experts (or other consumers) who have no stake in whether we buy the TV. Finally, many stores allow us to return the TV (typically within 90 days) if we don't like it. In sum, a host of props to help us make better decisions, and recourse if we have regrets.

Below we consider the notable absence of disinterested advice and the difficulty of correcting mistakes. Because of their absence, collectors understandably rely heavily on two brand names: the gallery and the artist. For many collectors, their certification role becomes paramount. To understand their importance, think of the following counterfactual: take all the art that is shown in Miami during the fairs in December, including all the satellite fairs. Now present the typical collector with a randomly chosen piece of art from that entire set - without knowing the artist, the gallery, or the fair - and tell the collector that it comes with a price tag of $20,000. Good value or not? Without any additional piece of information, my guess is that most collectors would find it extremely difficult to evaluate the work. Now do the same counterfactual, but where you tell the collector the artist's name, the gallery, and the fair. They would do much better in answering the question above with this additional information, for the reason that these brand names provide key information on quality.[12]

For those familiar with the art world, this hierarchical system works well. Positions on the ladder are reasonably well known, and collectors know both the quality and price range that they can expect to encounter, even if they do not have first hand knowledge of the artists. Of course, people disagree on individual galleries, but as a ranking system, it signals the right information. For a good that is so nebulous, this is quite a testament to the market.[13]

2.1 Artists as Brands

Artists are the other brand name in this market, and much of the above also applies to them. There is one unusual implication. With most purchases we make, our valuation of them does not depend on what producer subsequently does. How I value my refrigerator is not affected by the next version of the fridge made by the producer. By contrast, the

[12] I am not claiming that galleries are necessarily the pre-eminent brand in the art world: there are many other important actors in certifying and identifying talent - other artists, curators, reviewers, academics, other collectors. But galleries are the key player in the art market, as they are the point of contact for most sales.

[13] Of course, lots of firms with brand names compete with each other: this doesn't mean that consumers necessarily trust them enough to buy from them. Galleries are no different: they often have significant mark ups (discussed below), and just like other firms, their objective is usually to persuade you to buy from them rather than walk out the door.

valuation of an artwork often depends critically on what the artist does before and after. A $30,000 Peter Doig painting became a $5m Peter Doig painting fifteen years later because of what the artist subsequently did.

There are a couple of reasons for this. First, artworks are not independent objects, and understanding the quality of an artwork can be informed by observing other works. The second reason is less constructive: the market imay not be very good at evaluating individual pieces of work, and as a result simply attaches the artist's name as the sufficient statistic for quality.[14] As a result, for many collectors, buying an artwork is akin to buying an equity stake in its artist, whether these returns are psychic or financial, as both the artist's fame and possible prices depend on work done before and after. Of course, there is still variation within these brands, where some works are deemed more important than others, but brand name still carries weight.

2.2 Winner Take All and Right Tail Markets

An increasingly common feature of markets is Winner Take All outcomes, where a small number of actors gain a disproportionate fraction of the returns. (These are often alternatively referred to as "right tail" markets.) These are markets where the return to being "best" dwarfs that of being "nearly best". In most markets the reason behind such change is technological (see Frank, 1995). Take music as one example. Suppose that you are the best singer in the world, and I am a somewhat less talented singer. Instead of us living in 2014, we are in 1914. How much more money do you make than I do? What matters is how well you can leverage your better talent. In 1914, say only 800 people can sit in a theatre on any given night, so your ability to leverage your ability is limited by the fact that relatively few people can hear you on a given night. As a result, there are plenty of scraps left for me. Through technology changes - television, pay-per-view, iTunes - ability can be leveraged to a much greater extent now, with the implication of concentrating the returns to ability in a

[14] A useful analogy here is music, which in many ways is similar to the visual arts, with one big exception: people know if they like a piece of music when they hear it. A common characteristic of the music business is "One Hit Wonders", where a musician comes up with one great song but no more. Lots of musicians make good careers out of a single song. It strikes me that many artists must surely have also had one good idea, or one good painting. Yet One Hit Wonders are rare in the visual arts, and instead we only reward artists whose careers continue to develop. One reasons for this is likely because the market is not good at evaluating individual works of art.

much small number of hands.[15]

The art market increasingly resembles a winner take all market, where a large fraction of expenditures are concentrated on a small number of artists (and indeed galleries). There are (at least) two sources of this: (i) the artist's (and gallery's) name as the measure of quality, and (ii) a desire by many collectors for "trophies". First, when collectors cannot infer the quality of a piece of art, they use the artist's name as a stand-in for that. As a result, bad art by good artists likely sells for more than good art by unknown artists. This concentrates rewards on a small number of artists. This is exacerbated by the demand for status or investment returns, where collectors compete for a small number of trophy artists. The change here is at least partially caused by technology through global information flows about artists. As one example, what's the point in showing my friends that I own a John Currin painting if no one knows who John Currin is? The advent of a truly global art market through information flows facilitates right tail outcomes.

3 Pricing

For most firms, choosing price is at least conceptually straightforward: maximize profits by equating marginal revenue and marginal cost. Lower prices mean more purchases, but less profit on each purchase, and firms mark up prices according to this tradeoff. In this world, prices rise when demand goes up, and declines when demand falls. Finally, if objects remain unsold for some time, maybe they go on sale for lower prices. All told, a simple and widespread prescription that works pretty well. This section deals with a series of issues in the art market that differ from the canonical pricing model.

3.1 Underpricing of "hot" artists

Most firms don't care who buys their product, so long as someone does. This is not true for many galleries. The art press is replete with the identification of hot artists talents. If a gallery is lucky enough to have such an artist, one of its most important tasks is to place work in the best collections. To do so, they often "underprice" work to attract these desirable

[15] I am reminded of a radio interview I once heard when an expert on the music market was asked about how much money well known musicians made. His response was "either more than you could ever imagine, or not nearly as much as you would think".

buyers. An artist whose market price might be \$30,000 will sell for \$15,000.[16] Yet these prices are only available for desired collectors: the random collector who shows up looking for work will routinely be told that it is "unavailable" even as they stare it in the face.

This phenomenon often arises because galleries care enough about who buys their artists' work that they willing to forego some immediate revenue. There are two kinds of artists where this is common. First are the young hot artists whose careers are on a rapid rise.[17] Placing their work in the best collections serves to reinforce the sense of a rising star, and foregoing current revenues for these artists may be consistent with a long run perspective to best further the artist's career and the gallery's own profits.[18] The second case where it arises is with superstar artists, whose main concern is not more income but exposure in the right ways. So (I am making this example up) when Brice Marden makes a new painting, he may be willing to forgo some income if the alternative is that a top museum buys the work, thereby showing his craft to a larger audience. Such underpricing is far from unknown for accepted superstars.

As an aside, there is sometimes an exception to the practice of picking and choosing between collectors for highly desired artists. At the major international art fairs, some galleries operate a first come-first served policy. This is likely behind one of the more amusing aspects of this market: the carnival that arises just before the VIP openings at the major art fairs, where well heeled older collectors find themselves jostling for position at the entry gate just before the opening bell. All to gain access to the pinãta of the first moments of an art fair.

There is another reason why galleries are reluctant to increase prices for younger artists with strong markets. Primary market prices rarely decline. There is a prevailing sense that declining prices for an artist is a sign of a career in decline, and galleries try to avoid it whenever possible.This issue is especially relevant for younger artists whose careers are more volatile. Consider a gallery with a hot young artist. Such artists can suddenly go cold: in

[16] This is not a universal practice: some galleries increase prices rapidly for desired artists, and for some unnamed artists, it feels as if prices are being set so aggressively as to exceed even the current market.

[17] While there are clearly examples of more established artists like R.H. Quaytman where the same phenomenon occurred relatively recently, it is the hot young things that have recently graduated from MFA programs where much of this action is centered.

[18] This has benefits that are both symbolic and instrumental. From the symbolic side, galleries often advertise to potential buyers which other collections the artist belongs to. This imprimatur helps future sales and museum shows. From an instrumental perspective, collectors largely find out about artists through networks of friends, who tend to promote work that they like, or more commonly, work that they have purchased. Having influential owners of your work is the best form of advertising available to an artist.

fact, most do.[19] If this happens, this is a difficult transition for both the artist and her gallery. If prices have previously increased, there is now pressure to reduce them in the face of the new reality. A common strategy used by galleries in response is to keep their prices lower than the market can handle during the hot phase in order to avoid subsequent possible problems.

3.2 Thin Markets and Prices

Here I try to cast a little light on how galleries price artists who are neither superstars not the young hot things. As I mentioned above, this is most of their artists, even at the top galleries. Let me add two caveats before doing so. First, galleries are hundreds of independent entities whose actions vary in all sorts of ways, so to imagine a single pricing model for all would be erroneous. Second, I make no judgement here about what prices should be. Galleries are entitled to price however they like (subject to the law, obviously). Instead, I am simply trying to cast light on their choices.

The starting point here is that for many well known artists, their markets are thin, in the sense that serious buyers come along infrequently. If a serious collector expresses interest in a piece of work by that artist but chooses not to buy, it is likely to be some time before another comes along. Auctions are a useful way to see this. Auction catalogs are published say three months before the auction occurs. As a result, prices at auction reflect the willingness of collectors to pay with three months notice. (Technically, its the willingness of the second person in line to pay, as it is the second highest valuation that determines how much the winner pays.) I have learned a reasonable amount about primary market prices over the last decade. I am no longer surprised at how an artwork whose primary market price is say \$30,000 will sell at auction for in the region of \$10,000. Works with estimates of say a third to a half of their retail prices is not unusual, and they typically sell for around the estimate.

No good comes from naming artists here, but for auction sales outside the very top of the market, this phenomenon is widespread. These artists are, by every other metric, extremely successful: their success would be the envy of 99% of other artists. Those involved in the art world know their names, they show with top galleries, have reviews in the likes of Artforum and the New York Times, and have periodic museum shows. Despite those obvious markers of success, for those artists whose work is infrequently observed at auction, outcomes are typically poor relative to primary market retail prices. (This, of course, is why the work is

[19] This may not be because their work gets any worse (in the artistic sense), but because they did not take off in the way that collectors hoped.

not seen much at auctions.)

Why is there such a discount?[20] The natural answer is that artists make unique objects, and their uniqueness may not appeal to everyone. Specialized goods have the feature that the willingness to pay of the person who values it most may differ a lot from the next person in line. This unlikely for say a car, where many people have relatively similar tastes. But when goods have unique attributes, it is more common. So selling your piece of contemporary art may be like selling a house on a street that only you like. This would explain why resale is difficult.

Yet remember that discounts are measured relative to the price paid. A useful analogy here is that house that you are selling. You price your house at $500,000 - the price you paid - but there is little interest. There are two possible interpretations of this: (i) there are few people that like your house, or (ii) you paid more than the market price. This is also likely true for artists with thin markets: their work appeals to relatively few buyers and the price you paid is not calibrated to their tastes. Here is a simple concrete example that will be used below. An artist has a show of ten paintings. At a price of $10,000 each, the show sells out in a few months. However, there are a small number of collectors willing to pay $25,000, where maybe one or two of these show up every year. The auction results are consistent with a strategy where the gallery prices at $25,000, even though the next person in line values it at $10,000. If his situation changes and he needs to sell the work, he suffers a significant loss.

So why would a gallery price at $25,000 instead of the market clearing price of $10,000? The most plausible reason is probably that reducing the price from $25,000 may not pick up many new collectors (demand is inelastic in the language of economics). There is good reason to think that demand is inelastic for many contemporary artists, as the relationship between prices and quality is complicated. In most markets, prices *reflect* quality. (BMWs are pricier than Fords because most people think they are better, Samsung TV's are dearer and have better picture quality than Vizeos, and so on.) Because collectors often cannot evaluate an

[20] There are a few other possible candidates that do not seem credible. First, it could be that only poor quality work comes up at the auction markets. This is not plausible: from everything that I can see, the work is a random sample of these artists' work. Furthermore, the same phenomenon arises in photography where the *same* photo sells for less at auction than the edition on offer at the gallery. Related is that galleries play an important role in certifying quality. A collector is comfortable buying only from a gallery as they are seen to give the stamp of approval to the work. Yet this argument seems implausible for this set of artists, who are well known, have shown at top galleries for long periods, and have mature careers with a long history of successful shows. As a result, the most plausible answer appears to lie elsewhere.

artists's work, collectors may infer quality from price.[21] Said another way, prices don't only reflect quality, but also *signal* it, and the danger is that lower prices will be interpreted as lower quality work. A cheap banana is a good deal, but a cheap piece of art, maybe not. As a result, lowering prices could even deter buyers rather than attract them, and so high mark-ups may be profit maximizing. (A pretty good rule of thumb: a firm's mark-up is directly proportional to how much better looking the person on the other side of the counter is than you are.) This has the outcome of the textbook monopoly distortion: galleries and artists make most money, but at the expense of a stock of unsold work sitting in storage or the artist's studio.[22]

3.3 Non Profit-Maximizing Pricing

Up to now, I have assumed that galleries set prices to maximize profits. This may not be so. One issue that looms large is pricing to the artistic merit of the work. Galleries often argue that an artist's work is "too important" to price according to the market's current valuation. One outcome of this is prices considerably higher than the market can handle. Seen from another angle, firms in other industries rarely offer products and choose to price them in a way that they expect to sell nothing. By contrast, galleries do this all the time, where non-selling shows are not only common but expected. Despite this, they offer these shows as a service to their artists and to the art world.

It is understandable that galleries price according to artistic merit.[23] However, markets have a useful way of anchoring beliefs, and a possible warning to the argument that an artist's work is so important might (uncharitably) be "says who?". It is a testament to my middle aged status that I have spent nights watching a TV show called Househunters, where people offer real world examples of buying and selling houses (or as real world as reality television

[21] As an example from another sphere where consumers are poorly informed, suppose a doctor offered to do surgery on you for the knock-down price of \$299. Most patients would be suspicious that at \$299, they must be getting a poor doctor.

[22] Such logic is clearly paramount for deceased artists, and pricing high makes sense there. This is especially so given the right tail feature that the market exhibits, where the deceased artist might be "rediscovered". But it makes much less sense for an artist producing work currently, where not selling today merely causes the pile of unsold work to get larger and larger.

[23] It is important not to necessarily see this as outside the realm of profit maximization. A component of many galleries' mandate is to find under-known artists that they believe in, and to persuade the larger art world of their talents. As a result, they may price according to their view of the artist's merits, rather than collectors' current valuation of the work, as they believe that the art world will eventually appreciate the artist as they do.

gets, anyway). The episodes of people selling their houses have an almost religious ritual that goes as follows. The seller lists their house far above its true market value, fully convinced that the world will love their individual touches as they do. The house then remains on the market, unloved for many months. The second to last step is where their real estate agent once again shows them the ubiquitous "comparables" that sold for far less. The denouement is where seller reduces his price considerably and the house sometimes sells.

This example reflects a more general point: we are poor at understanding that others do not love things as we do.[24] The gallery-artist relationship is likely fraught with such issues. The gallerist has *chosen* to show this artist and has likely developed a close personal relationship, so almost surely they have a loftier view of the artist's merits than other do. Yet we are not good at internalizing this fact. Furthermore, unlike the housing market, there are no good comparables to anchor beliefs. In this situation, it would not be surprising to find galleries overpricing their artists, not just relative to market valuations but also the artistic view of others.

A second pricing concern outside the usual profit maximizing paradigm is fairness. Here is a common situation for a gallery. They represent two artists, a young painter and an older video artist with a long track record of successful shows. Collectors like paintings much more than video. As a result, the market price of the painter is $25,000, while the counterpart for the video artist is $10,000. What does the gallery do? At least based on my experience, they do not price according to the market. Instead, "fairness" considerations inflate the price of the video artist to something closer to $20,000, even though it makes sales unlikely.[25]

Another unusual pricing strategy concerns the relationship with the artist's age. Galleries tend to increase prices for older artists who they feel have more mature practices, and to price younger artists, whose work they see as less mature, at lower levels. I return to this issue below. The final feature of gallery pricing is its stickiness, where primary market prices almost never fall, even when market interest in an artist declines considerably. As an extreme and more widespread example, a striking feature of the financial crisis of 2007 is that primary prices for art did not seem to change much. The value of my house fell 30% and the value of my pension 50% in the immediate aftermath. Yet primary market art prices remained largely unchanged. If the financial crisis saw little decline in these prices, it's hard to see how they ever will. Because of this, many parts of the art market have likely not fully recovered from the crisis.

[24]This is known as the "false consensus effect" in psychology. See Ross, 1977.

[25]Not to be ignored in this is the ego of the artist, who may feel disrespected by being priced for his video work at the same price as a drawing by the newly minted MFA student.

3.4 The Secondary Market

Art is a durable good. For most durables - especially those that do not physically depreciate - we not only buy and consume them, but we also sell them. There are a myriad of reasons why we sell our financial assets, our houses, our cars, and so on. Usually our tastes or personal circumstances have changed - we want a different house or car, our children need school fees, we lose our jobs, etc - and most consumer durables have developed extensive and sophisticated aftermarkets to allow us to do so, from real estate companies to eBay. These markets even exist successfully when consumers worry about quality (the used car market is the best example) or when assets depreciate. Such secondary markets allow consumers to buy without having to make a lifetime commitment. With a perfectly functioning secondary market, it's more like renting than owning.

Art both has value and (for the most part) does not physically depreciate. As such, it is a natural candidate for a liquid, well-functioning aftermarket. Despite this, for most art purchased from top level galleries, there is no secondary market at prices close to primary market prices. For such an expensive and non-depreciating asset, this sticks out like a sore thumb to an outsider.

It is important here to distinguish between two classes of artists. First, for superstars who are auctioned for high prices, the market is liquid in the sense that these works can be sold without difficulty.[26] The same is true for the kind of "hot young" artists that were described above. For each of these, the secondary market functions moderately well. Yet these artists are a thin sliver of the art world, and for most artists, resale is difficult.

There are two ways in which the resale market could work. First, through the public domain of auctions, where prices are transparently observed by market participants. Given the large price discounts described above, this is not a pretty route for most collectors interesting in selling work. Second, work could be sold in a more private way through the gallery system. Statistical information is impossible to find here, but it is hard to avoid the conclusion that galleries do not embrace the secondary market. Indeed, many go out of their way to describe the harm it can do, and it is far from unknown for collectors who resell work to receive an irate phone call from a gallerist. An unfortunate rhetoric has developed here, with those selling being deemed "flippers" and hostile to the long term interest of artists. Yet no other markets accuse participants in the secondary market as "flippers" as there are many entirely ethical reasons to sell. To give an analogy from the housing market, most people sell their house not to make a quick buck, but because they want to live somewhere

[26] The auction houses may have high bid ask spreads (30% say) but the work can be sold.

else.[27]

There is one case where galleries may have a legitimate ethical claim to shutting down the secondary market. For reasons alluded to above, galleries keep prices moderate for artists about whom there is huge market interest. The two classes of artists for which this holds are hot (typically young) artists and superstars. Those collectors often know that they are getting a deal relative to the market - a $50,000 painting for $18,000! - and there is an opportunity to "flip" to make a short term gain. Offering collectors work for prices below market prices could then legitimately be seen to include a moral obligation not to sell quickly. In legal language, collectors are given a consideration for illiquidity through lower prices. Such issues are not unknown outside the art market. This is similar to Initial Public Offerings when companies go public. At least until Facebook, the general practice was to price low (as it would look bad if the stock price fell as soon as the company went public), with offerings rationed to the best customers. The understanding is that they should not be flipped. The same understanding seems reasonable in the context of the artwork allocated in the same way.

Yet gallery hostility to the secondary market reaches far beyond these artists, and often extends to their entire roster. From their perspective, one can see why galleries (and indeed artists) would like the secondary market severely limited. There are two reasons for this. The first is a cost of transparency. Most durable good purchases that we make have the following two features: (i) the amount that we pay is close to what the next person in line would pay, and (ii) because of this, we can resell if needed without losing our shirt.[28] However, as discussed above, many artists have thin markets and this is not true: the item that has a retail price of $25,000 may well have the next person in line willing to pay $10,000. So the danger from the gallery's and artist's perspective is that when the collector sells in a public forum, the market sees a price of $10,000. (This phenomenon of illiquidity is well known to seasoned collectors.) One can understand why galleries do not want this publicized. To go back to the starting point of the paper, this is an industry where uninformed collectors seek reassurance that they are making good choices. Seeing something you recently bought for $25,000 selling for $10,000 hardly reassures, despite its transparency benefits.

The difference with the underpriced hot artist should be clear. If the $25,000 price is

[27]Let's dispatch the notion that collectors love their artworks so much that they could not part with them. Couples fall in love with each other all the time, only to discover down the road that they are not a good match. If people can divorce each other, they can surely divorce a painting or a photograph.

[28]The asset where this is closest to being true is if you buy say stock in a company, where mark-ups are small, and resale is close to costless as bid ask spreads are very small.

above the "market clearing price", the collector is hardly being offered a consideration to compensate him for its illiquidity. To put it another way, a collector is paying more for the artwork than the market can take, and then - from the perspective of the gallery - is not supposed to resell the work if his tastes or circumstances change? If true, then to many outside observers, galleries complaining about resale appears a little like having their cake and then asking to eat it.

Much of the concern here is the public nature of the secondary market transaction, where the world gets to see low resale prices. But there is an alternative: can't one could resell through the gallery? Unfortunately, it can also be very difficult to resell in this way.[29] The reason is likely that galleries perceive secondary market sales as cannibalizing their primary market business. The key issue is the gallery's inventory. If this is a sufficiently successful artist that little or no inventory is on hand, they usually will sell your piece for a cut. However, most artists are not sold out, and if the gallery is pricing in the way alluded to above with high mark-ups, they are sitting on a considerable inventory of work. So if a buyer shows interest, their incentives are to sell from their own inventory rather than sell yours. This is reinforced by the fact that they act as agent for the artist, who will not benefit from such secondary market sales. As a result, your work sits, unsold.[30]

The second reason for galleries wishing to shut down the secondary market has to do with what economists call stocks and flows. The stock is the exiting artwork already with collectors, and the flow is new work that comes to the market. For most durable goods, their prices are determined by the supply of both. So for example, the price of a new house is determined by both the supply of other new houses but also the supply of old houses, and the price of new cars is constrained by the fact that people might buy a used car instead. As a result, it hardly a surprise that most firms - at least over the short run - would love to shut down the secondary market if they could, as the only supply to current consumers is through their current production. (Property developers would do just great over the short run if old houses could not be resold, for example.) Yet most sales of contemporary art are the flow, and prices charged by galleries are higher to reflect that lower supply. To any normal market, this makes little sense, yet one can see why galleries might benefit.

Here is one possible summary of this section. Demand for many highly respected (but

[29] In the context of the art world, many collectors (at least the ones I know) have tales of attempting to sell a piece through the gallery system, only to find the object unsold after a number of years, with no apparent interest in it. Perhaps some collectors have had better outcomes here, but concerns seem systematic enough from my experience of talking to collectors.

[30] An exception to this is when galleries have relationships with bigger collectors: this is addressed below.

non-superstar) artists is thin, where a very high valuation collector comes along infrequently. Galleries price to that collector, either for profit maximizing reasons or because they feel that the art deserves to be sold at that price. As a result, many shows sell sparingly. Those who buy the work are not buying an asset like a house or a car, where the next person in line values it close to their views, but instead their valuation may exceed the market's by some distance. This implies that the secondary market operates poorly: either a big discount ensues when they try to resell through auctions, or you have to wait a long time until the gallery resells your work. As a result, when buying art, it often feels like one is not buying a consumer durable such as a car or a house, which can be resold, but rather a family member, who is with you forever.

3.5 Inequality of Access

For many people, the most disturbing feature of the contemporary art market is its focus on the wealthy. There is something truly strange about artists trying to say something about the world in which we live, and - outside of the sliver than goes to top museums - it's being experienced by a tiny wealthy minority. It is hard to see any other contemporary cultural endeavor with such dissonance, yet we have become accustomed to it in the contemporary art market.

That the fruits of many successful artists' work is experienced by only a tiny slice of society is a bigger problem than this paper can hope to address. Yet market institutions likely play a role. The market for contemporary art offers few assurances of quality compared to most large purchases that we make, and people may fear making a mistake. The absence of a functioning secondary market compounds this. Imagine a relatively financially successful family in the United States, who makes say \$80,000 to \$100,000 a year. (This places that family in the top 15% to 20% of earners in the United States.) Somehow that family puts aside \$10,000 to possibly buy an artwork from one of the major fairs (and that's close to the bottom for prices at the big fairs for a significant piece). A fear may well be that down the line their preferences change: they don't like it as much as they thought they would, someone loses their job, their children might damage the work, and so on. With a functioning secondary market - like we have for cars and houses - they could resell. For most art, they are out of luck as they cannot resell without large losses. In effect, contemporary art has become the ultimate luxury good, with only those who have "throwaway" money playing.

These benefits associated with wealth are likely exacerbated by the operation of the secondary market. I described above the difficulty of selling work through galleries on the secondary market. An important caveat to this is that this depends very much on the collector. The process by which secondary work sits in the gallery unsold is likely the experience of the typical collector. It is much less true for big collectors, who can leverage their buying power not just to get access to better work in the primary market but also to persuade galleries to sell their work through the secondary market.

3.6 Buying Options

I have outlined three characteristics of much of the art market. First, there is uncertainty about artists' careers. Second, the resale market is illiquid, except for the extremely successful. Finally, there is a right tail to the price distribution, as collectors seek work by a small number of "trophy" artists. As a result, buying the work of some artists for financial gain, or indeed for status reasons,[31] is then similar to investing in start-up companies, where most fail and a few succeed. In the failures, you lose most of your money, but when you succeed, you win big. These are similar to option markets, where risky assets are purchased in the hope of low probability right tail events.

My objective here is not simply to point this out, but rather to make an observation on willingness to pay. Suppose that you are a collector interested in picking one of these "winners". How much are you willing to pay to get one? A characteristic of financial options is that you pay more when they are riskier. Think of the two artists of similar current quality. There is no uncertainty about one of them: what you see is what you get. By contrast, there is uncertainty about the second: she could turn out to be a failure but there is a chance of being a superstar. Given the nature of the art market, with a right tail of superstars and illiquid markets elsewhere, you will pay more for the second artist even though she seems no better. These are known as option premia.

There has been widespread head scratching at the enormous prices reached at auction for a set of young painters, with prices in the $300,000 range not out of the question.[32] The head-scratching is usually along the lines of what else one could have bought: as one example, you could buy a terrific work by Isa Genzken, a giant in her field. A large chunk of those high prices for those younger artists may simply be option premia, and one might better think of these as (admittedly expensive) lottery tickets. Said another way, if one of

[31] These successes need not be evaluated necessarily in liquidated returns but could instead be simply trophies on the wall to show other collectors and friends.

[32] Notwithstanding the exceptions like Mary Heilman a few years ago, or Rebecca Quaytman more recently, most of the instances of low priced work becoming very valuable are younger artists whose careers have taken off meteorically.

these young painter's careers takes off, the market believes that their work will likely sell for much more than Isa Genzken's. Hence the market will pay as much for these works as for a Genzken, even though her work is better.

4 Investing in Contemporary Art

The art press typically focuses on the high prices fetched for work by a small set of artists. Many of these were purchased for far less. A $5m Peter Doig painting was once sold for $30,000 (or some such figure). Given this, it would hardly be surprising that many collectors see the possibility of striking it rich, and much of the recent reporting on the art market increasingly emphasizes this motive. The opening moments of art fairs now feel like a contemporary version of a gold rush, with collectors searching for the latest prospect. My view is that for most collectors, this is fool's gold.

Some collectors buy blue chip liquid art for investment purposes: is buying a Gerhard Richter painting a good investment?[33] I have nothing useful to say about this tranche of the market. The rest of the market - the focus of the paper - is navigated through buying from galleries at primary market prices. Much of the investment action appears to be focused among younger artists. As alluded to above, investing in contemporary art by younger artists is inherently risky.[34] Also described above is the market's illiquidity, where a small fraction of successes hit it (financially) big.

The usual way that financial economists measure investment opportunities is to construct a hypothetical portfolio and to simulate how that portfolio would have done. When I began to be interested in contemporary art, a helpful gallerist pointed me towards certain publications to get me up to speed. One of these was a well known and respected series called Cream, where curators pick 100 (typically) up and coming artists. I combed through Cream 3 in my first year of collecting. I considered how would I have done financially if I had invested in all those artists in that book that I could have conceivably got? This has a non-trivial margin of error, but is instructive of two major issues: access and liquidity. This is a very esteemed group of 100, and most have had successful artistic careers since then.[35] Suppose I had tried

[33] The auction data that is typically used to determine the returns to investing in contemporary art, such as Mei and Moses (2002), is largely about this kind of art.

[34] Much of contemporary art is to seek "the different", and finding the version of different that ultimately sticks is hard to identify. Furthermore, when buying art by a young artist, you are as much buying the artist as the art. But people change: they have children, have breakdowns, decide to become schoolteachers, etc. that means that the quality and nature of their work changes.

[35] Here is the list: Sonia Abian, Haluk Akake, Ricci Albenda, Darren Almond, Pawel Althamer, Kai

to buy a piece by all 100 in 2003. Of those, I am pretty sure I would not have been offered work by Kai Althoff, Urs Fischer, Beatriz Milhazes, and Julie Mehretu. I simply did not the contacts that would have allowed me access to those artists. Assume that I could have purchased the other 96. (Realistically, quite a few of the others would have been beyond my reach, but for the sake of argument let's say I got the other 96.) My best guess is that if I had bought the other 96, and liquidated my "portfolio" ten years later, I would likely have lost money. This is not because these artists have not done well - most have had envied careers - but because there is no effective resale market for most of them.[36] Remember too, that this is ridiculously far from a random group of artists to "invest" in: instead, this is a hand picked group of artists most likely to succeed by an esteemed group of curators, and I'd still have likely lost money. As such, it is meant as a word of warning to those who think contemporary art remains a good source of investment returns.

To put this more simply, just buying successful artists, or even up and coming artists, is not likely to be enough to generate financial returns. Instead, much of the action by those investing is in finding young potential stars whose careers are so successful that their work is liquid. However, finding the relevant set of artists to acquire in is often like finding a needle in a haystack for the uninformed. At any given moment, there is a stock of artist names in the ether that knowledgeable collectors are acquiring. Even among those, 8 or 9 of the 10

Althoff, Emmanuelle Antille, Juan Araujo, Atelier van Lieshout, Yael Bartana, Elisabetta Benassi, Johanna Billing, Michael Blum, John Bock, Inaki Bonillas, Martin Boyce, Pavel Braila, Christoph Buchel, Angela Bulloch, Edward Burtynsky, Franklin Cassaro, David Claerbout, Minerva Cuevas, Jose Davila, Yayoi Deki, Trisha Donnelly, Sam Durant, Michael Elmgreen & Ingar Dragset, Leandro Erlich, Iran do Esprto Santo, Omer Fast, Hans-Peter Feldmann, Urs Fischer, Luca Frei, Tim Gardner, Christian Jankowski, Miranda July, Valery Koshlyakov, Katarzyna Kozyra, Luisa Lambri, Lee Bul, LOT-EK, Rafael Lozano-Hemmer, Chad McCail, Corey McCorkle, Lucy McKenzie, Patrick McMullan, Jorge Macchi, Teresa Margolles, Dorit Margreiter, Julie Mehretu, Beatriz Milhazes, Helen Mirra, Jonathan Monk, Julie Moos, Yoshitomo Nara, Jun Nguyen-Hatsushiba, Carsten Nicolai, Olaf Nicolai, Motohiko Odani, Marcel Odenbach, Roman Ondak, Silke Otto-Knapp, Philippe Parreno, Manfred Pernice, Dan Peterman, Paul Pfeiffer, Susan Philipsz, John Pilson, Tadej Pogacar, Florian Pumhosl, Walid Raad/the Atlas Group, Thomas Rentmeister, Jewyo Rhii, Nuno Ribeiro, de Rijke/de Rooij, Daniela Rossell, Anri Sala, Dean Sameshima, Maruch Santiz-Gomez, Wilhelm Sasnal, Jorg Sasse, Gregor Schneider, Ene-Liis Semper, Santiago Sierra, Dirk Skreber, Sean Snyder, Catherine Sullivan, Ana Maria Tavares, Slaven Tolj, Joelle Tuerlinckx, Fatimah Tuggar, Keith Tyson, Enzo Umbaca, Gnter Umberg, Apichatpong Weerasethakul, Cerith Wyn Evans, Sislej Xhafa, Carla Zaccagnini, and Vadim Zakharov.

[36] By contrast - and this is the key point about bid-ask spreads in this industry - if I wanted to buy all those works now, it would likely cost me twice as much, if not more, than in 2003. Psychic profits are pretty easy to rack up in the art world, it's financial ones that are much harder.

don't pan out from a financial perspective. The hard part for collectors is even knowing who the ten are (a gallerist telling you at an art fair that "a trustee at MOMA just bought one" doesn't even come close). The networks of the art world are as sophisticated and cliquish as any high school in the United States. Inside information is rampant, with gallerists and collectors selectively sharing all sorts of useful inside gossip: which artists are being bought by which collectors, who is changing galleries, and who has just been offered a museum show, and so on.[37] Museum curators also play a role here, as many of their acquisitions come from collector donations, and curators help orient such purchases. In sum, the well connected get information earlier than the rest of us, and the uninformed pick up the scraps.[38]

5 It's Only the Market

Markets reveal a lot about quality. In normal markets, one can often easily infer quality from prices. A BMW is more expensive than a Fiat as most think it is better, and a house in a good neighborhood costs more as people like good neighborhoods. Furthermore, in most markets only those who buy the good get to consume it, and consequently paid prices are a good reflection of the quality bestowed to end users. This is not so for art: non-purchasers derive considerable welfare from artworks as we go to museums and galleries to view, see reproductions in books, academics interpret the work's merits, curators choose shows, and so on. So unlike most goods, an important component of quality is in the eyes of non-buying beholders. This distinction would be irrelevant if collectors have the same preferences as other consumers. But there is good reason to imagine that this is not so, and the purpose of this section is to suggest systematic reasons why prices for contemporary art do not reflect any generalized notion of quality. As a result, compared to other goods the role of the market in validating quality is decidedly limited.

To clarify, this is not meant in the usual "beauty in the eye of the beholder" sense that all goods are valued differently by different people. In the same way as some people prefer a low priced piece of art to one more expensive, many prefer a Prius to a Mercedes. This is

[37]This feels much more extensive than in other investment areas. A central idea behind most forms of financial regulation is that uninformed investors should not be at much of a disadvantage, and a central piece of this is that insider trading be banned. Yet inside information abounds in this market.

[38]Even in that instance where you are lucky enough to get the 1 or 2 out of ten, it may be a short lived gain. Suppose that you liquidate your gains at auction. Galleries, upset at the resale, often respond by refusing that collector access to work in the future, and many collectors do not liquidate their short term possible gains in order to maintain their gallery relationships.

not a conceptual difference between art and other goods, merely a restatement of the fact that prices reflect quality as judged by the *marginal* consumer, namely the consumer whose preferences effectively set prices. Instead, I am interested in systematic reasons why there is likely to be a divergence.

Painting The art press is flooded with articles about the current art boom: records for auctions, high prices paid at art fairs, and so on. I'm hardly the first person to say this, but it is not really an art boom, it is more a painting boom. While there are some obvious exceptions (Jeff Koons as the prime one) most of the extraordinary auction prices that one sees these days are for paintings. Put another way, when is the last time that you opened the paper (or your browser) to read that a video piece or installation had just sold for many million dollars? Most times we have one of those "oh Lord, how did that thing go for so much?" moments, it's a painting that sold. Not to put too fine a point on it, this is because many collectors like paintings more than other interested parties do.[39] If one compiled a list of those high priced auction items, there would be many instances of the likes of Gerhard Richter, Rudolf Stingel, Wade Guyton, Tauba Auerbach, and Sterling Ruby, and almost none of artists working in certain other media.

Options and Lottery Tickets Another reason to be wary of attributing quality to prices has been alluded to above: because this is a market with a significant right tail, many collectors are buying options. This desire by collectors to acquire trophies means that for a given perceived quality, they will pay more for the artist with the greatest upside. Part of the price is an option premium not a return to its quality. One might do better to interpret the high prices paid at auction for those (mostly young) painters as closer to the purchase of lottery tickets than to buying quality art.

Liquidity Buyers are often willing to pay for liquidity. Take the following hypothetical where you are buying a new car. Two dealers are on opposite sides of the street. The dealer on one side allows you to resell the car. On the other, the dealer requires that when you no longer want your car, you put it in storage forever or destroy it. You will clearly pay more for the car that you can later sell, as people legitimately want to change cars and the ability to sell is a valuable amenity. As a more concrete and pertinent example, many very wealthy collectors used art as an investment tool since the financial crisis, partly as returns elsewhere

[39] This is, of course, a ridiculous generalization. There are many highly regarded painters who have not benefited from this issue as their kind of painting does not fit a certain set of preferences.

were so poor. This has increased inequality in art prices over the last decade with the most expensive art reaching astronomical levels. Part of this increase is a return for liquidity: do you think many collectors would have paid so much if there was no resale option? As a result, part of the returns at the top end of the art market are inflated by a liquidity premium.

Status Markets Some people collect art as they want others to see what they own. The cultural cache of owning a Richter is clear, while other audiences esteem the acquisition of a star artist when she was young. Even the most minor of collectors knows the sensation of wondering whether guests to our houses will like what we own. A characteristic of status markets is that the supply of such goods must be restricted: if everyone could get status, then it wouldn't be status. What this typically implies is that there is a small set of artists from which status can be attained. If an artist passes the threshold into this class (Mark Grotjahn maybe over the last number of years), prices become much higher than for goods that are relatively close in terms of other notions of quality. For most goods, small quality differences result in small price differences, but not necessarily in status markets when an artist's work becomes a trophy.

The Fascination with Collectors Prices are not an end in themselves for economists. Instead, they only matter to the extent that they aid the efficient production and distribution of goods.[40] While there are clearly individual collectors who served to further the objective of producing and exhibiting the very best work, one fears that many top collectors are simply magpies placing jewels in their nests. Said another way, they may be more important for art market than they are for the art world. Given this, this commentator is bemused by the fascination of the art press for prominent collectors. For example, art publications put out lists like "The Most Influential 100" in the art world. I recently perused one of these from *Art in America*, where it turns out that there are 16 artists in the top 100, and 17 collectors. So the people who fork out the money for art are really more influential than the people who make it? They might be influential for making some galleries very wealthy, but how that furthers the objective of a market, to aid the production and allocation of the best quality

[40]As some reading this may not know much about how academic economists approach markets, it is useful to explain the criteria by which they get evaluated. Unlike common impressions, our objective is not to make sure firms make the most money. Instead, when we evaluate this market, we ultimately care that the institutions in use, and the pricing system, encourages the production of the best possible art, and that art is matched to those who value it most, both in a static and a dynamic sense. Prices paid for art only matter to the extent that they facilitate those objectives.

contemporary art, seems more tenuous.[41] To give an analogy: as I write this I am watching the soccer World Cup in Brazil in the background. The analog to the *Art in America* list would be a "The Most Influential 100 in Soccer" list, and picking more fans than players, which is simply surreal.

The Logic of Beauty Contests In most markets, all that matters for pricing and efficiency is the opinion of the person buying the good. Beauty contest markets are those where buyers care about what *others* think when they decide to buy.[42] There are two natural ways in which the opinions of others matter: (i) if I might be selling the work to others, or (ii) if I value the esteem of others through status.[43] There are two implications of this: bubbles, where prices drift far from true fundamentals, and herding or groupthink, where most people's information does not get incorporated into prices as people see more with their ears than with their eyes.

First consider beauty contests and resale. The stock market is the canonical example, as how much I am willing to pay for a stock depends on how others value it when I sell. These markets are prone to bubbles. There has always been a suspicion that beauty contest logic can cause prices to drift far from their fundamental value ("I'll buy at this crazy price, as I think I can sell to you at an even crazier price, and you think you can sell on to someone else at a yet crazier price", and so on...). Recently, this logic has been clearly isolated in experimental settings, where prices do wander far from their true value.[44] It is not hard to see how this would be potentially even more relevant in the art market than the typical

[41] In case this seems vague, let me be a little clearer in how an economist would measure influence. If artist x's entire output disappears from the world, everyone who gets to enjoy artist x's work no longer does so. Suppose they look at artist y's work instead, so the cost of losing artist x is the difference between how much people value artist x over artist y. Now do the same for the collector: if collector x disappears, what's the loss? Its how much he values the art he has over how much collector y - the next person in line to get it - values it.

[42] This has become known as the beauty contest problem after Keynes famous discussion where people are asked to predict who they believe will win a beauty contest.

[43] There is one other reason why people care about others's preferences when goods require platforms. For example, when a new phone producers comes to the market, consumers care about whether other consumers also buy because the platform's development (new apps for example) depends on how many other people also use the good. This is not relevant for the art market.

[44] See, for example, Camerer, 1997. These experimental outcomes arise even in settings where everyone knows for sure that the whole thing will fall apart eventually. So, for example, someone is told that eventually an asset is worth \$1, but in the run-up to that, where we are all trading with each other, the good might trade for as high as \$5.

stock market type implementation, as the better is the information on the true value of an object, the less likely are bubbles. Yet the inherent subjectivity of art makes this a prime candidates for such bubbles.

The second problem with beauty contests is what is known as "herding" or "groupthink", where people publicly agree in their opinions despite disagreeing in private. There are many cases in the world where people agree, namely, when they can easily evaluate quality and have similar preferences. So, for example, we all agree that vegetables taste better when they are fresh. Yet the same is often true when people know very little, but care about what others think of them. Here people conform to the perceived prior wisdom on something, even if they privately have their doubts, through the fear of looking like a fool by disagreeing. This has the outcome that measures of quality - here prices - may reflect the opinions of relatively few people that are copied by others.

For all these reasons, one needs to be much more cautious in interpreting the market for contemporary art as a measure of quality than for most other markets.

6 Competition

So far, I have treated galleries as independent entities, ignoring the fact that they compete with each other. This section addresses some unusual aspects of that competition. It is useful for this exercise to distinguish between what economists call the extensive margin, through entry of new galleries, and on the intensive margin, through actions that existing galleries take to induce collectors.

The Extensive Margin: Entry As described above, asset market prices are usually set by both the stock of existing work and flow of new work. In this market, there is little stock recirculating for most artists and so supply is low. All else equal, this restricted supply increases prices and gallery profits (the "excess profits" of economics textbooks). However, this is not likely to be true in market equilibrium as new galleries enter the market to compete away that profit. The natural outcome is that the commercial gallery sector is likely overbuilt relative to its efficient level.

The Intensive Margin: Competing through means other than price Existing galleries compete with each other for collectors: they want to be seen as the best, and attract collectors accordingly. In most markets, firms compete through prices, where reducing price attracts more buyers from competitor firms, or through a higher quality good. With such competition, consumers are the primary beneficiaries. Obvious though it sounds, price competition only works when lower prices attract more business. As described above, in the art market this is much less clear, especially when prices are interpreted by collectors as lower quality art. As a result, in the language of economics, demand curves may not even slope down, particularly if collectors may perceive lower prices for an artist as indicative of a career that has gone off the tracks.

Consequently, price competition is likely to be less effective than in most industries. This does not mean, however, that galleries do not compete. In much the same way as private hospitals compete through increasingly lavish facilities (even though they have little effect on medical outcomes), one of the main battlegrounds for galleries is through their opulent gallery spaces. The enormous expenditures on gallery spaces, often with celebrated architects, has become a primary way of competing for collectors. In itself, this is straightforward: of more interest is that this arises largely because price competition is so kludgy. Note additionally that the immediate beneficiaries of this form of competition are not collectors, but rather the landowners of places like Chelsea in New York, and assorted architects and contractors.

Competition and Gallery Hierarchy There are few structural factors that restrict entry to the gallery market, and new galleries crop up daily. The twin issues of free entry and competition between galleries have two market implications: (i) the marginal gallery that enters makes nothing in expectation beyond its costs, and (ii) galleries get returns only from the assets they have that other galleries do not.

Compared to most markets, this is an industry where the product changes all the time: new artists come on the scene, tastes change, and almost by definition new work has to differ from old work or it has little value. In sum, a rapidly changing industry. Most industries where the best products change rapidly have a lot of churning in its most prominent firms. As new firms produce successful products, they knock the existing leaders off the top of the totem pole. Given this, the stability at the top of the gallery hierarchy is surprising: if I was to make a list of the top 20 galleries today, it would look little different to the top 20 galleries a decade or more ago.

At face value, this almost sclerosis at the top of the gallery hierarchy seems odd. However, one useful rule of competitive strategy is that the money flowss to firms with the scarcest resource. (When others can mimic what you can do, profits disappear.) So what is the scarce resource here?[45] The most obvious answer is artists. Naively, I thought that those

[45]In reports on the change of the art world over the last decade or so, mention is often made about scale: in order to operate at the top of the art ladder it is necessary to have huge resources, perhaps having gallery

galleries with the best "eye" would ultimately be the winners in the marketplace, where those who found the great artists of the next generation would eventually triumph. Yet the hierarchy at the top remains essentially unchanged, and these galleries are not the ones who found that next generation. That the hierarchy is so unchanged is likely because of the other scarce resource: access to top collectors. Ultimately, it seems that the ability to persuade a collector to spend seven figures on a piece of art is a scarcer resource than simply finding great artists. To put this somewhat differently, when an industry has two scarce assets, the winner tends to be the firm with access to the least mobile one. The top of the contemporary art market clears largely though artists moving from their current gallery to a blue chip one moreso that a top collector looking outside his blue chip gallery to find other artists.[46]

Ironically, the stability of the gallery system may be caused by rapidly changing products offered. If collectors could easily identify the talent of new artists, they would not need to stick to their current blue chip gallery. Yet their uncertainty cuts down their mobility, so the very feature that would normally cause consumers to change their purchases rapidly (new products being introduced) in this case generates the sclerosis of the system.

7 Other Observations

7.1 Advice and Uninformed Collectors

As was discussed above, consumers often seek reassurance before buying. Especially since the advent of the internet, markets have developed many such ways of doing so beyond the use of brand names. Think of common consumer durables: cars, houses, fridges, and so on. First, there are a plethora of sources of impartial reviews. Before buying household items like an oven, a fridge, or a TV, we do our homework on Consumer Reports or the like, and turn up to the store (or website) armed with information. The same is true for new cars, where we can also find information on invoice prices without difficulty. With houses, simple

spaces in many cities. I doubt that this is the true source of competitive advantage that the high quality incumbents have over other galleries. Firms routinely expand scale in ways far larger than would be seen in the contemporary art world, and use financial markets to do so. It seems implausible to me that the scarce resource that gives these galleries their advantage is access to the financial sector.

[46] We mentioned above a tendency for galleries to keep prices low for promising young artist, rationing the work to the best collectors. However, these artists often move up the perceived quality ladder. So a mid-tier gallery who has a hot artist fears losing her to a better gallery. This places stress on this pricing practice. When a gallery fears losing her artist, the gallery is likely to be tempted to increase prices now in order to gain the biggest return before the artist flees to greener pastures.

internet searches can find reasonable benchmark prices in a matter of minutes.

Other practices have developed to making us more comfortable. Most of these have the feature of recourse if what we bought is not what we thought it was. As one example, used cars often have warranties where the seller pays if something is wrong with the car for some period of time. Furthermore, with many appliances, we have the option of returning them (typically within 90 days) if it turns out that we don't like them as we thought we would. Similarly, with housing purchases, we send in inspectors and usually have the option to back out before closing with little cost if we change our minds.

The market for contemporary art has developed no such analog. First, it singularly lacks disinterested advice.[47] Having an inexpensive source of such advice would lower the barriers to new and old collectors alike. People interpret art in all sorts of wondrous idiosyncratic ways: beauty is indeed in the eye of the beholder. However, the reason to get advice on many things is to work out what *others* think: what they liked and didn't, what alternatives they considered, how much they paid, and so on. Of course, such advice would not take the form of an artist having a "94 Gold Star, Energy Efficient" rating like my fridge, but there is a large amount of qualitative and (possibly) quantitative information that would be valuable to collectors. Many possible collectors are scared off by the kind of fears that impartial advice would allay.

Galleries do of course provide this service, and collectors learn a great deal from them. However, relying on them for advice carries the same caveat as listening to any other firm: they rarely dissuade you from buying their artists in favor of someone else's. A useful service to possible collectors would be advisors with no vested stake in any of their purchases. A useful comparison here is medicine. Patients often worry when doctors suggest costly treatments whose merits they find hard to identify. With medicine, there are three good reasons why our worries are allayed somewhat. First, most of us are lucky enough to have insurance, and insurance companies are in a better position to monitor the medical profession than we individually are. Second, it is common in medicine to separate diagnosis from cure: our internal medicine doctor diagnoses we need a knee replacement, but someone else does it. As our doctor does not financially gain from the diagnosis, he may be more likely to be an honest broker. Finally, medicine has the Hippocratic Oath. There is neither separation of diagnosis from cure nor the Hippocratic Oath in the art world.

Creating an institution that offers impartial advice, and ensuring that it stays impartial,

[47] For those of us who have been involved in the art world for a period of time, we construct our own props by having a trusted group of friends from whom we seek advice.

is difficult. One possibility is the use of art advisors. I have had relatively little exposure to such expertise, but they are not a likely panacea. First, most credible expert markets have some entry or certification requirements: I can't simply become a doctor and start doling out prescriptions to patients. There are no such entry requirements in the art advising business, and collectors may have at least as much trouble certifying advisors as they do certifying the art itself. Second, while advisors can be useful, their incentives may not be aligned with those of their clients. To use an example from another industry, many people use financial advisors to help them manage their portfolios. While they can be useful, much evidence shows that they sometimes gain by "churning" your money (making transactions) rather than telling you to leave it alone in say an index fund.[48] By similar logic, I'm guessing that art advisors rarely tell you you'd be better off leaving your money in the bank than buying art. Finally, there is the (real) danger of some advisors becoming captured by some interests - for example, by buying only from particular galleries with whom they have relationships.[49]

One final comment on the issue of new and potential collectors. There are many sessions at art fairs, and articles in the press, about the issue of starting out for new collectors. It's almost a cliche to end these sessions with the suggestion that new collectors should "buy what you love". This strikes me as bad advice, as it is hard to predict what your tastes are going to be at the early stages of viewing contemporary art. Something that looks good to you in your first couple of months may become derivative within a year. Instead, I'd recommend buying nothing for a year after starting to look at contemporary art: by then you will likely know your own tastes better.

7.2 The State of the Market

There is a common perception from reading the art press that the art market is booming. This strikes me as incomplete. Instead the art market seems bifurcated, with the very successful being trophies, and some younger artists becoming lottery tickets. Both of these markets do indeed appear to be booming. But these markets might be a third of the artists

[48] See Brown, 1991.

[49] In the absence of this, how do collectors behave? Many are too intimidated to buy and stay away. Among those who do collect, two additional responses are common. First, they specialize and become informed about one subset of the market, collecting only Japanese photography or geometric abstract paintings for example. In this way, they can at least stick to what they know. Another common way of overcoming their lack of information and connections is by putting their eggs in one gallery's basket, by focusing their collection on the artists of a single gallery. By developing these relationships, collectors often hope that they can receive better advice as perhaps the gallerists needs them as much as they need the gallery.

that show at top fairs like Frieze or Art Basel. For the other two thirds, my guess is that they are still suffering from the aftermath of the financial crisis.

Two of the themes above have interacted recently such that artists who have well respected, mid career practice are likely suffering. On the one hand, galleries like to begin an artist's career by pricing low, and then gradually increasing prices as she matures. In this sense, pricing reflects how the galleries (and maybe the profession) more generally values the artistic merits of the work. This would not be a particular problem if the market agreed. But because of the Winner Take All feature, collectors are increasingly willing to pay a premium for young artists over older artists as they have more financial upside. Put simply, the market's preferences seem to be headed in the opposite direction to the traditional pricing model. So what is a gallery to do? One response is to acquiesce to the market, and potentially price its young stars higher than its older artists. Some galleries do this, but it can be problematic as many of the young "lottery tickets" may not pay off, and so their prices would need to later decline. Instead, most galleries do not seem to have changed their pricing policies. As a result, this is a market where many young artists sell fast, but their older counterparts do not sell fast at all.

The impact of the financial crisis should likely not be underestimated here. There is a normal process by which markets respond to demand crises: lower prices. For example, the price of the average house in the United States fell 30% after the financial crisis. Yet primary market prices for contemporary art no similar reduction. Markets with sticky prices are those where temporary shocks have long lasting impacts, and my guess is that this has played a role in the difficulties faced by some parts of the art market, even many years after the financial crisis.

8 Conclusion

This paper is not meant to be the final word on the contemporary art market. Instead, it's a starting point, used to lay out some of the relevant institutions, and to speculate on tradeoffs that are unique to this strange market. It neither takes the extreme positions of thinking that the art market is like every other, nor that the market is so unique that the rules of economics can be thrown out the window. Instead, this essay is located somewhere in the middle.[50]

[50] It is pretty much a truism that when an industry is studied, the participants claim that their industry is unique and that the usual rules don't apply to them: this is true whether it is iron tubes, the media, or the auto industry. With some amendments, most rules usually apply, and a comparison to other industries

While it tries to tackle a series of issues, a great number of important aspects of the market remain untouched. On the demand side, two issues come to mind. Foremost among these is the issue of gender and race. Markets where subjective assessment affect purchases lead to the possibility of discrimination against certain demographic groups.[51] There have been long been concerns of such discrimination in the art market. I have avoided this issue not because it is unimportant but rather that I have little useful to say about it beyond what others have said. Second, not for profit institutions - museums, foundations, etc - are an important part of the set of buyers, but the unique ways in which they operate and build collections has been largely ignored. This is a subject for another day.

Even those with the most rudimentary knowledge of economics know that markets are about about both demand and supply. Most of the paper has been about the demand side of this equation, though we have discussed supply of galleries. I have said almost nothing about supply of art produced by artists, and how the market influences this. Two issues seem especially relevant. First, an unusual aspect of the supply side of this market is the relationship between prices and artistic output. In most markets, prices go down when firms offer more supply: if Audi decides to make 10,000 more cars, the reduction in scarcity causes prices to fall. This may not be true in the art world because of how networks operate. Information about artists - particularly relatively unknown artists - tends to travel through networks of collectors. Collectors talk up work that they own. An artist's career tends to take off when a critical mass of such collectors talk about that artist's work. But that is only possible if the artist makes a sufficient amount of work. As a result, an artist's career can become stalled if the supply of their work is too small. While there are some notable exceptions to this rule (Vija Celmins or Tomma Abts for example) in general an unknown artist who produces little simply does not become well known.

Second, how does the market affect the kind of artwork made? In most markets, customers guide production in a wholly appropriate way: people want faster computers, and companies make them. This works for two reasons: first, consumers know what they want, and second, the only relevant constituency that matters is the people who buy the good. As discussed at length above, neither may be true for the art market. Collectors may not be particularly well able to evaluate new work, and a fear is that their preferences may affect what is made: for example, does the boom in a certain kind of abstract painting cause some

is often useful.

[51] Symphonies are one such example, where there have been long running concerns of gender discrimination in hiring practices. Here having candidates play behind curtains has significantly increased the number of female orchestra members. See Golden and Rouse, 2000.

artists to make this kind of work even though they may be better suited to do something else? This is an issue on which more work needs to be done, but once again it lies outside the scope of this paper.

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