The Art Market 2018

An Art Basel & UBS Report

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Art Basel | UBS

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Acknowledgments

The Art Market 2018 presents the results of a comprehensive analysis of the global art and antiques market in 2017. The report looks at the key macro-level trends in the global art and antiques trade, reporting on the performance of different regions, sectors and value segments of the market.

The information presented in this study is based on data gathered and analyzed directly by **Arts Economics** (www.artseconomics.com) from dealers, auction houses, art fairs, art and antique collectors, art and financial databases, industry experts and others involved in the art trade. (The Appendix outlines some of the key data sources used in the report.)

Chapter 1 provides an overview of the global market, looking at the value, volume and regional distribution of sales of art and antiques in 2017 and the decade leading to it. It reviews the performance of some of the major national and regional art markets over this ten-year period.

Chapter 2 focuses on dealers and galleries, reporting on sales and other key indicators in different value segments and sectors of the market, and presenting an analysis of important areas such as profitability, supply, inventories, financing and buyers. It reports findings on the primary market and the secondary resale market, distinguishing them in terms of dealer turnover, artist representation and other features, and discusses gallery longevity, providing quantitative analysis of gallery openings and closures along with a discussion of the main issues facing galleries in 2018.

Chapter 3 reports on the auction sector, looking again at sales by region and value segment. It also presents a comprehensive analysis of the principal fine art auction sectors, describing their performance in terms of sales, regional market share, prices, segmentation and artists.

Chapter 4 provides an overview of exhibitions and art fairs. It analyzes the geographical spread, growth and content of commercial and non-commercial exhibitions over the last ten years, and examines the development of art fairs, charting their rising importance for sales in the dealer sector.

Chapter 5 looks at sales and developments in the online art market, reporting on its size and key structural features.

Chapter 6 provides a contextual overview of world wealth, showing how changes in the size and distribution of wealth within and between regions are shaping trends in the art market. This chapter focuses on high net worth wealth and presents the results of a survey of US high net worth individuals carried out for the report in conjunction with UBS.

Chapter 7 discusses the significant economic contribution the art market makes to the economies in which it operates in terms of employment and revenues as well the support of a range of ancillary industries. It concludes the report by reviewing some of the key issues that may shape the market going forward in 2018.

A critical part of the research each year involves a global survey of art and antique dealers. I would like to say a special thanks to Erika Bochereau of CINOA (Confédération Internationale des Négociants en Oeuvres d'Art) for her continued support of this research, along with the presidents of the dealer associations around the world who promoted the survey among their members. Thanks also to Art Basel for helping to distribute the survey. My deepest gratitude goes to all of the individual dealers who took the time to support this research by completing the surveys. I am also very grateful to all those dealers who shared their valuable insights on the art market through interviews and discussions during the year.

Many thanks also to all of the top and second-tier auction houses that also took part in the auction survey. Thanks especially to Susan Miller (Christie's), Joshua Charlton-Briggs (Sotheby's), Caroline Conegliano (Phillips), and Eric Bradley (Heritage Auctions).

Thanks also to the online companies for their support of the survey and in providing other information on the sector, and to Thomas Galbraith for his insights for the online chapter. I am very grateful also to O'Neal Rowe (Invaluable.com) for the use of their online auction data, as well as Richard Lewis (the-saleroom.com) for data supplied on the UK.

I would also like to thank UBS for their help and cooperation with the survey of US HNWIs, which provided invaluable insights in the report.

I am grateful also to Diana Wierbicki of Withersworldwide for her help with information on US tax regulations.

The primary fine art auction data supplier for this report was Auction Club, and many thanks to William Vanmoerkerke and Sofie Scheerlinck for their help in assembling this set of data. The auction data on China is supplied by AMMA (Art Market Monitor of Artron) and my sincerest thanks for their continued support of this research on the Chinese auction market and to Yuting Zhang for his help with the data. I am very grateful also to the Shanghai Culture and Research Institute for their help researching the Chinese art market.

I would also like to extend a special thank you to Susanne Massmann and her team at Artfacts.net for their support and provision of data on exhibitions, fairs and galleries. Many thanks also to all of the art fairs that shared information for the report.

Finally, I am very grateful to Noah Horowitz and Melissa Netecke for their time and encouragement in helping to coordinate the research.

Dr Clare McAndrew
Arts Economics

Director's Foreword

This second edition of the Art Basel and UBS Global Art Market Report appears in the midst of what many consider a paradigm shift within the industry. So now, more than ever, understanding the market's dynamics is essential. Fortunately, the report's author, Dr Clare McAndrew of Arts Economics, has long ranked among the most definitive analysts of this industry. Since she joined forces with Art Basel in 2016, she has worked with us to focus upon the market aspects most fundamental to the ecosystem within which Art Basel exists. Thus, this year's report includes its first-ever stand-alone chapter on exhibitions and art fairs (Chapter 4), alongside in-depth research on dealers, auctions, online developments, global wealth dynamics and the industry's economic impact.

Compared with the many markets where every transaction is public record, the art market has long posed a thorny challenge for analysts. This is precisely why the Art Market Report, which combines global auction sales data with its industry-leading dealer surveys, proves so valuable. While true transparency is inherently unattainable, the fundamental image put forward here rings profoundly true: The marketplace is growing ever larger, more accessible, and more global; and yet while all three adjectives suggest countless opportunities, they also present a complex set of challenges, especially within an industry that has innovated and evolved more slowly than most other industries.

During the past year, as this report was compiled, there has been an unprecedented questioning, both public and private, of the conventional gallery model and established ways of doing business. As every individual in the market questions their assumptions – trying to envision professional trajectories that work for them and the artists they cherish – we hope this analysis provides fresh perspectives on the myriad ways forward.

This is an enormous undertaking, and Art Basel wishes to thank Dr Clare McAndrew for her tenacity and rigor in taking on this intricate task, UBS for its vital support in co-producing the report with us, and the hundreds of galleries and art-market professionals whose input helped shape this fascinating and thorough study.

Marc Spiegler
Director, Art Basel

Statement by UBS

The 19th-century artist, businessman and political philosopher William Morris wrote that people should live by a golden rule. "Have nothing in your houses that you do not know to be useful, or believe to be beautiful." This rule seems to divide economics and art. Economics is about the useful. Art is about the beautiful.

That division does not exist. Economists are more and more vocal about the need to think beyond economic data to measure the quality of life. Morris's quote continues: "Beauty, which is what is meant by art... [is] a positive necessity of life." Art contributes positively to the world around us, in ways that the facts and figures of GDP cannot hope to discover.

The motivations and philosophy of the art world have much to contribute to the economic world. Passion drives art, and passion is an increasingly valuable property in economics. Art frequently challenges established ways of thinking. The world hovers on the brink of the fourth industrial revolution. This will challenge established ways of doing business – even the established ways of structuring economics. Challenge is a key part of economic success in a time of change.

Economics also plays a role in the world of art, as it always has done. In this report, Dr Clare McAndrew clearly sets out the context for the art market in today's global economy. Art is a growing industry, with a need to attract a broad base of new buyers at different price levels. There are opportunities presented through future growth in the online art market. The technological change that is changing the economy is also changing the world of art.

Although there often seems to be a focus on dollars per painting, UBS clients who invest in art are not typically looking for financial gain. Art is often a physical manifestation of the values that they wish to pass to future generations. Art has much to teach economists, and amidst record-breaking auction results in 2017, economics also has something to say on art. The two disciplines can work together, each benefiting the other. I hope that, whichever side you start from, you will find this report both useful and beautiful.

Paul Donovan
Chief Economist,
Global Wealth Management, UBS

Key Findings

Global

1. Sales in the global art market reached $63.7 billion in 2017, up 12% from 2016.

2. The volume of sales (number of transactions) grew more moderately than values, at 8% year-on-year.

3. In 2017, aggregate sales by dealers accounted for a larger share of the market, at 53% by value, with auction sales accounting for 47% (up 4% from 2016).

4. The three largest markets of the US, China and the UK accounted for 83% of total global sales by value.

5. The US was the largest market worldwide, accounting for 42% of sales by value, with China in second place (21%) and the UK the third largest market with 20%.

6. Sales in the major art markets all advanced year-on-year in 2017: in the US by 16% to $26.6 billion; in China by 14% to $13.2 billion; and in the UK by 8% to $12.9 billion.

Dealers

1. Dealer sales in 2017 reached an estimated $33.7 billion, up 4% year-on-year.

2. Dealers with turnover below $500,000 saw a decline in sales on average of 4%, the second year of losses in this segment.

3. For dealers at the very highest end (sales over $50 million), sales growth was strongest at 10%, although this was only around half the growth rate reported for this segment in 2016.

4. The number of gallery closures has varied considerably, peaking in 2009 and falling in recent years. Gallery openings have declined steadily over the last decade, with the number of new galleries established in 2017 around 87% less than in 2007.

5. While the ratio of gallery openings to closures in 2007 was 5:1, this has declined rapidly since then, dropping to 0.9:1 in 2017, that is, more closures than openings.

6. According to the dealer survey, the three biggest issues facing dealers in 2018 are: finding new buyers; the economy / demand for art and antiques; and participation at fairs.

Auctions

1. Sales at public auction of fine and decorative art and antiques reached $28.5 billion in 2017, up 27% year-on-year.

2. The US and China dominated auction sales with a combined 68% share (the US with 35% of sales, China 33%, and the UK 16%).

3. From 2007 to 2017, nearly all segments up to $1 million declined in value, whereas the market for works priced over $1 million grew. The biggest increases were at the very highest end, with the value of sales of works sold for over $10 million increasing by 148% over ten years, and 125% year-on-year in 2017.

4. Post War and Contemporary art was the largest sector by value in 2017, accounting for 46%, followed by Modern art (27%).

5. All of the fine art sectors increased in value year-on-year, including a 12% increase in the Post War and Contemporary sector to $6.2 billion, with sales of the work of living artists advancing by 19% to $2.6 billion.

6. Sales in the European Old Masters sector rose 64% year-on-year to $977 million, however, this uplift was due to the sale of the Leonardo da Vinci painting for $450 million at Christie's in the US, without which sales would have fallen 11%.

Exhibitions and Art Fairs

1. The gallery was the primary institution for exhibitions worldwide in 2017, accounting for 55% of the number of global exhibitions.

2. Exhibitions are much more globally dispersed than sales in the art market. The US accounted for a 21% share, followed by Germany (12%) and France (10%).

3. Dealers reported that they made 46% of their sales at art fairs in 2017, up 5% on 2016.

4. Sales at fairs were estimated to have reached close to $15.5 billion in 2017, up 17% year-on-year, while the costs for dealers to attend fairs rose 15% to $4.6 billion.

5. On average, dealers attended five fairs in 2017, the same number as in 2016.

Online

1. The global online art and antiques market was estimated to have reached a new high of $5.4 billion in 2017, up 10% year-on-year and accounting for 8% of the value of global sales.

2. The online art market has increased substantially in size over the last five years (by 72%), and its share of total art market sales has also edged up from 5% in 2013.

3. Online sales have been a key method to access new buyers: dealers reported that 45% of their online buyers were new to their businesses in 2017; 41% of those buying online at second-tier auction houses were new buyers; and in top-tier houses they averaged over 40%.

4. Most of the traditional offline dealers and auction houses surveyed in 2017 recognized the online channel as a key area of growth over the next five years.

Wealth

1. A survey of (high net worth individuals) HNWIs in the US by UBS and Arts Economics in 2017 revealed that 35% were active in the art and collectibles market.

2. The survey indicated that the most common price range for buying works was less than $5,000 (79% of respondents), and 93% reported that they most often bought at prices less than $50,000. Only 1% of respondents bought at prices in excess of $1 million.

3. The most frequently used channel for purchases was a gallery or dealer, with 66% of the sample having used them to purchase art.

4. 11% of respondents had used credit or loans to purchase works of art or objects in their collections.

5. Only 32% of collectors felt that the expected financial return on their investment was important, although this was higher (at 47%) for those with wealth over $5 million. The majority of the collectors surveyed (86%) reported that they had never sold a work from their collection.

6. Sales to private collectors dominated the dealer and auction sectors, accounting for 66% of dealers' sales in 2017 and 64% for second-tier auction houses.

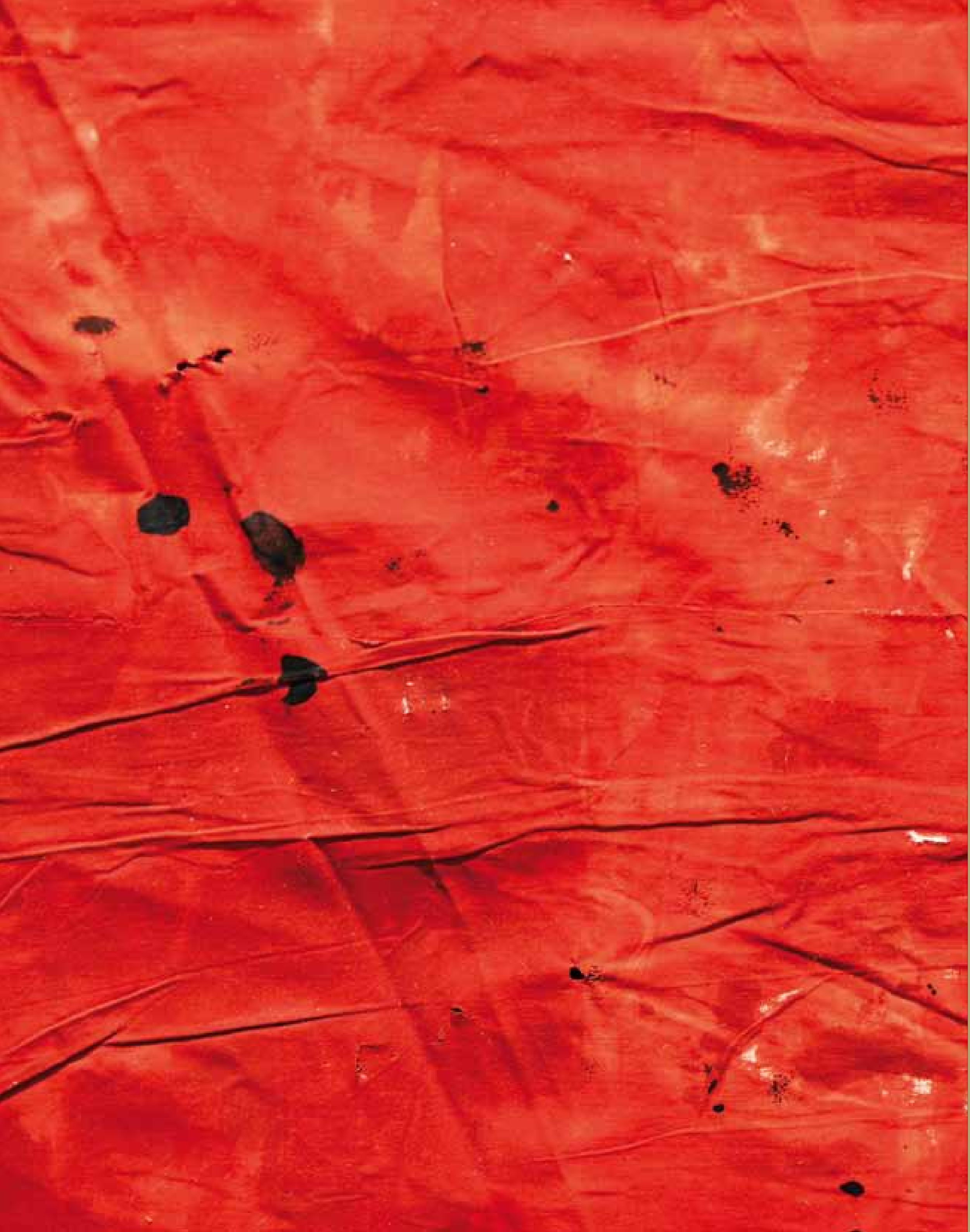
Economic Impact

1. There were approximately 310,685 businesses operating in the global art, antiques and collectibles market in 2017, comprising 296,540 in the gallery sector and 14,145 auction houses.

2. The art market directly employed an estimated 3 million people in 2017, stable from 2016.

3. It is calculated that the global art trade spent $19.6 billion on a range of external support services directly linked to their businesses, supporting a further 363,655 jobs.

4. The largest area of spending, although only incurred by dealers, was on art fairs, which represented 23% of the total at $4.6 billion, an advance of 15% year-on-year. The second largest area of spending was on advertising and marketing, which totaled $2.8 billion.



1

The Global Art Market in 2017

Key Findings

The Global Art Market in 2017

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5. The US was the largest market worldwide, accounting for 42% of sales by value, with China in second place (21%) and the UK the third largest market with 20%.

6. Sales in the major art markets all advanced year-on-year in 2017: in the US by 16% to $26.6 billion; in China by 14% to $13.2 billion; and in the UK by 8% to $12.9 billion.

Following two years of declining sales, the market turned a corner and increased 12% year-on-year to $63.7 billion.

1.1 | Overview of Global Sales

Sales in the global art market reached $63.7 billion in 2017, up 12% from 2016. Following two years of declining sales, the market turned a corner with increasing sales in both the auction and dealer sector. These gains were driven by sales at the top end of the market, capped by a historic record in the auction sector, with a work by Leonardo da Vinci achieving $450 million, more than four times any price previously achieved at auction. However, away from the premium price segment, overall market performance was mixed.

The combination of a high-performing market at the top end with more sluggish growth in other segments, along with varying regional performance, has moderated the growth in sales over the last five years. After the dramatic contraction of 40% in the value of the market in the fallout of the global financial crisis between 2007 and 2009, the largest decline since the early 1990s, strong recovery in the US combined with a booming market in China boosted sales until 2011. The Chinese market's significant decline in 2012 brought a halt to that, to some extent, but from 2012 to 2014, US-led growth buoyed the market to $68.2 million, above the previous peak reached in 2007, and doubling the market's size within a decade.

Since that point, while the US maintained positive growth, sales in Europe and China have been weaker. All of the major markets declined in 2016, with sales declining in the auction sector with fewer top-end prices, although the dealer market was more stable and posted modest gains. Slowing economic growth and widespread political uncertainty filtered down into the art market in 2016 and on aggregate, it lost 16% of its value from 2014 to 2016.

In 2017, despite remaining political volatility in many regions, robust growth in global wealth, particularly at the high end, improved economic performance, accelerating financial market returns, stronger consumer confidence and increased supply led to a much more favorable environment for sales.

The volume of sales (number of transactions) grew more moderately than values, at 8% year-on-year, indicating that increasing prices in some sectors also explain the advance in the value of the market. The number of transactions reached an estimated 39 million, the highest level since 2008.

Table 1.1 | The Global Art Market: Value and Volume of Transactions

Year	Value ($m)	Volume (m)
2007	$65,875	49.8
2008	$62,020	43.7
2009	$39,511	31.0
2010	$57,025	35.1
2011	$64,550	36.8
2012	$56,698	35.5
2013	$63,287	36.5
2014	$68,237	38.8
2015	$63,751	38.1
2016	$56,948	36.1
2017	$63,739	39.0
Growth 2016–2017	11.9%	8.0%
Growth 2007–2017	-3.2%	-21.7%
Growth 2009–2017	61.3%	25.8%

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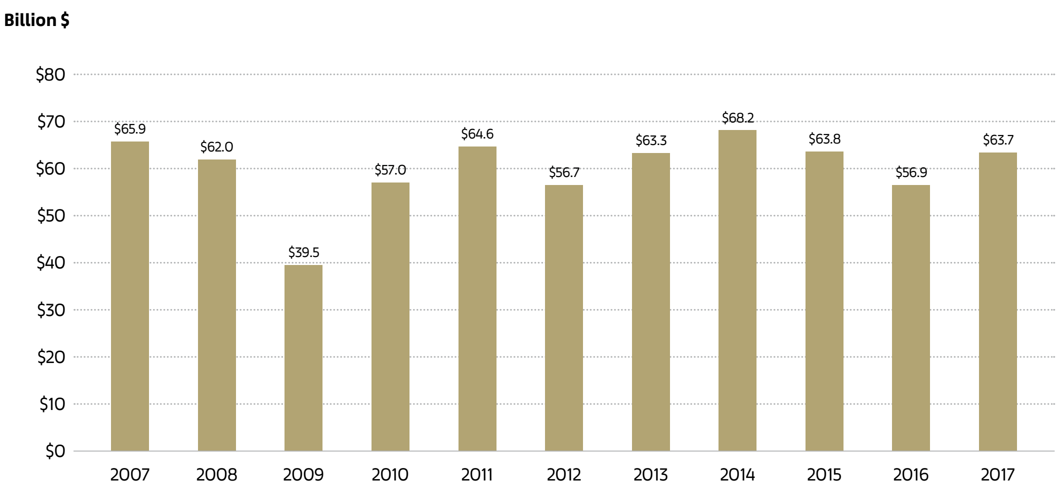
Figure 1.1 | **Sales in the Global Art Market 2007–2017**



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As in all years, the breakdown between auction sales and dealer sales varied widely between countries and between the different sectors of the market. In 2017, aggregate sales by dealers accounted for a larger share of the market, at 53% by value, with total auction sales accounting for 47%. This represented a decline in the share of the dealer sector of 4% year-on-year. As noted in previous years, the share often shifts more towards auctions when the market is buoyant and there is an optimistic outlook for sales, with sellers enticed to the public auction market by its potential for greater than anticipated prices. While this appears to have been the case in 2017, it was also due to the small number of very high-value auction sales, which masked weaknesses evident in some segments of the auction market.

A detailed analysis of the dealer sector is given in Chapter 2, while Chapter 3 examines the auction sector.

Figure 1.2 | **Growth in Sales in the Global Art Market**

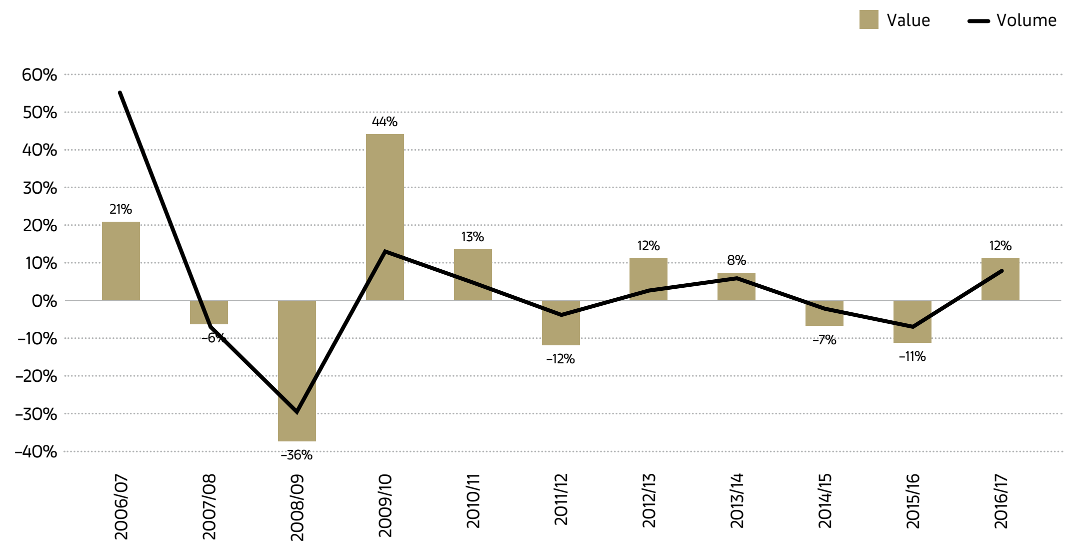

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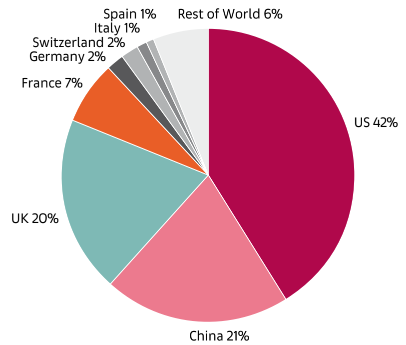
Figure 1.3 | Global Art Market Share by Value in 2017[1]



1.2 | Global Market Share

The three largest markets of the US, China and the UK accounted for 83% of total sales by value. The US once again confirmed its position as the largest center for art sales, increasing its share by two percentage points to 42% of world sales by value.

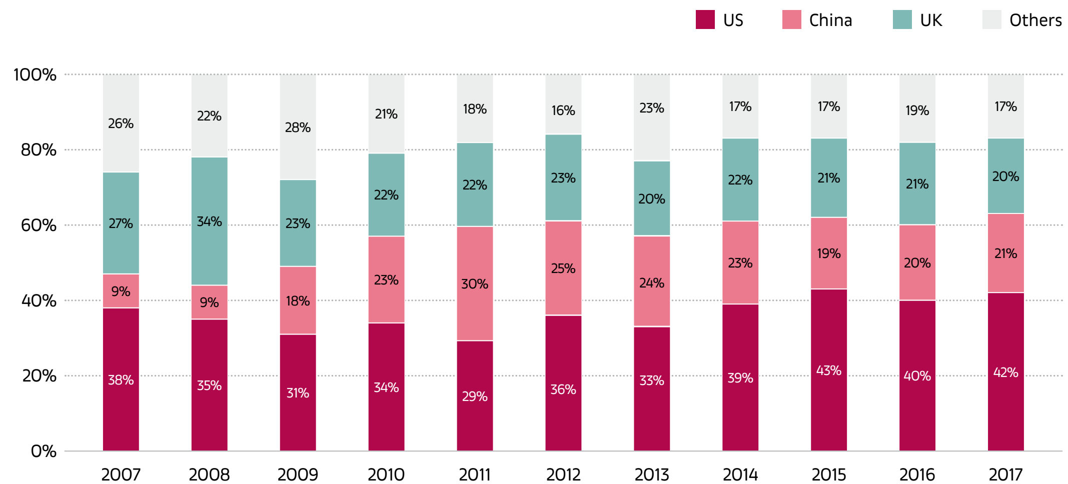
The US has been the leading market for every year in the last 20, bar one, when sales in China temporarily overtook it by a small margin in 2011. However, the US's lead has risen to more than 20% in recent years.

The ranks of second and third place have marginally fluctuated in recent years. After emerging from virtually nowhere (with less than 5% of global sales up to 2006), China overtook the UK's long-established second place in 2010. With Chinese sales embarking on an unprecedented boom and the British market recovering from the fallout of the global financial crisis, China maintained dominance until 2014. In 2015 and 2016, the UK regained some share and moved up in the global ranks again, however, a strong year of sales in China in 2017 and a weak Pound meant that in 2017 China was once again in second position by a small margin.

While sales in China are by far the largest in Asia by value, combined with others such as Japan, South Korea, India and Indonesia, the Asian market accounted for 23% of global sales in 2017. Although this is still significantly less than the EU, at 33%, the buoyant wealth dynamics in Asia and strong local markets suggest that its share could increase in the future. In contrast, despite having dynamic and vibrant local art scenes and significant international buyers at the high end, regions such as South America and Africa remain a tiny fraction of global values (estimated at a combined share of less than 4% in 2017).

1 Note that the percentages that are cited in this chart and in several throughout the report are rounded to the nearest whole number. Shares may not add up to 100% due to rounding.

Figure 1.4 | Global Market Share of the US, UK and China 2007–2017



The three largest markets of the US, China and the UK accounted for 83% of total sales by value.

1.3 | Regional Sales

Having led the recovery of the global market in 2010, the US art market grew in nearly every year until 2015, when it reached its highest ever level of $27.3 billion. The US market doubled in size in the period between its lowest point in 2009 and 2015, buoyed by strong sales in the Contemporary and Modern sectors. However, in 2016 sales dropped substantially (to $22.9 billion) against the background of an uncertain political climate, with limited supply and other factors leading to cautious buying and selling. This led to double-digit declines in the fine art auction sector.

The US regained this lost ground in 2017, reaching $26.6 billion, an increase of 16% year-on-year, with strong sales at the high end of the auction and dealer sectors. The auction sector was affected by a small number of individual lots at the very high end, including two record, nine-figure sales of works by Jean-Michel Basquiat and Leonardo da Vinci (see Chapter 4).

In the dealer sector, while a generally more stable economy and positive wealth dynamics helped to improve buying in certain areas, performance was mixed. Some dealers reported that after a relatively slow start to the year, much of their increase in sales in 2017 was caused by a flurry of activity at the very end of the year. This appears to have been driven by concerns in the US regarding the cessation of the availability of 1031 Like-Kind Exchanges for art. This regulation was used by collectors to defer capital gains taxes on the sale of art if the proceeds were used to fund a purchase of another artwork, creating substantial buying and selling activity, particularly at the high end of the market. The announcement in late 2017 of the restriction of this incentive to exclude art from December 31, 2017, as part of the Trump administration's tax reform, led to an increase in activity at the end of the year as many attempted to avail themselves of the tax relief while they could. While some of the other proposals from the current US administration are thought to benefit the art market through boosting the wealth of the upper-income segments in the US, many dealers felt that the role of these exchanges had been significant in recent years, particularly in large-scale transactions, and subsequently their removal in 2018 could negatively affect sales.

The US confirmed its position as the largest center for art sales, with a 42% share by value.

The US Art Market: Effects of Termination of 1031 Like-Kind Exchanges[2]

Historically, 1031 Like-Kind Exchanges (LKEs) have been a tax-efficient method for investors to trade one investment for another investment (or investments) sufficiently similar in kind, deferring the realization of any gains on the disposition of the first asset. LKEs reflected a policy decision to maintain and stimulate the market for certain classes of assets, because by enabling investors to make tax-free exchanges within a particular asset market they would be more likely to continue to participate in that particular market. Upon an exit from that asset market, capital gains tax would be due on the accumulated investment gain arising since the investor's initial capital investment.

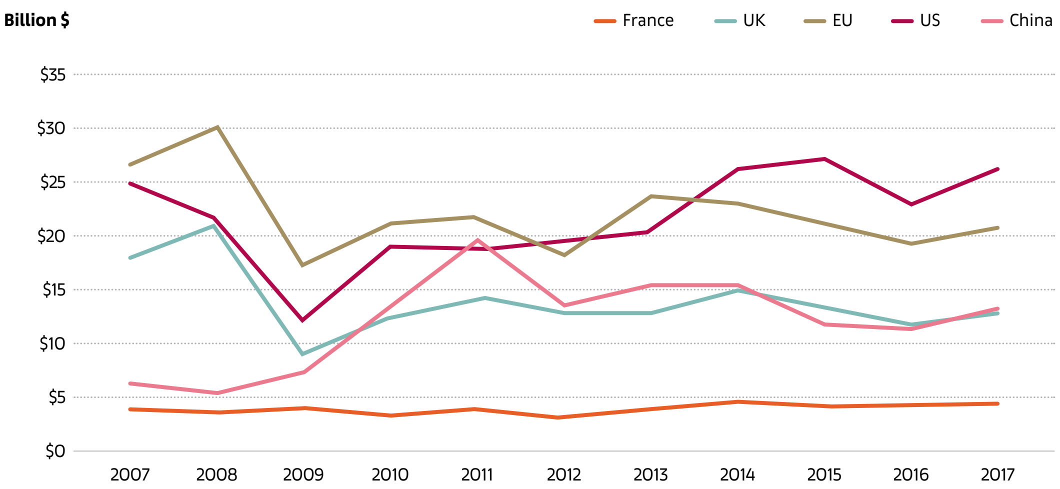
Art investments qualified as property that could be used as part of LKEs. This encouraged art investors to maintain their initial capital investment in the art market, and simultaneously enabled them to diversify their investment by trading one highly appreciated work for multiple works, tax-free.

The Tax Cuts and Jobs Act of 2017 narrowed the definition of qualifying "property" for LKEs to "real property." As a result, after December 31, 2017, artwork no longer qualifies for such exchanges. The Act included a transition rule, which generally applies to exchanges initiated before the end of 2017. A number of art investors considered structuring last-minute exchanges before the change in law took effect, which could have been a contributing factor to the increase in art market activity in late 2017.

The elimination of this tax deferral mechanism may result in some depression of activity in the art market, as investors will find it more expensive to sell art, and taxes owed on the sale proceeds will deplete the amount of cash available to be reinvested in the art market. Where an investor previously could reinvest 100% of the fair market value of a relinquished work pre-tax, the same investor now will owe capital gains tax on the gain from that sale at the maximum federal capital gains rate of 28%, plus a 3.8% investment tax, as well as any applicable state income tax, and will have only those after-tax proceeds to reinvest. Therefore, without LKEs, investors selling an artwork that has appreciated in value will no longer have a federal tax incentive to keep the sales proceeds invested in art as opposed to any other asset class.

2 Information on Like-Kind Exchanges provided by Diana Wierbicki, Global Head of Art Law, Withersworldwide.

Figure 1.5 | **Sales in the Major Art Markets 2007–2017**



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The Chinese art market also experienced a substantial increase in sales, driven by the dominant auction sector, which still accounted for close to 70% of the value of the market in 2017. While the gallery and dealer sector remained stable, a substantial increase in auction sales boosted growth in China with transaction values reaching $13.2 billion. The Chinese market has seen dramatic changes in size over the last decade. After an extraordinary boom in sales from 2009 to 2011 when other markets were struggling to recover from the fallout from the global financial crisis, China rose to the top of the global art market rankings in 2011 with sales of $19.5 billion. This boom ended abruptly in 2012, with a sharp contraction in sales of 30%, followed by stagnant and declining sales up to 2016. However, the market rebounded in 2017 with an increase of 14% year-on-year.

While the auction sector led this increase in sales, the dealer sector may have a greater impact in the future. While the pace of growth in new local galleries in Mainland China has been relatively slow over the last three years, several existing high-end galleries have recently launched new premises there and in Hong Kong. David Zwirner opened a gallery space in January 2018 in Hong Kong's new H Queen's development, which has 11 floors purpose-built for galleries. Hauser & Wirth is also opening in the building in March, having already nominated representatives in Hong Kong and China in 2016 and 2017. Other new tenants include Pace, Tang Contemporary Art, Pearl Lam Galleries and Seoul Auctions.

The UK slipped back to third place in the global ranks in 2017 despite a relatively strong year of sales. The UK market peaked in 2007, reaching nearly $21 billion in sales and a record share of 33% of the global market, just 2% less than the US. However, after a drop of 57% in value in 2009, despite an initially strong recovery, the UK failed to match the pace of the US and the margin between these two top markets widened. After two years of declining sales in 2015 and 2016, sales in the UK grew in 2017, reaching a total of $12.9 billion. This represented an increase in value of 8% year-on-year in US dollar terms but underestimates the performance of the market to some degree due to the deterioration of the British pound over the period. While some in the UK market reported that the weak Pound helped to encourage international sales during the year, its fall of 5% in value against the dollar depressed the measurement of its annual change in performance in dollar terms.

Overall, since its low point in 2009, sales in the UK have advanced by 45%, more than twice the rate of the EU as a whole, but significantly less than the US (which has seen a 120% increase), or China (advancing 83%).

The Chinese art market experienced a substantial increase in sales of 14% to $13.2 billion, driven by the dominant auction sector.

In the rest of Europe, although performance was mixed, most of the larger markets also saw an uplift in sales. France, the fourth largest market worldwide, saw an increase in sales of 9% to reach $4.1 billion, driven by advancing auction sales and a stable dealer sector. Several other countries also experienced increases in sales including Germany, Switzerland and Italy. Sales in the EU as a whole increased by 7% year-on-year to $20.9 billion, accounting for 33% of the global art market.

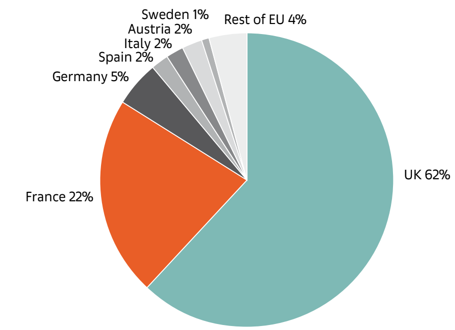
Within the EU, the hierarchy of sales was stable, with the UK remaining the largest market by a considerable margin with a share of 62% by value. France was in second place with its share up two percentage points year-on-year to 22%, while Germany was stable in third place at 5%. Since the low point of the market in 2009, the performance of the EU as a whole has significantly lagged behind other regions. While sales within the EU have grown by 22% since 2009, much of this has been driven by the UK. Measured without the UK, EU sales have declined by 2% over this period.

With the exit of the UK from the EU planned for March 2019, there is much uncertainty, particularly with regard to the terms of trade between the UK and other EU member states, which could affect many art businesses in the future. However, given that the UK art market is dominated by extra-EU trade, this may have less effect on the value of UK sales. Official figures from the HM Revenue and Customs (HMRC) suggest that the bulk of the trade both into and out of the UK by value is with countries outside the EU, with just 16% of imports into the UK coming from within the EU, and just under 3% of exports destined for countries within the Single Market. Nevertheless, it is worth bearing in mind that HMRC statistics understate the extent of intra-EU trade, because many EU sales under the VAT margin scheme are not necessarily recorded. Research carried out in the auction sector in 2017 showed that while the US was the most important trading partner for the UK, consignments from EU member states accounted for up to 25% of their UK sales on average, while up to 20% of their exports were destined for EU buyers. In the dealer sector also, the main dealer associations in the UK reported that on average between 10% and 22% of dealers' purchases for subsequent sale were made in the EU, and EU buyers accounted for 15% to 20% of their sales. This implies that the terms of trade agreed to in the Brexit deal for the art market could have a significant effect on the sales for a number of businesses in the UK, as well as those in Europe that rely on supply (and sales) from the UK.[3]

The most obvious effect of Brexit will be the reduction in the size of the EU market, which without the UK would have accounted for just 13% of the global art trade in 2017.

Sales within the EU have grown by 22% since 2009, however, measured without the UK, they have declined by 2% .

Figure 1.6 | EU Art Market Share by Value in 2017



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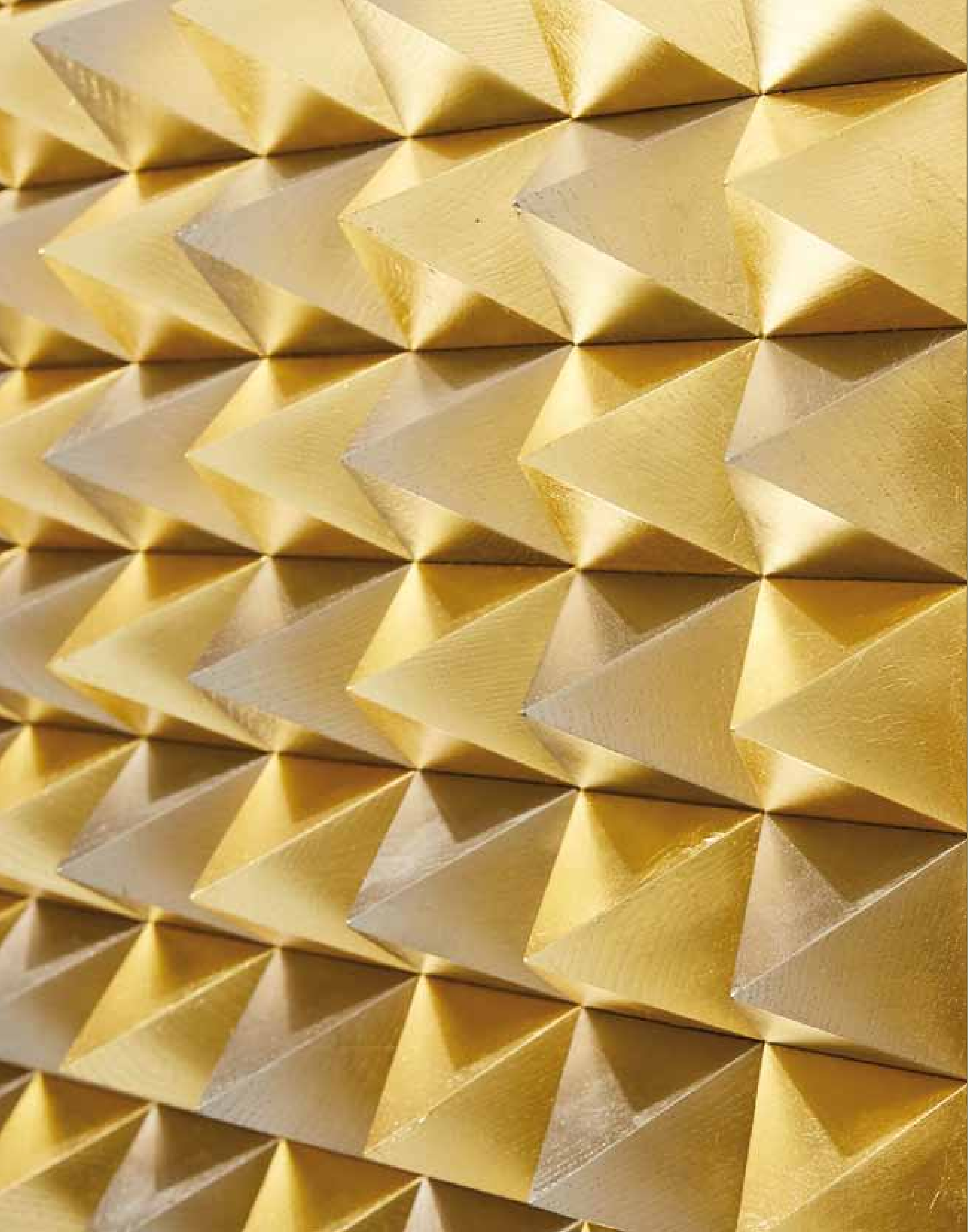
3 Research conducted by Arts Economics for the British Art Market Federation (BAMF) in 2017. See Arts Economics, *The British Art Market 2017*. BAMF: London. (See http://tbamf.org.uk/publications/bamf-publications)



2

Dealer Sales and Exhibitions

Key Findings

Dealer Sales and Exhibitions

1. Dealer sales in 2017 reached an estimated $33.7 billion, up 4% year-on-year.

2. Dealers with turnover below $500,000 saw a decline in sales on average of 4%, the second year of losses in this segment.

3. For dealers at the very highest end (sales over $50 million), sales growth was strongest at 10%, although this was only around half the growth rate reported for this segment in 2016.

4. The number of gallery closures has varied considerably, peaking in 2009 and falling in recent years. Gallery openings have declined steadily over the last decade, with the number of new galleries established in 2017 around 87% less than in 2007.

5. While the ratio of gallery openings to closures in 2007 was in the region of over 5:1, this has declined rapidly since then, dropping to 0.9:1 in 2017, that is, more closures than openings.

6. According to the dealer survey, the three biggest issues facing dealers in 2018 are: finding new buyers; the economy/demand for art and antiques; and participation at fairs.

2.1 | Dealer Sales in 2017

Dealer sales in 2017 reached an estimated $33.7 billion, up 4% year-on-year. The sector consisted of an estimated 296,540 businesses in 2017 (over 90% of the businesses involved directly in buying and selling fine art, decorative art and antiques worldwide, including auction houses, galleries and dealers).[4] However, less than 5% of those businesses generate the majority of total dealer sales by value. The ratio of dealer versus auction sales has wavered around 50:50 at a global level for the last decade, and, as noted in Chapter 1, the auction sector has tended to account for a greater share of sales in more buoyant markets. The ratio also varies considerably between countries and sectors. In some emerging markets, the share of dealer sales has been as low as 10% whereas in some mature markets it has reached over 60%. As noted in Chapter 1, the share by value of dealer sales declined four percentage points to 53% in 2017, as strong auction sales outpaced more moderate growth in this sector.

Dealer sales in 2017 reached an estimated $33.7 billion, up 4% year-on-year.

Information on the global dealer sector of the art market is complex to compile, as unlike the auction sector, there is no public source of data. As in other industries where private sales and smaller firms dominate, to overcome the lack of publicly available information, surveys are a critical element of researching the market. In 2017, Arts Economics conducted its annual global survey of around 6,500 dealers from the US, Europe, Asia, Australia, Africa and Latin America, directly and with the proactive support of the major dealers' associations. The survey had a response rate of 14% and presented many useful insights.[5] This was supplemented with dealer interviews across different market sectors and secondary sources of information.

Although the survey covered dealers across a range of turnover levels, as in 2016, respondents tended to be concentrated in two value segments: smaller dealers with turnover levels below $500,000 and larger dealers with sales between $1 million and $10 million. Only 10% of respondents had sales over $10 million (consistent with the last two years), and just 1% reported sales in excess of $50 million.

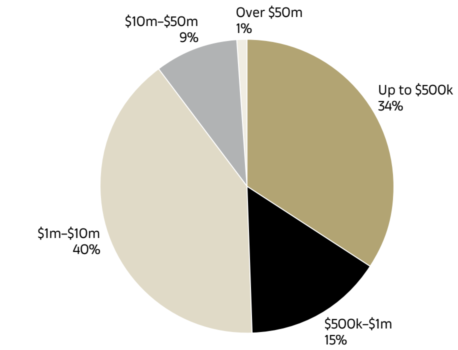
Based on the survey data, the median turnover for dealers in 2017 rose by 20% from $875,000 to just over $1 million. While sales across all dealers increased by 4% year-on-year, there were considerable differences in the performance of different segments of the market. Overall, although the magnitude of the year-on-year changes varied widely, there were more gainers than losers in terms of annual sales, with 59% of respondents reporting positive growth, 13% reporting that sales were stable, and 28% indicating a decline in sales.

The survey covered dealers in a broad range of sectors, including Contemporary art, Modern, Impressionist, Old Masters, antiques, decorative arts and design. However, the majority of respondents sold Contemporary art, either solely or in combination with another sector. When aggregated into broad sectors as in Figure 2.2, most saw an uplift in average sales year-on-year, but these totals were strongly influenced by the performance of certain value segments, and some of the biggest increases across all sectors were at the higher end of the market.

Some of the poorest growth in sales year-on-year was for dealers with turnovers of under $1 million. Those dealers with sales below $500,000 saw a decline on average of 4%, the second year of losses in this segment, with dealers at the lowest end (with sales below $250,000) faring slightly worse, with a 5% decline. Sales for dealers with turnover between $500,000 and $1 million were also stagnant from 2016.

In contrast, aggregate sales for dealers with turnover between $1 million and $10 million experienced a

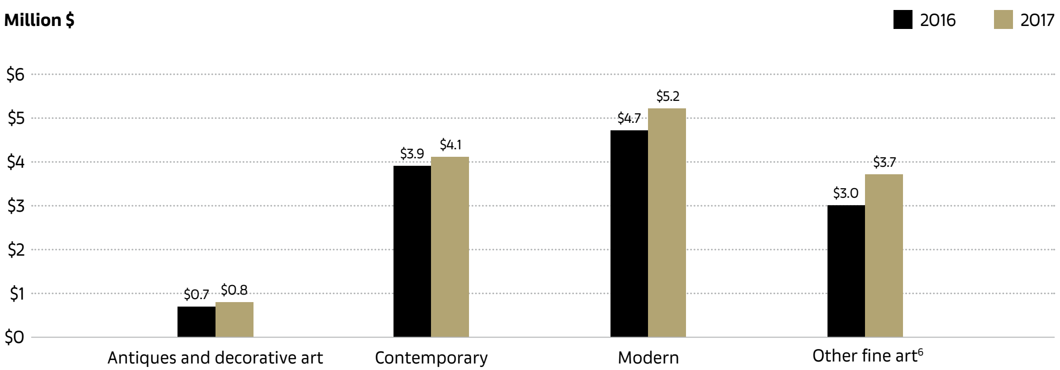
Figure 2.1 | Share of Surveyed Dealers by Total Sales in 2017



4 This estimate of the number of businesses includes galleries and shops selling fine art, decorative art, antiques and related collectibles, as well as private dealers and sole traders selling within these categories in 2017. Figures are recorded per business outlet rather than by company. See the Appendix for more information on the sources of data used in the report.

5 The average response rates for external online surveys across all sectors is generally around 10% to 15%.

Figure 2.2 | Average Sales by Sector 2016 and 2017



second year of growth, increasing by 9%. The majority (66%) of businesses in this segment posted increases, with a further 12% maintaining stable performance year-on-year. Many dealers in this segment described 2017 as a year in which they had greater rewards than in 2016, but had to work much harder to attain them.

Dealers with turnover between $10 million and $50 million experienced a fall in aggregate sales of 3%, a second year of decline in the segment. However, performance was mixed, with more dealers seeing sales rise (43%) than fall (36%). For dealers at the very highest end (sales over $50 million), sales growth was strong at 10%, although this was only around half the growth rate reported for this segment in 2016. These results are based on a relatively small number of respondents relative to other segments,

6 Other fine art refers to dealers of Impressionist works, Old Masters, 19th Century and other pre-Modern works.

indicative of the small number of dealers active in the market overall in this category. They do, however, also resonate with some of the anecdotal evidence from interviews with high-end dealers who reported a strong year of sales, with very highly priced multi-million dollar works being purchased by collectors.

Looking ahead, the outlook for the majority of dealers on aggregate was optimistic: 58% expected higher sales values in 2018; just over one-third thought they would be stable; only 6% predicted a decline.

Dealers with turnover between $10 million and $50 million expressed less optimism, with just under half (47%) predicting higher sales and 23% predicting a decline. The most bullish about the coming year were those with turnover in excess of $50 million, with all respondents predicting that their sales would increase.

Optimism was also high in most sectors, with a very small share (6% or less) of Contemporary and Modern dealers predicting a fall in sales in 2018, and a minority also in the other older fine art sectors and decorative arts. Between regions, dealers from Europe were the most pessimistic, with half of all dealers predicting sales would stay the same or decline in 2018, and a majority (59%) estimating a decrease over the next five years.

Figure 2.3 | Change in Turnover by Dealer Segment 2016–2017

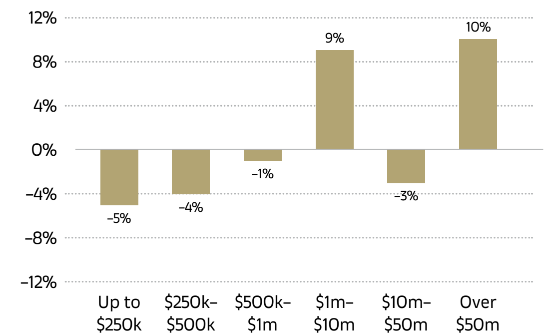
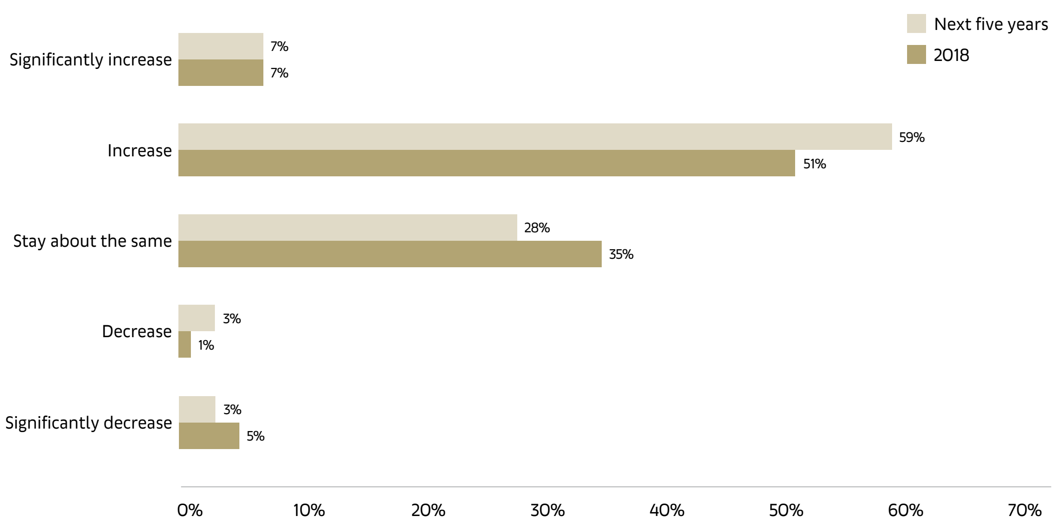


Figure 2.4 | Dealers' Views on Sales in the Future

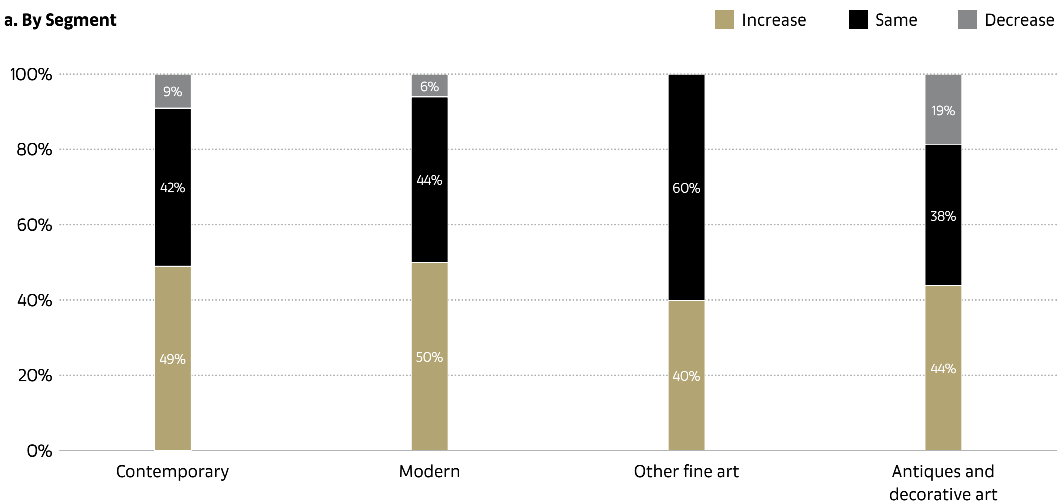


Dealers were generally optimistic about sales over the next five years, with an even higher majority of 66% predicting an increase, and only 6% predicting a decline. When asked about their particular sector over the next five years, 42% thought it would stay stable, with 9% predicting a decline. The most optimism was in the Contemporary market, while the majority of those in the older sectors of the fine art market predicted no significant change. Nearly 20% of the dealers in the antiques and decorative art sectors had a negative five-year outlook, the highest share of those surveyed.

US dealers were the most optimistic about sales in their region over the next five years, with 65% predicting increasing sales and none expecting them to decline. Similarly in China, none of the dealers responding to the survey thought sales in China would decline in the near future, although the majority (64%) predicted they would remain at their current level. While the mid-sized and smaller markets in Europe were generally optimistic about sales in their national markets, there was greater pessimism in some of the larger markets, with declining sales over the next five years predicted by 25% of German dealers, 23% of those in the UK and 22% in France. In Brazil, 23% of dealers expected sales to fall, contrary to predictions from other markets in Latin America, which were all expecting positive or stable growth.

Dealers were generally optimistic about sales over the next five years, with 66% predicting an increase.

Figure 2.5 | **Dealers' Views on Sales Over the Next Five Years**



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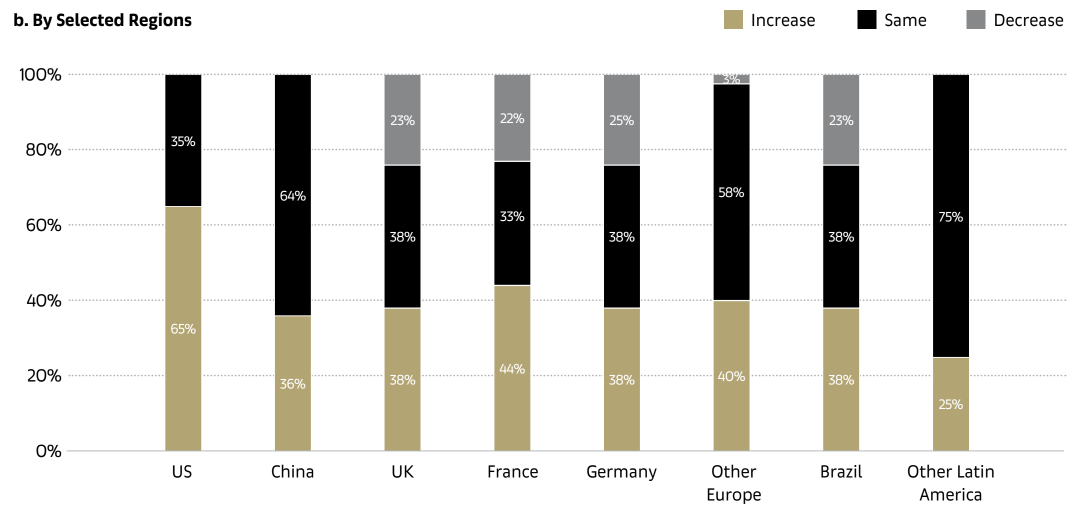

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An analysis of the volume of sales showed that the average number of works sold by dealers was relatively stable year-on-year for these businesses at 118. As in the auction sector, average volumes are often skewed by some decorative art and antique dealers, who tend to sell a high volume of less valuable items. Even in the fine art market, there are a number of top-end dealers who drive sales in the higher price brackets (in excess of $1 million) but also carry out large volumes of transactions in lower price segments. These volumes can fluctuate significantly between sales without any significant change in the performance of an individual business. The median number of works sold in 2017 was therefore more representative at 90, an increase of 12% from 2016.

The median number of works sold in 2017 was 90, an increase of 12% from 2016.

The median number of works sold by dealers in the antiques and decorative art sectors fell by 14%, and there was a slight decline (of 2%) for those in the Contemporary market. In the older segments of the fine art market the median volume of works sold was stable and in the Modern art sector it rose by 3%.

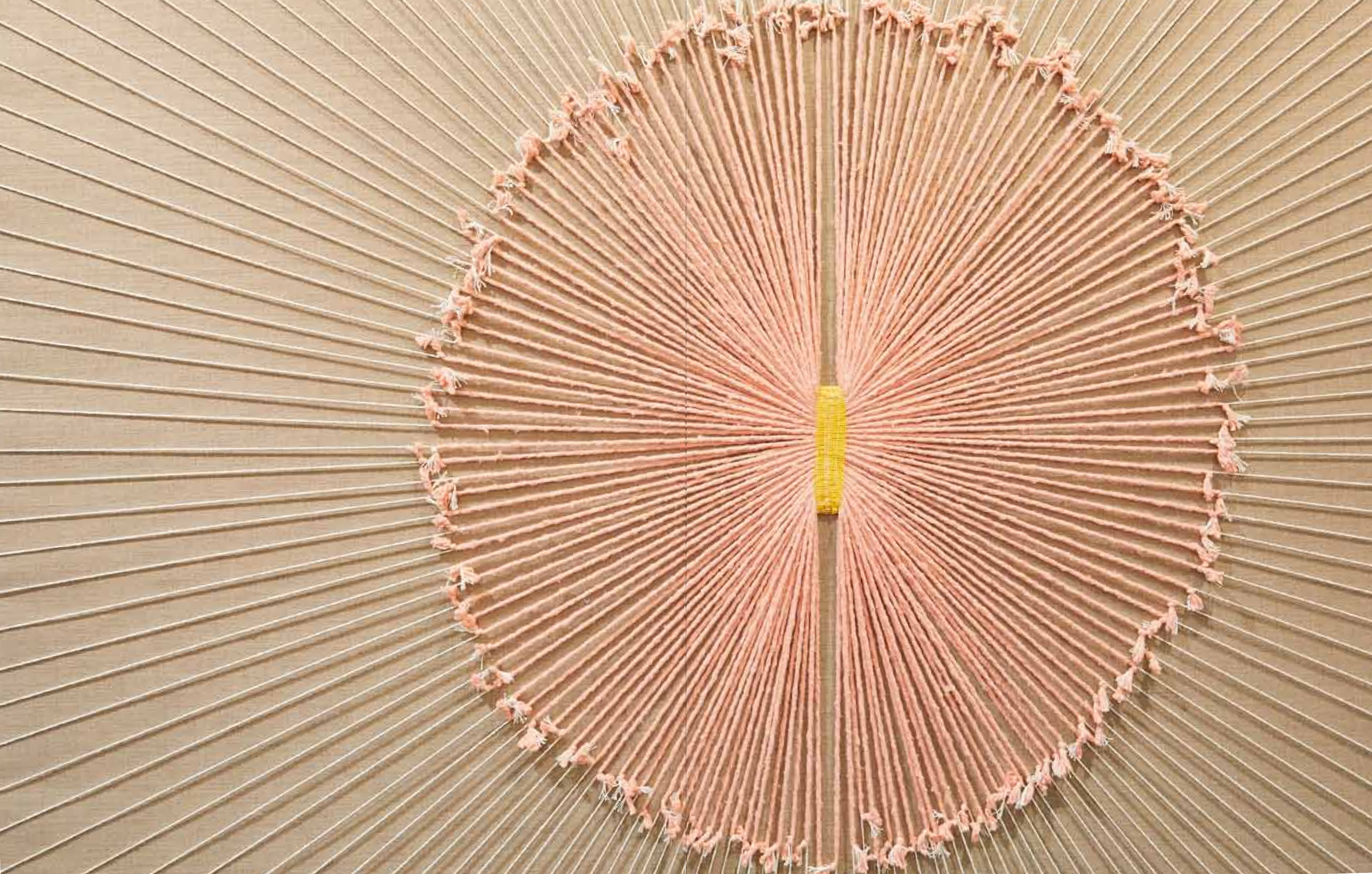
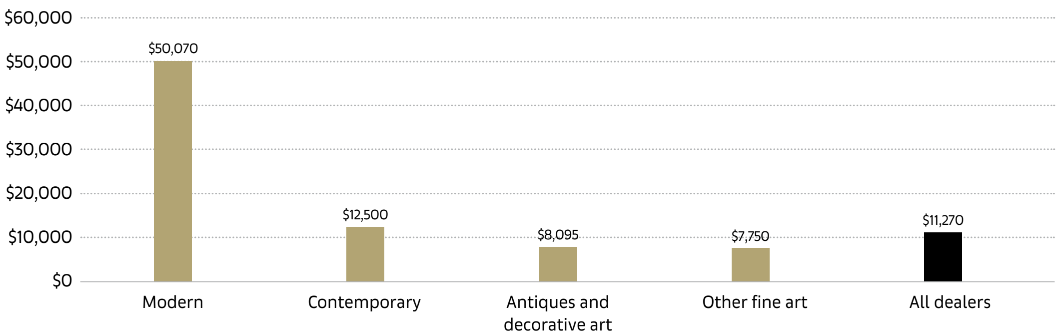


Figure 2.6 | Median Prices by Sector in 2017



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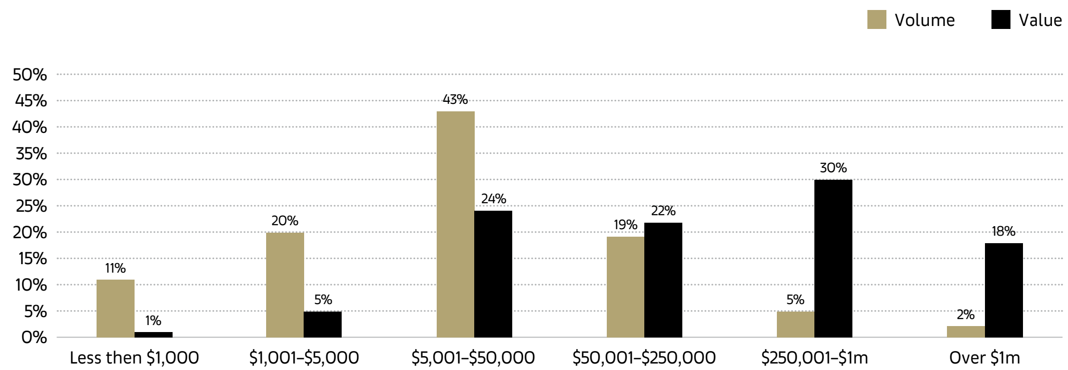
2.2 | Market Prices and Segmentation

The highest average prices in 2017 were reported by dealers in the Modern art sector and the lowest in decorative art and antiques. Prices varied by region also, with the highest in the US and some of the lowest in Europe. Although businesses did not supply data on every individual transaction carried out during the year, Figure 2.6 shows the median of the distribution of average prices for all respondents, based on their reported sales values and volumes. This shows that the highest median prices were also in the Modern sector and lowest in older sectors of the market.

Figure 2.7 sets out the share of the total number of individual sales and the value of sales by dealers in different price segments.[7] Although the data is less skewed than the auction data presented in Chapter 3, the chart shows that while the majority (74%) of individual transactions in the dealer sector were for prices below $50,000, they represent a much smaller share of the value of sales (30%).

7 Reported shares by price segment are applied to the total sales value and volume reported by each dealer and then aggregated to get the share across all dealers. This differs from the average share published in 2016.

Figure 2.7 | Share of Total Dealer Sales by Price Bracket in 2017



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Just under half (48%) of the value of the dealer sector was accounted for by a 7% share of individual transactions priced at over $250,000.

It also shows the importance of the middle market for dealers (works priced between $5,000 and $250,000), which accounted for 62% of all individual transactions in the sector.

At the higher end, just under half (48%) of the value of the sector was accounted for by a 7% share of individual transactions priced at over $250,000. It is interesting to note that the segment of the market accounted for by works priced at over $1 million fell 6% year-on-year (from 24% in 2016 to 18% in 2017), while the share in the segment between $250,000 and $1 million grew by 9%. This fits to some extent with anecdotal evidence from dealers who noted that buyers were increasingly willing to spend five- and six-figure sums on "mid-level well known artists" rather than only focusing on a very small number of works at the top end of the market, as has been the case in recent years. Many felt this was a healthy development in the market. Others noted that some of the changes in their price brackets (and turnovers) were simply based on changing gallery programs, with renewed interest in resurrecting the careers of artists whose markets had been less active in recent years or pursuing a more diverse program by gender and race, which meant an increased level of sales just below the top tier.

2.3 | Dealer Margins and Financing

Unlike many other industries, a critical issue in the dealer sector is the difficulty faced accessing financing and credit. Accessing credit can be a major problem for dealers throughout their business lifecycle, with periods of volatile cash flows alongside large capital outlays and running costs. This issue especially affects dealers who are just starting out, often proving an insurmountable barrier to entry, as well as hampering growth for established mid-level galleries trying to expand and develop their businesses.

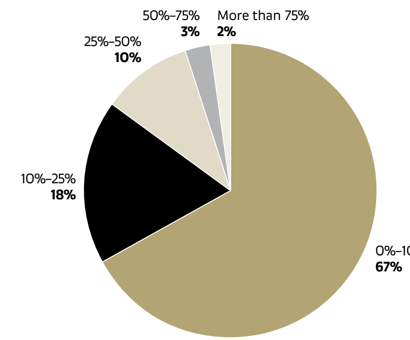
Because of a lack of trade financing and access to credit, the majority of dealers are self-financing and increasingly have to organize their businesses around selling on consignment rather than through the more traditional model of owned inventories. This model is the most widespread in the primary market. Yet a growing percentage of secondary market dealers are also now working on consignment, as the prices of the most sought-after works have rapidly increased and as it has become increasingly difficult for dealers bereft of trade financing to purchase works. These problems are exacerbated in all sectors by the tendency towards both a slow inventory cycle as well as an extended payment cycle.

As was the case in previous years, the survey results indicated low levels of leverage in this sector. To assess the leverage used by dealers, respondents were asked to report their debt ratio in 2017.[8] The majority of dealers (67%) had a debt ratio of 10% or less, a slightly higher share than in 2016 (at 63%). Only 5% had a ratio in excess of 50%.

For purposes of comparison, in the US the current average rate of leverage (using book debt to equity measures) was 63% at the start of 2018, while some retail industries (such as car sales, building supplies and catering) had rates in excess of 70%. The average in general retail is around 46% and in specialized retail is 42%.[9] Therefore, compared to these industry benchmarks, art and antique dealers have a relatively low level of debt. The low levels of debt are fairly consistent across different turnover levels. Whether dealers had turnover greater than or less than $1 million, a majority reported debt of below 10% and only 5% reported debt in excess of 50%. However, the levels of debt were highest at the extremes of the market: 7% of dealers with turnover less than $500,000 and 17% of those with sales greater than $10 million reported that they held debt of over 50% (versus 2% or less in the other segments of the market).

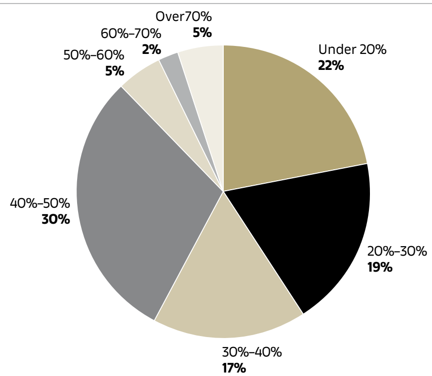
The prevalence of low leverage generally indicates stability and low financial risk. However, dealers reported that they have had little choice but to develop a low debt business model due to the lack of available credit. Higher levels of leverage at the top of the market indicate that dealers in this segment have better access to credit and lending to cover expansion, new programs and other major capital requirements. Across all dealers, 21% rated access to credit and financing as among their top three challenges currently and over the next five years.

Figure 2.8 | Debt Ratios in the Dealer Sector in 2017



8 Debt ratio in this instance measures a company's debt and liabilities versus its assets (sales and stock), and it can be interpreted as the proportion of the company's assets that are financed by debt, or an indicator of their financial risk.
9 2017 data courtesy of Aswath Damodaran, Stern School of Business at New York University.

Figure 2.9 | Dealers' Gross Profit Ratios in 2017



The $10 million plus segment had the highest share of margins in excess of 30% – at 17%.

As far as profitability was concerned, some dealers noted that, despite stable or even declining sales they had had a more profitable year. While there were varied reasons for this, some observed that it was a year in which their focus had shifted to reducing costs and concentrating on returns:

"We've had to become more shrewd – we're doing seven shows a year not ten, and only focusing on fairs with solid returns. This year and going forward it's going to be not what we spend and what we sell, but what we save."

However, other businesses reported that despite healthy sales, the escalating costs to access buyers and promote their businesses had eaten into margins.

Dealers were asked to report on the profit margins of their businesses in 2017 via their gross profit ratio.[10] Across all dealers, 41% reported that their gross margins were 30% or less (stable from 2016). Just under half (47%) were between 30% and 50%, and 11% reported gross ratios of over 50%, up 3% in share from those reported at that level in 2016.

Gross profit margins did not necessarily rise with increasing turnover in a systematic way, with considerable variation within segments, and dealers with the highest share (gross profit margins in excess of 50%) were those with sales of less than $500,000. In contrast, dealers with the lowest share of this highest profit level were those with turnover between $500,000 to $1 million.

For comparison with other industries, at the end of 2017 in the US, the average gross profit margin in general retail was 35%, 46% in consumer discretionary goods, 41% in services and as high as 50% in financial services.[11] Just under half (47%) of dealers were therefore roughly on par with these averages (having reported margins between 30% and 50%), although 41% reported lower ratios.

Dealers were also to report their net profit ratios, which measure sales relative to all costs and expenses.[12] On aggregate across all dealers, results were relatively stable from 2016. While 30% of respondents reported net profit margins of 10% or less, the majority (59%) recorded profits of between 10% and 30%, with 11% having net margins above 30%.

Again, net margins did not rise consistently with sales turnover, although the segment with the highest share of margins in excess of 30% was at the highest end (those with sales over $10 million) at 17%.

There were some notable differences by sector. While the majority of dealers in each sector reported margins of between 10% and 30%, dealers of antiques and decorative art accounted for the highest share with net profit above 30%, while Contemporary dealers showed the widest range, including the highest share (38%) in the lowest margin segment. This could be for a variety of reasons including the greater number of newer businesses in the Contemporary market versus other sectors, as well as high additional production costs and overheads in the segment that keep profit margins down.

Again for comparison, net margins vary considerably in other industries but the average net profit margin in general retail in 2017 was just under 5%, 9% in consumer discretionary goods, 11% in services and 13% in finance (with rates in excess of 25% for miscellaneous financial services and insurance).[13]

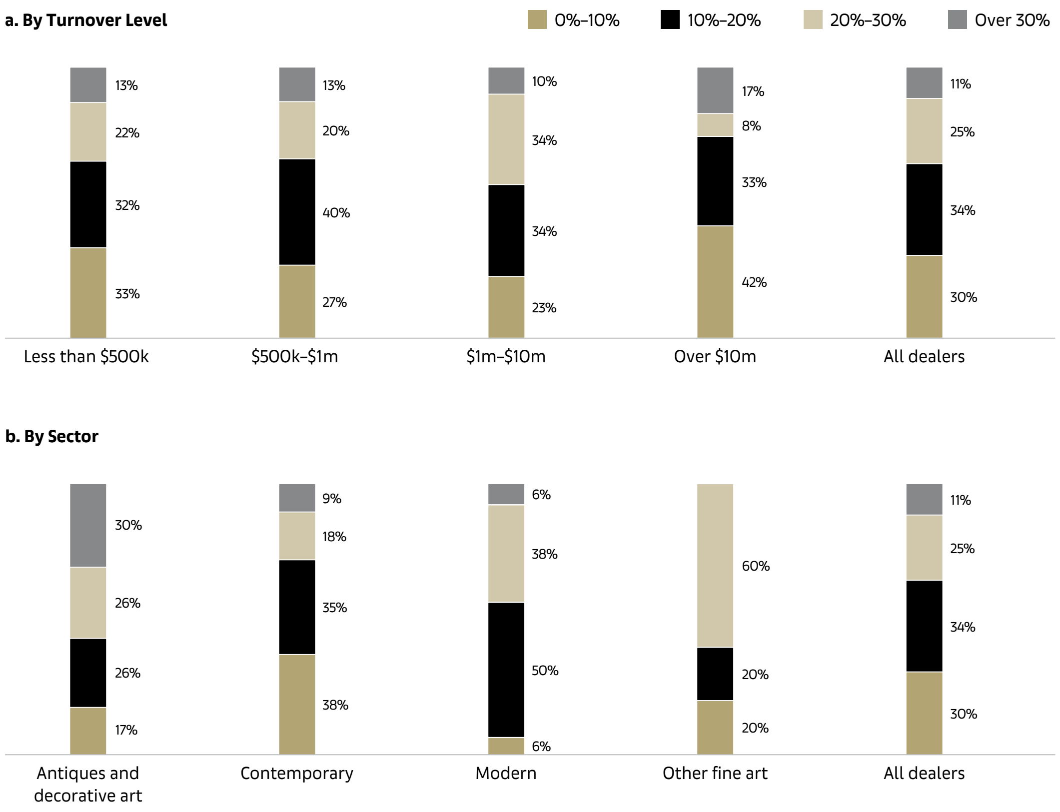
10 For the purposes of this analysis, gross profit ratio is the ratio of sales to the cost of goods sold (also referred to as their margin on sales). The higher the percentage of gross profit, the more a company retains on each dollar of sales to service its other costs and debt obligations. Gross profit is therefore generally a measure of the profitability of sales rather than the overall profitability of the company (which is measured by its net profit).

11 Q4 2017 data courtesy of CSI Markets.

12 Net profit ratio measures sales relative to all costs and expenses. Net profit subtracts a company's operating expenses and income tax from gross profit before dividing by net sales. This ratio more precisely defines how profitable individual companies and industries are by expressing their retained profit per dollar of sales.

13 Q3 and Q4 2017 data courtesy of CSI Markets.

Figure 2.10 | Dealers' Net Profit Ratios in 2017



2.4 | Supply and Inventories

Although changes in buying demographics, wealth dynamics and other factors can all affect demand for art, the art market is highly supply driven, with the level of sales achieved each year in both the auction and dealer sector affected most by what comes on to the market at a given point in time. In the secondary market, dealers compete with each other, and with auction houses and other agents to secure vendors who allow them access to the best and most scarce works for sale. In the primary market, despite having the potential to renew supply, competition is often equally intense with regard to artists and their representation. While scarcity drives prices up in secondary markets and many areas of the primary market, oversupply is also an issue in others. This includes some areas of the living artists' market where there are arguably too many artists for the level of investment and support currently available (as evidenced by chronic unemployment and underemployment in the sector), and too many outlets with a lack of sufficient differentiation in supply. Accessing supply and inventories was cited as one of the top three challenges for their business in 2017 by 26% of respondents to the survey (and by 21% over the next five years).

58% of sales in the dealer sector came from work on consignment.

How dealers access supply varies depending on their sector, but all face particular challenges. For those dealers operating in the Contemporary market, the most common method for accessing works for sale is through consignments from artists. On average, 65% of their inventories came directly from artists. For antiques and decorative art dealers, intra-trade sources were the main channel for supply, with other dealers and auctions accounting for 83% of their inventory. While auctions were the main source of supply for this segment in 2016 (at 35%), supply from other dealers rose substantially in 2017 (from 19% to 55%). Private collectors were the most important source for other sectors of the fine art market, accounting for 36% of the value of Modern art dealers' inventories, and over half of the inventories of fine art dealers in the other older fine art sectors.

Table 2.1 | **Sources of Supply for Dealers in 2017**

	Private collectors	Estates	Institutions or companies	Other dealers	Auction	Artists	Other source
Antiques and decorative art	12%	1%	5%	55%	28%	0%	1%
Contemporary	16%	4%	3%	5%	5%	65%	2%
Modern	36%	9%	2%	15%	19%	19%	1%
Other fine art sectors	52%	3%	3%	22%	14%	0%	7%
All Dealers	20%	5%	3%	11%	10%	50%	2%

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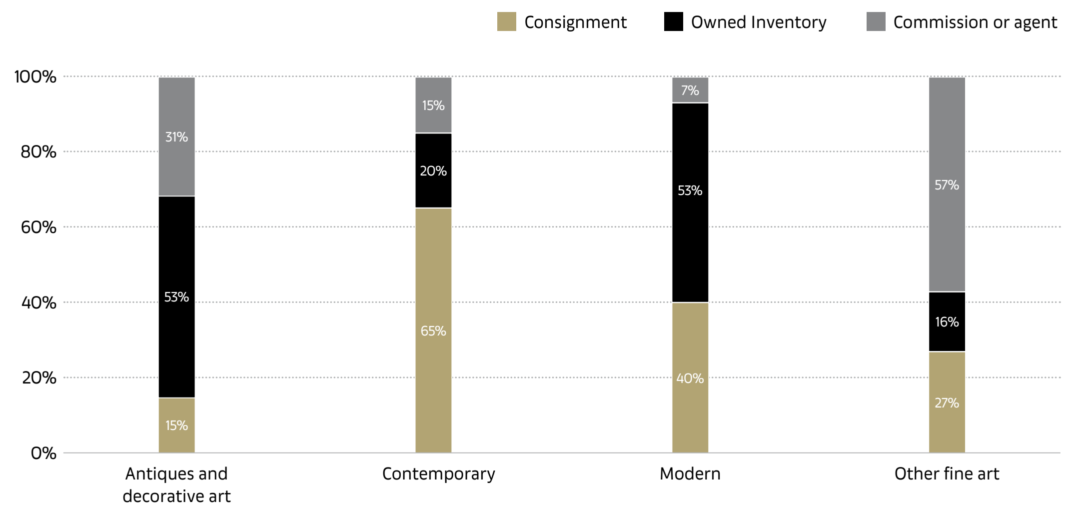
As noted above, because of a lack of inventory financing, a growing share of sales in the dealer sector are based on consignments from artists or vendors, while sales from owned inventory have declined in recent years. In the sample of dealers surveyed, based on a weighted average, respondents reported that in 2017:

- 58% of their sales came from sales of works on consignment (up 2% from the average reported in 2016).
- 26% was sales of inventory that they owned (down 4%).
- 17% was sales on commission or as an agent (up 3% from the previous year).

This varied between sectors. The most common business model for dealers in the Contemporary sector was sales on consignment, stable from 2016. Sales of works from owned inventory were much higher for antiques and decorative art dealers at 53%, however this declined in share by 17% year-on-year as the share of sales made on commission almost doubled. This could indicate increasing capital and financing constraints in this sector, resonating with qualitative information gathered from interviews. This was also true in the other older sectors of fine art, where commission sales grew by 29% in share with a concurrent drop in sales from inventory of 19%.

Figure 2.11 | **Share of Sales by Inventory Basis and Sector in 2017**



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While it can take a considerable time to sell works from inventory, another problem affecting cash flow is how long it takes for dealers to get paid.

Of those dealers making acquisitions into inventory for their businesses in 2017, the median value of total purchases made during the year was $145,000, down 28% year-on-year and a decrease of 38% in two years. (The average value of acquisitions was much higher at $1.6 million, with a smaller number of higher value inventories skewing the figure upwards).

The share of inventory to sales (using average values for both) was 32%, down 6% year-on-year. There was a wide range, however, from less than 1% to a small share of dealers in excess of 100% (5% of the sample bought more inventory than they sold during the year).

Dealers were asked how long it took to sell a work from their inventory. The period of between six and 12 months had the most responses (29%), as it has had for the last two years. The second highest was also again those holding inventory for longer than two years (20%), showing the continuing issues of slow moving stock and low liquidity in some parts of the market, putting dealers under considerable financial pressure, resulting in cash flow problems, exacerbated by limited access to financing. The share of those with very fast cycles of inventory has also steadily declined, with those selling works in less than one month dropping from 4% in 2015 to just 1% in 2017.

An analysis of the broad market sectors shows that Contemporary dealers generally had the quickest cycle from inventory to sales, with an average of 59% selling works within a year, whereas those working in antiques and decorative art had the slowest (30% within a year). It is notable that in all sectors, there was a sizable share of dealers whose average inventory cycles were greater than a year, accounting for 40% of Contemporary dealers, half of the dealers in other older sectors of the fine art market, but by far the highest in the antiques and decorative art sectors at 71%. It is also evident that antiques and decorative art dealers' cycles have become more protracted over time, with the share of those reporting lengthier cycles increasing in share year-on-year.

While it can take a considerable time to sell works from inventory for some dealers, another potential problem affecting cash flow is how long it takes for dealers to get paid after an item is purchased. The survey evidence showed signs of a slight improvement in the payment cycle in the sector on average, with a majority of dealers (62%) being paid within two months of a sale, while those with a cycle of longer than three months dropped 4% year-on-year to 16%.

While part of the appeal of purchasing through a dealer may be some degree of flexibility on terms and payment periods, the existence of payment terms beyond 60 days, which was the average for at least

Figure 2.12 | Average Time Taken to Sell Works from Dealers' Inventory in 2016 and 2017

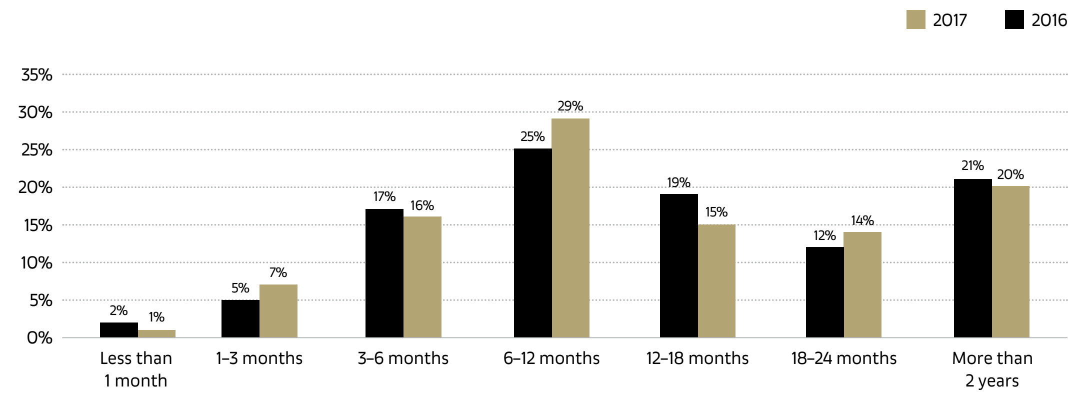
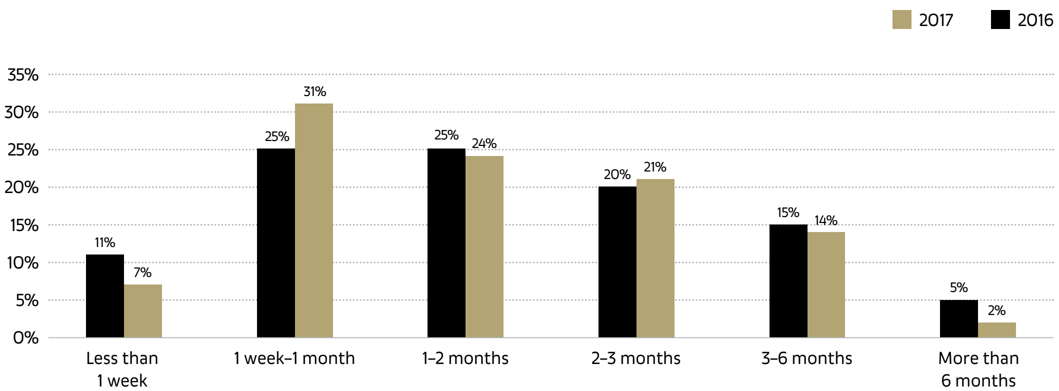


Table 2.2 | Average Time Taken to Sell Works from Inventory in 2017 (by Sector)

	Contemporary		Non-Contemporary fine art		Antiques and decorative art	
	2017	% change 2016	2017	% change 2016	2017	% change 2016
Up to 3 months	8%	1%	5%	-4%	6%	-5%
3–6 months	19%	3%	10%	-6%	6%	-15%
6–12 months	32%	6%	35%	16%	18%	-7%
12–18 months	13%	-9%	10%	4%	18%	7%
18–24 months	10%	-1%	20%	7%	29%	15%
More than 2 years	19%	1%	20%	-15%	24%	6%

Figure 2.13 | Average Payment Cycle for All Dealers in 2016 and 2017



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38% of dealers, indicates that dealers offer (or are forced to accept) terms that would be considered beyond the normal scope of business in many other similar industries, which could put added pressure on smaller dealers.

While dealers varied in the terms they accepted, there was a tendency to maintain a tighter cycle for those dealers with lower turnover, for example, 70% of dealers with turnover less than $500,000 were paid within 60 days, while this share was 50% for those with turnover greater than $10 million.

Contemporary dealers were the most widespread in extending terms beyond 60 days: almost half (47%) of those surveyed did so, in contrast with just 24% of the dealers in antiques and decorative art.

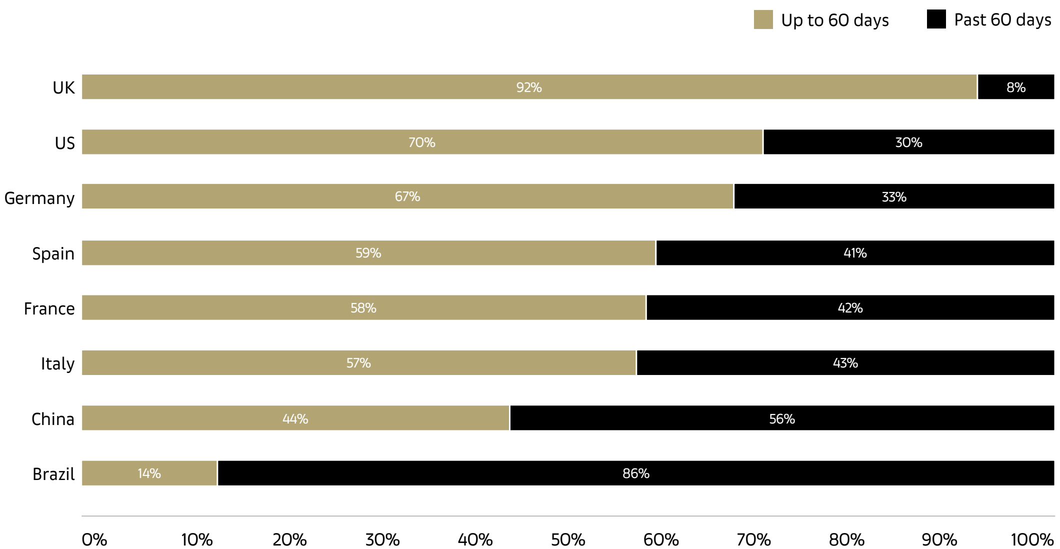
There were also considerable differences between regions. The shortest payment cycles for dealers were in the larger Western markets, British dealers having one of the shortest on average, with 92% collecting in less than 60 days (including around 50% within 30 days). In China, which is known to have a high rate of late payment in the auction sector (see Chapter 3), the majority of dealers (56%) reported not being paid within 60 days, while Brazil had one of the worst payment cycles, with 86% reporting an average of greater than 60 days.

These cycles to some extent represent the business culture of these countries. The average payment duration of consumer invoices in Germany and the UK are the lowest in Europe, with invoices paid within 12 and 17 days respectively. Some of the lengthiest cycles are in Italy where the average extends to 37 days and in Spain to 47 days. Considering the business-to-business markets in different countries, where terms are generally longer and more flexible, only 33% of companies paid on time in China versus 54% in the US and 72% in Germany.[14]

47% of Contemporary dealers extended payment terms beyond 60 days.

14 B2B data comes from Dun & Bradstreet *Payment Study 2016*, while B2C data is from Intrum Justitia (2016) *European Payment Report*.

Figure 2.14 | Payment Cycle for Dealers in Selected Countries in 2017



2.5 | Primary Versus Secondary Markets

The art market is made up of the primary and secondary markets, with the latter dominating in terms of value and price levels. In the fine art market, dealers represent artists selling works for the first time to the market or resell their works on behalf of a vendor, an artist or from their own inventory. Excluding decorative art and antique dealers (who do not represent individual artists), the remaining sample of dealers surveyed was made up of dealers working solely in the primary market, those working solely in the secondary market, and those working in both markets. Each segment was asked a series of questions concerning the artists they represented in 2017.

Median sales in the primary market (at $1 million) were considerably lower than the secondary market (at $1.6 million).

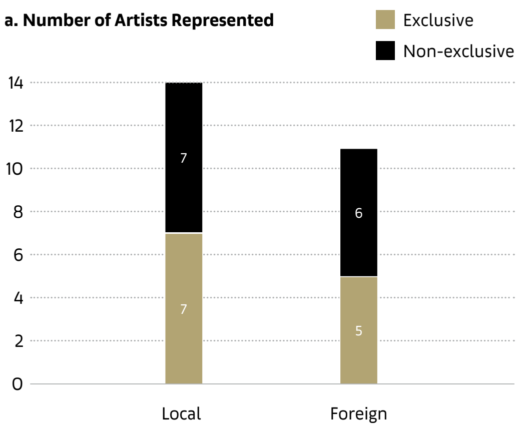
Primary Market Dealers

The primary market is defined as the first sale of artists' new work through dealers. Dealers work closely with their artists and promote and develop their careers over time. They establish prices for the artist's work, support its production, control the supply, and act as important gatekeepers, administrators and promoters, especially for artists that may not be well established. While there are many highly successful living artists with stable and high prices, looking at the primary market as whole, prices tend on average to be lower and more volatile as it is made up of artists at various stages of their careers, with works appearing on the market for the first time, before a consensus is established about the artist and the value of their work. The median level of sales is subsequently also lower, which is borne out by the survey results. In 2017, dealers working exclusively in the primary market had median sales of around $1 million, which was roughly on par with the aggregate market, but considerably lower than those working in the secondary market at $1.6 million.

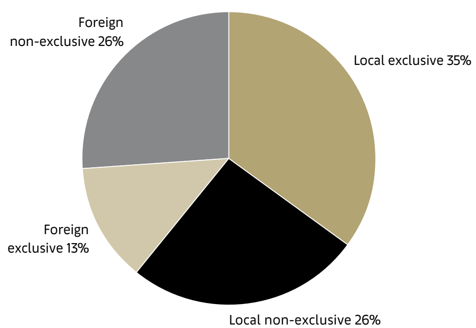
Dealers in the primary market often play a critical role in the establishment and management of an artist's career and therefore they tend to represent a limited number of artists at any one time. On average, primary market dealers represented 25 artists in 2017, up from 21 in 2016. The range varied widely between six and 150, with a median of 20.

Figure 2.15 | Primary Market Dealers in 2017

a. Number of Artists Represented



b. Share of Sales by Artist Segment



In many instances, only a relatively small number of artists that a dealer represents are commercially successful, and the profit they make through the sales of their work is often invested in the careers of others as a form of cross-subsidization. The number of artists a gallery represents is therefore not necessarily proportional to sales or profitability, and primary market dealers with sales turnovers of less than $1 million had a similar average number of artists represented to those above $1 million. The number of artists did rise at the very highest end, when turnover exceeded $10 million (to an average of 37 artists).

For most dealers, local artists tend to be more important for their business than foreign artists, both in terms of the number of artists they represented and the sales they generated – 56% of the artists represented by galleries in the primary market were local or national artists, defined as artists from, or working in, the region or country where the dealer's business is based or reporting from. These local artists accounted for 61% of the sales made by primary market dealers in 2017 (stable from 2016). Foreign artists on the other hand accounted for 44% of the number of artists represented and 39% of sales made by primary market dealers.

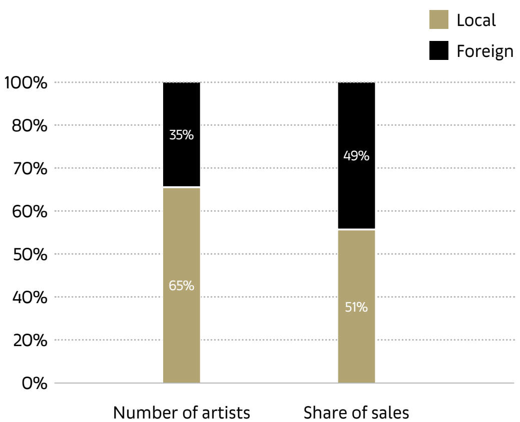
Dealers in the primary market often work closely with the artists they represent, with different levels of commitment including global exclusivity, regional exclusivity or a non-exclusive relationship. While exclusivity was common in the past, it has become less so in recent years. Many dealers now collaborate with other galleries and institutions to promote their artists, develop their careers and establish their public profile. Many galleries recognized that this can often work best when there is a lead gallery that assumes the primary responsibility for directing an artists' career, while others collaborate on particular exhibitions, projects and sales. In some cases, the lead gallery may draw a share of the commission from sales at other galleries, or there may be other less formal arrangements within the network, negotiated for particular exhibitions or periods.

Primary market dealers had exclusive representation with 48% of their artists on average (up from 40% in 2016), and those who did often limited this to a region, city or nation. These exclusive artists accounted for 48% of total sales, up just 1% year-on-year.

The share of exclusively represented foreign artists was slightly lower (at 45%). However, in terms of sales, exclusivity paid higher dividends for local artists: exclusively represented artists accounted for 57% of the sales of local artists' works, versus 43% for non-exclusive local artists. For foreign artists, exclusively represented artists accounted for a considerably smaller share of sales of at 33%, but this was also due to their lower number. Overall, the single largest segment for sales for primary market galleries was local, exclusively represented artists (at 35% of sales).

While exclusivity was common in the past, it has become less so in recent years. Primary market dealers had exclusive representation with 48% of their artists on average.

Figure 2.16 | **Secondary Market Dealers in 2017**



Secondary Market Dealers

The secondary market is where dealers and auction houses offer works of art for subsequent resale, and a distinctive feature of the art market is the predominance of trade by value in this segment, despite the fact that many artists have a limited resale market. In the primary market, prices tend to be lower than on the secondary market, as when an artist first sells a work it can take considerable time before it is recognized for its artistic value, rarity or historical importance. By the time a work is resold, these secondary sales tend to be higher priced by nature. Whereas value deteriorates in some secondary markets as the underlying good changes hands, art can often appreciate in value as the artist becomes more well known over time. For artists with an established track record and resale market, information costs can be lower on the secondary market in Contemporary art, and participants are also likely to have better access to information concerning artists and their works, making purchases less risky. (Although this is not the case in older sectors, as the lack of information and requirement for historical research, scholarly cataloging and expertise can make information available at a high premium).

As noted above, dealers working exclusively in the secondary market had significantly higher median sales in 2017 than those working in the primary market at $1.6 million (an increase of 20% from 2016).

On average, secondary market dealers sold or were active in the markets of the work of 40 artists in 2017, an increase of 25% from 2016. This ranged from a low of just three artists to around 100. As in 2016, these dealers represented more local artists (65%), who accounted for just over half of the dealers' sales. The remaining 35% of artists they represented were from outside the country where the gallery was primarily based.

Primary and Secondary Market Dealers

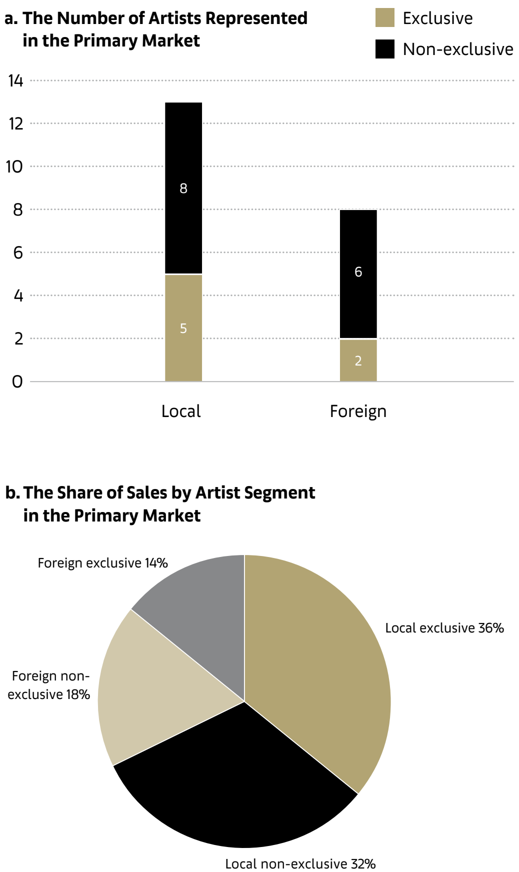
The final category of dealers in the fine art market was those who worked both in the primary and secondary market, representing about one-third of all fine art dealers sampled. This group of dealers reported that their sales were fairly evenly split between primary sales and secondary re-sales in 2017. Despite many secondary market works earning higher prices, a weighted average based on dealers' overall turnover showed that across all dealers operating in both markets, 49% of sales were made in the primary market and 51% in the secondary market.

Some dealers reported that secondary market sales were sometimes used to financially support primary market programs, and hence most of the value lay in the former. However, there were also dealers who did mainly primary market sales, with very occasional secondary market sales to support artists they represented or for other specific or opportunistic reasons. Others were younger dealers who had started in the primary market but were moving more into secondary sales to add more art-historical context and help anchor their programs.

Although not yet apparent in the figures, anecdotally some dealers noted that there were increasing attempts by primary market dealers to move into secondary sales in 2017 in an attempt to boost profitability and margins. Some dealers saw this as a backward-looking cycle in the market, noting that this was the main model in the 1960s and 1970s where the only successful (unfunded) galleries were those where "front room contemporary artists were subsidized by the back-room stock of artists with a strong secondary market." Dealers noted that during the 1980s, 1990s and early 2000s, the market was strong enough for some galleries to exclusively run primary market programs. However, there were indications of some reversion to a period where it was more difficult for many galleries to be successful (at certain price points) only representing living Contemporary artists.

Dealers working in both the primary and secondary markets had the highest median sales at $1.8 million.

Figure 2.17 | Dealers Trading in the Primary and Secondary Markets in 2017



Combining sales in both markets did appear to be successful, with this segment having the highest median sales overall at $1.8 million. Part of the reason for this higher turnover was that dealers working across both markets tended to represent a higher number of artists on average, at 45 in 2017 (down from 52 in 2016). This was split between 47% in the primary market and 53% in the secondary market. The majority (62%) of the artists that dealers worked with in this sector were local or national artists, and most had representation elsewhere (with just 16% or 7 artists on average having an exclusive relationship with the gallery). Most of the largest, high-end dealers are also active in both primary and secondary markets, which may also be a factor driving higher sales in this segment.

There were differences between the sectors. In the primary market, 62% of artists represented by the galleries in 2017 were local, up 5% in share on 2016. These local artists also represented the majority share of the gallery's primary market sales (at 68%, which was up 19% in share year-on-year).

For these hybrid galleries working across both sectors, exclusivity was much less common. In the primary market, only one-third of the artists represented by the gallery were represented exclusively, although this was slightly higher for local artists (38%) than foreign artists (25%). Despite being a minority share, exclusive artists generated half of the sales in the primary market for these

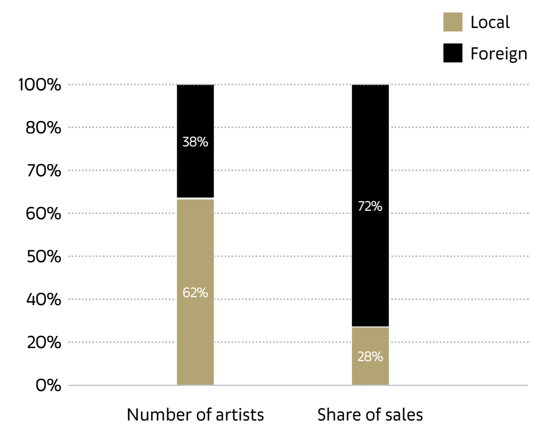
galleries, with most of that coming from local artists. Local artists who were exclusively represented by the gallery, in fact, accounted for the greatest share of sales at 36% in 2017.

In the secondary market, the share of local artists represented was similar at 62%, but these artists generated just 28% of gallery sales on average, down 17 percentage points on the share reported in this segment in 2016. Foreign artists on the other hand generated 72% of sales in the secondary market, despite only accounting for 38% of the artists in this segment by number.

Finally, combining all those dealers working in the primary market, whether exclusively or in combination with the secondary market, the average number of artists represented was 24: 58% were local, and these local artists generated half of the sales in this sector; 43% were exclusively represented, with such artists generating 51% of sales. The highest single contributor to sales (based on weighted averages across all respondents) was local artists that were exclusively represented (28%), followed by foreign, non-exclusive artists (27%).

In the secondary market, again combining all dealers whether operating only in this market or in combination with the primary market, the average number of secondary market artists represented in 2017 was 27; 63% were local and these local artists generated just under half (47%) of the sales in this sector.

Figure 2.18 | Dealers Trading in the Primary and Secondary Markets: Sales and Artists Represented in the Secondary Market in 2017



2.6 | Gallery Longevity

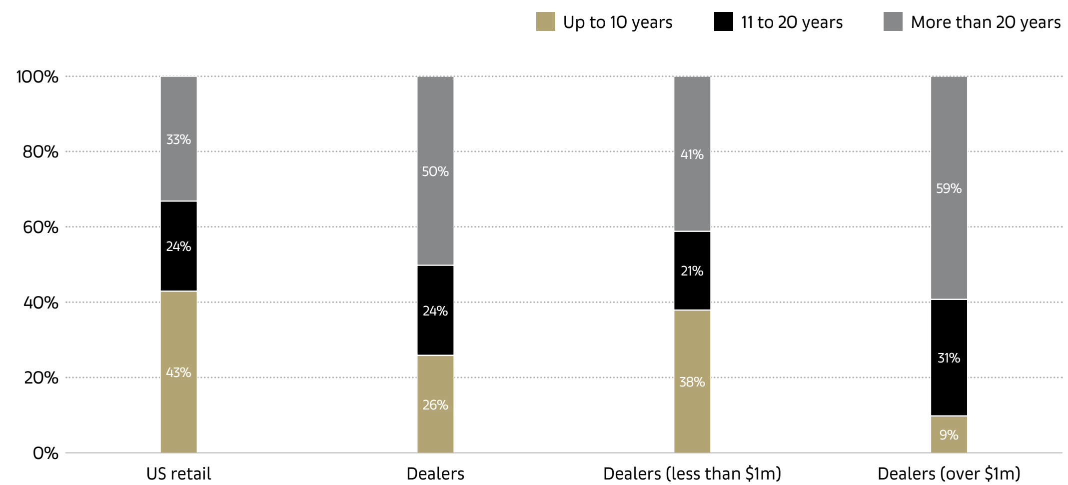
One of the biggest concerns dealers expressed in 2017, regardless of their turnover levels, was the changing infrastructure of the market, with the greatest performance year-to-year and longevity over time found at the top end of the market.

Dealers expressed concerns at the widening gap between the performance of the so-called "mega-galleries" showing works by the most sought after artists at the top end of the value spectrum, and the mid-size and lower end galleries, who may be presenting more challenging or simply less widely recognized artists and programs.

One of the most concerning outcomes of the top-heavy nature of the market in a practical sense is the strain on its infrastructure from the increased pressure on the middle market, as values move to the high end. While there continues to be considerable dynamism and vitality at the lower-priced and more experimental end of the market, where dealers are using a variety of hybrid models, social media and new projects to encourage new buyers and sales, the generally agreed most difficult area remains the middle market, where well-established dealers (many in business for over ten years) in mature markets such as New York and London are closing their premises, moving or going into private dealing. At the same time, the very top-end galleries, bolstered by the success of selling works by the most sought after, highest priced artists, are increasingly encroaching on the middle market by actively taking on more mid-level artists, cherry-picking them from mid-level galleries and using the super-normal profits from superstar artists to subsidize any slack in their markets until they are adequately launched and promoted. Although this development is nothing new, its prevalence is becoming increasingly problematic to a wider range of dealers, with the very top dealers encroaching on both classic mid-level dealers and also those who would otherwise be thought of as near the top end. This has further cemented the superior market position of a very small number of dealers at the very highest level.

The average number of years in business for galleries was 24 years.

Figure 2.19 | Number of Years in Business in 2017 (Share of Companies)



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More than 20 notable galleries in some of the mature markets closed in 2017, prompting new concerns that this trend is escalating. In order to consider these issues in context, however, it is important to understand the nature of business openings and closures in the art market. Frictional openings and closures are common in all businesses. Data on the retail trade in the US shows that in 2017, only 33% of the firms operating at that time had been in business for more than 20 years. In 2017, the survival rate for firms started in 1997 (or 20 years ago in 2017) in US retail was 23%. This was even lower for the private sector in general, with just 26% of firms having been in business for longer than 20 years. In contrast, the survey indicated the average number of years in business for galleries in the art market was 24 years in 2017 (compared to just 28% of general retail firms in the US). Over half of the dealers surveyed had been in business for more than 20 years. Although this was skewed slightly by some multigenerational businesses, the median was also 20, and nearly 75% of the galleries surveyed had been operating for longer than ten years versus 57% for US retail.

Not surprisingly, as it can take a number of years for businesses to begin to develop sales, there were differences in longevity based on dealer turnover. For those dealers with turnover of less than $1 million, there was a much larger share (41%) in business for less than ten years than in the segment with turnover greater than $1 million (9%). The majority (59%) of those with sales greater than $1 million had been in business 20 years or more, with a median number of years in business of 31 (and 33 for those with turnover greater than $10 million).

There were also differences in the number of years in business by sector. Contemporary dealers had the other lowest median years in business (at 15), while those in the older sectors of the market had the highest at 39 years.

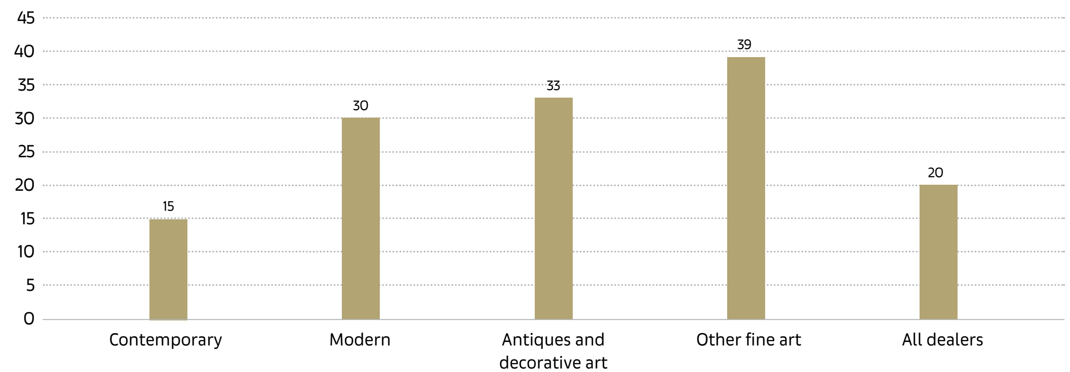
It is useful to analyze the number of openings and closures of galleries. Artfacts.net tracks the openings and closures of galleries from a dynamic base of between 5,000 and 6,000 of the top galleries around the world. To analyze the trends in the sector, the galleries included in the analysis were only those that have participated in at least one major fair in the last 11 years, with new branches of headquartered locations also appearing if the primary operation had participated in a fair. The data on openings is therefore skewed slightly by the criteria for inclusion: a gallery opening in 2017, for example, was unlikely to have exhibited at a fair in its first year of operation. Nonetheless, there are some interesting trends evident in the data over the ten-year period from 2007 to 2017.

Over the last decade, the number of openings has exceeded the number of closures in nearly all years. While the ratio of openings to closures in 2007 was in the region of over 5:1, this has declined rapidly since then. By 2016, the ratio was 2:1, and this dropped to just less than one (0.9:1) in 2017 (that is, more closures than openings).[15]

The number of gallery closures has varied considerably, peaking in 2009 in the middle of the large contraction in sales in the art market, but also rising again in the years following the global financial crisis (from 2011 to 2013). However, closures were actually at their lowest in 2016 and 2017, falling back to around half of their 2013 level.

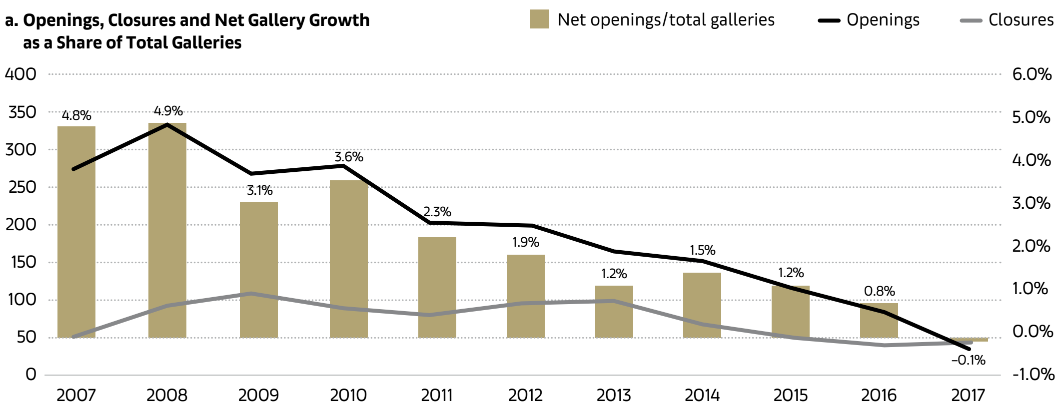
15 Again, the criteria regarding exhibition at a major fair may result in the understatement of the number of openings in recent years as there may be a lag before a gallery exhibited at its first fair and was recognized in the database. Closures may also appear with a lag as some galleries close privately without publicizing their closures and are only apparent in their non-appearance in fairs and exhibition records in subsequent years. Galleries were only included in the data where a clear year of commencement and closure date were available, and therefore do not include the large numbers of very small galleries and shops opening and closing in the wider art market year-to-year. Much like the survey coverage, however, they do provide an accurate measure of the main mid- to top-level galleries and their annual business fluctuations.

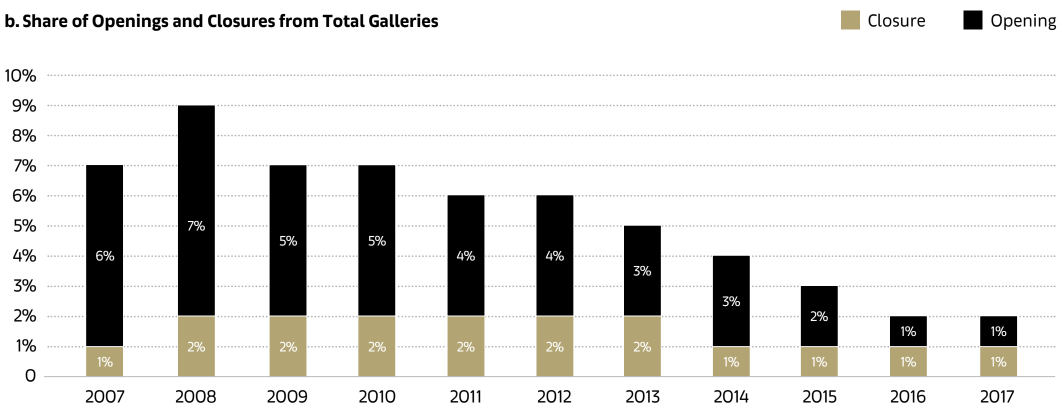
Figure 2.20 | Median Years in Business in 2017 by Sector



Gallery openings on the other hand have declined steadily over the period, with the number of new galleries established in 2017 around 87% less than in 2007. It was therefore the reduction in openings rather than a significant rise in closures that mainly caused the drop in net openings in 2017. As noted above, the decline in openings is also due to some extent to the lack of participation in art fairs for galleries, which may affect the numbers that have just opened in 2017, but this trend is fairly consistent over time for openings, and indicates a drop in the number of new businesses overall in this part of the gallery sector. When analyzed as a share of the total number of galleries tracked each year, it is also clear that the share of openings has fallen significantly (from 7% in 2008 to 1% in 2017), while the share of closures has been smaller and ranged between just 1% and 2% over ten years.

Figure 2.21 | Gallery Openings and Closures





Different regions have experienced different trends in the ten-year period. Europe had by far the most gallery openings globally in 2007, accounting for 67% of the total, with the most active countries being Germany, France and Italy. The number of openings fell from 2008, and declined in total by 90% over ten years, halving in number in 2017. Asia accounted for the second largest share in 2007 (at 16%), and similarly peaked in 2008, with the largest contributors to growth over the period being China, Japan and South Korea. However, from this point, openings also steadily declined, falling by 89% over ten years.

North America's share of openings has averaged 26% over the ten-year period, and this has increased from 14% in 2007 to 26% in 2017. The peak in gallery openings was also in 2008 but, after some volatility, has steadily declined since 2014, and fell 76% in ten years.[16] South and Central America have also seen a decline in the number of galleries opening in ten years (with a peak in 2009), however, their global share, while still small, has increased from 1% in 2007 to 6% in 2017.

Europe also dominated the number of gallery closures, although the trends in this area are more volatile. The number of closures peaked in Europe in the aftermath of the global financial crisis in 2012, with Europe's share reaching its highest level of 78% in 2011, with the highest number of galleries closing in Germany, France and Italy. Since that point, closures dropped fairly steadily, and in 2017, the number of closures declined 8% year-on-year and was 25% less than ten years previous in 2007. Closures also peaked after the global financial crisis in North America, but the fallout was more immediate, with the highest number of closures in 2009. These stabilized again in the years that followed, but began to fall consistently from around 2013. The number of closures in 2017 was less than half those in 2009, and they have fallen 8% in the ten years from 2007 to 2017.

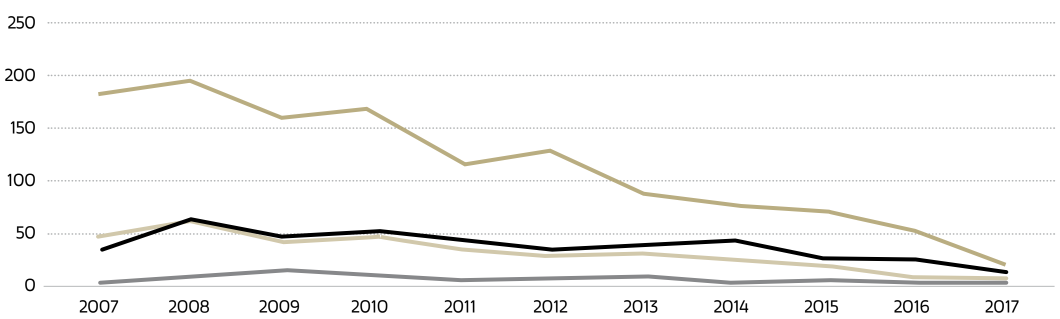
Gallery closures in Asia peaked in 2013, after the significant contraction in the Chinese market in 2012, but since then they have dropped to a very low level and have declined in number by 67% over the ten-year period from 2007 to 2017. Galleries in South and Central America accounted for the smallest share of closures in all years, at 4% or less of the global total.

The number of new galleries established in 2017 was around 87% less than in 2007.

16 It is interesting to note that official data from the Bureau of Labor Statistics on the number of art dealers (including employee and non-employee firms) shows a drop in number of 7% from 2007 to 2015 (their latest published data in 2018). Looking at the net openings and closures from the Artfacts.net data suggests a net positive addition of 90 galleries in this period. This indicates that the wider sector may in fact have fared worse than these more established galleries in the US.

Figure 2.22 | **Gallery Openings by Region**

a. Number of Openings



b. Share of Total Global Openings

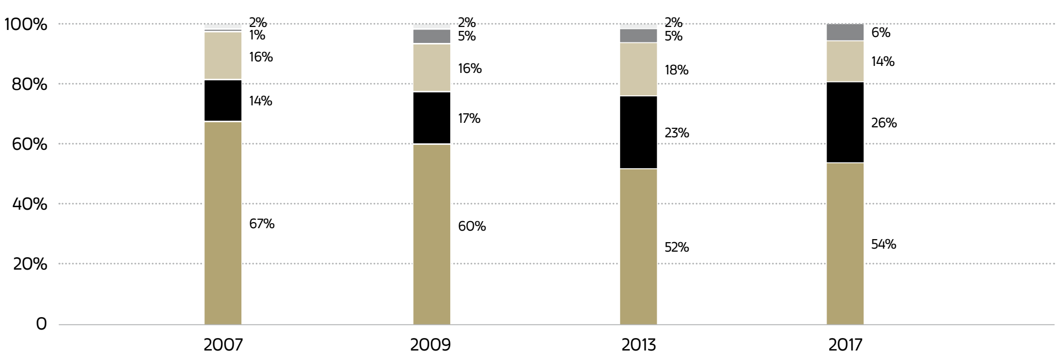
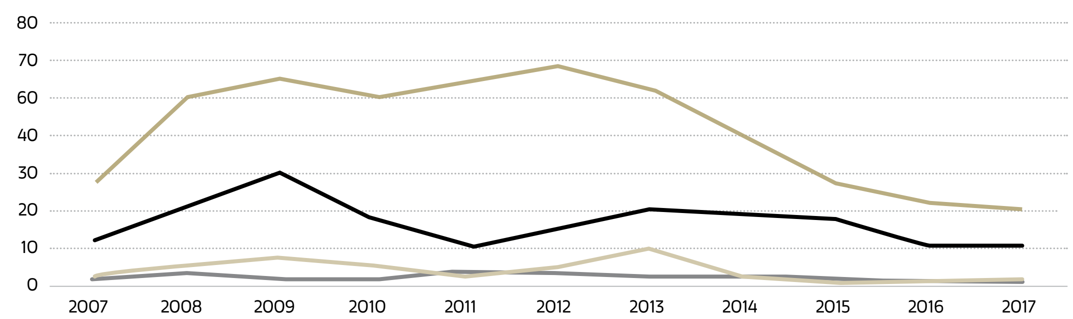
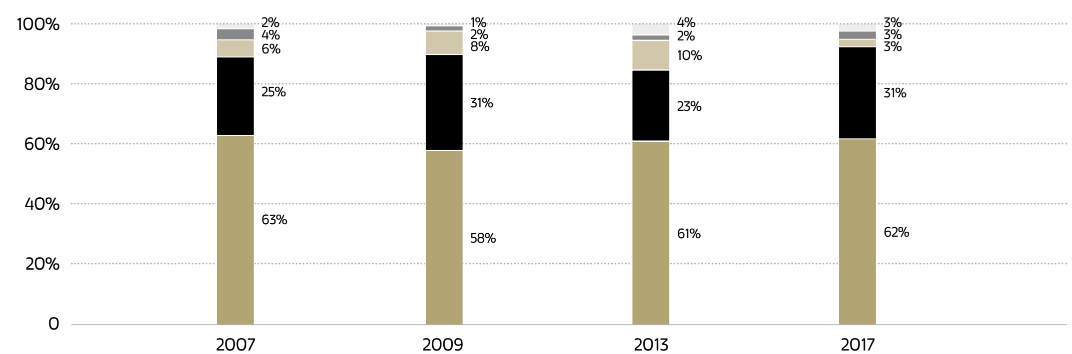


Figure 2.23 | **Gallery Closures by Region**

a. Number of Closures



b. Share of Total Global Closures



The closure of galleries in recent years is often a pragmatic choice by dealers in the face of diminishing returns, with some noting this year that "the numbers just didn't add up," effectively reinforcing the reality noted by many that dealers now have to work harder to achieve sales. It also does not always mean the end of economic activity, with some gallerists moving into private dealing. The performance and longevity of businesses in this sector are often very closely tied to the specific entrepreneurial skills of key individuals in these predominantly small businesses. Unlike the auction sector where large brands dominate, most dealer businesses, even at the high end, are identified strongly with key individuals. When a dealer moves on or retires, the business itself also often comes to an end, versus the brands and corporate identities in the auction sector.

"When I retire or leave, there will be no company to sell. The business is based on me, my network of contacts and a little bit of inventory. It's the same in bigger galleries, if one person leaves that can mean the end. While there are some businesses that are successfully handed down through generations, they're not common."

The decline of retail galleries is not a new trend. For the past decade, one of the most important issues noted in these annual studies has been the decline of the retail gallery, as well as the increasing share of sales made outside the gallery at fairs and online.

While some dealers have closed their businesses, others have moved toward private dealing and other alternative spaces such as offices, nonprofit space and other locations instead of the typical shop front. The main reasons for the closures have been cited as:

I. High cost base
The fixed and running costs of maintaining a retail presence in a prominent urban location have become prohibitively high, versus the low and variable volume of sales of some dealers. Some dealers commented that this was part of a general trend for slow moving goods to shift off the high streets, while others felt that it was driven by underlying changes in property markets, which made rents unsustainable and wherein premises were often being taken over by other fashion-related luxury brands (for example, the West End in London, and the Chelsea arts district in New York).

II. Event-driven market
Reduced foot traffic and quality visitor numbers have made it difficult for some dealers to justify a retail presence, with buyers not visiting galleries nearly as frequently as they did 20 years ago. Therefore, having a visible and central presence was less useful. While some maintained key visitors, others noted that "serious buyers" rarely came to their gallery any longer, and they instead visited them privately and at fairs. The event-driven nature of the market, where fairs dominate as a means to meet existing and particularly new clients, has also contributed to that. Some also felt that buyers' loyalties were shifting to fairs rather than dealers, thus making these events the new global loci for sales. Many dealers commented that the expenses of running a gallery (especially when traveling and attending fairs) were not adding up versus the sales made via this channel. Although maintaining a gallery presence is a requirement for entry to many fairs, this has encouraged some to move towards more private dealing, using fairs as an access and meeting point, rather than a point of exhibition and sales. Some also questioned whether fairs may have to change their vetting criteria to account for the greater number of alternative and hybrid business models outside the traditional gallery and the increase in private dealing in some older sectors of the market.

III. Internet
The growth and sophistication of the Internet as a means of sales and promotion have made physical gallery spaces less important for some dealers. With an increasing amount of business transacted online, some dealers felt that this reduced the need for a retail presence and prompted some to move to smaller, less expensive offices or lower rent premises.

IV. Expanded activities
Some dealers felt that the move towards focusing on private dealing and advisory services rather than simply selling stock was encouraging the decline of dealers' retail presences. Increasingly for many dealers, knowledge, discretion, expertise, and intellectual value added were their key selling points and they required the freedom to work by appointment rather than being tied to a gallery, so that they could devote time to traveling to fairs, visiting clients in different locations and searching for new works.

The fixed and running costs of maintaining a retail presence in a prominent urban location have become prohibitively high, versus the low and variable volume of sales.

V. Artist retention
Difficulty holding on to key artists who move to larger galleries as they become more commercially successful was also cited. In the primary market in particular, dealers noted who younger galleries often do not grow with the artists that they work with or share their successes as their careers develop. Some noted that these galleries provide a crucial role in establishing an artist and acting as an incubator for their early careers, but once the artist is successful, they are often cherry-picked by larger galleries. The smaller galleries have therefore essentially done the difficult and costly task of launching an artist into the market, without getting to enjoy the financial benefits of their success.

Younger galleries often do not grow with the artists who they work with or share their successes as their careers develop.

While in other regular markets when a business fails, its loss is another business's gain, this is not always the case in the art market, where small galleries produce a number of positive externalities with regard to cultural and artistic production and distribution, and other benefits not captured by simply measuring changes in aggregate sales. In other words, when a small gallery cannot compete because both buyers and artists flock to mega-galleries, some of the losses are not efficiently transferred to big galleries, but disappear altogether.

It is important to flag again that these issues are not necessarily new, and although there was much publicity regarding businesses closing in 2017, there are also more people involved in the art market than before. Figures on the numbers of businesses and those employed in the art market have shown considerable resilience, with stable or increasing growth in many regions over the last decade despite considerable volatility in sales. The problems of business longevity are also not exclusive to the art market. Small retailers everywhere have been pushed off high streets by big brands, and other industries are likely to have fared worse. Although the survey sampled relatively well-established dealers (through fairs and dealer associations), the average longevity of 24 years indicates a relatively stable market. While galleries in the Contemporary market were slightly lower, there are many that have similarly weathered the test of time, with examples such as Marian Goodman Gallery (New York, Paris) which was in its 40th year in business in 2017, Paula Cooper Gallery in New York (49 years in business), Galerie Templon in Paris and Brussels (established 51 years ago), Fred Snitzer in Miami (40 years in business) and smaller galleries such as Kerlin Gallery (Dublin) also reaching 30 years in business at the end of 2017.

The problem is therefore not necessarily about the number of galleries closing in the art market. Some galleries should close: they are simply not competitive enough to maintain their businesses, and as many experienced professionals have noted, the job of being a gallerist has changed dramatically, with more pressure, less time, and more travel, which takes considerable skills and dedication. The real problem is that the closures are often of small and mid-sized galleries in the primary market, including those with highly professional and hard-working teams that form a critical part of the market's infrastructure, often discovering and raising key artists of a given generation. Dealers interviewed agreed that the hollowing out of the middle of the market was a very negative development and most feared that it would get worse in the coming years.

Approaches to Collaboration

Dealers are attempting to find ways to deal with these issues, although like the complexity of the problem itself, the solutions are likely to require multiple approaches. An important focus for dealers in trying to combat the mid-level crisis centers on finding ways to increase collaboration with other galleries.

Some gallerists interviewed were increasingly experimenting with new locations and models of collaboration, including merging galleries and shared exhibition spaces. Some of the projects are aimed at providing complementary models rather than alternatives to running galleries and hence while expanding promotion and awareness do less to tackle some of the underlying issues. Some noted that while the merging of mid-level galleries might tackle some of the cost issues, it did little to address underlying structural issues in the market and that it was more critical to find positive and committed ways for vertical collaboration – finding opportunities for small and large galleries to work together.

One important example of this was Condo (condocomplex.org), which was launched in London in 2016 and has since launched three large-scale exhibitions in London and one in New York, with additional editions also planned for Mexico City, Shanghai and São Paulo in 2018. The concept is based on galleries in these cities temporarily sharing their exhibition spaces (for free) with foreign visiting dealers,[17] sometimes collaborating on curating exhibitions, or simply hosting a separate exhibition for the visiting gallery. For example, the third edition of Condo London in early 2018 involved 46 international galleries presenting exhibitions hosted by 17 spaces, which include Carlos Ishikawa, Sadie Coles HQ, Maureen Paley, and Hollybush Gardens, during a four week event in January and February.

The main aims of the Condo concept were to tackle two of the most acute problems faced by galleries at all levels: rising costs and reduced foot traffic. The project aims to encourage a gallery-going culture by running exhibitions of works by multiple galleries at a range of different levels, from young to very established, over a longer period of time than would be the case in an art fair. The inclusion of a broad range of galleries at different levels allows for critical vertical collaboration in the sector, while the more favorable cost structure and longer duration were also seen as a means to encourage participants to take more risks than at art fairs, where the focus sometimes has to be more commercially driven in order to cover costs.

Visiting galleries are chosen without any specifically defined criteria, apart from ensuring that repeat exhibitors are only around 25% of the total for each edition.

While all galleries are represented at the opening of each edition, the model has tried to move away from the art fair concept of having galleries tied to the exhibition space for the entire period, and instead have the exhibition fully hosted by the local gallery.

A similar project called Okey Dokey (okey-dokey.show) was launched in Germany in 2017, and there have been numerous other exhibition spaces that offer pop-up or temporary exhibitions such as Ruberta (ruberta.la) and Independent Régence (the gallery residency program supported by Independent art fair in Belgium). While many dealers feel that some of these projects offer positive ways for galleries to reduce costs, others fear that exhibiting at pop-up galleries can mean that dealers lack the knowledge of the space, with artworks becoming commoditized and losing some of their important qualities or consistency. Some have felt that they are best suited to works that can be transported easily, which can lead to a poorly thought-out program, but have worked very well for highly ambitious site-specific projects.

Other examples include Artist / City (bortolamigallery.com/artistcity), an initiative for artists founded by the Bortolami Gallery in 2015 to show their work in cities in the US outside the restrictions of the standard five-week gallery show. Pairing an artist with a space in a different city for a year, the intent was to expand exhibition programs geographically without opening

17 Host galleries do not charge for the exhibition space and the collaborators all jointly share the expenses for the website and opening party (with installation, shipping and other specific costs covered by the participants that incur them). The project is a nonprofit venture and the founders do not retain any profits or fees.

full-scale operations in different cities and is run as a complementary structure to the gallery rather than an alternative to one. The first project was in Miami, with a yearlong exhibition of Daniel Buren in a private event space, and two exhibitions ran in 2017 in Philadelphia and Baltimore.

More permanent collaborative exhibition spaces have also been developed, with examples such as the Minnesota Street Project, which opened in 2016 in San Francisco. This aimed to provide “economically sustainable spaces” for art galleries, artists and nonprofit organizations, offering below-market rates to ten galleries and other short-term exhibition and project spaces. A variant of this, Cromwell Place, was launched in 2017 and is scheduled to open in London in 2019. This offers a membership-based flexible exhibition and working space for galleries with 16 exhibition spaces, 25 offices, storage and meeting space for galleries, dealers, advisors and curators, all housed within five large adjoining townhouses (totaling 43,400 square feet) in South Kensington. Galleries pay a membership fee (which depends partially on their amount of use) as well as cost per meter for their exhibition space.[18] The primary aim is to provide a central location for galleries in a cost-sharing, collaborative environment that serves as a feasible alternative to fair exhibition costs and rising rents in many parts of London. The space is also open to international galleries, allowing them to expand and develop programs for artists by having a presence in London without having to open a gallery there.

It is critical to find positive and committed ways for vertical collaboration between small and large galleries.

Similar, smaller projects are also happening in other non-contemporary sectors as well as more regional markets. Here, dealers are establishing multi-service general shops with services such as valuations, restoration and even auctions in-house or one-stop, convenient and cost-effective shops in multi-facility premises (for example a group of dealers in a rural area with ample car parking, cafés and other complementary businesses and attractions).

Apart from collaborating with each other, collaboration with collectors and the management of their involvement with artists was also seen as critical. Some dealers noted the trend for artists

18 The membership fees are in the region of £3,000 to £5,000, while exhibition space costs £80 to £120 per square meter.

selling their works directly to collectors, through Instagram, digital channels, and other collaborative projects and shows. While some dealers felt this could be a threat to the role of the dealer, others saw it as a healthy trend keeping the lower priced ends of the market dynamic and encouraging new collectors. Most agreed that some form of intermediation was still the most desirable for all parties, and that the separation of the role of creator and promoter was still very important, with most artists lacking the skill and time to sell their work. Many felt that while the delivery systems were changing, dealers would continue to play an important role but a less traditional one in the future, with artists retaining an anchor gallery but increasingly making their careers through a range of channels, including multiple galleries, nonprofit and commercial projects, grants and others.

Finally, collaboration with each other through dealer associations was also seen as critical in providing one voice to governments, who in many cases still fundamentally fail to understand the creative and cultural activities that galleries undertake, creating positive externalities not captured in market transactions, and instead treat them purely as commercial retailers for tax and regulatory purposes. Some dealers also felt that their interests were served best when associations were part of umbrella organizations that included other art market professionals, including auction houses, such as the British Art Market Federation, particularly when dealing with high level regulatory issues that affected all the interests of the art trade equally. Working with auction houses, art fairs and other agents on valuations, marketing, events and other projects was also seen as a way to strengthen the position of small and mid-sized galleries.

Other Strategies

Apart from boosting collaboration, dealers were also attempting to find more effective strategies within their current models, whether by reducing spending or simply maintaining a greater degree of flexibility in their vision for the gallery. A key advantage of those working in this sector is their strong vertical integration and vision, however, some experienced dealers noted the perils of over-focusing and lacking enough flexibility to adapt to changing market environments. Many cited their increasing focus on cost savings, such as reducing high-end entertaining in place of more academically rigorous publishing, only using those promotional and marketing tools that deliver returns, as well as cutting down the number of exhibitions they did over the year and focusing only on those fairs and events that delivered the best returns.

As noted above, some dealers that worked principally in the primary market were also attempting to move more into secondary market sales in an attempt to boost revenues and diversify risks. However, some dealers felt that this was a very difficult model to pursue given the established secondary market dealers already incumbent in the market and the difficulty selling the work of artists with a mediocre or poor auction history that were often the only ones accessible – at least initially – to some dealers entering this sector. Some noted that the only galleries that might be successful in this strategy were those that had very well established access to artist and vendor networks, or others with investors or family financial backing. Also, importantly, even if a dealer was adept at selling works and promoting artists in the primary market, this did not necessarily transfer to sales in the secondary market, which required significantly greater academic rigor in establishing provenance, working with artists' estates and other important skills and knowledge.

To address the issue of exclusivity and the balance between profit and cost sharing between small and larger galleries, some suggested that stronger contractual relationships between artists and galleries may be required. The notion of contracts in the sector has been discussed for several years, but continues to be a matter of some debate. Many dealers felt that contracts between artists and galleries were somehow not suited to the art market, with many feeling it was not feasible to maintain a hold over artists who wished to move on. Some also noted contracts could leave galleries bogged down with emerging artists or underperformers longer than might be productive for their growth. Some noted that several galleries working together with an artist was required to get them to a high level, and this meant an open approach to cost and revenue sharing and "putting your own agenda on the back-burner." Some maintained that there was a code of honor between galleries that implied it would be inappropriate to "steal young talent" and those

To address the issues of exclusivity and cost sharing between small and larger galleries, some felt that stronger contractual relationships between artists and galleries were required.

that did this would be avoided and essentially weeded out of the market over time.

While nearly all dealers were very positive about the concept of working with other galleries and felt that a collaborative approach worked very well, the lack of exclusivity was a problem for others, particularly when it came to the heavy cost of investment associated with the promotion of some artists. If an artist is represented by more than one gallery, a "free rider" problem may arise where one or more dealers may abstain or reduce their investment in costly promotional activities while profiting from the activities undertaken by others for that same artist. Promotional activities are also specific to a particular artist, and mostly non-transferable. Once a relationship is terminated between an artist and a dealer, these costs need to be considered as sunk and irretrievable. This is particularly problematic for smaller galleries who may pay heavy costs in the promotion of artists at the start of their careers, but not reap the benefits of their success once they are cherry-picked by larger galleries. Both of these issues (the free-rider issue and sunk costs of promotion) may lead to promotional activities taking place at a lesser extent than would be optimal for the artist. Some galleries also felt that while they collaborated with museums and other institutions as well as the artists themselves in their promotion and exhibitions, it was often the gallery that was left to fund most of the costs. This was particularly problematic for large museum and biennial shows where dealers were left with very large capital outlays that had very significant repercussions on their finances. Again, these are large sunk costs tied to specific artists, which are subject to the dual set of risks: both the uncertainty regarding the artist's future commercial success plus their ability to retain a relationship with them and recoup any of these costs in the future through subsequent sales of their work.

Dealers, even at the highest end, recognized the imbalance in the sharing of costs versus profits could potentially be a major problem in the infrastructure of the market in the future, where these smaller galleries play a crucial role. In other industries such as sports, stars are nurtured from an early age and locked into strict contracts with significant penalties for switching, but in the art market, young galleries do much of the early nurturing but have little hold on artists. Also, while young sports stars compete with each other around the same basic task, there are less of these limitations or measurable standards for artists, giving them more opportunity to display their particular idiosyncratic talent but making it more difficult for a gallery to "pick the winners" early.

While galleries collaborated with museums and other institutions in promotions and exhibitions, it was often the gallery that was left to fund most of the costs.

Although the industry has shied away from structured, contractual ownership obligations between artists and galleries, these models have proven to work in other industries. Regional exclusivity is frequently built into many artist-gallery contracts already, although it is arguably a much less meaningful concept in the current global market, where buyers search the inventory of galleries globally around the world online or at fairs.

Other issues arise in standard contracts that already exist in the sector for consigning works, as complete terms can often not be stated within a contract. For example, an artist cannot be contractually enforced to continue producing valuable works of art into the future. There are also difficulties monitoring each party to ensure the terms are complied with. Litigation for breaking a contract would also be expensive and potentially damaging to the reputation of both the artist and the gallery. It is also questionable if a dealer could expect financial compensation for terms being breached. Because of all these issues which can make explicit contracts difficult or infeasible, dealers most often try to engage in long-term, trust-based relationships with their artists, with terms based on moral obligations and insurance of compliance based on reputational fallout.[19] However, with sales values and commercial success increasingly concentrated in larger galleries, some galleries have seen these more informal relationships break down with large costs incurred and limited financial rewards as the artist moves on.

While all of these issues pose complexities in building contracts, solutions could be based around both defining and regulating the trading and ownership rights of galleries for the artists they represent, and structuring contracts to include the definition of what a gallery actually "owns" when they represent an artist and how they can be compensated for having these artists poached, be it an immediate financial obligation or a share of sales for a defined period.

The dealers surveyed were asked to report the three biggest challenges they faced in 2017 and also over the next five years. The biggest issues appeared to be related to the demand side of the market. The most frequently cited challenge was finding new buyers

19 For a thorough discussion of some of the problems of contracts in the arts, see Caves, R. (2003) "Contracts between Art and Commerce." *The Journal of Economic Perspectives*. Vol. 17, No. 2: 73-84.

(60% of respondents in 2017, and also the highest ranked for the next five years), while the next highest ranked were the economic outlook and its effects on the demand for art and antiques, and their participation at art fairs. It is interesting to note that while online sales and regulation were key concerns now, these were ranked lower over the next five years, while competition with auction houses and overheads both became more important in the coming years. These results indicate that quite apart from the challenges of competition with each other (which ranked relatively low on their list of concerns), galleries face a number of supply and demand side issues in the years to come.

Overall, due to their specialized nature, the business model for individual dealerships is often highly dependent on the success of a small number of specialties, and hence subject at times to considerable risks, in contrast to the more diversified sales of their auction house counterparts. Some dealers felt that there were simply too many galleries and too many artists at the entry and lower levels in some sectors, and that it was right that "only the best should survive." However, nearly all recognized the dangers to the infrastructure of the market of the widening gap and hollowing of the middle market. While some of the more innovative models being tested all bring their own sets of issues and none are a cure-all for all galleries, they do show that in the current market, creative and innovative thinking and proactive strategies to extend into the broader community are going to prove essential going forward.

Table 2.3 | Top Challenges in 2017 and in the Next Five Years

Challenge	2017	Rank 2017	Next 5 years	Rank next 5 years
Finding new clients	60%	1	50%	1
The economy / the demand for art and antiques	47%	2	41%	2
Participation at fairs	40%	3	30%	3
Internet and online sales	37%	4	16%	9
The increased regulation of the art market and cross-border trade	30%	5	15%	11
Overheads for business premises (gallery rents, storage)	28%	6	24%	5
Competition with auction houses	27%	7	24%	4
Accessing supply of objects, works of art, artists	26%	8	21%	7
Political instabilities	25%	9	23%	6
Financing business / debt	21%	10	21%	8
Competition with other galleries	16%	11	15%	10
Currency issues and exchange rate fluctuations	13%	12	12%	12

Some dealers felt that there were simply too many galleries and artists at the entry and lower levels, and "only the best should survive."

Auction Sales

3

Key Findings

Auction Sales

1. Sales at public auction of fine and decorative art and antiques reached $28.5 billion in 2017, up 27% year-on-year.

2. The US and China dominated auction sales with a combined 68% share. The US accounted for 35% of sales, China 33%, and the UK was the third largest market with 16%.

3. From 2007 to 2017, nearly all segments up to $1 million declined in value, whereas the market for works priced over $1 million grew. The biggest increases were at the very highest end, with the value of sales of works sold for over $10 million increasing by 148% over ten years, and 125% year-on-year in 2017.

4. Post War and Contemporary art was the largest sector by value in 2017, accounting for 46%, followed by Modern art (27%),the Impressionist and Post Impressionist sector (17%) and Old Masters (10%, with European Old Masters accounting for a 7% share).

5. All of the fine art sectors increased in value year-on-year, including a 12% increase in the Post War and Contemporary sector to $6.2 billion, with sales of the work of living artists advancing by 19% to $2.6 billion. Sales of Modern art increased 39% year-on-year to $3.6 billion, while the Impressionist and Post Impressionist increased in value by 71% to $2.3 billion.

6. Sales in the European Old Masters sector rose 64% year-on-year to reach $977 million, exceeding their previous peak of ten years ago in 2007 (at $906 million). However, this uplift was due to the sale of the Leonardo da Vinci painting *Salvator Mundi* for $450 million at Christie's in the US, without which sales would have actually fallen 11%.

3.1 | Auction Sales in 2017

Sales at public auction of fine and decorative art and antiques reached $28.5 billion in 2017.[20] After two years of declining sales, this boosted the market by 27% year-on-year, with the uplift in values driven by strong sales at the high end.

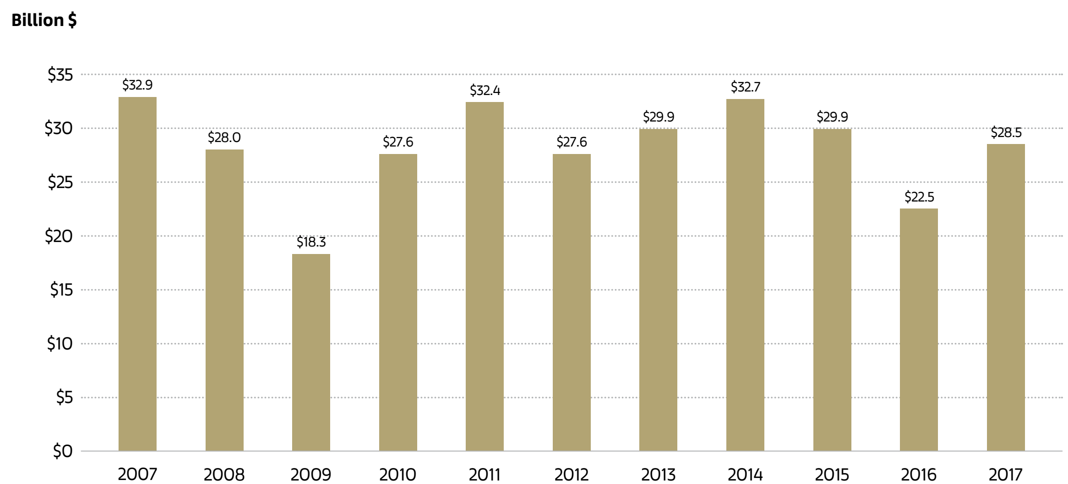
Several lots sold for in excess of $50 million dollars, which contributed to the rise in values, notably in the US and China, from an array of global buyers. The year was particularly marked by the record price achieved by the sale of the Leonardo da Vinci painting *Salvator Mundi*, which was purchased by the Abu Dhabi Department of Culture and Tourism for $450 million at Christie's New York in November.[21] This landmark sale represented a historic record, being more than four times the price of any other painting ever sold at auction. A painting by Jean-Michel Basquiat (*Untitled, 1982*) also sold to a Japanese collector earlier in the year for $110 million (at Sotheby's in New York). While in China, a set of ink-brush panels by Qi Baishi, *Twelve Landscape Screens*, sold for $141 million at Poly Beijing, both the highest price ever paid for a work of Chinese art at auction and the highest price achieved at auction for a single lot in China.

However, outside these record sales, there were weaknesses in the market and cracks evident even for strong and popular artists of the last few years, with unexpectedly high buy-in rates and lower than estimated sales in some sectors. The performance of different value segments also showed the greatest increases at the top end of the market, which boosted aggregate sales, while many middle and lower end businesses selling predominantly at lower price points continued to struggle.

The auction market boomed up to 2007, with strong increases in the value and volume of sales, driven by the strength of the fine art market, and within it, the Post War and Contemporary and Modern art sectors. However, in the two years from 2007 to 2009, the market lost 44% of its value as the global financial crisis deterred both vendors and buyers. The boom in the Chinese market aided a rapid recovery from 2009 through 2011, and strong sales in the fine art market starting in 2012 helped the market achieve a high of $32.7 billion by 2014, just slightly below the peak in the market in 2007. However, with a lower volume of the highest-priced lots appearing on the market, and cautious buying, the next two years were marked by declining sales and the market dropped 31% in value by 2016 to $22.5 million, its lowest level since 2009. The turnaround in growth in 2017 has restored some of those losses, but the market still remains 13% below its 2014 level.

20 Public auction sales only (excluding private sales).
21 The buyer of this work was confirmed by Christie's in December 2017 (https://www.christies.com/presscenter/pdf/8910/STATEMENT_Salvator%20Mundi_8910_1.pdf)

Figure 3.1 | Global Market for Public Auction Sales 2007–2017



Sales at auction reached $28.5 billion in 2017, up 27% year-on-year, with the uplift driven by strong sales at the high end.

The auction sector is highly concentrated, with the top five houses accounting for around half of global market by value.

The auction sector is highly concentrated by value, with the top five houses (Christie's, Sotheby's, Poly Auction, China Guardian and Heritage Auctions) accounting for around half of global market sales by value and the top ten accounting for over 60%. There are more than 500 important second tier auction houses that also generate a significant share of value and dominate national markets, with some engaging in considerable international trade. The third tier consists of small but significant auction houses in most domestic markets that tend to specialize in their own national art and related areas. In most countries, there are also many auction houses that regularly sell art alongside other property such as real estate, cars and collectibles.

In the top-tier houses such as Christie's and Sotheby's, fine art accounted for an average of over 75% of the value of sales. However, some top-tier houses in China sell a much higher proportion of decorative art and antiques, along with Heritage Auctions, where fine art is a much smaller share. In the second tier, fine art averaged just under 60% and in the lower tier houses, around 30%. These ratios also vary widely between regions and are based on the averages aggregated across all countries in 2017.

Christie's and Sotheby's both showed strong growth in sales in 2017 and continued to dominate the auction sector. Based on their total sales (including public, private and online sales), these two houses accounted for 40% of the wider auction market.

Christie's led the auction sector with total sales of $6.6 billion, up 21% from 2016 after two years of declining sales. This growth was driven by their public auction sales, which grew 33%, buoyed by the sale of Leonardo da Vinci's *Salvator Mundi*.

This lot boosted sales in the US particularly, which increased by 68% year-on-year, although spending in the US was global in nature. While American buyers increased their spending by 22%, Asian buyers' spending increased by 39%. It is interesting to note that while the expenditure of buyers that were new to Christie's and spent over £1 million ($1.3 million) in 2017 increased by 40%, Asian buyers in this segment increased expenditure by 63%, underlining the critical force of Asian buying both regionally and globally.

Private sales were down 35% to $612 million, accounting for 9% of Christie's total sales (versus 17% in 2016). The company reported that new buyers represented about 31% of their total buyers in 2017, and although fine art still heavily dominates values, the top categories for attracting new buyers were decorative arts as well as luxury auctions (of jewelry, watches, collectible handbags, wine and other items).

Sotheby's total sales reached $5.5 billion in 2017. Sales at public auctions reached $4.6 billion, up 8% year-on-year, and private sales were $745 million, up by 28% from 2016, and representing a larger share of sales than Christie's at 14% of their total. Private sales at Sotheby's have fluctuated over the last five years, from a high of 21% in 2013 to a low of 9% in 2014.

China's Poly Auction was the third largest auction company with public auction sales (including sales in Beijing, Hong Kong and Shanghai) of $1.6 billion, up 23% in dollar terms from 2016.[22] The majority of their sales by value (64%) were in their Beijing headquarters, and this included the aforementioned record sale by Qi Baishi for $141 million in December.

China Guardian was the fourth largest auction house worldwide in 2017 with sales of just under $1.1 billion (including sales in Beijing and Hong Kong). This represented an increase of 39% year-on-year in dollar terms, and was also driven by strong sales of some very highly priced lots selling for in excess of $10 million. While the bulk of their sales by value were in Beijing, sales in Hong reached $125 million in 2017, which is the highest annual total since they were launched there in 2013.

The next largest house worldwide was Heritage Auctions, with sales of $815 million, down 4% year-on-year. Heritage's structure of sales is very different from Christie's and Sotheby's, focusing largely on the antiques and collectibles categories, with a strong emphasis on online sales. The latter, for example, accounted for 54% of their turnover by value; the remaining 46% was made up of private sales, with a smaller share of offline, traditional auctions.

Phillips also achieved strong results in 2017, with total sales of $709 million, an advance of 25% year-on-year.

22 Sales data is from AMMA, the Art Market Monitor of Artron. Data is reported to Arts Economics in January each year and pertains to all data available and reported to AMMA by December 31st of the previous year.

These were made up of auction sales (88% of total sales, or $625 million) and private sales, which increased 23% year-on-year to just under $84 million, 12% of their total sales. Much of their advance in sales came from 20th Century and Contemporary art, where total values grew by 23%. The company has also deepened its presence in Asia, with sales in Hong Kong rising 13% year-on-year. Phillips continued to grow its client base in Asia, with 43% of buyers in its November Hong Kong auctions new to the company. Since 2015, the number of Asian buyers in Phillips' auctions around the world increased by 133%.

While the top-tier houses engage in private sales to varying extents, for the smaller and second-tier houses, the level of private sales is generally lower or non-existent. The survey of second-tier auction houses in 2017 noted that on average private sales accounted for 4% of sales, however, many lower tier houses do not rely on these sales at all, or only on a very ad hoc basis. The second-tier houses reported that on average 82% of their sales were made at public auction and the remaining 14% were online.

3.2 | The Global Distribution of Auction Sales

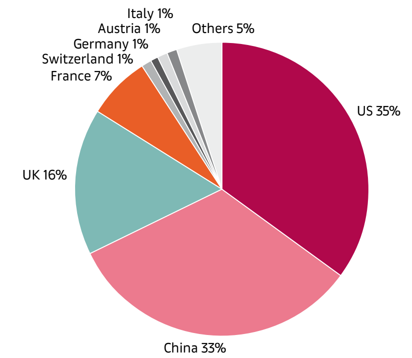
The three largest auction markets of the US, China and the UK accounted for a joint share of 84% of sales by value in 2017 (stable from 2016). In 2016, after a fall in the value of US auction sales, the Chinese auction market was the largest worldwide, accounting for 34% of total sales (versus 32% in the US). However, in 2017, strong growth in the US market meant that it once again dominated auctions with 35% of total sales, while Chinese share fell back to 33%.

The UK's share fell by two percentage points to 16%. There was a considerably larger margin between the UK and China in the auction sector versus global sales as a whole, due to the importance of dealer sales in the UK market. In China, on the other hand, the auction sector remains dominant, accounting for around 70% of the value of total sales. France, the fourth largest market, was stable at 7%, and the share of the EU as a whole fell two percentage points year-on-year to 28%.

Sales in the US auction market increased by 39% in 2017 to $9.9 billion, driven mainly by rising fine art auction values, particularly at the high end. This substantial rise followed two years of declining sales from a peak of $11.4 billion in 2014.

Sales in the Chinese market increased 20% in 2017 to $9.3 billion, after several years of stagnant and declining turnover. While sales in Mainland China dominated by value (with a 57% share), the share of sales in Hong Kong rose by 13% year-on-year to 43%, driven by strong increases at both Western and Chinese auction houses there. Despite this increase in 2017, sales in China are still significantly below their peak in 2011, when they rose to $15 billion at the height of the boom, temporarily pushing China into first place in terms of aggregate global art sales. It is interesting to note that in China, the greatest uplift in sales over 2017 came from the decorative arts segments, with ceramics and other wares increasing by 36% in dollar terms versus a rise of just 3% in the aggregated fine art sectors. Much of the aggregate sales increase in China was also due to greater high value lots being sold in 2017; the number of lots sold for greater than 10 million RMB ($1.5 million) increased by almost 50%, while the values in this segment rose by 47%. The number of the very top lots increased even more, from 18 lots selling for more than 100 million RMB ($15 million) in 2016 to 30 in 2017, with values in this segment increasing by close to 70%. This demonstrates the expanding price ceiling in Chinese auctions, which has traditionally been lower than its counterparts in Western markets.

Figure 3.2 | Auction Market Global Share by Value in 2017



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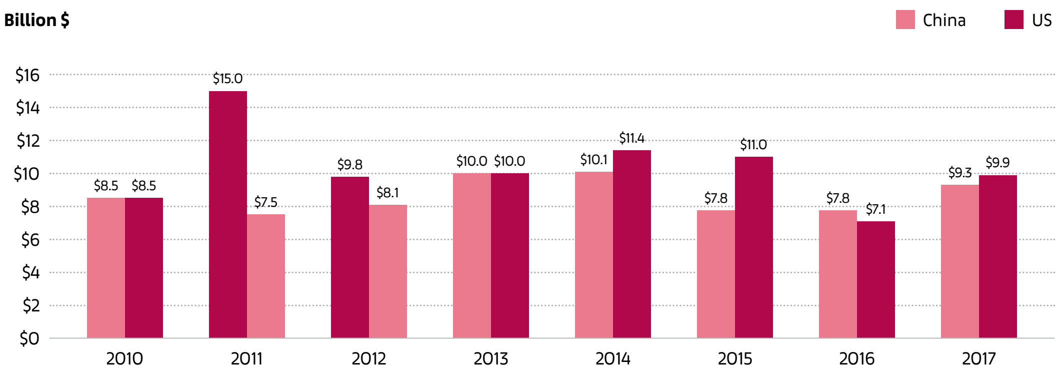
The three largest auction markets of the US, China and the UK accounted for a joint share of 84% of sales by value.

Figure 3.3 | **Sales at Public Auction in the US and China (2010–2017)**

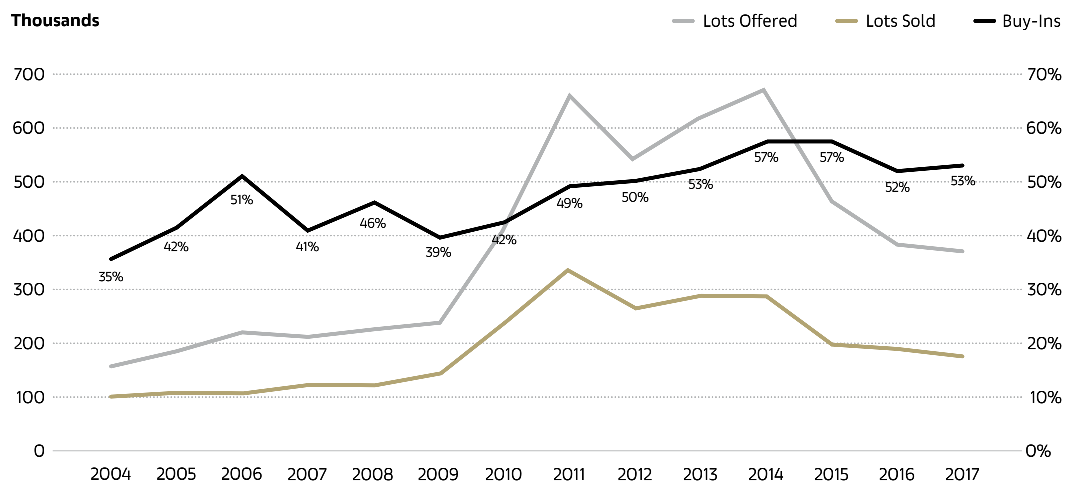


Despite these recent gains, the Chinese market is still dogged by high buy-in rates at auction, with a widening gap between the number of works coming onto the market and those actually being sold since the start of the boom in the market in 2009. Figure 3.4 shows the volume of works sold versus offered in the market since 2004. The volume of works sold dropped 6% year-on-year, indicating the rising values were driven by higher prices. However, the number of lots offered fell only 3%, meaning that, after a significant improvement in 2016, buy-ins edged up again to 53%. Although buy-ins are slightly lower for fine art auction sales (at 46%), they are substantially above other markets, such as 19% in the US and 28% in the UK for fine art auction sales in 2017.[23]

The persistently high rates are the product of both supply and demand issues. There continues to be an oversupply of low quality works (alongside a chronic shortage of supply at the top end of the market) and continuing problems with provenance and forgeries.

23 Estimates for China include all auction houses and are supplied by AMMA, whereas those for other countries are from Auction Club and based on fine art auctions only.

Figure 3.4 | **The Volume of Sales in the Chinese Auction Market (2004–2017)**



The Chinese market is still dogged by high buy-in rates at auction. After a significant improvement in 2016, they edged up to 53% in 2017.

China's State Administration of Culture Heritage issued new *Management Measures for Auction of Cultural Relics* at the end of 2016, which significantly relaxed some of the regulations concerning selling cultural relics and simplified the procedures to apply for an auction license in the art market. This has already led to an increase in the number of auction houses, with 13 new houses registered with the Chinese Auctioneers Association (CAA) in the year from June 2016 to June 2017, and will likely see an even greater number of works for sale. On the demand side, the low ratio of sales to works offered is also at least partially driven by insufficient depth in the base of buyers. To the extent that this is the case at present, the market has great potential for future expansion given the strong wealth dynamics in China at the upper and upper-middle end.

Another persistent problem in China is the extent of late payments and non-payment by winning bidders at auction. Despite regulations to try to combat it, the rate of non-payment at auction has increased in the last three years. The CAA published figures based on a sample of auction houses for lots paid by June 2017 (reflecting payments still due to that date from sales from June 2016), which showed that 51% by value of the lots sold were fully paid, with 49% partially paid or not paid. These figures are up from 41% in the previous year (June 2015 to 2016) and a low of 30% in 2013/2014, showing the persistent and worsening nature of this issue.[24]

For lots over 10 million RMB (around $1.5 million), meanwhile, 48% were fully paid (with an additional 12% partially paid) versus 52% fully paid in 2016. Clearing rates also differed by sector with the worst rates in the older sectors of the market such as Old Master paintings (32% fully paid) and ceramics (37%). Modern Chinese paintings improved year-on-year to 61%, while Contemporary Chinese paintings were also higher than average at 71%. The sector in Chinese auctions entitled "oil painting and contemporary art" had the highest rate of 82% fully paid.

The issue remains problematic for the market and especially for smaller businesses in the auction sector, causing cash-flow problems. There are several reasons for high rates of late payment in the market, including continuing issues related to questions of authenticity or provenance, which may explain higher rates in the older sectors. While this problem occurs with varying frequency at auction houses around the world, there is also a different culture of negotiating and transacting in China which has allowed it to develop. This issue is dealt with in different ways by individual auction houses, with those able to absorb the risks allowing it to persist, and it continues to pose a threat to the depth of development of the auction house sector overall.

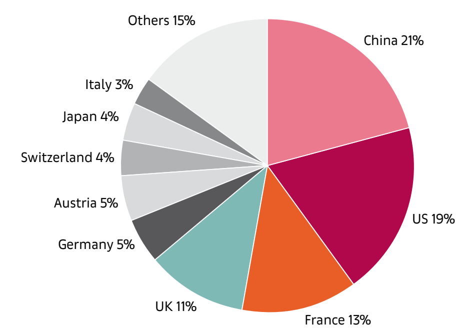
24 The CAA does not publish what share of these lots are eventually paid, but to the extent that at least some are not causes obvious measurement issues in the Chinese art market that warrant further research.

Volume of Fine Art Auction Sales

Interpreting trends in the volume of auction sales in the global fine and decorative art market is more difficult than the value of sales, with many auction houses selling large volumes of decorative art and collectibles that can vary widely over time, between regions and sales. To compare the lots sold between countries on a consistent basis, fine art auctions offer a better benchmark for comparison.

Despite the rising values in the market, the number of fine art auction transactions declined slightly by 3%. China had the largest share of fine art auction sales with 21% of transactions (up 2% year-on-year) while the US accounted for 19% of lots sold, down 3%. France maintained a stable 13% share, remaining slightly higher than the UK at 11%. While some smaller markets increased sales volumes, most of the major art markets, bar China, saw a decline, ranging from 5% in France to close to 17% in the US, showing once again that higher prices drove the advances in value in these markets rather than just more sales taking place.

Figure 3.5 | Fine Art Auction Market Global Share by Volume in 2017



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Despite rising values in the market, the number of fine art transactions declined slightly by 3%.

3.3 | Price Segmentation

The fine art auction market has been one of the strongest growing and most volatile sectors of the art market.[25] Because it is where most of the highest priced works are sold at auction, fine art has been particularly instrumental in shaping some of the biggest trends in the market over the last ten years. Anecdotally, both dealers and auction houses have reported that since the global financial crisis and the contraction of the art market in 2008, while the high end of the market has recovered well, the middle market has come under increasing pressure.

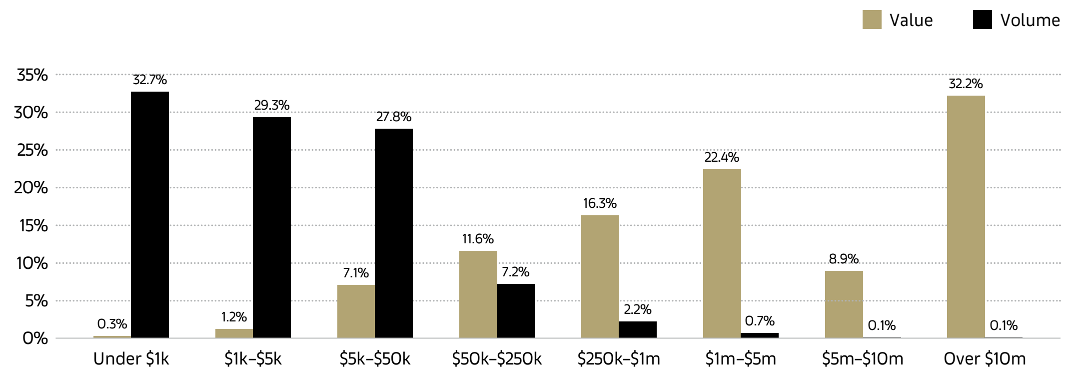
The fine art auction market is highly skewed towards the high end, with a small number of lots accounting for a large proportion of the value of the market. The addition or subtraction of the highest priced lots can have a significant impact on total sales, despite the fact that these trends are unrelated to most auction businesses, which transact on a day to day basis at predominantly lower prices.

Figure 3.6 sets out the value and volume of aggregate fine art auction sales by price segment in 2017, showing the highly skewed distribution of prices and the dominance of high-end sales by value. In 2017, 90% of the works sold at auction were for less than $50,000, yet these accounted for just 9% of the market's value, an even smaller share than in 2016 (at 13%). 62% of lots sold were for less than $5,000 (against 72% in 2016), constituting only a tiny fraction of the market's total sales (at just over 1% by value).

While in 2016, the high end of the market (works sold for more than $1 million) accounted for just less than half (48%) of the market's value, this rose to 64% in 2017, its highest level in three years, despite only accounting for 1% of the transactions that took place. The number of lots sold at auction for over $1 million grew by 76% year-on-year and values in the segment increased by 50%, showing the importance of this segment for the uplift in aggregate values in 2017.

While the top end of the auction market cooled temporarily in 2016, with the largest single segment by value being works selling between $1 million and $5 million, in 2017 values shifted noticeably back to the highest end again, with the largest segment by value being works sold for over $10 million, which accounted for 32% of sales.

Figure 3.6 | Share of Lots Sold and Total Value at Global Fine Art Auctions in 2017 by Price Bracket



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Works sold for more than $1 million accounted for 64% by value in 2017, the highest level in three years, despite only accounting for 1% of transactions.

25 For the purposes of this analysis, fine art includes paintings, sculptures and works on paper (including watercolors, prints, drawings and photographs), while decorative art includes furniture and decorations (in glass, wood, stone, ceramic, metal or other material), couture, jewelry, ephemera, textiles and other antiques.

Table 3.1 | Annual Growth, Total Growth and Share of Sales by Value

	Low end			Middle market		High end		
Price Bracket	**Under $1k**	**$1k–$5k**	**$5k–$50k**	**$50k–$250k**	**$250k–$1m**	**$1m–$5m**	**$5m–$10m**	**Over $10m**
Share in 2007	0.1%	1.8%	11.9%	17.6%	20.4%	23.4%	8.7%	16.1%
Share in 2017	0.3%	1.2%	7.0%	11.3%	15.9%	21.8%	8.9%	33.6%
Change in Value 2007–2017	**116.0%**	**–19.3%**	**–30.2%**	**–23.8%**	**–7.4%**	**10.8%**	**22.5%**	**147.9%**
CAGR 2007–2017	8.0%	–2.1%	–3.5%	–2.7%	–0.8%	1.0%	2.0%	9.5%
Change in Value 2009–2017	**47.7%**	**–30.6%**	**–19.3%**	**12.6%**	**53.2%**	**143.2%**	**176.3%**	**595.2%**
CAGR 2009–2017	5.0%	–4.5%	–2.6%	1.5%	5.5%	11.8%	13.5%	27.4%
Change in Value 2016/2017	**–34.7%**	**–27.2%**	**–17.5%**	**–6.2%**	**2.7%**	**11.1%**	**15.6%**	**125.1%**

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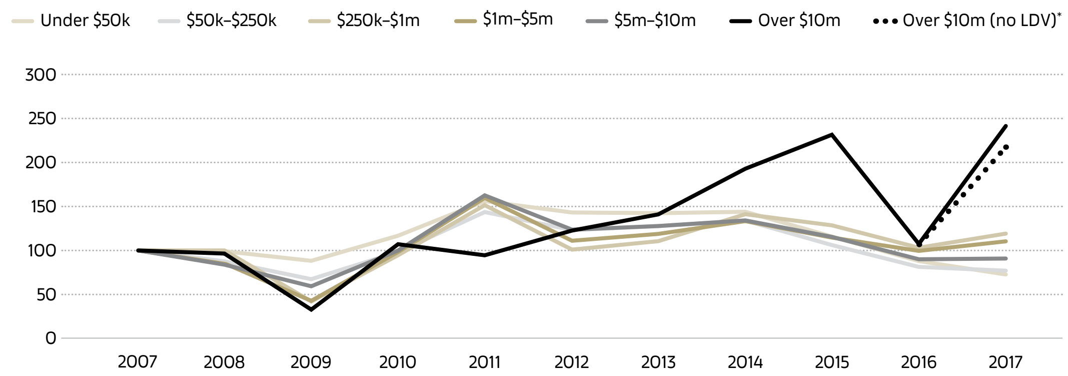
In order to analyze the performance of the different segments of the market, the following broad definitions are therefore used to divide up the market:

1. The low end: prices up to $50,000.
2. The middle market: a range of price segments falling between $50,000 and $1 million.
3. The high end: prices in excess of $1 million, including the "ultra-high end," with prices in excess of $10 million.

An analysis of the growth of sales values within different price segments over the last ten years shows that the high end of the auction market has grown at a much faster rate than the lower or middle segments. In the ten-year period from 2007 to 2017, besides the very lowest end of the market (works sold for less than $1,000), all segments up to $1 million have shown negative annual growth rates and declined in value. In contrast, the market over $1 million has grown, with the biggest increases at the highest end, with the total value of works sold for over $10 million increasing by 148%. The share

Figure 3.7 | Growth of Sales by Value in Price Segments (Index with 2007 Base= 100)



© Arts Economics (2018) with data from Auction Club and other sources *LDV is Leonardo Da Vinci lot sold for $450 million

of value in this segment has also increased from 16% in 2007 to 34% in 2017. Works sold for over $1 million accounted for 64% of the value of the market versus just less than half in 2007, while the middle market has lost 10% share (and the low end has lost 3%).[26] It is worth noting that even without the Leonardo da Vinci lot for $450 million, which could be considered an outlier variable, sales at the ultra-high end still grew just over 100% year-on-year and 123% over ten years. The share of this segment would still account for 31% of the market even without this very high value lot.

Figure 3.7 shows an index of the growth in sales values in the fine art market in the different price segments over the last ten years using 2007 as the base year. In this period, it is clear that the high end of the market has grown at a much faster and more volatile rate than the other segments. The ultra-high end (works sold for over $10 million) showed positive and rapid growth from 2009 through 2015. However, this trend reversed in 2016, with both the value and volume of sales at the high end of the market falling. Against a backdrop of economic uncertainty, there was a tightening of

26 It is worth noting that 2007 was the height of a boom in the art market where the high end had a relatively high share, and when compared to other years the changes are even more dramatic. For example, in 2005 the high end accounted for just 33% of the market, and the ultra-high end just 7%, while the middle was a much larger 45% (versus its 38% in 2017).

Table 3.2 | Annual Growth, Total Growth and Share of Sales by Volume

	Low end			Middle market		High end		
Price Segment	**Under $1k**	**$1k–$5k**	**$5k–$50k**	**$50k–$250k**	**$250k–$1m**	**$1m–$5m**	**$5m–$10m**	**Over $10m**
Share in 2007	17%	35%	37%	8%	2%	1%	0.1%	0.04%
Share in 2017	32%	29%	28%	7%	2%	1%	0.1%	0.1%
Change in Volume 2007–2017	**182%**	**21%**	**10%**	**25%**	**51%**	**72%**	**98%**	**204%**
CAGR 2007–2017	11%	2%	1%	2%	4%	6%	7%	12%
Change in Volume 2009–2017	**361%**	**0%**	**19%**	**77%**	**145%**	**263%**	**333%**	**706%**
CAGR 2009–2017	14%	2%	1%	3%	5%	7%	9%	15%
Change in Volume 2016/2017	**–27%**	**1%**	**27%**	**55%**	**66%**	**71%**	**83%**	**226%**

1% of artists with works selling at auction (just over 520 artists) accounted for the majority of sales (64%).

supply of the highest end consignments by vendors, who saw it as a poor or risky time to sell, despite persistent demand. The largest declines in 2016 were therefore experienced at the highest price levels. This was reversed in 2017 when the ultra-high end pulled away again. From the bottom of the market in 2009 to 2017, aggregate values in this segment of the market have grown by 595%, showing the significantly better performance of this segment of the market in the recovery from this contraction in sales.

In terms of the volume of sales, most segments saw an increase in lots during 2017, but the ultra-high end was the most dramatic at 226%. In terms of the share of the volume of sales, there has been very little change over ten years, with the high end consistently accounting for around 1% of the number of lots sold, while the low end makes up the bulk of transactions (at around 90% in both periods).

In 2017, while the buyers of the highest priced lots were of globally diverse origins, the transactions themselves for the most part continued to take place in the most established art market hubs, particularly the US, UK and China. The geographical market share of fine art auction sales fluctuates considerably with price level; the top three markets made up the majority of sales in all price segments in 2017, but their share increases with increasing prices, particularly in the case of the US, where most of the largest auctions take place.

In the market for works priced below $50,000, the US, China and UK accounted for 60% of sales values and 48% by volume. In the middle market (works priced between $50,000 and $1 million) their share increased to 80% (and 77% by volume), with China taking a dominant share of 34%, as it had in 2016. In the market over $1 million they accounted for 95% of the value of sales, with the US having the largest share at 46%, up 5% year-on-year. The dominance of the US is even more apparent in the ultra-high end of the market of works priced in excess of $10 million, where it accounts for a 52% share by value.

Artists and Price Segmentation

Values in the market are also centered on a narrow group of artists at auction, with the majority of value accounted for by a very small share of those artists whose works sell each year. In 2017, there were around 52,105 artists identified with sales in the fine art auction market globally, however, most of the sales of their works were at prices of less than $50,000, with the highest share in the segment under $1,000. Only 9% had works for sale above $50,000, just 1% with sales over $1 million, and a tiny share of just 0.2% with sales exceeding $10 million. In other words, 1% of artists with works selling at auction (just over 520 artists) accounted for the majority of sales (64%).

Figure 3.8 | **Market Share of the Fine Art Auction Market by Price Segment in 2017**

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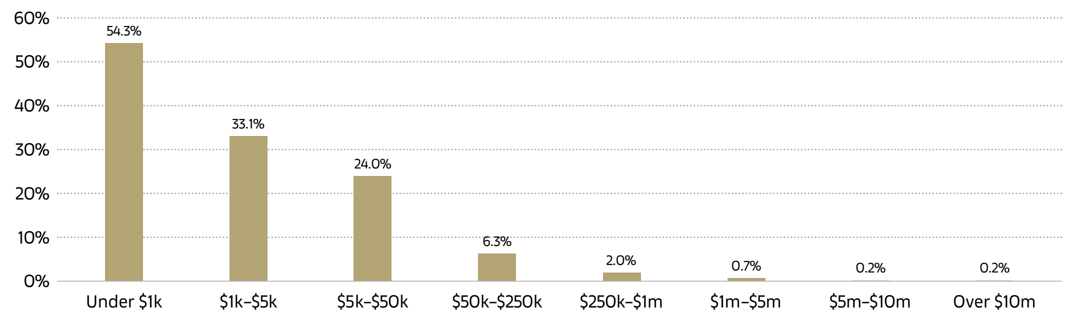
Figure 3.9 | **Share of Number of Artists by Price Segment in 2017**



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The above analysis confirms the top-heavy nature of the auction market where the ultra-high end dominates values despite the fact that most of the transactions and the majority of artists whose works feature at auction is at the lower end. It also shows increasing polarization towards the highest end over time, with the high end exhibiting faster than average growth. Even at the top of the market, for example, values a decade ago in 2007 were considerably less skewed than they were in 2017, and the middle market had a larger share. This very thin market at the high end, consisting of a very small number of artists and sales, has a disproportionately large influence on aggregate figures. The presence (or absence) of a relatively small number of lots can greatly influence trends in aggregate sales, without these filtering down into most businesses in the art trade. An increase in industry-wide sales can therefore belie the performance of many businesses in the broader market, as was the case in 2017, where many middle- and lower-end businesses continued to struggle despite the uplift in total sales.

3.4 | Fine Art Sectors

While certain price segments of the market have had a more significant effect on trends in the art market, so too have certain sectors. An important feature of the art market is that it is the aggregation of many unique and independent sectors, defined by artists and periods, many of which exhibit very different performance from year to year in terms of sales and prices.

Fine art sales have been the most instrumental in driving trends in recent years. Within fine art, the Modern and Contemporary sectors have been the most dominant and the largest by value, as well as being where most of the higher priced works of art have been sold at auction and in the dealer sector. While the boom in the 1980s auction market was driven by sales of Impressionist works, since the 1990s, Modern and Contemporary art have accounted for the largest values and biggest growth.

To consistently analyze sales performance, it is necessary to define the sectors based on specific criteria, which include an artist's date of birth, the date of creation of their works, and also the importance of artists to a particular movement.

Within the art trade, there are many different definitions of the various sectors but for the purposes of this analysis, the following definitions are used[27]:

a. Post War and Contemporary, defined as artists born after 1910.

b. Living artists, defined as artists alive in 2017, which are analyzed as a sub-set of the Post War and Contemporary sector.

c. Modern, defined as artists born between 1875 and 1910.

d. Impressionist and Post Impressionist, which are defined as artists born between 1821 and 1874.

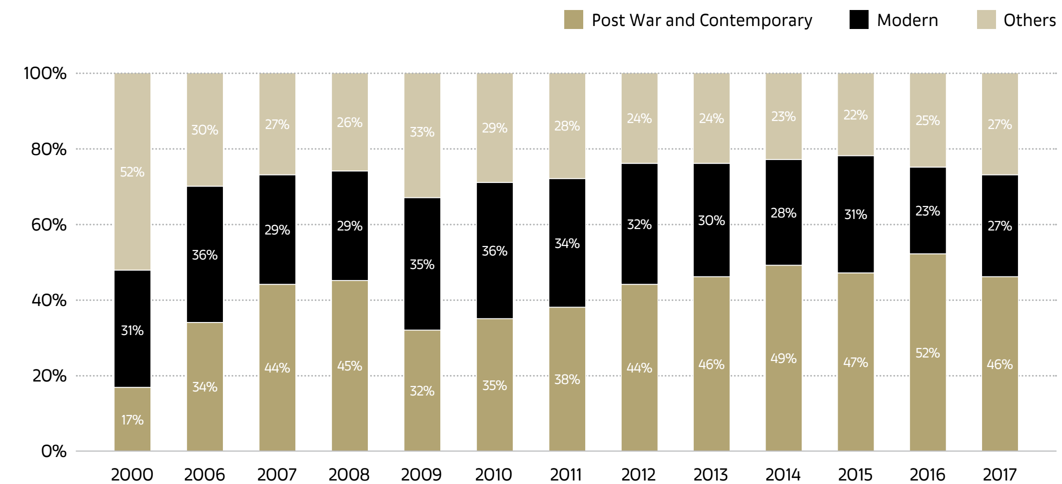
e. Old Masters, defined as artists born between 1250 and 1821.

f. European Old Masters, defined as Old Master artists of European origin, which are analyzed separately as a sub-set of the Old Master sector.

To ensure the most comprehensive and consistent analysis of the art market sectors, one central art price database, Auction Club, is used, with data for Chinese sales supplemented with data from AMMA. Auction Club's database covers 4,000 auction houses, with consistent auction results gathered annually for around 250 businesses in over 35 countries. The database gathers results from major sales in first- and second-tier auction houses around the world, and does not restrict inclusion by final price or estimate value, hence offering coverage of the full range of prices and sales.

27 Most artists' categorization is based on date of birth, but there are a small number of artists who are included in different sectors because of their relevance to a particular movement, for example Francis Bacon (born 1909) and Mark Rothko (born 1903) are both included in the Post War and Contemporary sector despite the cut-off date of 1910.

Figure 3.10 | Market Share by Value of the Fine Art Auction Market: 2000–2017



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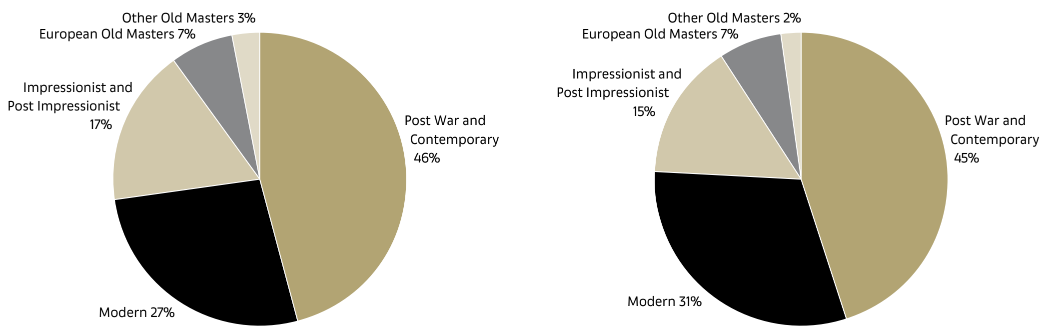
The data by sector is based on a sample of global auction houses, and data is only included where full artist attributions can be assigned to the sale. This allows for consistent estimates over time of the key trends in the sector, but the values and volumes do not represent the entire amount of sales at auction in these sectors. It is estimated that the auction houses included represent at least 80% of the value of the market in most sectors.

Figure 3.10 shows the growth in the share of value of the Modern and Contemporary art sectors, versus the other sectors of the fine art market.[28] In 2000, these two accounted for less than half of the overall value of the fine art market, with a combined share

28 The shares in this table and throughout the chapter indicate the share of these sectors out of the four main sectors of the art market: Post War and Contemporary, Modern, Impressionist and Post Impressionist, and Old Masters, including European Old Masters. It excludes the small amount of transactions that cannot be classified within these distinct sectors.

Figure 3.11 | Market Share by Sector of the Fine Art Auction Market in 2017

a. By Value of Sales **b. By Volume of Sales**



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Since 2007, the combined share of Modern and Contemporary in most years has been more than 70%, reaching 73% in 2017.

of 48%. The Modern sector was the larger of the two with 31%, and both sectors advanced significantly in the years that followed, driving the boom in the market up to 2007. Since that point, in most years, the combined share of these two sectors has been more than 70%, reaching 73% in 2017. Since 2007, with the exception of 2009 and 2010 in the immediate aftermath of the recession, Post War and Contemporary art has been the larger of the two by value. The share of the Post War and Contemporary market peaked in 2016 at 52% but dropped six percentage points year-on-year to 46% in 2017. The Modern sector had dropped to its lowest ever share, 23%, in 2016 but gained four percentage points over the past year (reaching 27% in 2017).

Post War and Contemporary art was also the largest sector in terms of the number of lots sold at auction in 2017, with a share of 45% (up 8% on 2016), while the Modern sector increased its share to 31%.

Despite being home to two of the record-breaking lots achieved in the auction market in 2017, the Old Masters sector still accounted for a relatively small share of 10% of total sales values and 9% of lots sold (down from 16% in 2016). Within the Old Masters sector, European Old Masters increased in share slightly to 7%. This was heavily influenced by the Leonardo da Vinci lot, and without this sale the share of this sector would have been only 4%. The Impressionist and Post Impressionist sector gained in share of value (from 5% to 17%), but fell in terms of the volume of sales by 3%.

The share of the Post War and Contemporary market peaked in 2016 at 52% but dropped 6% year-on-year to 46% in 2017.

3.5 | Post War and Contemporary Art

Post War and Contemporary art was the largest sector of the fine art auction market in 2017, accounting for 46% of its value and 45% of the lots sold. Sales reached a total of $6.2 billion in 2017, increasing 12% year-on-year.

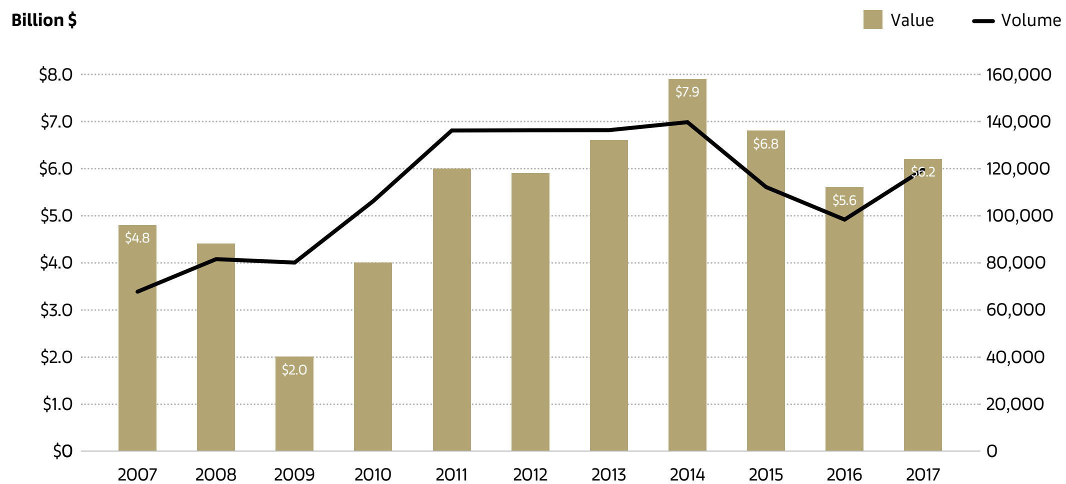
The Post War and Contemporary sector has had the most dramatic and volatile growth of all sectors over the last ten years. Sales boomed up to 2007, with auction values rising by more than 450% from 2003. Its rapid growth and relative liquidity compared to other sectors drew interest from more speculative buyers, which contributed to it being one of the hardest hit during the financial crisis with sales contracting by 58% in value in the two years to 2009, as prices and the supply of high quality works on the market fell.

It similarly led the recovery with values bouncing back quickly in 2010, and subsequently rising in nearly every year to the peak in the market in 2014 at $7.9 billion. From this high, sales fell for two years, with the sector losing nearly 30% of both its value and volume of sales by 2016. Sales in most of the major art markets grew in 2017, with the exception of China. While sales in the Post War and Contemporary art sector have increased in value by close to 140% since its low point in 2009, it is still 6% lower than its level ten years ago in 2007.

The US remained the largest center worldwide for sales of Post War and Contemporary art in 2017, with an increase in market share of six percentage points to 42%. Its share of the volume of sales dropped by three percentage points to 18% and into second place. After five years of rapid growth from 2010 to 2014, sales in the US fell between 2014 and 2016, bringing the market to $2.0 billion. However, 2017 marked a return to growth, with values increasing 29% to $2.6 billion. Sales in this sector in the US have increased by 12% in the ten years from 2007, and have more than tripled since the bottom of the market in 2009 when they fell to $704 million.

China maintained its position in second place, but dropped back five percentage points in global share by value to 27%. China had the highest volume of transactions in the sector in 2017, accounting for 23% of the total. Following a strong year of sales in 2016, the Chinese market declined by 6% year-on-year to reach $1.7 billion. Sales in the sector were still less than the peak in the market in 2011, when China was temporarily the largest market for Post War and Contemporary art globally (at $2.2 billion), however, the market has seen the largest advance in the value of sales over ten years of all the major markets, growing to over four times its size, and averaging annual growth rates over the period of 33%.

Figure 3.12 | The Post War and Contemporary Art Sector: 2007–2017



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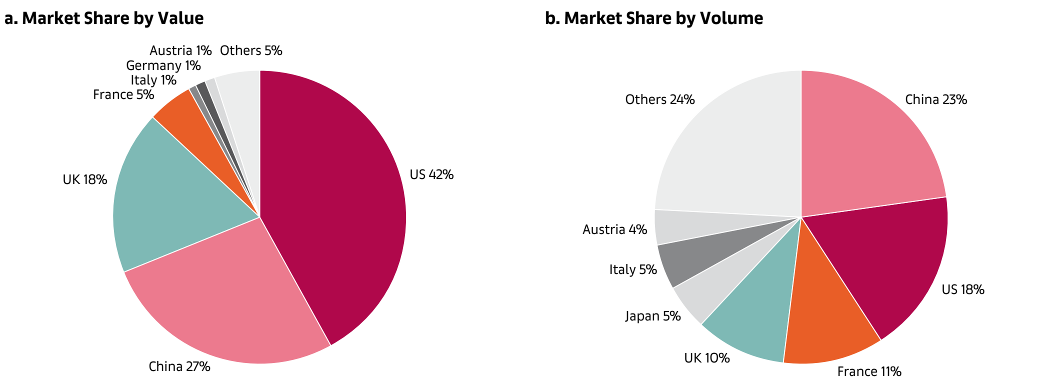
Sales of Post War and Contemporary art reached $6.2 billion in 2017, increasing 12% year-on-year.

Figure 3.13 | **Market Share of the Post War and Contemporary Sector in 2017**



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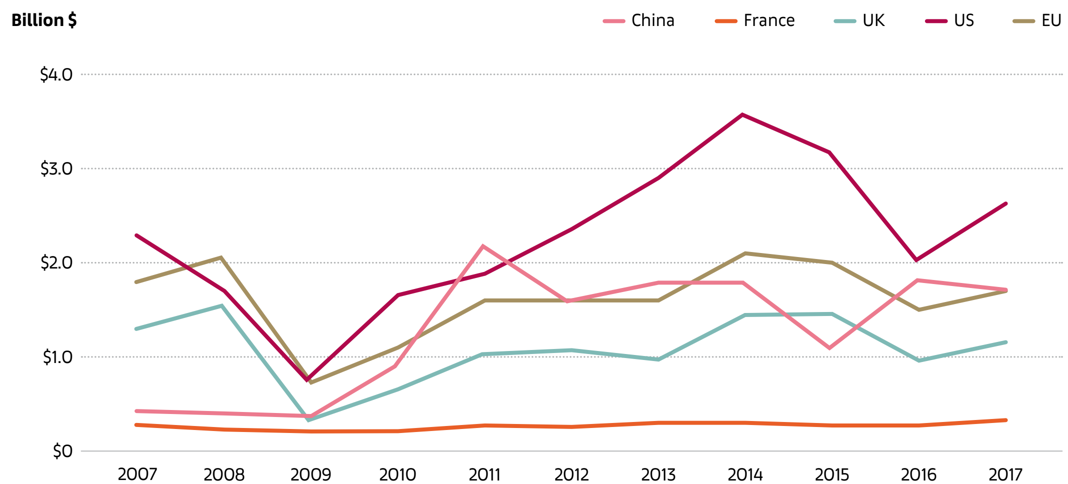
The UK maintained a stable global share, with 18% and third place. Sales increased 16% year-on-year and reached $1.1 billion, but still remained nearly 20% below the peak in the market in 2015 (at $1.4 billion). Although the market has improved significantly since its low point in 2009 (when they reached $325 million), sales have fallen in value (by 11%) over ten years.

Elsewhere in the EU, France maintained a 5% global share by value with a strong year of sales, advancing 23% to $319 million, while sales in the EU as a whole also rose 11% to just under $1.7 billion. The EU has now restored values by over 130% since 2009, but the advance has been half that of the US (at 260%). The EU accounted for 27% of the value of sales in the sector, stable year-on-year, and down 19% since its peak in 2008 when it reached 46%. It accounted for a larger share of the number of transactions globally at 40%.

The Post War and Contemporary sector has become the most associated with multi-million dollar prices at auction. Along with Modern art, many of

Figure 3.14 | **Sales in the Post War and Contemporary Sector 2007–2017: Key Markets**



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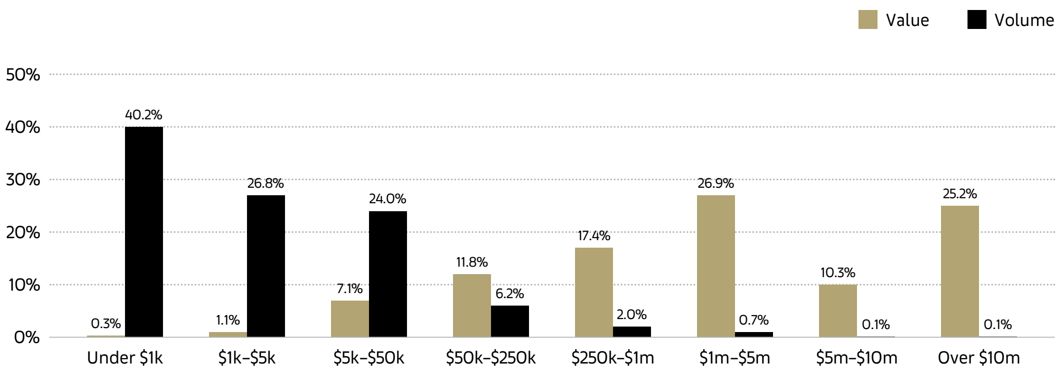
The EU accounted for 27% of the value of sales in the Post War and Contemporary sector, down 19% since its peak in 2008.

Figure 3.15 | Sales by Price Bracket in the Post War and Contemporary Sector in 2017[29]



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Works priced at over $1 million accounted for the majority (62%) of value in the Post War and Contemporary sector in 2017 in less than 1% of lots sold.

29 Note that percentages here and throughout the chapter are rounded to the nearest whole number (unless shown with more than one decimal place). Totals therefore may not exactly sum to 100%.

the highest priced works sold at auction in the last five years have been in this sector. However, as in previous years, the bulk of transactions are at much lower levels.

In 2017, 91% of works that were sold at auction in this sector were priced below $50,000, despite accounting for just 8% of total sales values. The majority (67%) of works sold were at prices of less than $5,000, which only accounted for 1% of total value, showing the highly skewed nature of sales.

Works priced at over $1 million accounted for the majority (62%) of value in 2017 in less than 1% of lots sold, increasing the share of values in this segment by 6% year-on-year. The share of value in the highest segment of works sold in excess of $10 million also increased by 8% year-on-year to 25%.

The highest selling artist at auction in 2017 was Jean-Michel Basquiat, whose sales totaled $387 million and included the top lot sold in the sector during the year, with *Untitled, 1982* selling for $110 million, a record for the artist. The top 20 artists were heavily US-biased, although two Chinese artists, Cui Ruzhuo and Zao Wou-Ki, appeared, accounting for a combined 4% share. The top 20 artists in this sector accounted for 33% of the value of total sales (up from 31% in 2016), despite only accounting for a small share of the lots sold.

Table 3.3 | Top 20 Selling Post War and Contemporary Artists in 2017

Rank	Artist	Share of Value	Nationality
1	Jean-Michel Basquiat	5.4%	American
2	Andy Warhol	4.4%	American
3	Cy Twombly	2.7%	American
4	Zao Wou-Ki	1.9%	Chinese/French
5	Roy Lichtenstein	1.9%	American
6	Francis Bacon	1.8%	British
7	Gerhard Richter	1.7%	German
8	Cui Ruzhuo	1.7%	Chinese
9	Peter Doig	1.6%	Scottish
10	Jean Dubuffet	1.3%	French
11	Alexander Calder	1.2%	American
12	Lucio Fontana	1.1%	Argentine/Italian
13	Mark Rothko	1.1%	American
14	Yayoi Kusama	1.1%	Japanese
15	Rudolf Stingel	0.8%	Italian
16	Christopher Wool	0.7%	American
17	David Hockney	0.7%	British
18	Mark Grotjahn	0.6%	American
19	Louise Bourgeois	0.6%	American/French
20	Ed Ruscha	0.5%	American
Others		67.3%	

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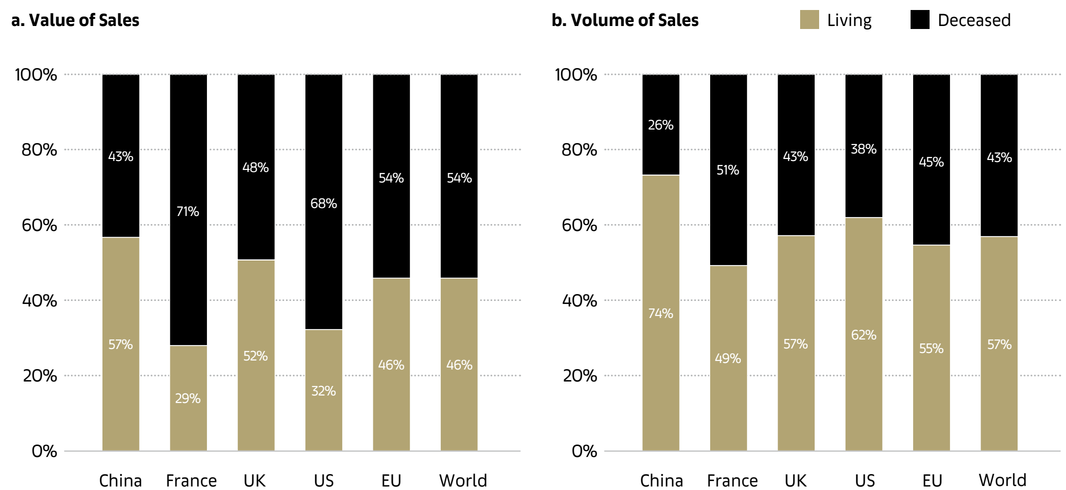
Table 3.4 | **Top Prices in the Post War and Contemporary Sector in 2017**

Artist	Title	Price ($m)	Auction House	Sale Region
Jean-Michel Basquiat	Untitled 1982	$110.5	Sotheby's	US
Andy Warhol	Sixty Last Suppers	$63.3	Christie's	US
Cy Twombly	Leda and the Swan	$52.9	Christie's	US
Francis Bacon	Three Studies for a Portrait of George Dyer	$51.8	Christie's	US
Cy Twombly	Untitled 2005	$46.4	Christie's	US
Francis Bacon	Three Studies of George Dyer	$38.6	Sotheby's	US
Cui Ruzhuo	Twelve Screens of Finger Ink Landscape	$35.7	Poly China	China
Jean-Michel Basquiat	La Hara	$35.0	Christie's	US
Andy Warhol	Mao	$32.4	Sotheby's	US
Mark Rothko	Saffron	$32.4	Christie's	US
Peter Doig	Rosedale	$28.8	Phillips	US
Roy Lichtenstein	Red and White Brushstrokes	$28.2	Christie's	US
Andy Warhol	Big Campbell's Soup Can with Can Opener	$27.5	Christie's	US
Cy Twombly	Sunset	$27.3	Christie's	US
Zao Wou-Ki	29.01.64	$25.9	Christie's	China
Roy Lichtenstein	Female Head	$24.5	Sotheby's	US
Roy Lichtenstein	Nude Sunbathing	$24.0	Sotheby's	US
Chen Yifei	Warm Spring in the Jade Pavilion	$22.1	China Guardian	China
Jean-Michel Basquiat	Red Skull	$21.7	Christie's	UK
Gerhard Richter	Eisberg	$21.5	Sotheby's	UK
Peter Doig	Red House	$21.1	Phillips	US

Figure 3.16 | **Share of Sales by Living Versus Deceased Post War and Contemporary Artists in 2017**

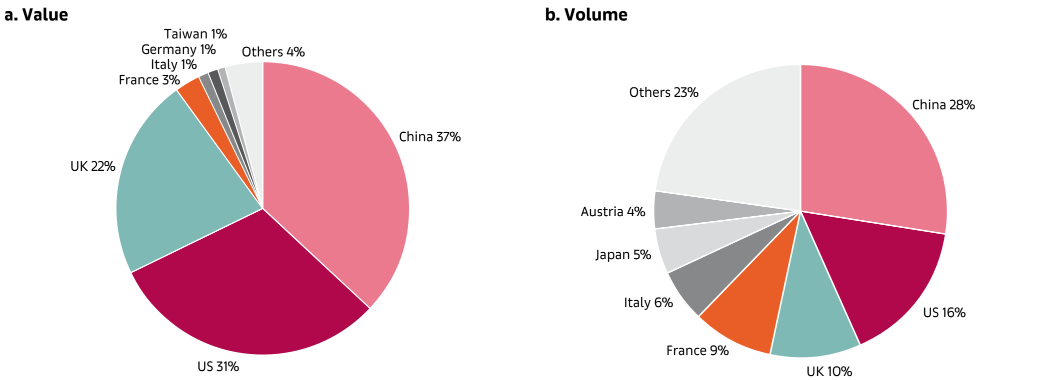


Living Artists

The Post War and Contemporary sector covers a wide range of artists, both living artists at various stages of their careers and deceased artists. Although there have been some rare examples of primary market sales at auction, most sales of works by living artists are resales of their works.

The market for the work of living artists has generally been a minority segment of the Post War and Contemporary market by value, but this is not the case in all regions or all years. In 2017, this section of the market accounted for 46% of the value of total Post War and Contemporary sales, up 5% in share year-on-year, and a majority of the number of transactions (at 76%, versus 50% in 2016).

Figure 3.17 | Share of Global Sales of Works by Living Artists in 2017



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In the US, the share of living artists' works was a minority accounting for 32% by value of the Post War and Contemporary sector (at $840 million), with the sales there dominated by highly priced works by deceased artists such as Jean-Michel Basquiat, Cy Twombly, Andy Warhol and others. However, in both the UK and China, both the volume and the value of sales of works by living artists was greater than deceased artists in 2017. 57% of the value of the Post War and Contemporary market in China was from sales of works by living artists (at close to $1.1 billion), and some of these did include primary sales by artists who interact with the auction market to a much greater extent directly than in the US or Europe.

The global market for the work of living artists at auction reached $2.6 billion in 2017, with values up 19% year-on-year, a more substantial rise than the wider Post War and Contemporary sector. This was one of the few sectors of the market in 2017 where the US market did not take the lead, with China the largest market with shares of 37% by value and 28% by volume. Sales in China reached $980 million, an increase of 32% year-on-year.

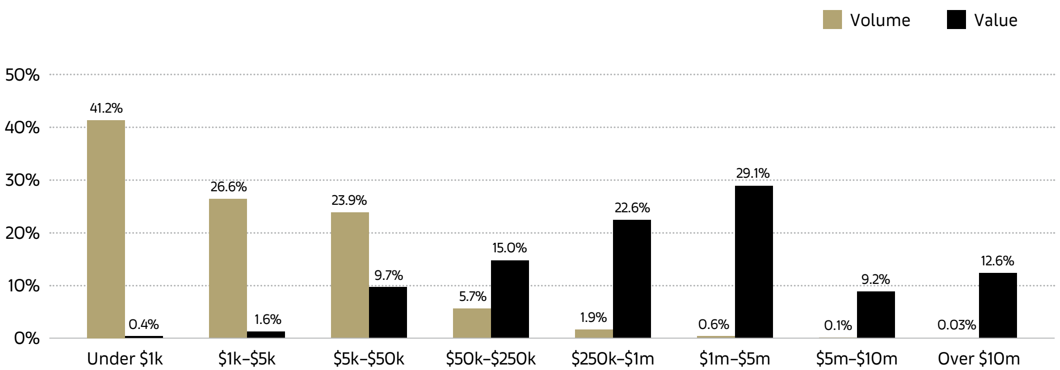
The global share of the US market by value dropped six percentage points to 31%, and sales were relatively stable year-on-year at around $840 million. The UK gained global share, rising three percentage points to 22% by value as sales rose 36% to $589 million. Along with increases in France and Germany, this rise boosted the aggregate value of EU sales to $773 million, an advance of 28%, bringing its global share to 29% by value (and 38% by volume).

While there are a number of living artists whose works regularly make in excess of $10 million at auction, including Cui Ruzhuo, Gerhard Richter and Yayoi Kusama, most sales are at the lower end of the market at prices less than $50,000. In 2017, 92% of auction transactions were below $50,000, although these accounted for just 12% of the value of the sector. While this sector is skewed towards the high end, it is somewhat less so than the wider sector of Post War and Contemporary art. In 2017, works priced above $1 million accounted for the majority (51%) of value (versus 62% in the wider sector) in 1% of the lots sold. Within the $1 million-plus segment, sales between $1 million and $5 million had the largest share of value, as they did in 2016, and were the single largest price segment overall.

In the market for Post War and Contemporary art priced at over $1 million, living artists' works made up a 39% share by value in 2017, however, in the market over $10 million this dropped to 24%.

In the UK and China, the value of sales of works by living artists was greater than for deceased Post War and Contemporary artists in 2017.

Figure 3.18 | **Sales of Living Artists by Price Bracket in 2017**



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The market for works by living artists reached $2.6 billion in 2017, up 19% year-on-year, a more substantial rise than the wider Post War and Contemporary sector.

Gerhard Richter was the top selling living artist, as he was in 2016, with $107 million of sales, or 4% by value. Chinese artist Cui Ruzhuo was the second highest, with three of the top lots of the year, and total sales of $104 million. This was a less concentrated market than the Post War and Contemporary sector as a whole, with these 20 artists representing 31% of the value of all works sold by living artists.

The highest priced work by a living artist auctioned in 2017 was Cui Ruzhuo's *Twelve Screens of Finger Ink Landscape*, which sold for $36.5 million at Poly Auction in Beijing. Peter Doig had the second highest lot, *Rosedale*, which sold for $28.8 million at Phillips in New York, the highest price achieved for a living British artist.

Table 3.5 | **Top 20 Selling Living Artists in 2017**

Rank	Artist	Share of Value	Nationality
1	Gerhard Richter	3.9%	German
2	Cui Ruzhuo	3.8%	Chinese
3	Peter Doig	3.7%	Scottish
4	Yayoi Kusama	2.4%	Japanese
5	Rudolf Stingel	1.9%	Italian
6	Christopher Wool	1.5%	American
7	David Hockney	1.5%	British
8	Mark Grotjahn	1.4%	American
9	Ed Ruscha	1.2%	American
10	Yoshitomo Nara	1.1%	Japanese
11	Richard Prince	1.0%	American
12	Damien Hirst	1.0%	British
13	Georg Baselitz	1.0%	German
14	Pierre Soulages	0.8%	French
15	Frank Stella	0.8%	American
16	Anselm Kiefer	0.8%	German
17	Albert Oehlen	0.8%	German
18	Fernando Botero	0.7%	Colombian
19	Jeff Koons	0.7%	American
20	Adrian Ghenie	0.7%	Romanian
Others		69.4%	

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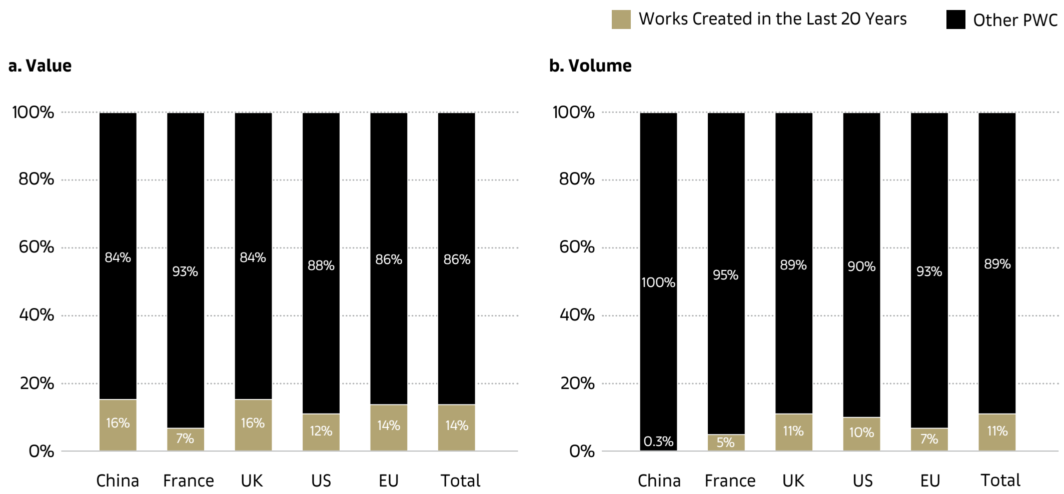
Table 3.6 | Top Prices for Living Artists in 2017

Artist	Title	Price ($m)	Auction House	Sale Region
Cui Ruzhuo	Twelve Screens of Finger Ink Landscape	$35.7	Poly Auction	China
Peter Doig	Rosedale	$28.8	Phillips	US
Cui Ruzhuo	Sounds of Lotus	$22.7	Poly Auction	China
Gerhard Richter	Eisberg	$21.5	Sotheby's	UK
Peter Doig	Red House	$21.1	Phillips	US
Cui Ruzhuo	Sound of Lotus	$20.3	Poly Auction	China
Peter Doig	Camp Forestia	$20.1	Christie's	UK
Cui Ruzhuo	Miles Flat Spreading and Snow Full the Sky	$18.2	Poly Auction	China
Christopher Wool	Untitled	$17.2	Christie's	US
Mark Grotjahn	Untitled (S III Released to France Face 43.14)	$16.8	Christie's	US
Peter Doig	Cobourg 3 + 1 More	$15.5	Christie's	UK
Gerhard Richter	Abstraktes Bild	$15.4	Sotheby's	US
Zeng Fanzhi	Mask Series 1996 No. 6	$13.5	Poly Auction	China
Rudolf Stingel	Untitled (After Sam)	$10.6	Christie's	US
Peter Doig	Almost Gone	$10.4	Christie's	US
Georg Baselitz	Mit Roter Fahne (With Red Flag)	$8.7	Sotheby's	UK
Christopher Wool	Untitled	$8.7	Sotheby's	UK
David Hockney	15 Canvas Studies of the Grand Canyon	$7.9	Sotheby's	US
David Hockney	Building, Pershing Square, Los Angeles	$7.9	Sotheby's	UK
Jeff Koons	New Shelton Wet/Drys 10 Gallon, New Shelton Wet/Drys 5 Gallon Doubledecker	$7.9	Christie's	US

Figure 3.19 | Share of Works Created in the Last 20 Years in Post War and Contemporary Auction Sector in 2017



Sales of Contemporary Works Created in the Last 20 Years

While there has always been crossover between works sold in the auction and dealer sectors of the Contemporary market, it has traditionally been the case that dealers have focused on newer works by more emerging artists, in part as their resale markets take considerable time to develop. It is interesting therefore to take a look at what share these works currently represent in the auction market.

In 2017, works created in the last 20 years (which includes the work of some recently deceased artists) represented 14% of the value of Post War and Contemporary art sales and 11% of the number of transactions. This segment of the Post War and Contemporary market accounted for $852 million in sales, a drop of 4% year-on-year from 2016, mainly due to the fall in sales in China. Much like the wider Post War and Contemporary art sector, the US dominated in 2017 with a 37% share of sales (next to China with 31% and the UK at 22%).

Table 3.7 | Top 20 Artists for Works Created in the Last 20 Years in 2017

Rank	Artist	Share of Value	Nationality
1	Cui Ruzho	17.9%	Chinese
2	Cy Twombly	6.4%	American
3	Mark Grotjahn	4.4%	American
4	Rudolf Stingel	4.1%	Italian
5	Yoshitomo Nara	2.7%	Japanese
6	Yayoi Kusama	2.4%	Japanese
7	Adrian Ghenie	1.8%	Romanian
8	Damien Hirst	1.7%	British
9	Christopher Wool	1.6%	American
10	Cecily Brown	1.6%	British
11	Peter Doig	1.6%	Scottish
12	Richard Prince	1.5%	American
13	Albert Oehlen	1.3%	German
14	George Condo	1.3%	American
15	Jonas Wood	1.1%	American
16	Zao Wou-Ki	1.0%	Chinese
17	David Hockney	1.0%	British
18	Anselm Kiefer	1.0%	German
19	Wolfgang Tillmans	0.9%	German
20	Njideka Akunyili Crosby	0.9%	Nigerian/ American
Others		43.8%	

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It is interesting to note that in this market, despite the newness of the works sold, there is a higher proportion of value (57%) sold for over $1 million versus the segment of living artists. These included eight lots selling for over $10 million in 2017, which accounted for 21% of this segment's total sales values. Although they are relatively small in number, works that do make it to auction in a short period of time can therefore achieve particularly high prices. The biggest selling artist in this segment was Cui Ruzho, with an 18% share, followed by Cy Twombly at 6% (based on works created before his death in 2011). These top 20 artists accounted for a substantial 56% of the auction market in this segment, considerably more concentrated than the wider sector of living artists. The top 30 artists, meanwhile, accounted for 63% of the segment's value. This indicates to some extent that while there is crossover between the dealer and auction sectors, it is principally for a relatively narrow group of artists.

In 2017, works created in the last 20 years represented 14% of the value of Post War and Contemporary art sales.

3.6 | Modern Art

The Modern art sector was the second largest in the fine art market in 2017, with an increase in share in both the value and the volume of sales year-on-year to 27% and 31%, respectively. The value of aggregate sales in this sector has been lower than Post War and Contemporary art for the last five years, but the margin between the sectors narrowed again in 2017 (with the 29% gap in global share by value in 2016 decreasing to 19%).

After two years of declining values, sales of Modern art at auction increased 39% year-on-year to reach $3.6 billion, with advances in all of the major art markets. The number of lots sold also increased by 15% to their highest level in three years.

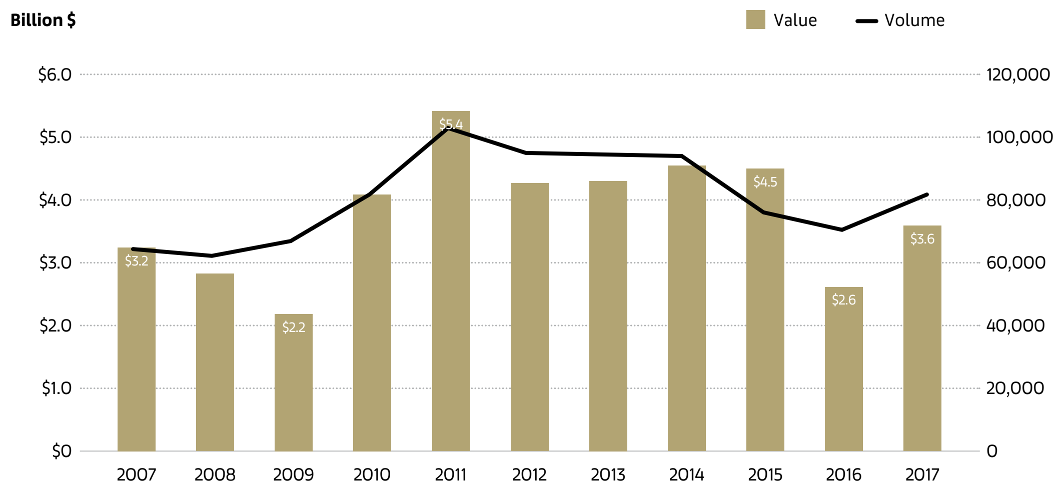
Following strong growth up to 2007, this sector lost one-third of its value between 2007 and 2009. It recovered very strongly, and from 2009 to 2011 more than doubled in value to a high of $5.4 billion, its historical peak, bolstered by strong sales in China. The downturn in the Chinese market brought sales down 22% in 2012, but then the sector maintained a high and relatively stable level of sales through 2015. In 2016, as the number of high-end lots dropped, the market dropped 43% to $2.6 billion, to its lowest level since 2009. Reviving sales values in 2017 have brought the market up by 65% since its lowest point in 2009, but a more moderate 11% in the ten years from 2007.

In all years bar one since 2011, China has maintained the largest share of value within the Modern art sector. In 2017, it accounted for 35% of sales and also the most lots sold (at 24%). From 2007 to 2017, sales in China increased 38% year-on-year to $1.2 billion and, despite some volatility, have had an average annual growth rate of 45% per annum. Yet even with these gains, the market is still less than half its size in 2011, when after intensely rapid growth it peaked at $2.7 billion, making it the largest market worldwide in this sector for the first time with a share of 50% of the value of sales. China's market share increased by nearly 30% over the decade (from just 6% in 2007) with a consequent decline in share in the EU and US markets.

The US was again the second largest market and gained 7% in share year-on-year, reaching 33%. Sales in the US reached a peak of just over $2 billion in 2015 but fell substantially (by 67%) in 2016, down to $662 million. In 2017, the market saw one of the largest uplifts in sales of all regions, rising 80% in value to just under $1.2 billion. The market in the US has now increased by 120% since its low in 2009, but sales are still 11% lower than they were in 2007.

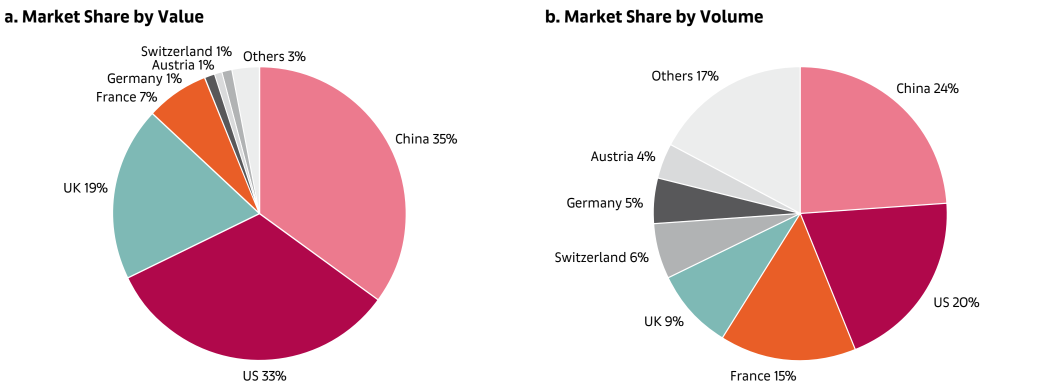
The UK market saw slightly more moderate growth of 8% year-on-year, reaching $684 million. While sales have nearly doubled from their low point of $351 million in 2009, like the US, they are still at a lower

Figure 3.20 | The Modern Art Sector: 2007–2017



After two years of declining values, sales of Modern art increased 39% year-on-year to reach $3.6 billion.

Figure 3.21 | Market Share of the Modern Sector in 2017



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level than in 2007, when they totaled $920 million. After reaching their lowest point in ten years in 2016, French sales revived in 2017, increasing by 83% to $248 million. Sales in the EU as a whole also increased in value by 14% to just over $1 billion. The EU accounted for 42% of the lots sold in this sector and 29% of its value, with the UK accounting for the majority of that at 19%. The EU saw a decline of 8% in global share year-on-year and has declined 17% from its peak at 46% in 2008.

The Modern sector is even more skewed in terms of value towards the high end than Post War and Contemporary art. In 2017, 91% of transactions were for prices below $50,000, despite these lots accounting for just 8% of overall sales values. The majority (68%) of lots sold were at prices less than $5,000, although these accounted for a very small share of just 1% of total sales values. Works sold for over $50,000, on the other hand, accounted for the majority of value at 92%, up 5% in share year-on-year.

Figure 3.22 | Sales in the Modern Sector 2007–2017: Key Markets

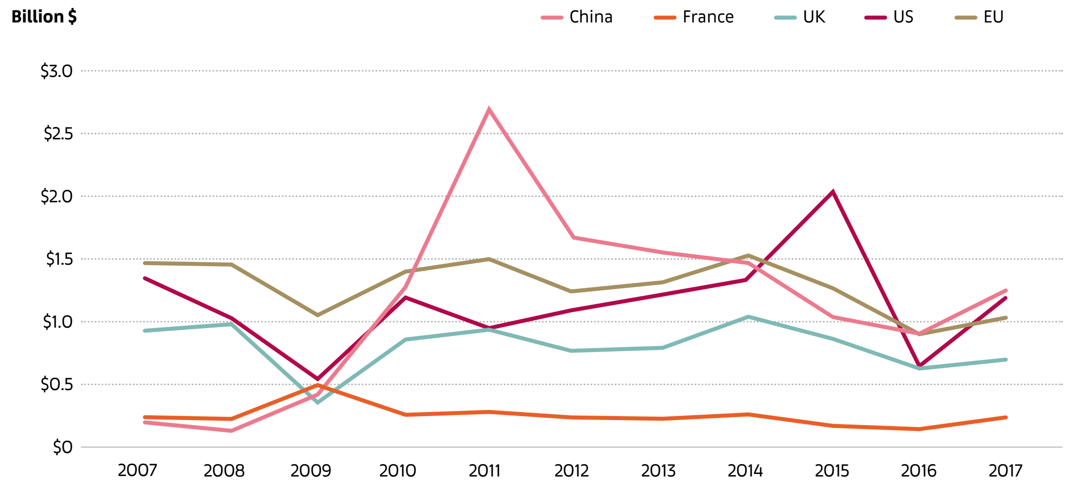

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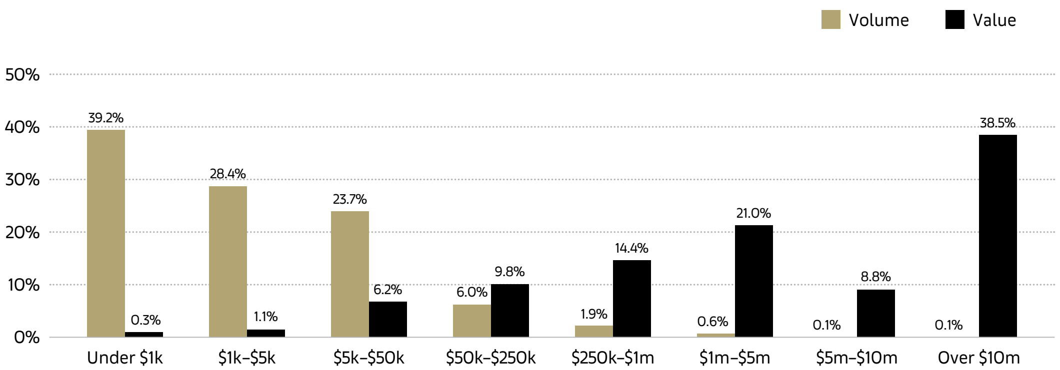
Figure 3.23 | Sales in the Modern Sector by Price Bracket in 2017



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Sales of Modern art priced over $1 million grew by 90% in value, while the number of lots at this level nearly doubled.

Sales of works priced above $1 million, although representing less than 1% of the number of lots, accounted for 68% of the overall value, up 14% in share in this segment from 2016. Sales of Modern art priced over $1 million grew by 90% in value while the number of lots at this level also nearly doubled. The share of value in the segment above $10 million rose by 17% to reach 38%, the largest segment by value by a considerable margin, with nearly four times as many of these high value lots sold during 2017 than the previous year, and the value of sales in the segment up 175%.

Picasso was the top selling artist in this sector in 2017, as was the case in several recent years except 2016, when Chinese artist Zhang Daqian achieved the highest sales. Sales of Picasso's works reached $409 million, accounting for 11% of the market's value and with six lots sold in the top 20. Chinese artists were a little less prominent in the top 20 than previous years, although there were three entries accounting for a combined 9%.

French artist Fernand Léger, whose works accounted for 3% of the value of total sales in 2017, had the top selling lot with *Contraste de Formes* selling for $70 million at Christie's in New York. The concentration of value in the top 20 artists (at 38%) was significantly less pronounced than in 2016 when they accounted for 63% of total sales values in just 8% of transactions.

Table 3.8 | Top Selling Artists in the Modern Sector in 2017

Rank	Artist	Total Sales Value	Nationality
1	Pablo Picasso	11.5%	Spanish
2	Fu Baoshi	3.5%	Chinese
3	Marc Chagall	3.4%	Russian/French
4	Fernand Léger	3.3%	French
5	Zhang Daqian	2.9%	Chinese
6	Li Keran	2.7%	Chinese
7	René Magritte	2.5%	Belgian
8	Joan Miró	2.3%	Spanish
9	Alberto Giacometti	2.1%	Swiss
10	Constantin Brâncuși	1.6%	Romanian
11	Henry Moore	1.3%	British
12	Max Beckmann	1.3%	German
13	Diego Giacometti	1.3%	Swiss
14	Sanyu	0.9%	Chinese/French
15	Ernst Ludwig Kirchner	0.9%	German
16	Amedeo Modigliani	0.8%	Italian
17	Georges Braque	0.8%	French
18	Kazimir Malevich	0.6%	Russian/Ukrainian
19	Hans Hofmann	0.5%	American/German
20	Max Ernst	0.5%	German
Others		55.0%	

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Table 3.9 | Top Prices in the Modern Sector in 2017

Artist	Title	Price ($m)	Auction House	Sale Region
Fernand Léger	Contraste de Formes	$70.1	Christie's	US
Constantin Brâncuși	La Muse Endormie	$57.4	Christie's	US
Max Beckmann	Hölle der Vögel	$46.1	Christie's	UK
Pablo Picasso	Femme Assise, Robe Bleue	$45.0	Christie's	US
Pablo Picasso	Femme Écrivant (Marie-Thérèse)	$44.7	Christie's	UK
Pablo Picasso	Femme Accroupie (Jacqueline)	$36.9	Christie's	US
Joan Miró	Femme et Oiseaux	$31.1	Sotheby's	UK
Pablo Picasso	Femme Assise Dans un Fauteuil	$30.5	Christie's	US
Alberto Giacometti	Grande Femme II	$29.4	Christie's	France
Marc Chagall	Les Amoureux	$28.5	Sotheby's	US
Fu Baoshi	The Majestic Mount Mao	$27.7	Poly China	China
Li Keran	Sacred Place of Revolution Mount Shao	$26.4	Poly China	China
Fu Baoshi	The Song of the Pipa Player	$26.3	Christie's	China
Pan Tianshou	After Plough	$23.5	China Guardian	China
Joan Miró	Peinture	$23.4	Christie's	US
Alberto Giacometti	Grande Figure	$22.7	Sotheby's	UK
Pablo Picasso	Buste de Femme au Chapeau	$21.7	Sotheby's	US
Kazimir Malevich	Suprematist Composition with Plane in Projection	$21.2	Sotheby's	US
Pablo Picasso	Plant de Tomates	$20.9	Sotheby's	UK
René Magritte	L'Empire des Lumières	$20.6	Christie's	US

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3.7 | Impressionist and Post Impressionist

During the late 1990s, the Impressionist and Post Impressionist sector averaged a share of around 30% of the global art market. However, from around 2000, when Modern art sales began to exceed those in the Impressionist and Post Impressionist sector, that share began to erode as Post War and Contemporary and Modern art became more popular, and by 2005 it had dropped to 20%. In 2017, the sector rose 5% in share by value year-on-year, accounting for 17% of the value of the fine art auction market and 15% of the lots sold.

After two years of declining sales, including a sharp contraction of value of 31% in 2016, the Impressionist and Post Impressionist sector had a strong year of sales in 2017, with values increasing to $2.3 billion. The market grew up to 2007, but like other sectors declined from 2007 to 2009, falling to $1 billion and losing nearly half its value in two years. However, buoyed by rising values in the booming Chinese market, the sector recovered strongly, reaching a peak of $2.4 billion in 2011. As sales contracted in China, the market declined again in 2012, with values falling 31%, followed by low and unsteady growth to 2016. The revival of sales in 2017 increased the value of the market by 71%, the largest rise in sales in ten years, bringing it to just 4% below its 2011 peak. This rise in value was also despite a 9% decline in the volume of lots sold, as higher prices for top lots buoyed aggregate values.

China was the largest market worldwide in this sector in 2017 with a share of 35% of global sales by value (and 15% by volume). While the US was the largest market in 2016, China's share by value rose 11% year-on-year leaving it in the premier position.

Sales in China more than doubled in value year-on-year, reaching $794 million. In the ten years from 2007 to 2017, sales in China have grown from a very low base of $38 million to 20 times their size. The Chinese market grew rapidly from 2008, reaching $1.1 billion in 2011 and becoming the largest market in this sector, with more than double the market share of the US that year. However, sales dropped 52% in 2012 as the Chinese market cooled and then were stagnant or declining up to 2016, when the market sank to $321 million, its lowest level since 2009. The revival of the market in 2017 increased sales by 147% in a year, but they still remained 28% below their peak in 2011.

The US was the second largest market by value in 2017 with a share of 33% by value and 23% by volume of sales. After reaching a historic peak of $871 million in 2015, the US market declined 37% in 2016. However, sales rebounded in 2017, bringing the market back to $749 million, a rise of almost 36%. Although sales in

Figure 3.24 | Impressionist and Post Impressionist Auction Sales 2007–2017

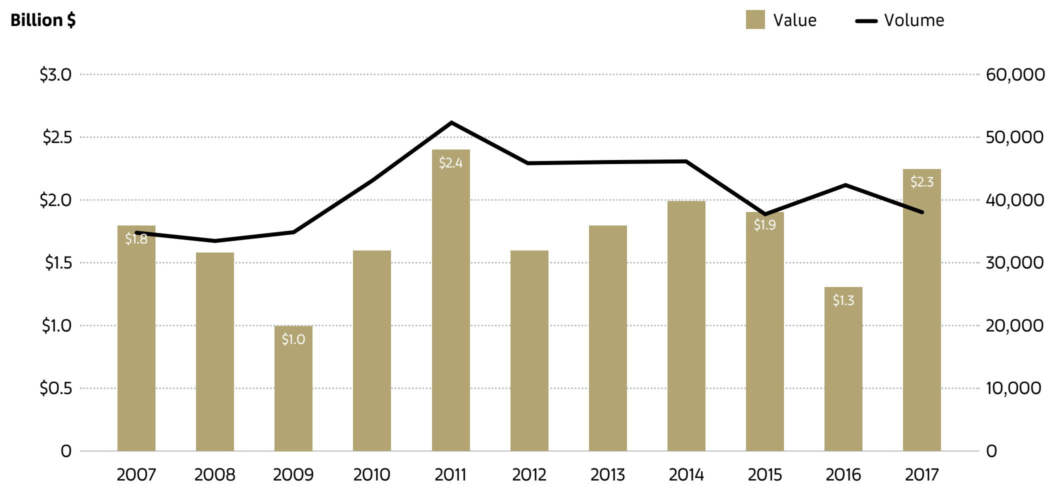
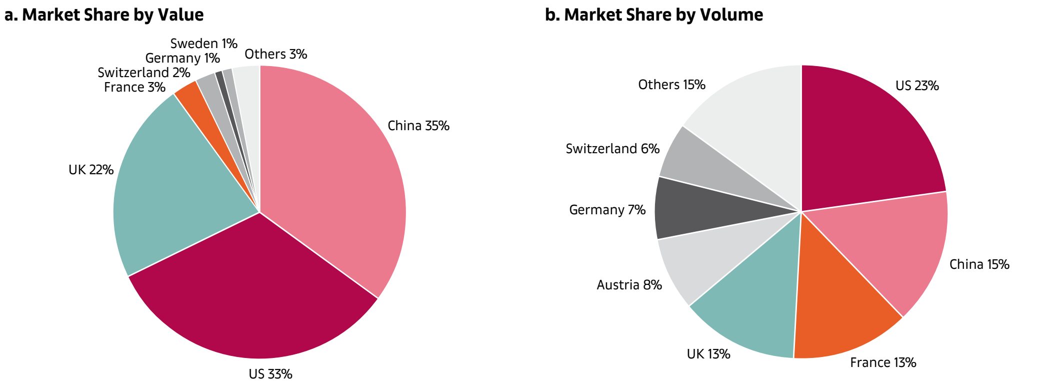


Figure 3.25 | Market Share of the Impressionist and Post Impressionist Sector in 2017



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the US have more than doubled from their lowest value in 2009 ($300 million), they have fallen by 10% in the ten years from 2007 to 2017.

The UK increased its share slightly to 22%, remaining the third largest market by both value and volume. After two years of declines, including a substantial drop of 47% in 2016, values doubled year-on-year reaching just under $516 million. Despite this significant boost, sales were still 11% below their level ten years previous in 2007.

The EU accounted for just half of the lots sold in the market and for 29% of sales values, both stable from 2016. Sales were up 66% year-on-year (to $661 million) buoyed by the rise in the UK, with other large markets such as France remaining fairly stagnant.

This market was very dominated by high end sales in 2017, with 71% of the value of the market coming from sales in excess of $1 million (versus 51% in 2016). Sales at this level more than doubled in value year-on-year. The largest segment by value was the

Figure 3.26 | Sales in the Impressionist and Post Impressionist Sector 2007–2017: Key Markets

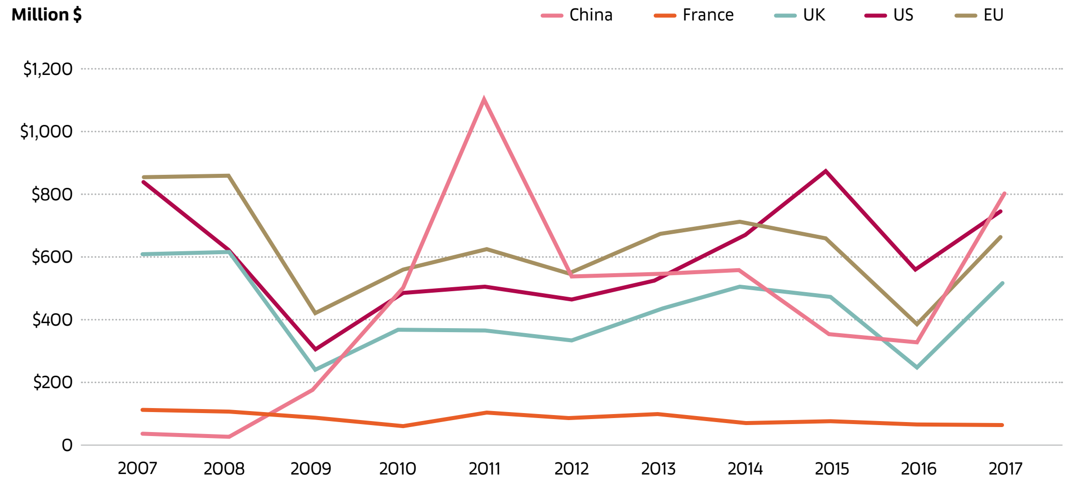

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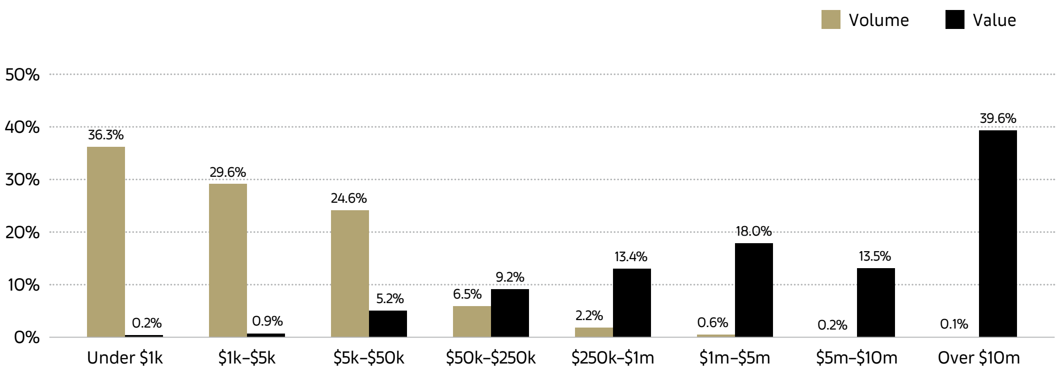
Figure 3.27 | Sales by Price Bracket in the Impressionist and Post Impressionist Sector 2017



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$10 million plus segment, accounting for 40% of the market in a tiny 0.1% of transactions. The value of sales in the over $10 million segment rose 177% year-on-year, with more than 40 lots sold over this level (versus around 10 in 2016).

As with all sectors, the bulk of the volume of transactions at auction remained in the lower price levels, with 90% of works sold for less than $50,000, although these made up just 6% of the market's value. A majority (66%) were priced below $5,000 despite this representing 1% of total sales value, showing the highly skewed nature of the sector.

Claude Monet was the highest selling artist in the sector in 2017, with a market of $186 million and accounting for 8% of the value of sales, and six of the highest priced lots. Qi Baishi was the second highest grossing artist in 2017, accounting for a 7% share, and also comprising the highest priced lot – Baishi's *Twelve Landscape Screens*, which was a record for the artist at $141 million. This lot was a set of 12

inkbrush paintings, which had been on the preview of Poly Auction's autumn auction in 2015. At that time, experts believed it would fetch in excess of 1.5 billion RMB, however it was withdrawn before auction. The auction in December 2017 was therefore its second showing in three years and the final price of 935 million RMB, although a record in the market, was not as surprising given previous estimates of its value.

Vincent van Gogh's *Laboureur dans un Champ* sold for $81 million at Christie's in New York, the second highest price recorded at auction for the artist (next to the $82.5 million which was paid for *Portrait du Dr. Gachet [1890]* at Christie's in 1990).

The top 20 artists accounted for 50% of sales, which was down in share compared with 2016 (at 68%) but still remains higher than the Post War and Contemporary art sector (at 33%) with a much smaller group of artists in this sector and a high concentration of value at the top end.

Table 3.10 | Top 20 Selling Impressionist and Post Impressionist Artists in 2017

Rank	Artist	Share of Sales	Nationality
1	Claude Monet	8.1%	French
2	Qi Baishi	7.4%	Chinese
3	Vincent van Gogh	5.0%	Dutch
4	Wassily Kandinsky	4.7%	Russian
5	Gustav Klimt	2.9%	Austrian
6	Wu Changshuo	2.9%	Chinese
7	Henri Matisse	2.8%	French
8	Huang Binhong	2.6%	Chinese
9	Paul Gauguin	2.3%	French
10	Auguste Renoir	2.2%	French
11	Edgar Degas	1.4%	French
12	Paul Cézanne	1.3%	French
13	Camille Pissarro	1.3%	Danish/French
14	Édouard Vuillard	1.2%	French
15	Théo van Rysselberghe	0.8%	Belgian
16	Alfred Sisley	0.7%	French
17	Emil Nolde	0.6%	German/Danish
18	Pierre Bonnard	0.5%	French
19	Frederic Remington	0.5%	American
20	Alexei Jawlensky	0.5%	Russian
Others		50.2%	

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Table 3.11 | Top Prices in the Impressionist and Post Impressionist Sector in 2017

Artist	Title	Price ($m)	Auction House	Sale Region
Qi Baishi	Twelve Landscape Screens	$141.0	Poly China	China
Vincent van Gogh	Laboureur dans un Champ	$81.3	Christie's	US
Gustav Klimt	Bauerngarten	$59.0	Sotheby's	UK
Huang Binhong	Yellow Mountain	$51.1	China Guardian	China
Wassily Kandinsky	Bild mit Weissen Linien	$41.8	Sotheby's	UK
Vincent van Gogh	Le Moissonneur	$31.1	Christie's	UK
Wu Changshuo	Twelve Screens of Florae	$31.0	Poly China	China
Wassily Kandinsky	Murnau - Landschaft mit Grünem Haus	$26.6	Sotheby's	UK
Paul Gauguin	Te Fare (La Maison)	$25.2	Christie's	UK
Claude Monet	Matinée sur la Seine	$23.4	Christie's	US
Claude Monet	Les Glaçons, Bennecourt	$23.4	Sotheby's	US
Claude Monet	Les Arceaux de Roses, Giverny	$19.4	Sotheby's	US
Edouard Vuillard	Misia et Vallotton à Villeneuve	$17.8	Christie's	US
Henri Matisse	Les Régates de Nice	$16.6	Christie's	US
Claude Monet	Le Bassin aux Nymphéas	$16.0	Sotheby's	US
Wassily Kandinsky	Improvisation mit Pferden	$12.7	Christie's	US
Qi Baishi	Eagle and Rock	$14.6	China Guardian	China
Claude Monet	La Route de Vétheuil, Effet de Neige	$11.4	Christie's	US
Claude Monet	Saule Pleureur	$11.4	Christie's	UK
Frederic Remington	Coming Through the Rye	$11.2	Christie's	US

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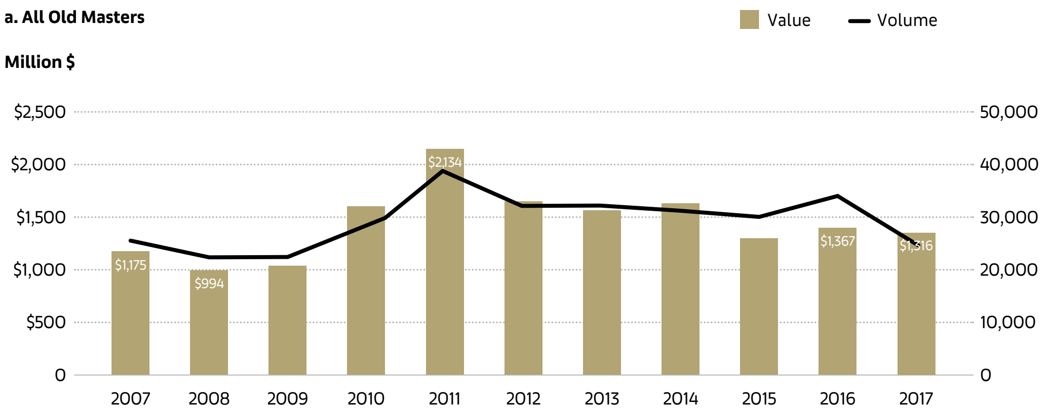
Figure 3.28 | Old Masters Painting Sales 2007–2017

a. All Old Masters



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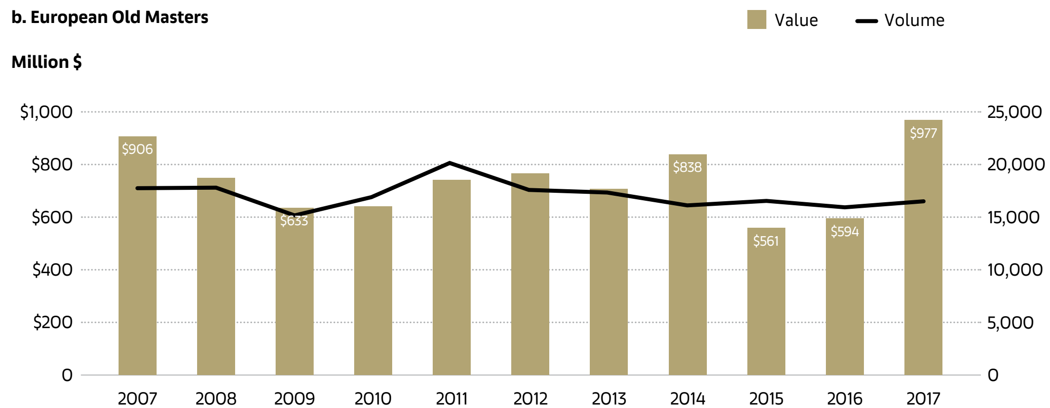
b. European Old Masters



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3.8 | Old Masters and European Old Masters

While most of the top selling lots have been in the Post War and Contemporary sector in recent years, Old Masters came firmly into the spotlight in 2017 with the sale of Leonardo da Vinci's *Salvator Mundi* at Christie's in New York for the highest price ever achieved at public auction of $450 million. While this transaction strongly boosted sales and interest in the sector, and particularly the share of the US in the European Old Masters sector, it should be considered as an outlier variable, with the sales performance of the sector considerably poorer without this lot included.

The Old Masters sector accounted for 10% of the value of the fine art auction market in 2017, and 9% of transactions. Old Master paintings covers all works sold by artists born between 1250 and 1820 of all nationalities. However, the more commonly used term "Old Masters" is associated with the works of European artists. In 2017, 74% of the value of Old Master paintings was for the sale of European Old Masters, up 31% in share year-on-year, with Leonardo da Vinci's top lot boosting values. However, even without this lot, the share of the European Old Masters sector was significantly higher (61% versus 43% in 2016), mainly due to the decline in Chinese sales in this sector during the year. European Old Masters accounted for 7% of both the value and volume of global fine art auction sales.

In 2017, the wider Old Masters market reached total sales of just under $1.3 billion. Much of the growth of this market up to 2011 was driven by sales of Chinese Old Master painters, which brought the market to a high of $2.1 billion at the height of the boom in China. As the Chinese market cooled in 2012, sales values in the sector dropped by 23%, while volumes also fell 15%. After that point, the market was relatively stable, and was one of the very few sectors to increase in value in 2016, due to increasing sales in the two major markets of China and the UK. Despite the advance of the US with this one record-breaking lot, sales in all of the other major markets were stagnant or declined and the volume of lots dropped sharply (by 27%), leading the market to slip back 4% year-on-year. This decline brought the level of sales to just 4% above values reached ten years ago in 2007.

Sales in the European Old Masters sector rose 64% year-on-year to reach $977 million, exceeding their previous peak of ten years ago in 2007 (at $906 million). However, this uplift was due to the Leonardo da Vinci lot, without which sales would have actually fallen 11%. Growth in this sector of the art market has often run counter to trends, and sales have been somewhat less volatile, with the scarcity of major, high-quality works in the sector appearing on the market preventing more dramatic swings up or down. The effect of this lot on the market in 2017 shows how the appearance of highly scarce work in this market can generate huge interest and value in a market that was otherwise in decline.

The US was the largest market in the Old Masters sector, with a market share by value of 49% (and 15% of the volume of sales). This share was up 31% year-on-year, which again must be qualified by the fact that it relied heavily on one lot. Without this Leonardo da Vinci lot, the share of the US was just 23% (behind the UK and China).

Sales in the European Old Masters sector rose 64% year-on-year to reach $977 million.

Sales in the US rose 162% year-on-year to $646 million, their highest level by far in ten years.[30] Similarly, in the European Old Masters sub-sector, the US market led with 63% of the value of sales (versus 40% without this outlier lot). Sales rose 160% to a historical peak of $614 million (but would have registered a slight decline of 1% without this one lot by Leonardo da Vinci).

China was the second largest market in the wider Old Masters sector in 2017 with a 22% share, down 25% from 2016, when it was the leading market. (China would have retained leadership in the absence of the Leonardo da Vinci lot, which would have left China with a global share of 34%.) After a strong year of growth in 2016, sales declined by just over 50%, driven by scarcity of supply as the number of lots declined 49%. Sales in this sector at $293 million in 2017 were less than 30% of the peak of the market in 2011, when they reached $1.2 billion. Over the longer term, however, the market has still grown substantially, increasing 145% from 2007 to 2017.

30 Without the Leonardo da Vinci lot, however, sales would have declined by 21%, which would have been lower than their level ten years ago in 2007.

Table 3.12 | Global Market Share: Old Masters Paintings in 2017

Old Masters			European Old Masters		
Country	**Share of Value**	**Share of Volume**	**Country**	**Share of Value**	**Share of Volume**
US	49%	15%	US	63%	16%
China	22%	17%	UK	27%	27%
UK	21%	21%	France	5%	15%
France	4%	11%	Austria	2%	10%
Austria	2%	9%	Germany	1%	18%
Germany	1%	14%	Switzerland	1%	6%
Switzerland	0.5%	5%	Sweden	0.2%	1%
Sweden	0.2%	1%	Belgium	0.2%	3%
Others	1%	8%	Others	1%	6%

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The UK is a key global center for sales of European Old Master paintings, and has been the leading market in this sector by value for most recent years. However, its share of value within the sector dropped 16% in 2017 to 27%, its lowest in ten years, putting the UK in second place after the US, but still with the most transactions in the sector at 27%. Again, without the "Leonardo effect" the UK would have retained leadership in the sector with 46% of sales against 40% in the US. Sales in the UK in the wider Old Masters sector were stable at $270 million, with most of these sales (98% by value) of European Old Masters.

The US market led in the European Old Masters sector with 63% of the value of sales.

Considering sales growth of European Old Masters only, the UK performed better, with sales increasing 4% year-on-year, but the levels achieved were still lower than they were in 2007 ($438 million), which represented a peak in the market (along with 2014, when a similar level was achieved).

The EU accounted for 36% of the value of sales of European Old Masters (down 25% year-on-year), and 28% in the wider sector.

In 2017, most (90%) of the lots sold in the Old Masters sector were priced at less than $50,000, with 62% below $5,000. These works account for just 7% of the market's value versus 93% for those priced over $50,000. The share of the value of works sold for over $1 million increased year-on-year by 19% to reach 71% in less than 1% of transactions. The segment of works sold for above $10 million rose significantly to 46%, by far the single largest segment. Without the influence of the one key Leonardo da Vinci lot, the share of this segment would be much less (just 17% by value) and as in 2016, the most important segment would have been works sold between $1 million and $5 million.

Similarly, in the European Old Masters sub-sector, 91% of the lots sold in 2017 were priced at less than $50,000, and they accounted for just 7% of the sector's total sales values. Lots sold for over $1 million accounted for 74% of the sector's sales values (up from 51% in 2016, which would have been its share again in 2017 without the highest lot).

The Old Masters market has generally been somewhat less concentrated than some of the other sectors, with the top 20 artists accounting for 41% of the value of sales in 2016. However, the dominance of the Leonardo da Vinci sale brought that up to 49% in 2017. In the European Old Masters sector, this was even more exaggerated at 64%.

The top selling artist in 2017 in both the wider and European sector was Leonardo da Vinci, with a share of 34% and 46% of the value of sales, respectively. Francesco Guardi was the second highest selling artist, with his work *The Rialto Bridge with the Palazzo dei Camerlenghi* selling for $34 million at Christie's in London.[31]

Seven of the top 20 artists in the wider Old Masters sector were Chinese artists, with the highest lot sold Chen Rong's *Six Dragons*, which was sold in the US at Christie's in March. The top lot in China in this sector was Zhao Mengfu's *The Heart Sutra*, sold at Poly Auction in Beijing in December.

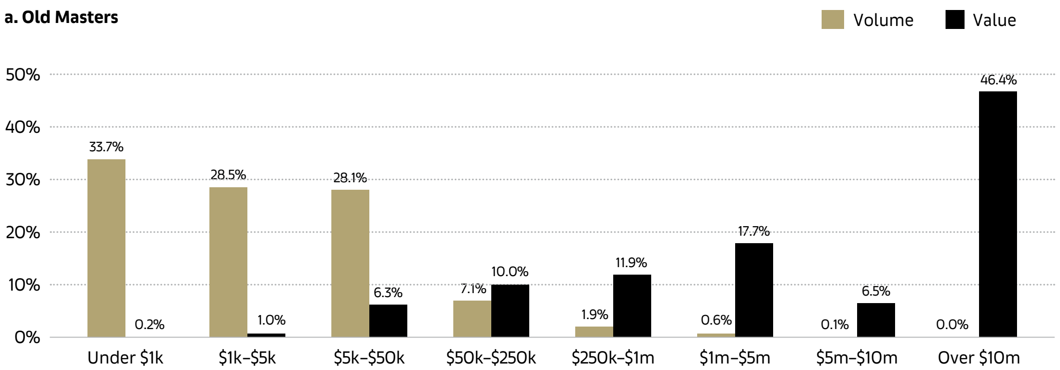
31 This lot was purchased by a buyer outside the UK, and this painting was put under temporary export restriction from the UK in early 2018 by the Reviewing Committee on the Export of Works of Art and Objects of Cultural Interest, claiming it as a potential national treasure having been in the UK for more than 200 years.

Figure 3.29 | Sales in the Old Masters Sector 2007–2017: Key Markets

 Note: LDV is the Leonardo da Vinci lot sold for $450 million.

Figure 3.30 | **Sales in the Old Masters Sector by Price Bracket in 2017**

a. Old Masters



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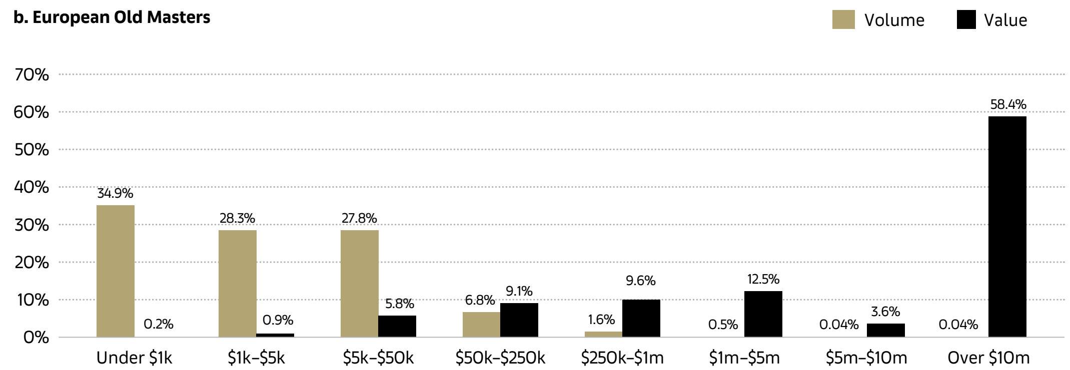
b. European Old Masters



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91% of European Old Master paintings sold in 2017 were priced at less than $50,000, accounting for just 7% of the value of sales.

Table 3.13 | Top 20 Selling Old Master Artists in 2017

Rank	Old Masters	Value	Nationality	European	Value	Nationality
1	Leonardo da Vinci	34.2%	Italian	Leonardo da Vinci	46.1%	Italian
2	Francesco Guardi	3.3%	Italian	Francesco Guardi	4.5%	Italian
3	Joseph Mallord William Turner	2.0%	British	Joseph Mallord William Turner	2.7%	British
4	André Beauneveu	0.9%	French	André Beauneveu	1.2%	French
5	Qiu Ying	0.9%	Chinese	Govaert Flinck	1.1%	Dutch
6	Wang Yuanqi	0.8%	Chinese	Joseph Wright of Derby	1.0%	British
7	Govaert Flinck	0.8%	Dutch	Rembrandt van Rijn	1.0%	Dutch
8	Joseph Wright of Derby	0.7%	British	John Constable	0.7%	British
9	Rembrandt van Rijn	0.7%	Dutch	Bernardo Bellotto	0.6%	Italian
10	Zhang Yu	0.5%	Chinese	Giovanni Domenico Tiepolo	0.6%	Italian
11	Wen Zhengming	0.5%	Chinese	Sir Peter Paul Rubens	0.6%	Flemish
12	John Constable	0.5%	British	Antonio Canova	0.5%	Italian
13	Bernardo Bellotto	0.5%	Italian	Adam de Coster	0.5%	Flemish
14	Giovanni Domenico Tiepolo	0.4%	Italian	Willem Drost	0.5%	Dutch
15	Sir Peter Paul Rubens	0.4%	Flemish	Eugène Delacroix	0.4%	French
16	Antonio Canova	0.4%	Italian	Canaletto	0.4%	Italian
17	Shi Xi	0.4%	Chinese	Pieter Brueghel the Younger	0.4%	Flemish
18	Zhao Mengfu	0.4%	Chinese	Ambrosius Bosschaert the Elder	0.4%	Flemish
19	Adam de Coster	0.4%	Flemish	Giovanni Battista Tiepolo	0.4%	Italian
20	Zheng Xie	0.4%	Chinese	Bartolomé Esteban Murillo	0.4%	Spanish
Others		50.7%			36.1%	

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The presence of a small number of high-priced lots can influence trends in aggregate sales, without filtering down into most businesses in the art trade.

The change in the performance of the European Old Masters sector from decline to positive growth due to the presence of this one very high-priced lot is an extreme example of the more persistent trend in the auction market, where the high end has heavily influenced the performance of the sector as a whole. The presence (or absence) of a relatively small number of high-priced lots can greatly influence trends in aggregate sales, without filtering down into most businesses in the art trade, which transact at much lower price levels in greater volumes. The substantial increase in sales in the sector as a whole in 2017 does not mean that all, or even most, businesses in the auction sector saw improvements in turnover year-on-year.

Table 3.14 | **Top Prices in the Old Masters Sector in 2017**

a. All Old Masters

Artist	Lot Title	Price ($m)	Auction House	Sale Region
Leonardo da Vinci	Salvator Mundi	$450.3	Christie's	US
Chen Rong	Six Dragons	$49.0	Christie's	US
Francesco Guardi	The Rialto Bridge with the Palazzo dei Camerlenghi	$34.0	Christie's	UK
Zhao Mengfu	The Heart Sutra	$28.3	Poly China	China
Joseph Mallord William Turner	Ehrenbreitstein	$24.0	Sotheby's	UK
Shen Zhou	Presented to Wu Kuan	$22.1	China Guardian	China
Xu Wei	Natural Sketches	$18.8	China Guardian	China
Tang Yin	Moon and Spring Water	$13.6	Poly China	China
Tang Yin	Spending a Summer Day in Rocks and Woods	$12.4	China Guardian	China
André Beauneveu	A Carved Marble Group of Two Addorsed Lions	$12.1	Christie's	UK
Qiu Ying	Character Story	$12.0	Beijing Council	China
Wang Hui	Pastoral Life	$11.1	China Guardian	China
Lang Shining	Lang Shining and Jin Tingbiao	$10.6	Poly China	China
Govaert Flinck	An Old Man at a Casement	$10.3	Christie's	US
Shi Tao	Du Fu Poetic Landscape Painting	$10.2	Beijing Council	China
Joseph Wright of Derby	An Academy by Lamplight	$9.7	Sotheby's	UK
Hugo van der Goes	The Virgin and Child with Saints Thomas, John the Baptist, Jerome and Louis	$9.0	Christie's	US
Francesco Guardi	La Place Saint-Marc avec la Basilique et le Campanile	$6.7	Christie's	France

b. European Old Masters

Artist	Lot Title	Price ($m)	Auction House	Sale Region
Leonardo da Vinci	Salvator Mundi	$450.3	Christie's	US
Francesco Guardi	The Rialto Bridge with the Palazzo dei Camerlenghi	$34.0	Christie's	UK
Joseph Mallord William Turner	Ehrenbreitstein	$24.0	Sotheby's	UK
André Beauneveu	A Carved Marble Group of Two Addorsed Lions	$12.1	Christie's	UK
Govaert Flinck	An Old Man at a Casement	$10.3	Christie's	US
Joseph Wright of Derby	An Academy by Lamplight	$9.7	Sotheby's	UK
Hugo van der Goes	The Virgin and Child with Saints Thomas, John the Baptist, Jerome and Louis	$9.0	Christie's	US
Francesco Guardi	La Place Saint-Marc avec la Basilique et le Campanile	$6.7	Christie's	France
Antonio Canova	Joachim Murat (1767-1815)	$5.1	Christie's	France
Sir Peter Paul Rubens	Study of a Horse with a Rider	$5.1	Sotheby's	US
Adam de Coster	A Young Woman Holding a Distaff Before a Lit Candle	$4.9	Sotheby's	US
Willem Drost	Flora	$4.6	Sotheby's	US
Rembrandt van Rijn	Portrait of Petronella Buys	$4.5	Christie's	UK
Eugène Delacroix	Le 28 Juillet - La Liberté Guidant le Peuple	$4.2	Christie's	UK
Giovanni Domenico Tiepolo	The Minuet	$4.0	Christie's	UK
Ambrosius Bosschaert the Elder	Still Life of Flowers in a Berkemeijer Glass Beaker Decorated with Raspberry Prunts	$3.8	Sotheby's	UK
Bartolomé Esteban Murillo	Ecce Homo	$3.6	Sotheby's	UK
Canaletto	The Coronation of the Doge on the Scala dei Giganti	$3.4	Sotheby's	UK
Bernardo Bellotto	Venice, Piazza San Marco Looking East Towards the Basilica	$3.3	Sotheby's	UK
Giovanni Battista Tiepolo	Portrait of a Lady As Flora	$3.1	Sotheby's	UK

4

Exhibitions and Art Fairs

Key Findings

Exhibitions and Art Fairs

1. The gallery was the primary institution for exhibitions worldwide in 2017, accounting for 55% of the number of global exhibitions.

2. Exhibitions are much more globally dispersed than sales in the art market. The US accounted for a 21% share, followed by Germany (12%) and France (10%).

3. Dealers reported that they made 46% of their sales at art fairs in 2017, up 5% on 2016.

4. Sales at fairs were estimated to have reached close to $15.5 billion in 2017, up 17% year-on-year, while the costs for dealers to attend fairs rose 15% to $4.6 billion.

5. On average, dealers attended five fairs in 2017, the same number as in 2016.

The ways in which buyers access and purchase art have changed significantly over the last 20 years. Historically, the main channels were private sales, usually via galleries and dealers, and public sales at auction. While these two channels still prevail, buyers and sellers now interact regularly at events and online. The rise of art fairs and e-commerce have been the most documented developments in the trade since 2000. Both have created new buyers, sellers and intermediaries, as well as a more complex structure for the market.

Despite the increased use of digital communication, the physical exhibition of art remains the key medium through which most art becomes known. Exhibitions, whether in a gallery, institution or art fair, are the principal venue for the exchange of cultural meaning and the focal point for establishing value around artists and their specific works. Exhibitions are also the primary means by which art is introduced and promoted to collectors. The art market now revolves around a crowded calendar of exhibitions, art fairs, auctions and related events. These events can create markets and establish reputations, increase awareness and scholarly interest, and enhance monetary value. Exhibition in a gallery or museum can act as a seal of approval, offering a strong quality signal to buyers, and therefore increasing prices in subsequent sales.[32]

The nature of the host institution and the size and publicity surrounding an exhibition determine how prices in the art market are affected, with large museum shows, biennials and critically-acclaimed exhibitions generating greater awareness, leading to positive effects on prices. Empirical studies have shown that other features of exhibitions, including their innovation and reassessment of current artistic trends, are also correlated with subsequent art market prices.[33] In the case of well-established artists, public exhibitions are not necessarily as critical to the commercial value of their work, although they do help to emphasize the status of such artists and they can help bring new buyers to market as well as lead to a reappraisal of their work and consequently their commercial value.

There are very important links between commercial and non-commercial exhibitions, with the latter in many cases having a more sizeable and lasting effect on values. The appearance of a work of art in a major non-commercial museum exhibition, for instance, is a much greater endorsement of the status of the artist and an individual work than a commercial exhibition, hence often has a greater effect on subsequent values. However, commercial exhibitions are critical for introducing an artist or new body of work to the market, as well as contextualizing artists with their peers or historical precedents in their

32 While this holds for most appraisals, for some artists, especially those with limited supply, if a work has been not exhibited or hidden public view for a long period, its being offered for sale can spark great publicity and enthusiasm, which can also drive up prices.

33 See Christiane Hellmanzik (2016) "Historic Art Exhibitions and Modern - Day Auction Results." *Research in Economics*. Volume 70, Issue 3: 421-439.

sector. There has also been an increasing number of scholarly historical shows in some of the larger galleries, which once would have been confined only to the non-profit and museum sector.

The links between exhibitions and prices are of course not solely through the exhibition process itself, as those artists participating in shows have already been acknowledged as being those with superior value or more innovativeness. However, it is interesting to examine some of the trends over the last ten years in terms of both the number of exhibitions and their content to see how they have developed and what connections exist with the market.

The gallery is still the primary institution for exhibitions worldwide, accounting for 55% of global exhibitions in 2017.

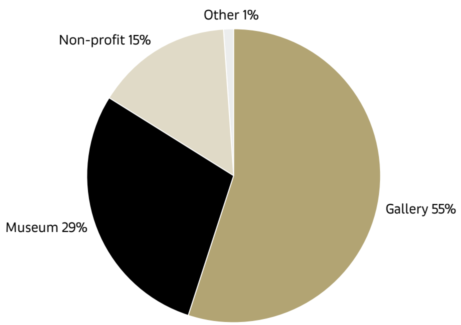
4.1 | Exhibitions

The dealer survey carried out by Arts Economics in 2017 indicated that on average dealers held nine exhibitions each year, seven in their own premises, one in other premises in their main country of business and one overseas. While some dealers reported that they were reconsidering the number of exhibitions they hosted each year in an attempt to reduce costs, this had not yet had an impact on the reported numbers, which were relatively stable on those in 2016. The number of exhibitions varied by sector though, with Contemporary art dealers having a higher average of ten exhibitions per year, Modern art dealers averaging seven and less than five for dealers in other older fine art sectors, antiques and decorative art. Artfacts.net compiles the largest global database of exhibition data with information on close to 600,000 artists for over 15 years. Using their data on the number of exhibitions worldwide, Figure 4a shows the share of exhibitions across all institutions, both commercial and non-commercial (excluding art fairs). The gallery is still the primary institution for exhibitions worldwide, accounting for 55% of the number of global exhibitions in 2017 (down 3% in share year-on-year). Museums account for 29%, and non-profit institutions a further 15%.[34]

The number of gallery exhibitions dropped by 8% year-on-year to 24,833, and over the ten-year period

34 The other category in Figure 4.1 represents exhibitions at festivals, biennials and other events. Biennials have increased by 15% while festivals and other events which have more than doubled, but all still from a very small base.

Figure 4.1 | Share of Exhibitions by Institution Type 2017



© Arts Economics and Artfacts.net (2018)

from 2007 to 2017 also fell slightly (by 4%), with the most notable declines taking place after 2012 (when they had peaked at nearly 36,000).

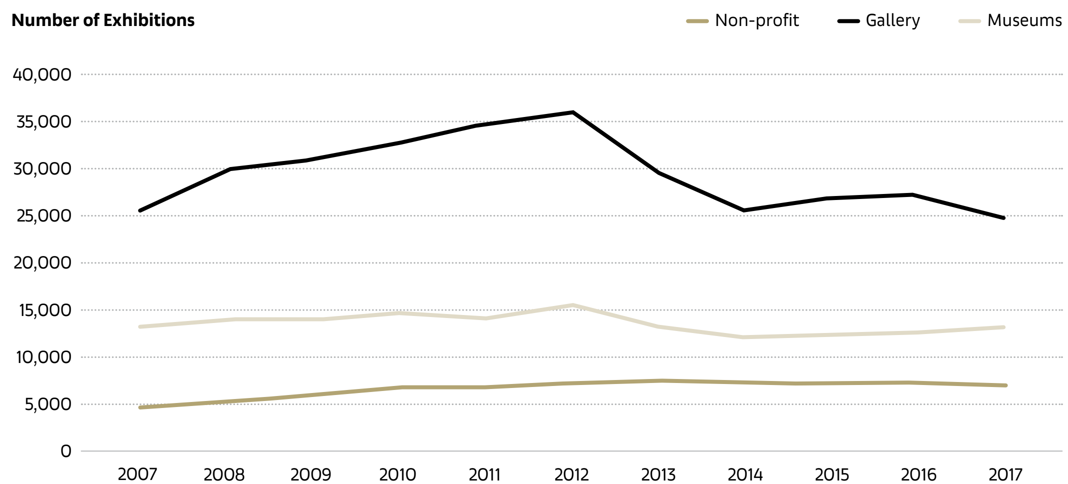
While exhibitions in museums also fell between 2013 and 2014, they have picked up since that point, including a 12% increase in 2017. However, over the ten-year period, there has been very little change, despite the proliferation of new museums in emerging regions such as China and the Middle East.

There has been strong growth in the number of non-profit exhibitions. While these dropped in number by 5% year-on-year, the number of exhibitions at non-profit spaces has risen by over 50% in the last ten years, although they represent a much smaller share of exhibitions, with about 6,685 in 2017.

Across all institutions around the world, the total number of exhibitions reached 45,136 in 2017, 68% of which were solo shows and 32% group exhibitions. This figure (which again excludes exhibitions at art fairs) was down marginally on 2016.

While the number of exhibitions increased steadily from 2007 to 2012, to a peak of 58,375, they began to decline in 2013 and have been stagnant since that point. In the ten-year period between 2007 and 2017, despite the growth and expansion of the market, the number of exhibitions has only increased 4%. While there are likely to be many different reasons for the decline since 2012, the decline in gallery exhibitions coincides with a relative boom in the number of art fairs and could mean that fair solo booths have replaced gallery solo exhibitions to some degree.

Figure 4.2 | Number of Exhibitions by Institution 2007–2017



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In the period between 2007 and 2017, despite the growth and expansion of the market, the number of exhibitions only increased 4%.

Figure 4.3 | **Number of Solo and Group Exhibitions Worldwide 2007–2017 (Commercial and Non-Commercial Exhibitions)**

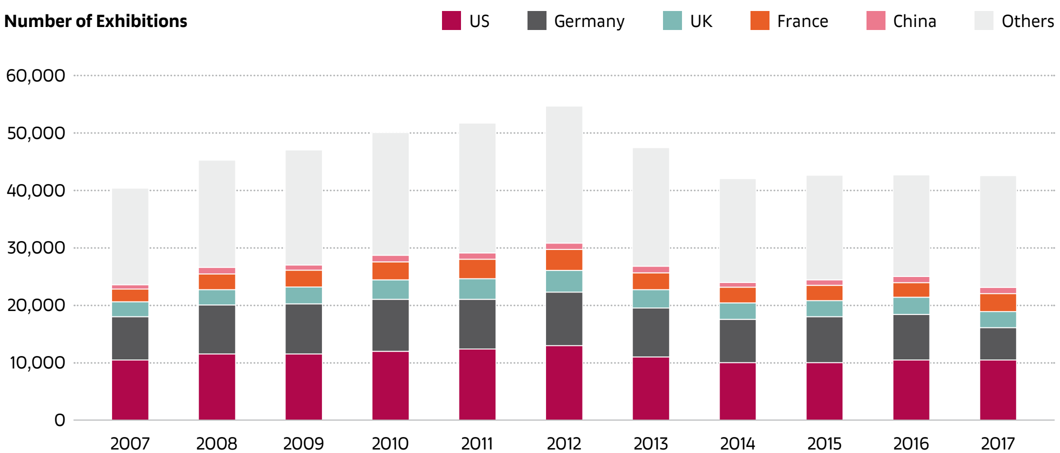
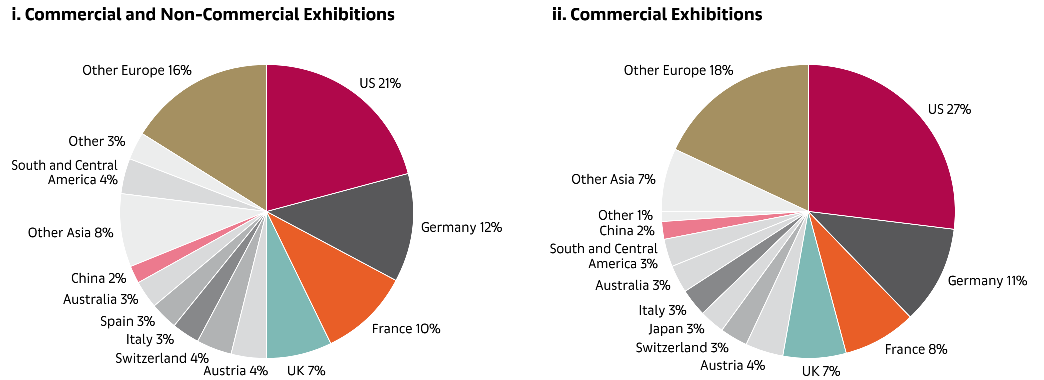


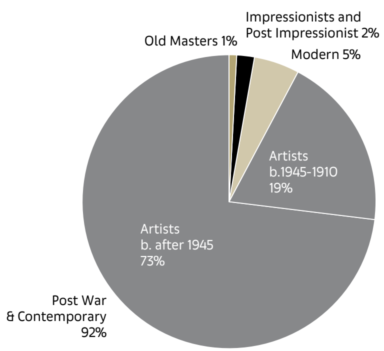
Figure 4.4 | **Geographical Distribution of Exhibitions in 2017**



Exhibitions are much more globally dispersed than sales in the art market. The US had the largest share of exhibitions in 2017, with 21% of the total, but they have declined slightly in number in ten years. Newer markets, such as China and Brazil, have seen growth of over 40%, but these still only account for a very small share of the global total (2% and 1% respectively). Europe had the largest share of exhibitions in 2017, (59%), Asia accounted for 10%, with Japan and China representing close to half of the total. South and Central America accounted for 4%, with a majority share in Brazil and Mexico (60% of the regional total).

The geographical distribution of commercial exhibitions in galleries is more concentrated in the major art markets, with the US having a 27% share in 2017. However, the three major art markets of the US, China and the UK still accounted for just 36% of the total number, versus over 80% of sales in recent years, showing the more regionally diverse nature of exhibitions versus sales. Excluding the UK, the EU art market accounted for only 13% of global sales, but it hosted 55% of exhibitions.

Figure 4.5 | Share of Exhibitions by Sector in 2017



Exhibition Content

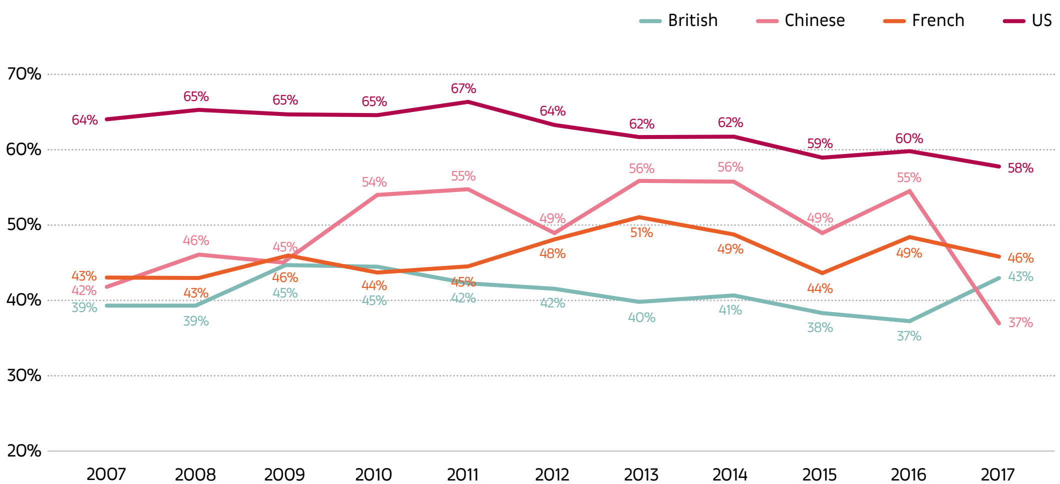
In terms of content, Contemporary art dominated exhibition programs in 2017, as it has for the last ten years. The Post War and Contemporary sector as it is defined in Chapter 3 (artists born after 1910) accounted for 92% of all exhibitions. Within that sector, newer Contemporary art (works by artists born after 1945) accounted for the greatest share at 73%.

Globally, the most exhibited artists (in group and solo shows) of the last ten years have consistently been Andy Warhol and Pablo Picasso, both well-known and prolific artists from the Contemporary and Modern sectors. The lists of the top 20 artists in terms of the number of exhibitions show that there has been a significant lack of variation in terms of artists, with an identical set of artists in the top five most exhibited artists for the last ten years. In 2017, only one artist changed from 2016 (Marcel Broodthaers taking the place of William Kentridge), while there were 14 artists in 2017 that also featured ten year's previously in 2007. This indicates that, much like sales in the art market, there is a concentration on a narrowly defined group of artists for some of the major exhibitions. However, in the case of exhibitions, this top 20 represents a much less dominant share of the total: the number of exhibitions of the top 20 artists only represented 4% of the total number of solo exhibitions worldwide in 2017 in contrast to the top 20 artists who accounted for a 26% share of fine art sales at auction. The other trend apparent in Table 4.1 is that the number of exhibitions by some of the very top artists such as Warhol and Picasso has declined over ten years, with a more diverse range of artists now being exhibited.

Table 4.1 | Top 20 Most Exhibited Artists

2007	No.	2012	No.	2017	No.
Andy Warhol	215	Andy Warhol	220	Andy Warhol	143
Pablo Picasso	182	Pablo Picasso	154	Pablo Picasso	111
Bruce Nauman	92	Bruce Nauman	74	Gerhard Richter	96
Gerhard Richter	75	Joseph Beuys	108	Bruce Nauman	65
Joseph Beuys	102	Gerhard Richter	94	Joseph Beuys	83
Cindy Sherman	63	Cindy Sherman	72	Cindy Sherman	50
Sol LeWitt	72	John Baldessari	83	John Baldessari	66
Robert Rauschenberg	84	Sol LeWitt	88	Louise Bourgeois	62
Louise Bourgeois	48	Ed Ruscha	66	Lawrence Weiner	54
Ed Ruscha	69	Lawrence Weiner	72	Sol LeWitt	55
Sigmar Polke	60	Robert Rauschenberg	72	Ed Ruscha	46
Georg Baselitz	59	Louise Bourgeois	63	Sigmar Polke	46
William Kentridge	64	Thomas Ruff	60	Thomas Ruff	44
Martin Kippenberger	49	Georg Baselitz	55	Robert Rauschenberg	35
Lawrence Weiner	61	William Kentridge	40	Georg Baselitz	42
Roy Lichtenstein	71	Sigmar Polke	57	Erwin Wurm	45
John Baldessari	56	Man Ray	70	Rosmarie Trockel	40
Andreas Gursky	44	Marcel Duchamp	77	Francis Alys	36
Henri Matisse	59	Martin Kippenberger	37	Marcel Broodthaers	33
Paul Klee	49	Don Graham	36	Man Ray	39
Total Top 20	**1,574**	**Total Top 20**	**1,598**	**Total Top 20**	**1,191**

Figure 4.6 | Share of Exhibitions of Artists in Their Home Market 2007–2017



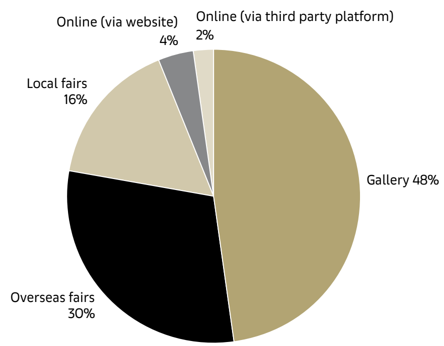
An analysis of the regional origins of artists shows considerable diversity. In 2017 (as in 2016), US artists had the highest share of works shown at exhibitions around the world, but their share was only 11%. The number of exhibitions of works by US artists rose 4% year-on-year and has increased by only 11% over ten years, less than one-third of the pace of non-US artists. Works by French and British artists accounted for 4% of exhibitions around the world each, while those by Chinese artists represented just 1%. Exhibitions of works by French artists grew year-on-year, as did those by British artists, increasing 18%. The number of exhibitions of works by Chinese artists, on the other hand, fell 23% year-on-year, with fewer exhibitions in their home market and all other major markets apart from the US (where they grew 15%).

The data shows that there is a strong home bias for exhibitions, with the national markets accounting for the largest share of exhibitions versus any other single nation, and usually by a considerable margin, but with some fluctuations. In 2011, the share of exhibitions of works by US artists in the US peaked at 67%, but this fell to 58% in 2017. Just 42% of the exhibitions of Chinese artists' works around the world were in China in 2007, but this had grown to 56% by 2013, before falling to its lowest level in ten years in 2017 (37%), as the number of exhibitions in China declined with the largest contraction within China itself (down 48%). The substantial increase in the number of exhibitions of British artists' works in 2017 was similarly driven primarily by an increase in their home market (up 37%) as well as an increase in exhibitions in China (up 22%).

There is a strong home bias for exhibitions, with national markets accounting for the largest share of exhibitions versus any other single nation.


BANQUE DU LIBAN

Figure 4.7 | Shares of Dealer Sales by Channel in 2017



Dealers made 46% of their sales at art fairs in 2017, up 5% on 2016.

4.2 | Art Fairs

Gallery exhibitions remain a core component of most dealer's business models, providing the key interface between the public and the artist and a means to introduce and exchange art, information and ideas with new and established collectors. In 2017, according to the results of the dealer survey, gallery sales accounted for 48% of dealer sales. This reflects the steady decline in gallery sales in favor of art fair and online transactions over the last 20 years, as well as a 3% decline in gallery sales year-on-year.

The rise of art fairs and the evolution of the event-driven market has been the most significant trend for dealers in the last two decades. Traditionally, dealers operated from fixed premises. Although sometimes they grouped together in the same locality, they nonetheless represented a fragmented forum for buyers. Art fairs created a centralized marketplace in which dealers could access a much wider group of potential global buyers and curators for whom these major events have become a focal point.

While commercial art fairs have intensified over the past 20 years, they have existed since at least the late 1960s. Much of the impetus towards the development of fairs was a conscious reaction to the rising power of auction houses. Fairs were viewed as a way for dealers to collaborate together and to replicate some of the dynamics of auctions. Along with developing the competitive atmosphere and "one-room excitement" of an auction, fairs also allowed access to a wide range of inventory across a range of price levels for a limited time. Consequently, since 2000 fairs have become increasingly important to dealers, yielding sales, new contacts and an ever-wider network of professional relationships. Because they provide an opportunity to access a wide range of objects, and also to exchange information and build new relationships with dealers, fairs have by consequence become a major attraction to collectors as well.

Figure 4.8 shows the timeline for the emergence of some of the main art fairs that are still in existence in 2017. The earliest events date back to the 1950s and 1960s. However, since 2000, it is clear that both the number and geographical spread of fairs has grown dramatically.

In 2000, there were about 55 relatively major international art fairs. This number has increased rapidly in the decade since then, and in 2017, there were over 260 major fairs with an international element, covering fine and decorative art, with almost 50 being added in the last ten years. In addition, there are hundreds of smaller regional and local fairs that cover areas of the art and collectibles markets.

In 2017, there were over 260 major fairs with an international element, with almost 50 being added in the last ten years.

Figure 4.8 | Timeline for the Emergence of Selected Art Fairs

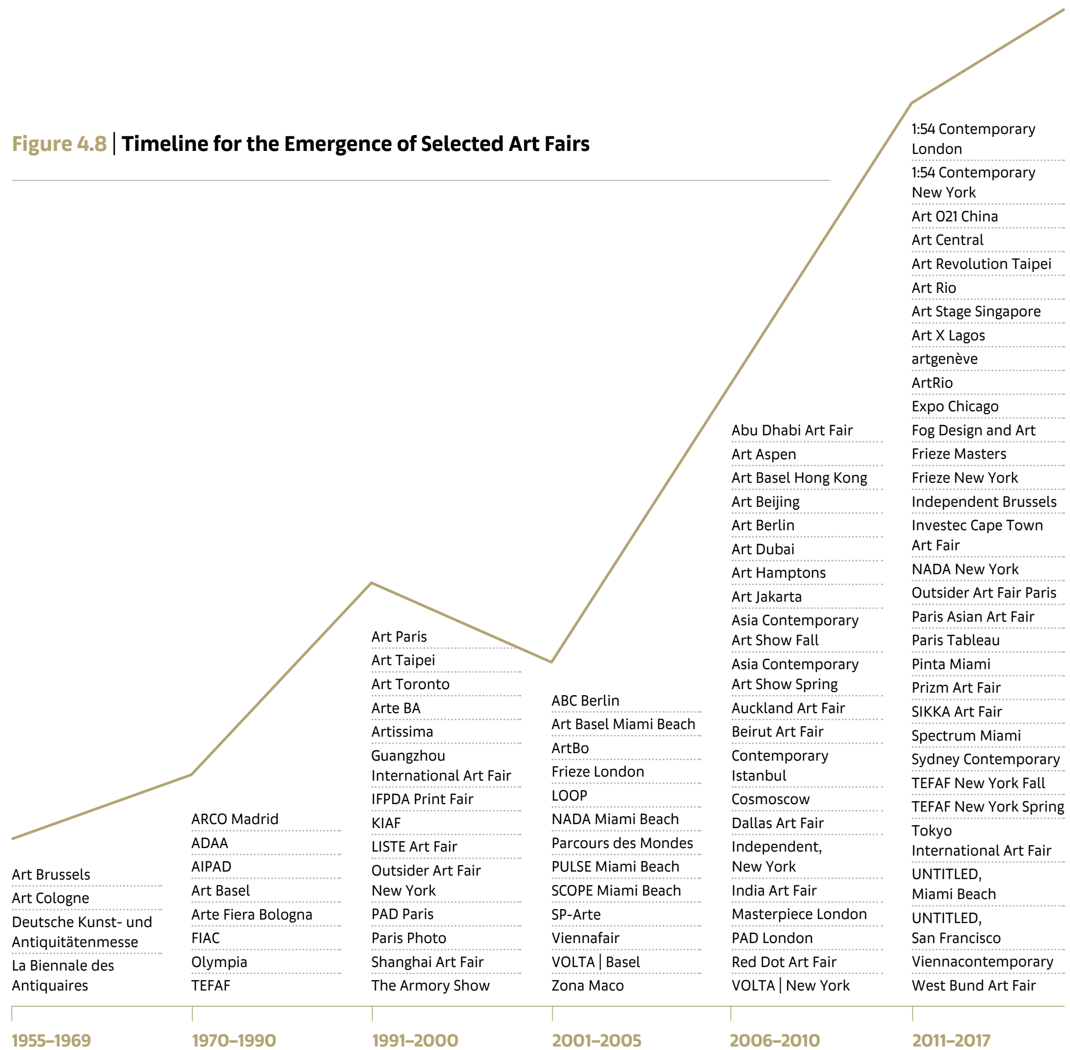
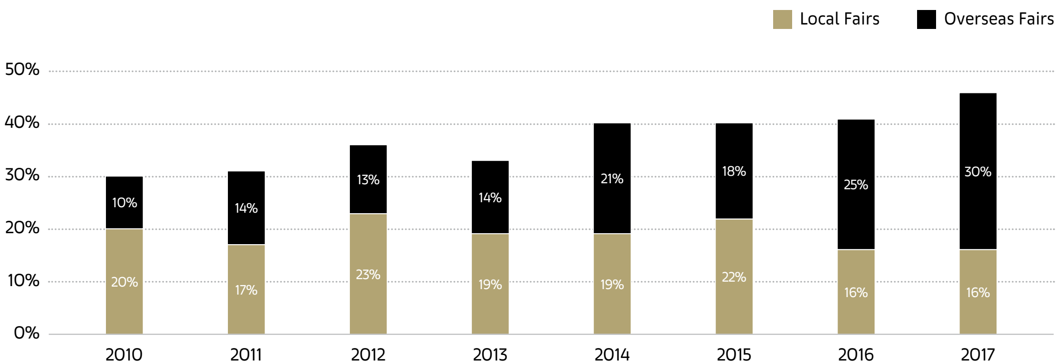


Figure 4.9 | Share of Dealers' Sales at Art Fairs 2010–2017



4.3 | Art Fair Sales

While the gallery has traditionally been the most important sales channel for dealers, the share of gallery-based sales has fallen over the last ten years as the importance of fairs and online sales has risen. Dealers reported that they made 46% of their sales at art fairs in 2017, up 5% on the average share reported in 2016. This was 2% less than the sales made through galleries, which confirms some of the information gathered from dealers during the year, who likened both their expenses and revenues from fairs as being equivalent to running another gallery in terms of magnitude.

Figure 4.9 sets out the share of dealer sales at art fairs since 2010. 2017 recorded the highest share of sales in the period, increasing 16% from 2010. While the share of sales at local fairs was stable year-on-year, sales at international or overseas fairs increased by five percentage points to 30%. Although the share of sales attributed to the art fair channel has fluctuated, it has remained consistently at or above one-third of total sales over each of the last six years.

Some dealers interviewed over this period reported a backlash against the rising dominance of art fairs, and have reduced the number of fairs they attend, concentrating their efforts on those offering the most suitable buyers, greatest global outreach, highest returns or best mechanisms for promotion of their gallery. Such consolidation might have accounted for some of the decline in share in 2013 to 33%. However, the trend has clearly been reversed, and while dealers still report that they are in many cases attending fewer numbers of fairs, the sales they are generating have been rising.

On average, dealers attended five fairs in 2017, the same number as in 2016 and down from six in 2015. The number of local versus international events attended was divided evenly with 50% local fairs (down from a higher share of 60% for local fairs in 2016). Although there are likely to be considerable differences between individual businesses as well as individual fairs, this implies that dealers generate almost twice the value of sales from the same number of international fairs as they do from local fairs.

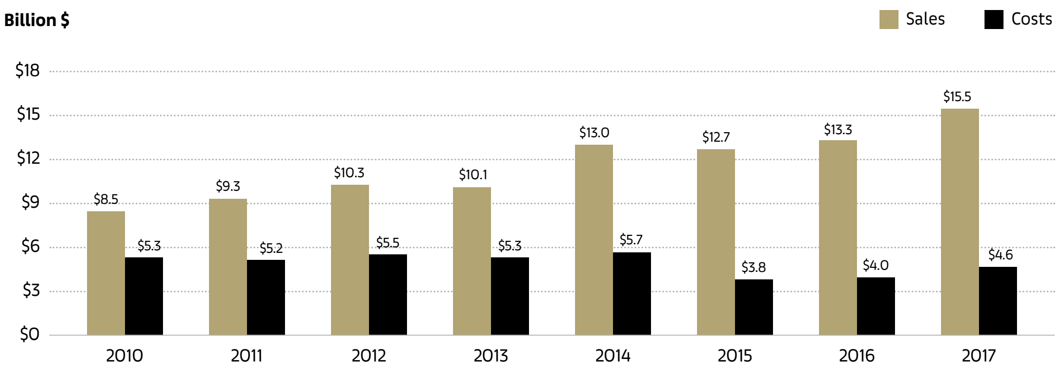
Although few art fairs report detailed information on their sales, projections based on the data reported by dealers on the share of their sales made at fairs indicates that they have reached close to $15.5 billion in 2017. But this needs to be looked at in the context of the costs for dealers to attend fairs, which rose

Sales made at fairs reached close to $15.5 billion in 2017, up 17% year-on-year.

from $4 billion in 2016 to $4.6 billion in 2017. This suggests that despite sales rising by 17%, the 15% rise in costs has not contributed to a significant commen-surate increase in returns to fairs on aggregate. It also seems very likely that the advance in sales has not necessarily been spread evenly across all businesses, while costs are likely to rise more proportionally for each business over time. This means that the returns from fairs for individual businesses are likely to have varied considerably, and it suggests that the biggest rewards have likely accrued to those at the top end who leverage their comparatively deeper inventory and higher price points to their advantage.

The importance of fairs varies between businesses. Dealers have also reported that it can be difficult to establish where a sale is actually made, with fairs often acting as a development platform for future sales that take place outside the event itself. Dealers have noted anecdotally that, in addition to the

Figure 4.10 | Estimated Total Art Fair Sales and Costs of Attendance 2010–2017



Costs for dealers to attend fairs rose 15% to $4.6 billion in 2017.

sales finalized at fairs, they can make more than twice the amount in post-fair, follow-on sales, directly attributable to having exhibited at particular events during the year. Many museum acquisitions, for example, can take months to finalize as they often require the approval of collection committees, which only meet periodically throughout the year. In addition, dealers noted that fair participation can help drive collectors to their physical gallery spaces, yielding entirely new sales and relationships.

While the empirical evidence for sales at fairs remains very positive, dealers have mixed views regarding the future of art fairs.

Some dealers have distinguished between the two main developments of art fairs in recent years: the “organically-grown” art fair model, where events have developed from existing cultural communities and are often run solely or partially by dealers or others agents with a deep understanding of art; and the “synthetically-grown” fair, where civic or community leaders or development corporations have launched events with the primary aim of stimulating economic benefits in a region. Many felt that the former model has proven to be more successful and sustainable and that there was often a greater commitment and more promotion of these events by the exhibitors. Some also noted that the profits from these types of events were often more successfully reinvested in future improvements. Some dealers thought that, while there are several “synthetic” fairs in new regions such as the Middle East which have gained in importance, such events in mature markets have less impact in terms of sales or the development of relationships.

Many dealers noted that the high cost of exhibiting at fairs required a much more commercially based approach to the choice of works that they exhibited. Some also considered that the burden of time, staff and overheads, as well as the opportunity costs of attending an increasing number of fairs over the last several years, detracted from sales through their galleries. Many collectors were also less interested in visiting galleries and now expected the main points of contact to be at events and online. Some, therefore, concluded that, while art fairs were aiding the market to increase in size, this mainly benefited larger galleries, while smaller dealers were seeing declining profitability, or were going out of business altogether with the decline of the importance of the retail gallery (as discussed in Chapter 2).

In addition to the sales finalized at fairs, dealers can make more than twice the amount in post-fair, follow-on sales.


VOGUE

4.4 | Art Fair Geography and Numbers

The number of major art fairs has more than doubled in the ten years to 2017, with at least 260 major international events, alongside hundreds of smaller fairs specialized in regions and sectors.

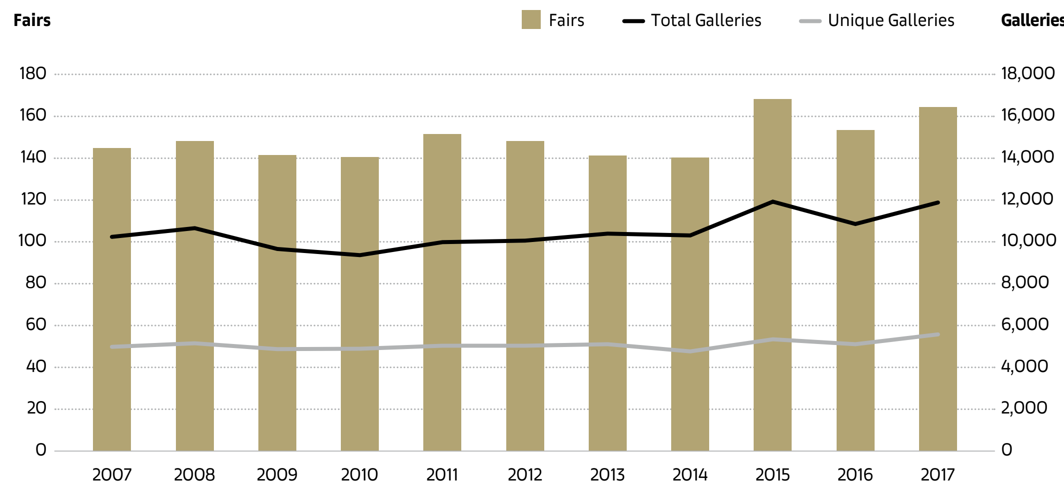
Examining only major fairs tracked by Artfacts.net with a minimum of 20 exhibiting galleries, the number of events reached 165 in 2017, up 7% year-on-year and an increase of 14% since 2017.

The number of galleries exhibiting at these major events has also grown over ten years, increasing 10% in 2017 to a total of 11,960. The number of galleries exhibiting at major fairs rose up to 2008, but then declined to their lowest point in ten years in 2010, in the fallout of the global financial crisis. Since then, exhibitor numbers have seen some volatility from year-to-year, but have advanced by 26% from 2010 and 16% over the decade from 2007.

Figure 4.11 analyses the total number of galleries exhibiting at all major art fairs, alongside the number of unique individual galleries, with the latter counting a gallery only once even if it exhibited at several fairs. The number of unique galleries (5,593 in 2017) is just under half (47%) of the number of total galleries (11,960). The share of unique exhibitors varied from a low of 45% in 2015 to 52% in 2010.

Tracking unique galleries shows that in the years from 2008 to 2010, the decline of 12% in the total number of exhibitors was less about a drop in the number of unique exhibitors (which fell by 5%), but instead largely due to the remaining galleries exhibiting less. The substantial increase of 17% in 2015 in the number of galleries can be broken down into more galleries (35% of the increase) and existing galleries exhibiting more (65% of the increase). However, in 2017, both the total number of galleries and the number of unique galleries rose by 10% each implying that the rise in galleries was equally about more galleries and some galleries exhibiting more.

Figure 4.11 | Number of Major Fairs* and Number of Exhibiting Galleries



© Arts Economics and Artfacts.net (2018) *165 major fairs with over 20 exhibitors

The rise in galleries exhibiting at art fairs in 2017 was equally about more galleries and some galleries exhibiting more.

Art Fair Retention Rates

A sign of success for an art fair is continuity over time and low exhibitor attrition rates, with exhibitors tending to return to the fair if they have generated good sales and contacts. However, many fairs also have objectives related to diversity, and the share of new exhibitors is indicative of the success of a greater range of galleries over time. It is interesting therefore to investigate the turnover of galleries at specific fairs or their return rates to fairs in the period between 2007 and 2017. Aggregating this across all major fairs, a majority of 56% of exhibitors at fairs over the period were exhibiting for the first time, with 75% exhibiting for the first time or having only exhibited once before.

However, if the selection is narrowed to eight of the most established fairs in existence for the duration of this period,[35] this share becomes much lower, with only 33% new exhibitors, while 42% of the galleries had exhibited at the same fair five or more times. At these top fairs, 18% of galleries had exhibited ten or more times, that is, returned to the same fair every year over the whole period, indicating that there is much more continuity or less variation in exhibitors at these events.

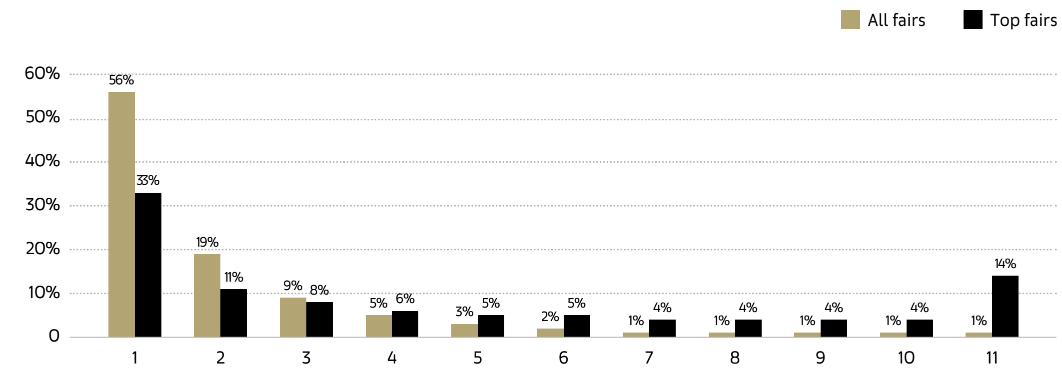
Data from Artsy from a sample of 68 global fairs that exhibit data on their website showed that the galleries that exhibited most in 2017 in terms of the numbers of fairs attended were Gagosian (16 fairs), Galerie Lelong and David Zwirner (15 each), Perrotin (14), Marian Goodman, Pace and Konig (12 each).

Art Fair Locations

The US has been one of the main locations for major art fairs in the last ten years, with a share of between 23% and 30% of the total since 2006. However, while the major fairs (those tracked by Artfacts.net with at least 20 exhibitors), increased by 14% over ten years globally, the overall number of fairs in the US fell by 7%. There have also been declines in other major art markets including the UK and Germany. Major fairs in China have been more stable over the period. Fairs in Asia accounted for just 10% of the total in 2017.

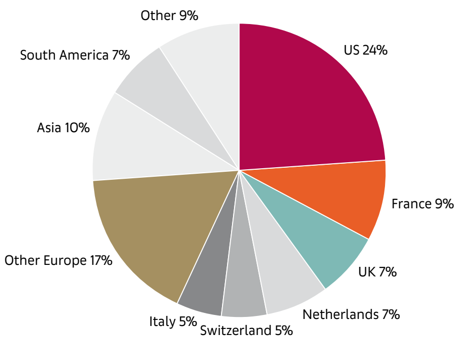
35 The top fairs in this sample were Art Basel, Art Basel Miami Beach, FIAC, Frieze London, The Armory Show, ARCO and TEFAF.

Figure 4.12 | Share of Number of Returns by Exhibitors to Art Fairs 2007–2017



Across all major fairs 56% of exhibitors were exhibiting for the first time. However, at the top eight fairs, this dropped to 33%, showing higher retention rates at these events.

Figure 4.13 | Major Art Fair Locations in 2017



New York, Paris, Miami, London and Basel were the main locations for the major art fairs in 2017 as they have been for the last ten years. The number of major fairs in New York has increased in the last five years versus a decline in number in Miami. Some of the greatest growth in such fairs has been in Paris, with the number of events nearly doubling in ten years, while new cities have entered the ranks from Asia and Latin America.

While the programs at many fairs have sought regional diversification and there is a much wider spread of fair locations than in the past, exhibitors from mature markets still dominate in the major events, with galleries from Europe and North America accounting for almost 80% of all those exhibiting at such fairs in 2017. In the top 165 fairs, European galleries accounted for by far the greatest share at 57%, with the greatest representation being from Germany, France, Italy and the UK. North America accounted for 22%, with 13% from Asia, featuring mainly galleries from South Korea, Japan and China. Brazil was the most represented country in South America, followed by Mexico and Argentina, both of which have seen a significant increase in participation by galleries in recent years.

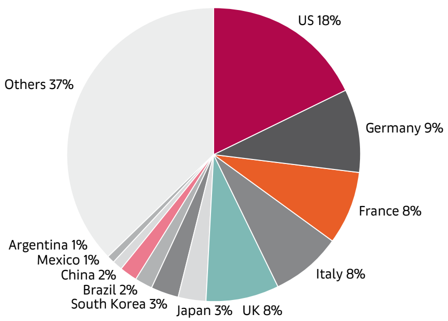
In terms of individual countries, US galleries make up the largest national group, with a share of 18%, German galleries accounted for a 9% share, and those from the UK, France and Italy 8% each. Chinese galleries still represent a very small share of 2%, although this has doubled in the last ten years.

Table 4.2 | Top Art Fair Cities in 2017 (Number of Major Fairs)

	2017		2012		2007
New York	16	Miami	13	New York	15
Paris	11	Paris	12	Miami	16
Miami	11	New York	11	London	10
London	9	London	10	Basel	6
Basel	6	Madrid	5	Paris	6
Amsterdam	6	Basel	4	Cologne	5
Brussels	5	Cologne	4	Berlin	4
Hong Kong	3	Amsterdam	4	Madrid	3
Mexico City	3	Berlin	3	Santa Monica	3
Taipei	3	Vienna	3	Beijing	2

While the programs at many fairs have sought regional diversification, galleries from Europe and North America still accounted for almost 80% of all those exhibiting in 2017.

Figure 4.14 | **Gallery Origins at Global Art Fairs in 2017**



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Art Fair Visitors and Exhibitors

Major art fairs attract huge volumes of foot traffic, bringing revenue to the art trade as well as making an important economic contribution to the cities that host them. Despite some galleries pursuing a more focused strategy in terms of which fairs they attend, the interest in art fairs by global collectors and other interested attendees continues to expand.

Table 4.3 shows the attendance numbers at some of the major events in 2017 (using figures supplied by the art fairs). The number of visitors at these fairs in 2017 were well in excess of 1 million. While some have seen their numbers decline over five years, many of the larger fairs have experienced increases. Although Arco, the largest fair in terms of visitor numbers, saw a fall of one-third over five years, numbers attending in 2017 were still four times larger than when it started in the early 1980s. Some fair organizers have noted that terrorism and other geopolitical troubles have deterred visitors from travelling in certain years in certain regions, however, most have seen a substantial increase in visitors from their first launch.

Table 4.3 | **Reported Visitor Numbers at 20 Major Fairs in 2013 and 2017**

Art Fair	Year fair Started	# Visitors 2013	# Visitors 2017	Change from 2013–2017
ADAA	1989	20,000	15,000	–25%
ARCO Madrid	1982	150,000	100,000	–33%
Art Basel	1970	86,000	95,000	10%
Art Basel Hong Kong	2013	60,000	80,000	33%
Art Basel Miami Beach	2002	75,000	82,000	9%
Art Berlin	2005	28,000	32,000	14%
Art Brussels	1968	30,432	25,500	–16%
Art Cologne	1967	60,000	52,000	–13%
Artissima	1994	50,000	52,000	4%
Expo Chicago	2012	30,000	40,000	33%
FIAC	1974	74,567	73,910	–1%
Frieze London	2003	40,000	60,000	50%
Frieze Masters	2012	26,000	60,000	131%
Frieze New York	2012	45,000	40,000	–11%
La Biennale des Antiquaires	1962	90,000	32,678	–64%
Masterpiece	2010	34,000	44,000	29%
Olympia	1972	30,000	25,000	–17%
TEFAF	1975	70,000	71,000	1%
The Armory Show	1999	60,000	65,000	8%
Vienna Contemporary	2005	22,963	29,767	30%

© Arts Economics (2018)

US galleries make up the largest national group of exhibitors at art fairs with a share of 18%.

Table 4.4 | Reported Visitor Numbers at a Selection of Regional Fairs in 2013 and 2017

Regional Art Fair	Year fair Started	# Visitors 2013	# Visitors 2017	Change from 2013–2017
Abu Dhabi Art Fair	2009	16,137	21,489	33%
AIPAD	1980	11,500	15,000	30%
Art Dubai	2006	25,000	28,000	12%
Art Rio	2011	52,000	48,000	–8%
Art Stage Singapore	2011	40,500	33,200	–18%
Art Taipei	1992	35,000	650,000	1757%
ARTBO	2005	25,000	32,970	32%
Arte BA	1991	100,000	80,000	–20%
Contemporary Istanbul	2006	72,000	80,000	11%
India Art Fair	2008	400,000	90,000	-78%
KIAF	2002	85,000	54,000	–36%
LOOP	2003	5,500	4,120	–25%
PAD London	2006	25,000	25,300	1%
Paris Photo	1997	55,239	64,542	17%
SP-Arte	2005	22,000	30,000	36%
Zona Maco	2002	40,000	60,000	50%

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Major art fairs attract huge volumes of foot traffic, bringing revenue to the art trade as well as making an important economic contribution to the cities that host them.

Table 4.4 shows visitor numbers for a selection of smaller fairs. These accounted for over 1 million further visitors, with especially high foot traffic in densely populated regions such as Taiwan and India. Again, most fairs have seen a considerable increase in visitor numbers from their earliest edition.

While the growth in visitor numbers in many fairs shows the increasing interest and engagement of the public in these events, there appears to be no direct link between these numbers and the sales made at fairs. Anecdotally, many fair organizers with a very large number of visitors reported that less than 5% to 10% of them actually buy anything, while other fairs with smaller visitor numbers can often have a more engaged group of buyers.

Exhibitor numbers also vary between the major fairs, from less than 50 to close to 300 (at Art Basel in Basel, 2017). Although most fairs have increased the number of exhibitors since they began, many have seen a reduction over the last five years. In many cases this has been a result of the fairs proactively reducing numbers in order to ensure higher quality and better exhibition space; in other instances, it may be attributed to declining demand.

Similarly, while some of the smaller regional fairs in emerging art markets have more than doubled in size, many have decreased in number recently. Others that concentrate on specific sectors (such as LOOP which focuses on moving image work) have intentionally not increased their exhibitor numbers.

Table 4.5 | Exhibitor Numbers – Selected Major Art Fairs 2013 and 2017

Art Fair	2013	2017	Change from 2013–2017
ADAA Art Show	72	72	0%
ARCO Madrid	201	200	0%
Art Basel	304	291	–4%
Art Basel Hong Kong	245	247	1%
Art Basel Miami Beach	258	268	4%
Art Berlin	130	112	–14%
Art Brussels	189	144	–24%
Art Cologne	200	204	2%
Artissima	190	206	8%
Expo Chicago	125	135	8%
FIAC	191	193	1%
Frieze London	152	160	5%
Frieze Masters	130	121	–7%
Frieze New York	188	200	6%
La Biennale des Antiquaires	68	95	40%
Masterpiece	163	153	–6%
Olympia	170*	160	–6%
TEFAF	265	275	4%
The Armory Show	210	210	0%
Vienna Contemporary	127	122	–4%

© Arts Economics (2018) *2014

Some fairs have seen a reduction in exhibitors over the last five years from proactively reducing numbers in order to ensure higher quality and better exhibition space.

Table 4.6 | Exhibitor Numbers – Selected Smaller Art Fairs 2013 and 2017

Art Fair	# Galeries 2013	# Galleries 2017	Change from 2013–2017
Abu Dhabi Art Fair	50	47	-6%
AIPAD	82	115	40%
Art Dubai	75	94	25%
Art Rio	106	76	-28%
Art Stage Singapore	131	120	-8%
Art Taipei	148	123	-17%
ARTBO	65	75	15%
Arte BA	82	90	10%
Contemporary Istanbul	95	73	-23%
India Art Fair	106	72	-32%
KIAF	183	167	-9%
LOOP	44	45	2%
PAD London	60	68	13%
Paris Photo	136	189	39%
SP-Arte	122	134	10%
Zona Maco	123	163	33%

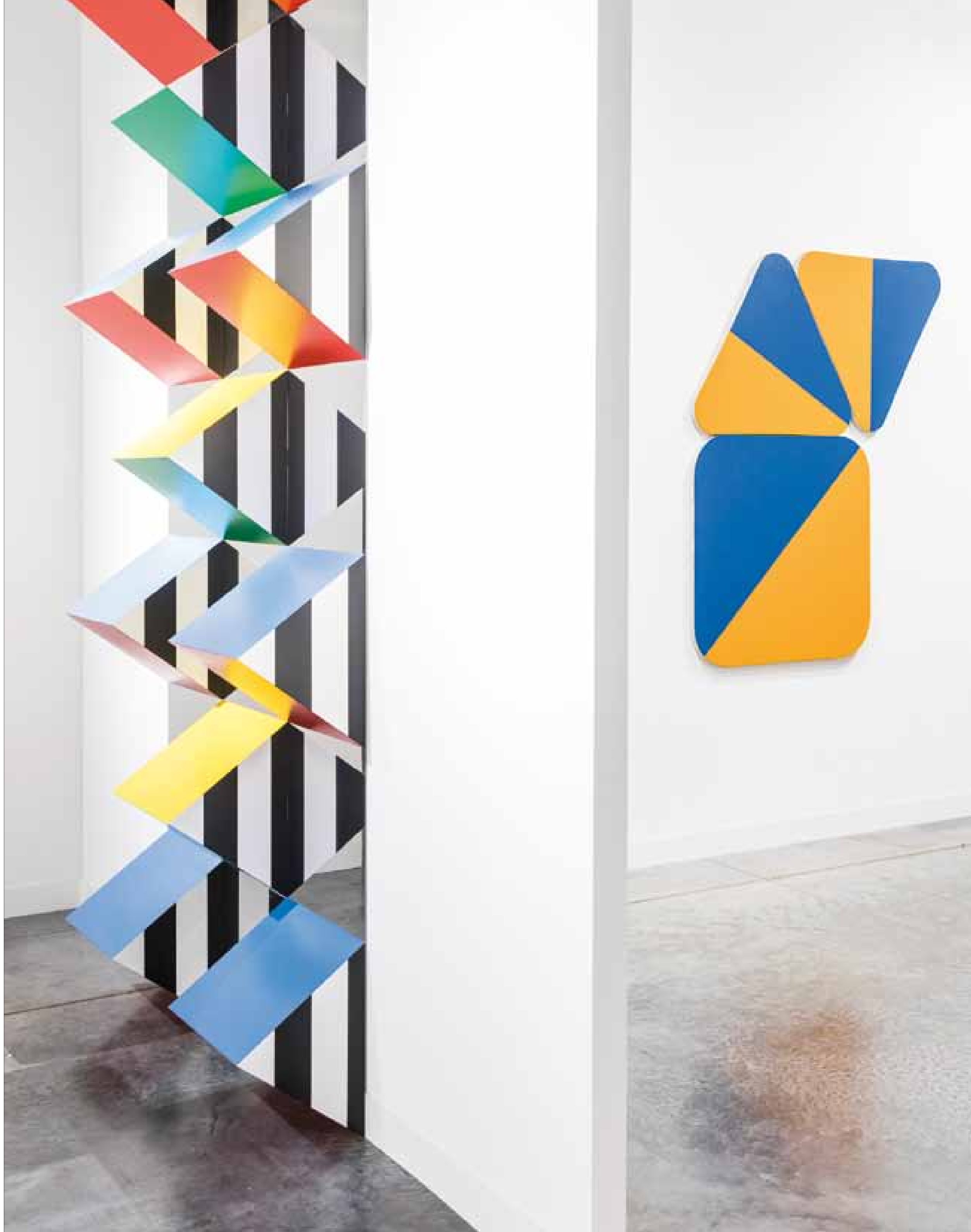
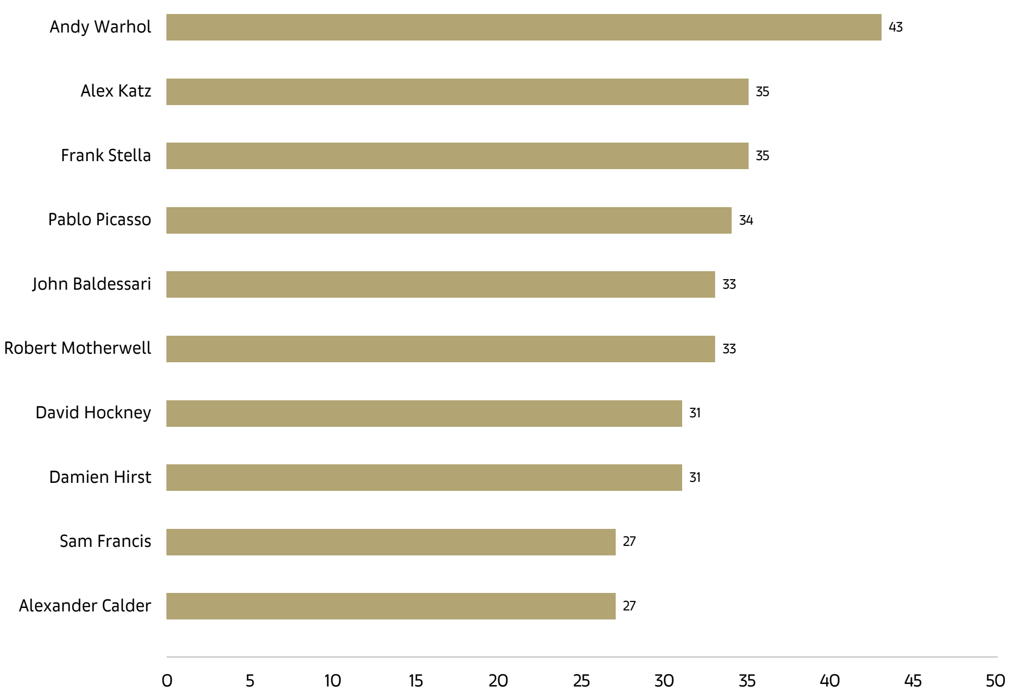


Figure 4.15 | Most Exhibited Artists at Selection of Top Art Fairs* in 2017



© Arts Economics with data from Artsy (2018) *68 art fairs

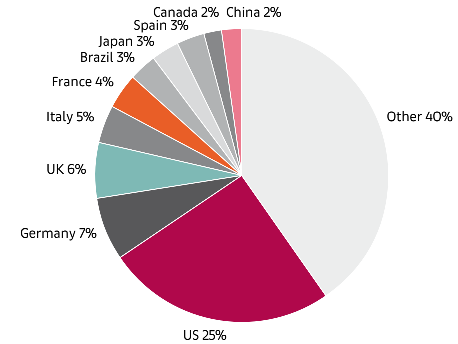
4.5 | Art Fair Content

Art fairs and the event-driven market have had a huge impact in extending the global reach of galleries and exposing the work of their artists to new collectors in different regions. While the focus of many exhibitors is to introduce new and diverse regional artists to different audiences, much like the wider market, certain artists still dominate in the major fairs.

An analysis of the content of some of the larger fairs in 2017 was carried out using data from Artsy, which offers previews of all of the major art fairs through their online platform. The data is taken from a sample of 68 major fairs available on Artsy in 2017 and based on the content posted on the platform from them. While there are many smaller and mid-sized galleries that exhibit at fairs but are not previewed on the site, the data that is available offers some interesting insights. The most exhibited artist in 2017 in this sample was Andy Warhol, who featured at 43 of the listed fairs (or 63% of the sample). Alex Katz and Frank Stella also featured at more than half of the sampled fairs.

There was considerable diversity by region, with a tendency for the majority of the most exhibited artists to come from the region where the art fair was located. Overall, however, the nationality of artists was fairly widely spread. Although works of US artists dominated, their share of all artists exhibited was only 25%. Artists from some of the main European art markets (Germany, the UK, France, Italy and Spain) accounted for another 24%, with Brazilian and Chinese artists accounting for a further 5%. This is influenced by where the fairs are based, again with a tendency for a high representation of regional artists at some fairs.

Figure 4.16 | Distribution of Artist Nationalities Exhibited at Art Fairs* in 2017



© Arts Economics with data from Artsy (2018) *68 art fairs

Table 4.7 | Most Exhibited Artists by Region at Art Fairs* in 2017

Asia	Europe	Latin America	Middle East	North America
Yayoi Kusama Japan	**Erwin Wurm** Austria	**Carlos Cruz-Diez** Venezuela	**Rachid Koraïchi** Algeria	**Andy Warhol** US
Nam June Paik South Korea	**Thomas Ruff** Germany	**Julio Le Parc** Argentina	**Nja Mahdaoui** Tunisia	**Alex Katz** US
Thomas Ruff Germany	**Lawrence Weiner** US	**Luis Tomasello** Argentina	**Otto Piene** Germany	**Robert Motherwell** US
Lee Ufan South Korea	**Thomas Zipp** Germany	**Jesús Rafael Soto** Venezuela	**Khalid Al-Saai** Syria	**Frank Stella** US
Park Seo-Bo South Korea	**Stephan Balkenhol** Germany	**Anish Kapoor** India/UK	**Dania Al Saleh** Saudi Arabia	**Sam Francis** US
Julian Opie UK	**Brigitte Kowanz** Austria	**Liliane Porter** Argentina	**Oh Chi Gyun** South Korea	**David Hockney** UK
Yigal Ozeri Israel	**Anish Kapoor** India/UK	**Anna Maria Maiolino** Italy/Brazil	**Idris Khan** UK	**Damien Hirst** UK
Wang Keping China	**Georg Baselitz** Germany	**Irma Blank** Germany	**Nabil Naha** Lebanon	**Pablo Picasso** Spain
Yoshitomo Nara Japan	**Imi Knoebel** Germany	**Geraldo de Barros** Brazil	**Hatim Elmekki** Tunisia	**Ed Ruscha** US
Haegue Yang South Korea	**Hans Op de Beek** Belgium	**Victor Vasarely** France	**M. F. Husain** India	**Sol LeWitt** US

© Arts Economics with data from Artsy (2018) *68 art fairs

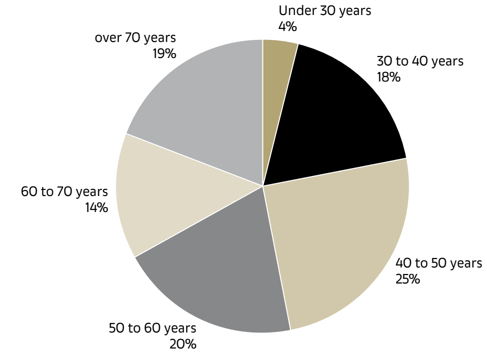
An analysis of the age of artists exhibited at major fairs showed that there was a fairly wide distribution. Figure 4.17 shows the distribution of artists by age from the 68 fairs previewed by Artsy, including deceased artists. It shows that there were a very small proportion (4%) of young artists (under 30 years) and just 22% were under 40 years. Nearly three quarters of the artists represented were therefore most likely to be mid- to-late career artists (over 40 years) or deceased artists shown by galleries operating in the secondary market.

nother sample of the top 85 fairs from Artfacts.net shows that living artists dominate at fairs, accounting for 81% of the total artists with works exhibited in 2017. A closer analysis of the very top fairs in 2017 (Art Basel in Basel, Art Basel in Hong Kong, Art Basel in Miami Beach, FIAC, ARCO, Art Cologne and The Armory Show), shows a consistent and slightly higher share at 83%.

The Artfacts.net data also shows that in general male artists dominate art fairs as they do in the art market generally. In the sample of 85 fairs, male artists accounted for 77% of the total artists represented, while in the top five fairs outlined above, this was only slightly lower at 75%.[36] This is at odds with the general gender breakdown for living artists in most countries. Statistics from the NEA show, for example, that the gender breakdown in the US in recent years is close to 50% female artists, while employment in arts and cultural industries in Europe (as cited by Eurostat) is 47% female.

Despite this, there is evidence that female artists are consistently under-represented in various parts of the art market, particularly at the higher end. Although there has been some increased focus on female artists in 2016 and 2017, a study in the UK showed that over the past decade, 83% of Lisson Gallery's solo shows, 71% of Hauser and Wirth's

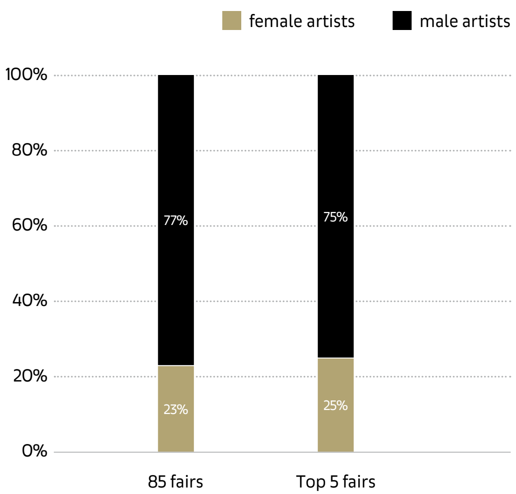
Figure 4.17 | Distribution of Artists Exhibited at Art Fairs* in 2017 by Age



© Arts Economics with data from Artsy (2018) *68 art fairs

36 This male dominance was also corroborated in the Artsy sample of 68 fairs, which showed gender breakdown of approximately 74% male and 26% female.

Figure 4.18 | Gender Breakdown of Artists Exhibited at Art Fairs in 2017



© Arts Economics and Artfacts.net (2018)

solo shows, 88% of Gagosian's shows, 76% of White Cube's shows and 59% of Victoria Miro's shows were by male artists.[37] Similarly, in the US, research of 1,300 artists represented at 45 leading commercial galleries in New York showed a 70:30 breakdown in favor of male artists in 2016 and 2017. This study also showed the dominance of white artists, who accounted for 78% of those represented, and 85% of all US artists.[38]

In the auction data presented in Chapter 3, only two women (in Post War and Contemporary art) make the top 20 lists in any of the sectors analyzed, and most years in the last decade there have been even less.

Prices at Art Fairs

There has been increasing debate in recent years about galleries at fairs publicizing their prices to promote transparency. Apart from providing more information for established buyers, many feel that pricing works on view might also help encourage new buyers, who may be intimidated or apprehensive about approaching exhibitors. Many galleries have been reluctant to do so for various reasons, although the practice is gathering pace.

There is are an increasing number of galleries who have seen the merit of posting prices online, including in their pre-fair previews. In the sample of 68 fairs from Artsy, 42% of galleries posted prices, with a total of 18,750 prices listed for 2017 (an average of around 275 per fair). This included some galleries who posted prices for many works that they were exhibiting and others who only posted a smaller selection. In the latter case, the prices posted tended to be at the lower end (less than $50,000).

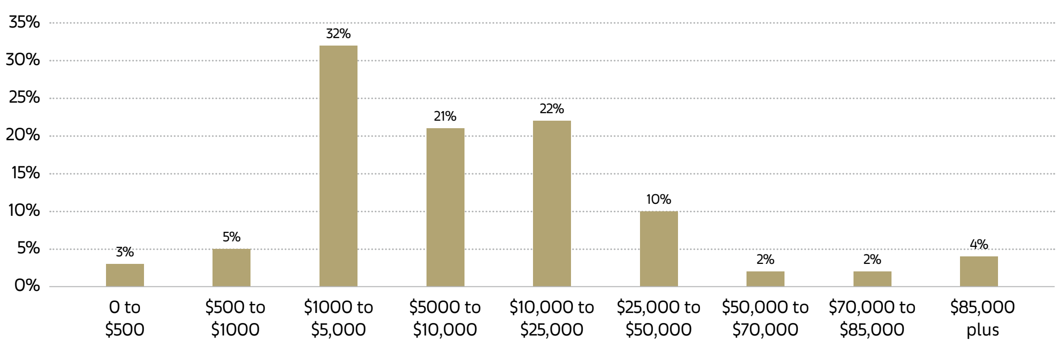
There could be several motivations for not posting prices at the higher end, including an attempt to prevent buyers being deterred by too high a price (when prices are in fact negotiable) or to enable a dealer to negotiate the price up or price discriminate in terms of who the interested buyer is. Others have stressed the importance of discretion, while security was also raised as an issue, especially at the higher end, where posting high prices could put art at greater risk of theft or damage. Some dealers felt that posting prices in advance also led to confusion from buyers, who used auction price databases and apps to search for works by an artist they see at a fair, but then failed to understand the reasons for any differences in prices they encounter. While some dealers say they are comfortable explaining their margins and why price differentials exist, others continue to feel that posting prices leads to excessive queries from less serious buyers and could potentially deter more serious ones. Still more fundamentally: due to the high premium dealers place on meeting potential new clients at fairs, many continue to value the relationships that can be forged from earnest collector inquiries in their booth, which take content as a primary point of departure before focusing on price.

Despite these issues and the truncation of the data, it is still interesting to see the distribution of prices that dealers did post on Artsy for works on sale at fairs in 2017. The distribution is shown in Figure 4.19 and confirms that dealers only post lower prices. It also shows that one of the most important price segments was between $1,000 and $5,000, accounting for 32% of the total. 40% (7,810 works) were posted at prices less than $5,000, and 16,110 were for prices less than $25,000 or 82% of the total posted prices in 2017.

There is are an increasing number of galleries who have seen the merit of posting prices online, including in their pre-fair previews.

37 Research from The Guardian (2017): www.theguardian.com/lifeandstyle/2017/feb/06/how-the-art-world-airbrushed-female-artists-from-history.
38 Research by James Case-Leal (2017) from www.havenforthedispossessed.org.

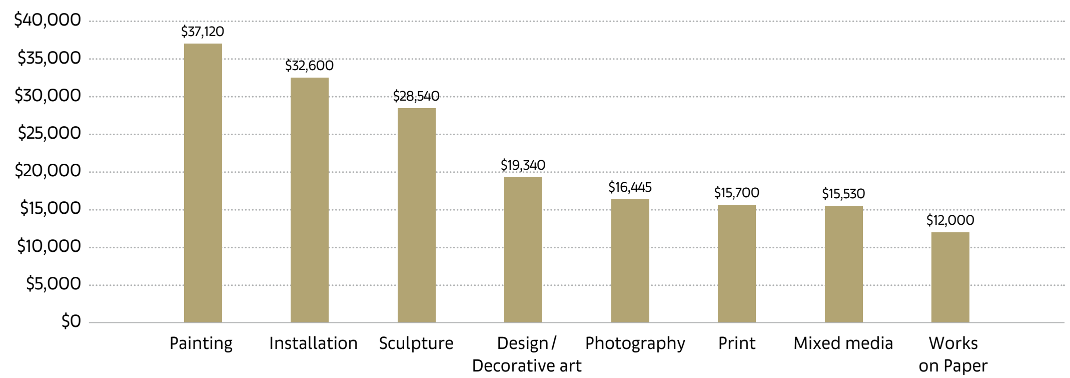
Figure 4.19 | **Distribution of Posted Prices at Selected Art Fairs in 2017**



Paintings and sculptures accounted for the greatest amount of both value and volumes of works posted for sale at art fairs in 2017. Based on the data from Artsy, the highest average prices at fairs were for paintings, installations and sculpture.

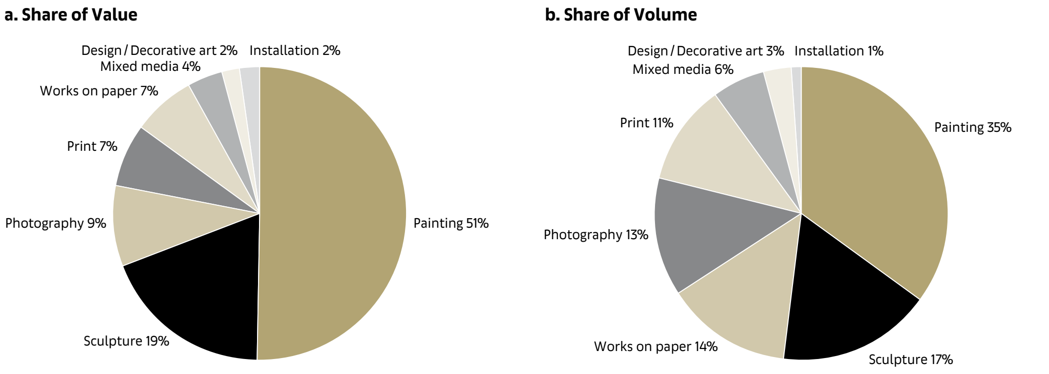
Although published prices are only indicative of potential sales, they do suggest the likely dominance of these fine art media by value. Using projections based on these average prices and the volume of works posted, paintings are estimated to account for 51% of the value of works at fairs, and 70% when combined with sculpture. In terms of the number of works posted, paintings and sculptures accounted for a smaller share of 51%, with works on paper and photography accounting for a combined 27%.

Figure 4.20 | **Distribution of Average Prices Posted at Selected Art Fairs in 2017 by Media**



40% of the prices posted for works on sale at art fairs were less than $5,000.

Figure 4.21 | **Distribution of Priced Works Offered at Selected Art Fairs in 2017**



© Arts Economics with data from Artsy (2018)

Most dealers (89%) felt that sales at art fairs would be stable or increase over the next five years.

4.6 | Conclusions

Fairs have become one of the key channels for sales for galleries, both through the events themselves and through the contacts they generate for future sales. While there is some evidence of a concentration of exhibitors in some of the larger fairs, they are generally regarded as critical for all levels, particularly for new and emerging galleries that need the fair platform to contextualize their artists and offer them international exposure. Most dealers (89%) felt that sales at art fairs would be stable or increase over the next five years, with only 11% predicting that they would decline.

Considering the outlook for fairs and their role in dealer businesses, one dealer explained:

"My colleagues and I discussed cutting down fairs several years ago — we were exhausted and concerned over how much they cost. I didn't, but others did. The ones that did are now out of business."

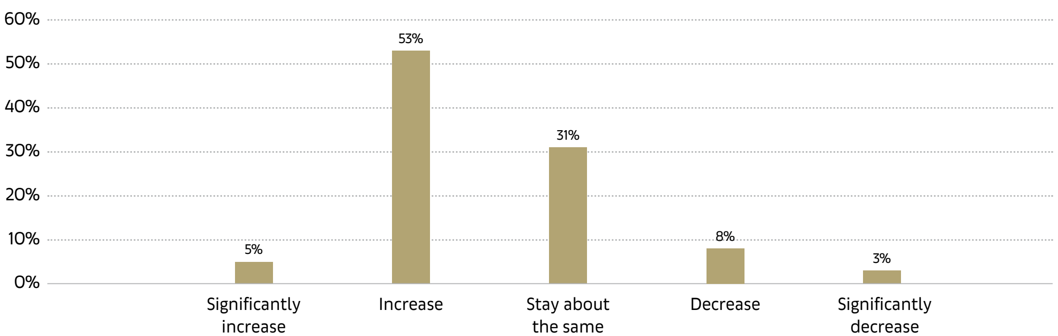
Others have suggested cutting down attendance and focusing on key events that deliver returns. Dealers have noted that it is not only assessing their breakeven points for smaller fairs, but also the opportunity cost of being away from their gallery for a week or more that has to be assessed. Some feel that this concentration in focus on key fairs may increase in future:

"In the future, we will drop all of the smaller fairs and only participate in really good, large, global fairs that deliver for us and have huge global outreach. Instead of doing smaller fairs, we will focus on other new collaborative projects that are more focused on viewing and a more personal experience."

Some dealers were less concerned about the break-even point at fairs, viewing them increasingly as an exhibition platform to showcase new work, introduce artists and meet new collectors, while then "letting the sales happen during the rest of the year".

While it seems that fair sales will not be displaced, the development of projects and hybrid collaborative models in the dealer sector such as Condo and Cromwell Place (see Chapter 2) suggests that there is some attempt to offer alternatives to the fair model. The most obvious reasons given by galleries for being drawn to these hybrid alternatives were not only cost-reduction, but also to escape from the restrictions of the art fair calendar, and to offer longer, more reflective exhibition viewing opportunities for buyers. Some smaller galleries also wanted to free themselves from the imposed hierarchy that is inherent in most fairs, where they can be branded as inferior to or less established than other exhibitors by their positioning in a fair's layout. However, there was some consensus that these new projects would operate alongside fairs over the short to medium term and might only affect some of the smaller art fairs.

Figure 4.22 | Dealers' Views on Fair Sales in the Next Five Years



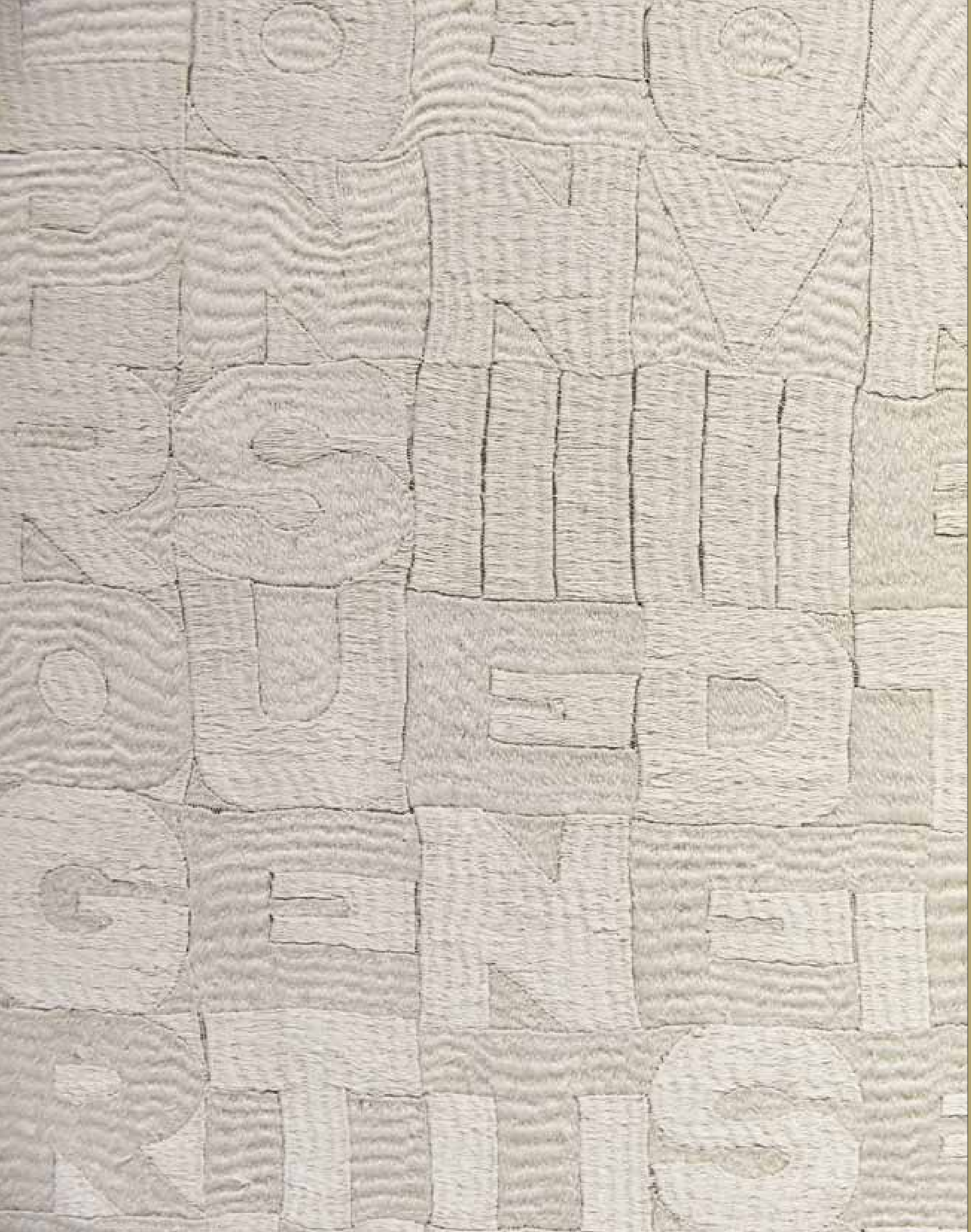
Some dealers questioned the vetting criteria for fairs, given the changing structure of the art market. With more dealers moving into private dealing, it was questioned whether some fairs might have to rethink their strict criteria for inclusion, which only allows exhibitors which have a physical gallery location and carry out a minimum number of exhibitions per year to exhibit. Some dealers felt that this may be a more likely for older sectors of the art market, and particularly for secondary market dealers, where the main value-added was from expertise and access, while Contemporary art fairs may be much more likely to remain anchored to gallery-based criteria.

Finally, dealers also commented on the interaction between their online sales and fairs. The original impetus for the move towards an event-driven market and centralization of the dealer sector through fairs was a bid by dealers to react competitively to auction houses and galvanize market participants, creating one-room excitement and competitive tension between buyers. Some, therefore, feared that over-publicizing content beforehand would take the theatre out of the events, and diminish the special status and competitive buying advantage afforded to VIP clients, which might deter some from attending. The exhibited content of many traditional fairs is now available for online viewing prior to the event. While many dealers noted that this practice was not new, some feared that wide online advance publicity prior to an event could lessen the competitive rivalry and excitement of a fair.

There were also a small number of dealers who predicted that e-commerce may eventually displace some art fair sales, with platforms such as Artsy and 1stDibs presenting access to virtual fairs, accessible by the buyer 24 hours a day and from any location. There is nevertheless little evidence of this in practice, and an offline presence continues to be important for galleries' ongoing relationships with their artists, the exhibitions they create and the development of personal contact and relationships with collectors, curators and the press. To this end, well-established and successful dealers consistently noted that online transactions and emails were sufficient for occasional transactions, but often not enough to sustain a close personal relationship, which was regarded as key in the development of longer-term buyers. Attracting buyers' attention and getting them physically in front them was still seen as the key to success, and a reason why many maintained their presence at fairs.

"Our biggest challenge this year, as it always is, is getting people's attention—getting them to focus and that means getting them physically in front of you to talk to you face-to-face and look at what you have to offer. Fairs, at the very least, offer five minutes face time with important buyers."

Attracting buyers' attention and getting face time with them was a key reason why many dealers maintained their presence at fairs.



Online Sales

5

Key Findings

Online Sales

1. The global online art and antiques market was estimated to have reached a new high of $5.4 billion in 2017, up 10% year-on-year and accounting for 8% of the value of global sales.

2. The online art market has increased substantially in size over the last five years (by 72%), and its share of total art market sales has also edged up from 5% in 2013.

3. The online channel represented 6% of total sales in the dealer sector in 2017, down 2% in share year-on-year. For top-tier auction houses the share of online sales remains relatively small, with some exceptions, but for the second-tier they averaged 14%.

4. Online sales have been a key method to access new buyers: dealers reported that 45% of their online buyers were new to their businesses in 2017; 41% of those buying online at second-tier auction houses were new buyers; in top-tier houses they averaged over 40%.

5. Most of the traditional offline dealers and auction houses surveyed in 2017 recognized the online channel as a key area of growth over the next five years.

5.1 | The Online Art Market[39]

The global online art and antiques market was estimated to have reached a new high of $5.4 billion in 2017, accounting for 8% of the value of global sales. This total comprises online sales by traditional offline dealers and auction houses, plus estimates for the range of companies and platforms selling on their own account.[40] It excludes the increasingly substantial revenues and commissions of intermediaries and third-party platforms conducting e-commerce or offering other intermediation for offline businesses. Online sales by offline dealers and auction houses, which include sales made by these businesses through their own websites and platforms as well as sales via third-party platforms, currently account for the bulk of sales values (close to 85%) in this sector.

Online sales increased by 10% year-on-year, slightly less than the market as a whole and driven primarily by the increase in value of online sales by traditional offline companies. The online art market has increased substantially in size over the last five years (by 72%), and its share of total art market sales has also edged up from 5% in 2013. At 8% of total sales, the online art market now represents a slightly lower share of sales than the global online retail sector, where e-commerce represented 10% of total retail sales in 2017. However, growth in online art sales has lagged behind other global industries, particularly in the last three years. From 2014, online sales of art and antiques have grown 23%, whereas global online retail has advanced more than 70%.

Online sales increased 10% year-on-year to $5.4 billion and accounted for 8% of the value of global sales in 2017.

39 Thanks to Thomas Galbraith, The Petraeus Group, for insights and helpful contributions in writing this chapter.
40 Online sales for offline companies are based on their reported online sales where available along with the share of online sales (as a proportion of total sales) reported in surveys of each sector. Online only companies' sales are based on a survey of around 55 companies in this sector, interviews and secondary sources.

Figure 5.1 | Sales in the Online Art and Antiques Market

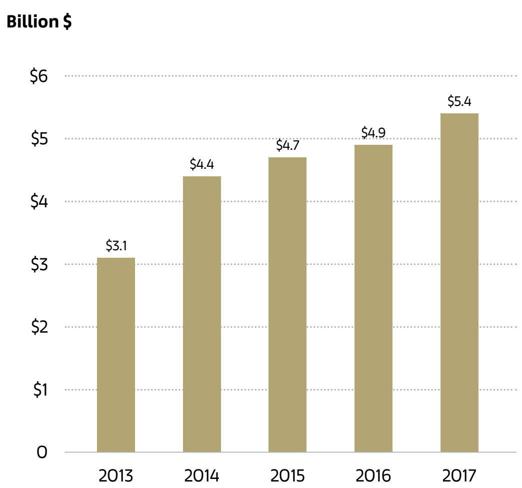


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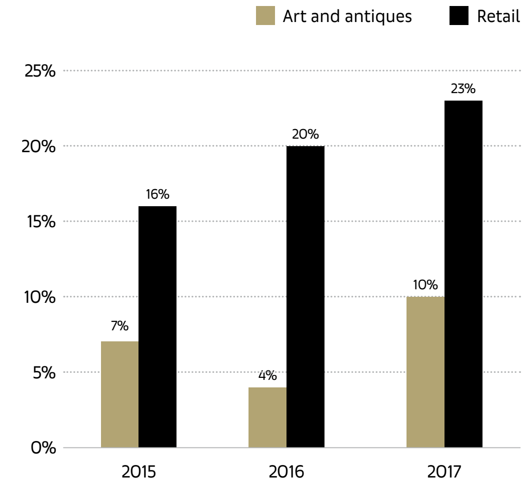
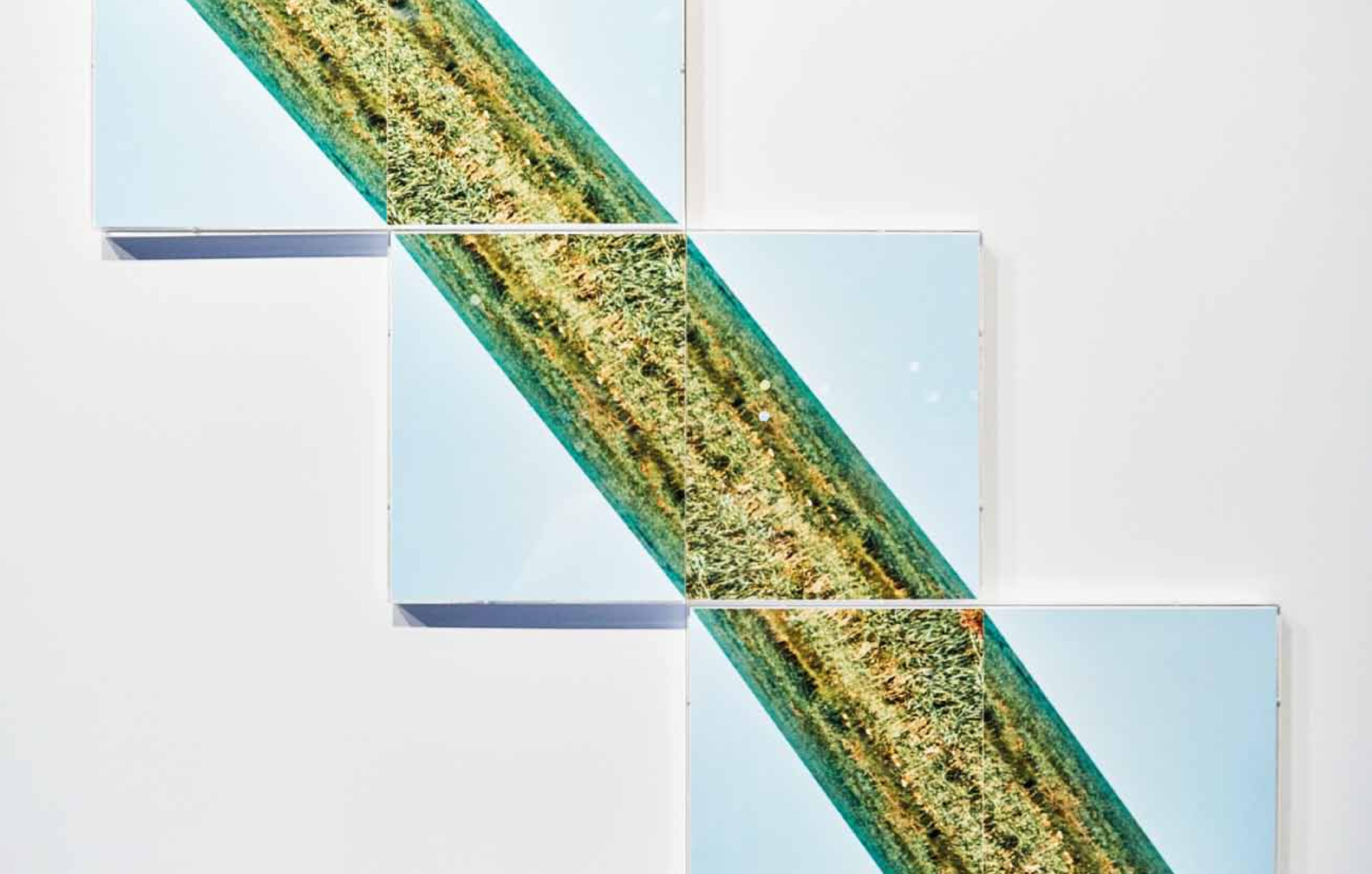
Figure 5.2 | Annual Growth in Online Sales: Art and Antiques Versus General Retail



© Arts Economics (2018) with data from eMarketer.com



5.2 | The Online Auction Sector

E-commerce by traditional offline dealers and auction houses made up the majority of the online art market by value, and has advanced significantly over the last five years. While some of the traditional auction houses were initially slow in adapting to the opportunities of the online art market, many are now focusing more intently on this channel, testing new methods to boost sales and attract new buyers.

Top-Tier Auction Houses

Sotheby's was highly active during the year, making a serious push online, which most notably included offering a 0% buyers' premium on all online-only sales, with the company seeing online sales as an integral part of their strategy to acquire new clients. In 2017, 53% of all online bidders were new to Sotheby's. In online-only sales, 45% of the buyers were new buyers and 19% of the new clients acquired in online-only sales subsequently participated in live auctions. Sotheby's held 16 online-only sales in 2016, increasing to 36 in 2017. The average price of a lot sold in an online-only sale rose to $10,000, with the company reporting that prices routinely exceeded $50,000. Online sales (including online-only sales and successful online bidding in live sales) also rose significantly to $180 million in 2017, up 16% year-on-year. The value of online-only sales remained relatively low, at less than 1% of Sotheby's turnover (totaling just under $16 million in 2017). Overall, however, 23% of all lots sold were from online bids, representing a substantial share of the company's transactions.

Sotheby's has long maintained a partnership-oriented approach to its online strategy, including in recent years an ongoing joint venture with eBay across art and collectibles, as well as collaborating with Artsy for certain sales.

Invaluable is the engine that drives Sotheby's platform, using its bespoke technology for both online bidding and to power online sales on Sothebys.com. Sotheby's joined Invaluable in early 2016, offering 112 auctions, which increased to around 150 in 2017. The two companies announced a multi-year partnership extension in 2017. This was based on their successful track record in 2016, which showed that, of the Sotheby's auctions listed on the Invaluable marketplace, Invaluable bidders represented 36% of all online bidders and 19% of online buyers in these sales. 90% of bidders coming through Invaluable were new to Sotheby's, reinforcing the importance of the online sector for gaining access to new clientele.

> From 2014, online sales of art and antiques have grown 23%, whereas global online retail has advanced more than 70%.

Christie's has generally pursued an independent and internally driven strategy for online sales over the last five years, with the development of Christie's LIVE platform, which allows online bidding in live sales. This is in addition to its online-only sales. However, in 2017 it changed its approach to some degree, choosing to pursue more partnerships with third-party platforms. Christie's and Artsy launched a multi-auction pilot collaboration in 2017 aimed at broadening access to Christie's inventory by engaging Artsy's network of collectors and allowing them access to Artsy's technology platform. In these collaborative auctions, bidders could place bids prior to the auction on both Christie's site and Artsy's site, with those placed on the latter transferred into live sales where users could continue bidding in real-time via Artsy's live auction integration technology.

Christie's hosted 85 online-only sales during the year over a range of sectors, down from 118 in 2016, with the company stating that the reduction in number was due to "increased focus and curation of sales." Despite having fewer sales, the total value achieved was up 12% year-on-year, reaching $72 million, advancing from less than $5 million in 2012. The average value of lots also increased 21%, from $6,047 in 2016 to $7,305. The online platform continued to be the largest entry point for new buyers to Christie's (at 37%).

> E-commerce by traditional offline dealers and auction houses made up the majority of the online art market by value.

Christie's also began once again publishing their online sales results, a very positive move in sector, where many auction houses and platforms still do not post final prices. This data, which was published from May 2017, revealed a range of prices, with the highest grossing sale online of Post War and Contemporary art totalling $3.8 million.

The total value of online bids at Christie's auctions via Christie's LIVE in 2017 was $144 million, down slightly from just under $150 million in 2016. This brought their total sales online to $214 million, against $217 million in 2016. (This includes both pure online-only sales and online bidding.)

Of the bricks and clicks auction houses, Heritage Auctions was the market leader by value in the online sector, with online sales of $438 million in 2017, up 26% on 2016. Online sales accounted for a greater share of their turnover than offline at just under 54% of their total sales of $815 million (versus 41% in 2016). Unlike many other online companies that have focused on fine art, their key sectors driving online growth were collectibles, including sports collectibles, accounting for $100 million in sales, and sales of vintage comics and comic art, which totaled $44.3 million in 2017. Heritage sold a number of very high-value lots online during the year, including the sale of Jackie Robinson's 1947 Brooklyn Dodgers rookie jersey for just over $2 million.

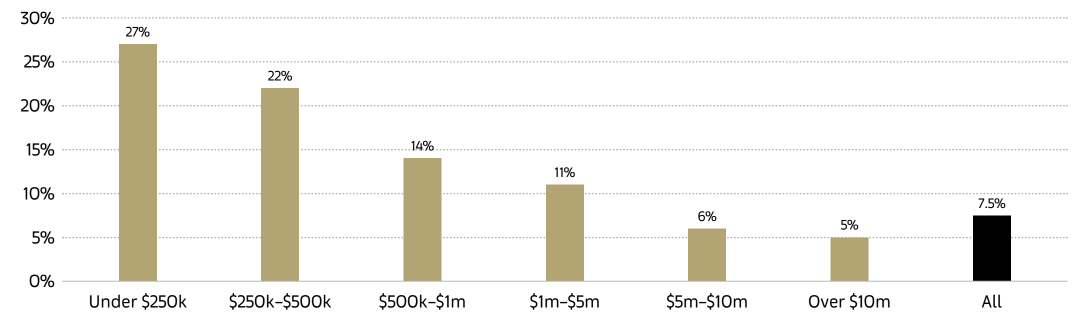
The share of sales is in contrast to Christie's and Sotheby's, where pure online-only sales over the last few years have averaged only 1% or less of their turnover.

Second-Tier Houses and 3P Platforms

For second-tier auction houses, online sales are more significant. A survey of second-tier auction houses in 2017 indicated that, on average, 14% of their sales were online. These online sales included an average of 8% via third-party platforms or auction aggregators, and 6% via their own websites or platforms.

Like the top tier, the online channel is increasingly important for accessing new buyers. For those selling online, 41% of their online buyers were new buyers who had neither been to their premises nor had personal contact in any way with the auction house prior to the sale, up 9% from the share reported in 2016. The remaining online buyers were made up of regular online buyers with whom they had no other direct contact (26%) and regular buyers who had bought offline in the past and/or had contact with the business previously (33%). Most of the auction houses surveyed felt that their online sales would increase in the future: 62% thought they would increase over the next five years, 26% predicted they would stay about the same, and 12% thought they would decrease.

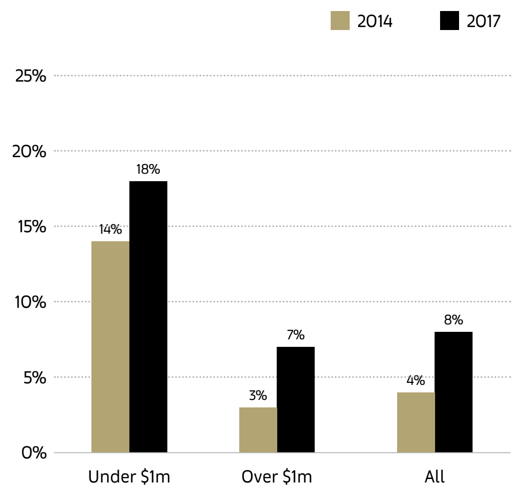
Figure 5.3 | Share of Online Sales (via Invaluable) by Auction House Turnover Level



© Arts Economics (2018) with data supplied by Invaluable

The importance of online sales for mid- and lower-tier houses is also evident from looking at the share of online sales that they made through leading auction platforms. Data supplied by Invaluable, the largest global platform for online auctions, is given in Figure 5.3. An analysis of a sample of around 1,045 of Invaluable's member auction houses from around the world (excluding Sotheby's) showed that 7.5% of the total turnover of these businesses (including online, phone bidding and live sales) was conducted online via Invaluable. For auction houses with turnover of less than $250,000, this share was much higher (at 27%), and it gradually declined as turnover levels rose. This shows the critical importance of online sales for the majority of auction businesses, the majority of which have turnover of less than $5 million.

Figure 5.4 | Share of Online Sales (via Invaluable) by Turnover Level 2014 Versus 2017



Some of the biggest successes in the online market in 2017 have been third-party platforms and auction aggregators, with the vast majority of regional brick and mortar auction houses taking the logical route of outsourcing at least some of their online sales to these platforms. These platforms have been crucial in enabling access to online selling for smaller auction houses that may not have had sufficient budgets to develop their own e-commerce facilities, but as noted above have also established critical links with top-tier houses. As previously noted, second-tier houses reported that they made an estimated 8% of their total sales in 2017 via third-party online platforms. Aggregators such as Invaluable, the-saleroom.com, LiveAuctioneers and others have all continued to grow, despite increased competition within the incumbents and with new entrants such as Artsy joining the space.

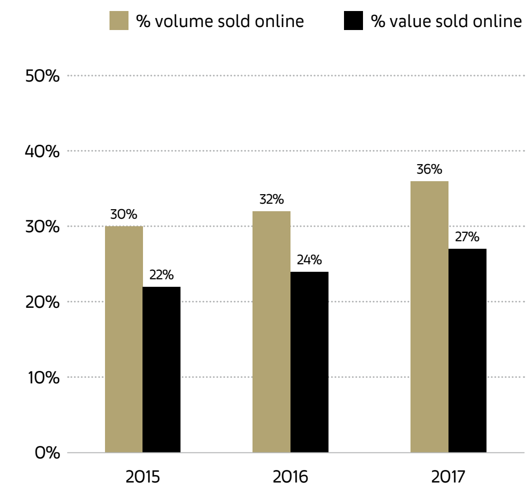
Invaluable continued to grow in size and coverage in 2017, representing 5,000 global auction houses and hosting 16,000 auctions via their platform. Online sales powered by Invaluable reached $342 million, up 14% from 2016, with an increase in lots sold of 17%. The site saw an increase in buyers of 19% year-on-year, with hammer prices for works selling online rising 25%. This indicates a growing willingness of buyers to purchase higher priced works online.

The share of online sales via Invaluable from its members' total sales has doubled since 2014, as consumer confidence in buying online has increased alongside increasing coverage of auction houses. While, as noted above, houses with lower turnovers have seen the largest share of online sales, all auction houses have shown a significant increase in online share over four years, with those with turnover of more than $1 million more than doubling to 7%.

Apart from increasing their share of sales, the company has also begun to use their technology and data gathering to create more custom experiences for users, with close to 300 machine-learning programs such as matching purchasers to lots that would interest them, segmentation of users into relevant price-brackets, and behavioral triggered email campaigns. The revenue-per-user for Invaluable buyers engaging with these was 700% higher than the average revenue per user generally in the Invaluable marketplace, demonstrating the increasing importance of tailored features and marketing tools for successfully securing online buyers.

Some of the regional aggregators have also seen growth in coverage of online sales. In the UK, the-saleroom.com continued to grow both the volume and value of works sold online for its members, despite mounting competition. Most of the growth in sales came from new bidders, which demonstrates again the importance of the online

Figure 5.5 | Share of Online Sales 2015–2017 (via the-saleroom.com)



channel for expanding the businesses of auction houses in the UK and elsewhere. In 2017, the number of lots sold online via the-saleroom.com increased by 21% while the value of online sales grew 27%. Using data from their member's sales, Figure 5.5 shows that the share of online sales grew steadily in terms of both value and volume over three years. In 2017, 36% of the lots sold by UK member auction houses were transacted online via the-saleroom.com, and these lots accounted for 27% of their total value of sales.

Platforms such as Invaluable and the-saleroom.com have developed into brands in their own right, providing the first point of contact for online buyers to search for inventory. However, others such as Barnebys act as a search engine only, directing traffic to the original auction house site in order to carry out the transaction. Views are mixed within the sector regarding the differing approaches taken by aggregators, with those espousing the search engine model claiming that sales platforms distract attention from their members and prevent their brands developing as the platform assumes greater interest than the auction houses themselves. Barnebys, which currently has around 3,000 members, purchased Simple Auction Site in 2017, a US company that develops white label online auction software solutions with the rationale that it was needed to retain clients by providing them with the technology to track bidders, secure payments, and sell to under-bidders in their own right, versus relying on the external platform.

In 2017, second-tier houses made an estimated 8% of their total sales via third-party online platforms.

Artsy also continued its engagement in the auction sector in 2017, hosting more than 190 auctions (a combination of live and online-only sales, with partners including Sotheby's, Christie's, and Phillips). In 2016, Artsy launched live auction technology with some of their auction partners, including Sotheby's, Phillips, and Koller, hosting more than 40 auctions. This increased to 190 in 2017. The company hopes to double that again in 2018. In an interesting example of online moving offline, Artsy has also been present and delivering online bids at many of the offline auctions during the year, ensuring that online bidders are fully represented, while at the same time underlining the auction house's interest in their online bidders.

Online-only Auctions

The online-only auction market also continued to evolve in 2017, with various successes and failures. In 2017, only nine months after their merger, Paddle8 and Auctionata filed for bankruptcy, with Auctionata closing in March (despite having raised more than $130 million in venture capital). Paddle8 and Value My Stuff, the two subsidiaries of the company, were sold to investors in the US and UK. In early 2018, Paddle8 announced it was taking investment from a Swiss technology company, The Native. The two companies launched The Lab in late 2017 as a joint partnership with the aim to design and deploy blockchain technologies for the art market and other luxury collectibles.

There have been some interesting side effects from the initial round of prominent startup failures in the online-only auction sector. One of the key outcomes is that with the two dominant online auction players gone, much of the business, as well as the investment funding, has gone to the surviving incumbents. Companies such as Artnet have seen an increase in auction sales without any real change in strategy,[41] while Artsy was able to consolidate investors, resulting in their largest raise of funds to date of $50 million, without any significant challengers to contend with. Another outcome is that those individuals formerly involved in the failed companies have in some cases spawned a new round of startups, including ArtSnap and CollectorIQ, while others have taken up influential positions in existing companies.

Some of the biggest successes in the online market have been third-party platforms and auction aggregators.

While most of the activity in the online auction sector has been focused on the US and Europe, Mainland China has also witnessed a significant increase, with values reaching close to $400 million (including those by traditional houses and online-only companies domiciled there). The Chinese Auctioneers Association monitors the results of online sales from traditional auction houses and online-only auction companies. Some of the online-only companies that have started in the last few years are independent but connected to a parent auction house, such as Guardian Online, a separate entity from China Guardian Auctions, but with a turnover in the region of 1% of their offline

41 In the first nine months of 2017, Artnet's total revenue increased by 9% compared to the same period in 2016 (to $15.3 million).

parent. Outside these official auction companies there are also many auctions conducted by individuals and companies without licenses, which are illegal but account for a large volume of very low value sales. Finally there are a number of platforms that provide online auction services or virtual space rental for auction companies, galleries, dealers and individuals, such as Artron/ AMMA and WeiPaiTang.

Many of the platforms currently in operation in China focus on lower value items, and the share of sales in luxury e-commerce generally is around half that of wider retail sectors. However, sales in China of art and other luxury products online have been recognized as a key area of potential growth, particularly for those companies that can successfully bridge offline and online sales. China has some of the most innovative digital services and platforms, such as WeChat and Tmall, and Chinese consumers are also avid users of social media, all of which are likely to contribute to a greater uplift in online sales of art in the future.

Mainland China has also witnessed a significant increase in activity in the online auction sector, with values reaching close to $400 million.

5.3 | The Online Dealer Sector

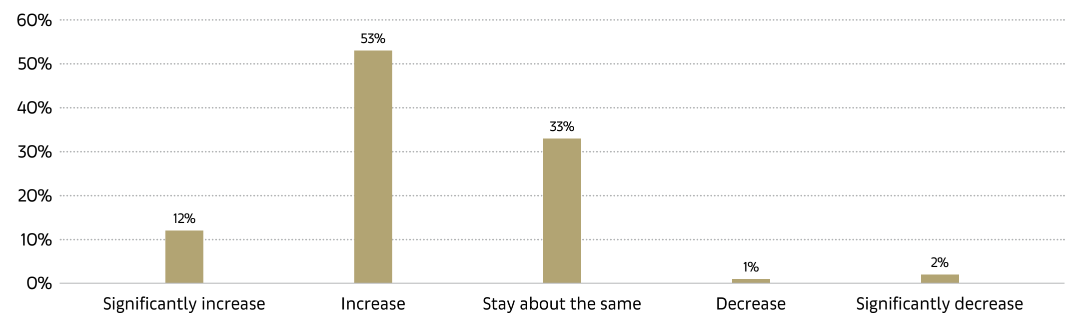
The online channel represented 6% of total sales in the dealer sector in 2017, down 2% in share year-on-year. As in 2016, the majority of these sales (67%) were made through the dealer's own internal online channels (such as their website or via email), with the remaining one-third of sales through third-party platforms, the most commonly cited being Artsy, 1stdibs and Artnet.

As in the auction sector, online sales have become an important means of accessing new customers, however the share of sales to new buyers online dropped year-on-year in favor of those to more established clients. In 2017, 45% of the online sales generated by dealers were made to new clients that had never been to their gallery or met them in person (as against 56% in 2016), 39% were to established buyers that had already had personal contact with the gallery but who bought through their website or through sending an image (up 6% year-on-year), while the remaining 16% were established online buyers who had never been to the gallery or met the dealer in person.

As in the auction sector, third-party platforms are continuing to make an impact. One of the largest gallery platforms in the sector is Artsy, which had more than 2,300 subscriber galleries in early 2018. As noted above, Artsy raised $50 million in a fourth round of venture capital funding in 2017, bringing the total raised to around $100 million since 2011. The company also acquired a data analytics firm, Art Advisor, a technology start-up that specializes in analyzing large sets of data with the aims of using data and machine learning to offer further information and more personal experiences.

Apart from offline galleries selling online, there are also a number of online-only retailers selling on their own account. Some of these businesses, although still coming from a relatively low base, have continued to show strong growth in sales and revenues and there have been many new entrants from diverse geographical bases in the last three years. Some relative newcomers are actively embracing a lower priced business model, and specifically targeting new buyers who do not have the budget to buy high priced original works. Companies such as Twyla, launched in 2016, have specifically set their sights on lower and mid-priced works, aiming to move the focus away from the very narrow group of high end collectors that are so competitively targeted in the offline market, and instead focusing on all of the other potential buyers, including new collectors. These companies aim to offer a less intimidating entry point to collecting as well as lower prices. Some also offer additional user-friendly services such as framing and hanging tools.

Figure 5.6 | Dealers' Views on Online Sales Over the Next Five Years



Although prices vary between companies, a survey conducted by Arts Economics in 2017 of around 50 businesses active in the online sector revealed that among retail companies in the sector, 65% of the volume of works and objects sold online in 2017 were for prices less than $5,000, 94% were for less than $50,000 and only 1% were for over $1 million. This tendency for the greatest volume of sales to remain at the lower end of the market has slowed the aggregate growth in the value of this segment of the online market versus its offline counterparts.

Most of the traditional offline dealers surveyed in 2017 recognized the online channel as a key area of growth over the next five years: 65% thought online sales would increase, around one-third predicted they would remain the same and just less than 3% expected a decline in sales. The internet and online sales were only rated as one of the top three challenges by 16% of dealers in 2017, however, 39% felt it would be one of their biggest challenges over the next five years (ranking it the fourth biggest challenge next to finding clients, the economy and art fairs).

5.4 | Blockchain and the Art Market

2017 was notable for the surge in interest and investment in cryptocurrencies, with Bitcoin, Ethereum and others all having been discussed in the context of the art market. Many are considering how blockchain technology may be applied to art, although views remain mixed regarding its real relevance in the medium term for most businesses, due to the structure of the market and frameworks in which transactions take place.

Blockchain is a technology platform that acts as a public, digital ledger that records transactions that are made using cryptocurrencies such as Bitcoin. The main principle behind the technology is that users can execute online transactions without the need of an intermediary (such as a bank) to verify, authenticate and record the transaction. It allows continuous access to a large decentralized database of digital transactions, allowing verification when making transactions. Its decentralized nature also offers greater security than if these were centered in one database that could be potential hacked.

The blockchain is a continuously growing list of records ("blocks") which are linked together and secured using encryption, with each block typically containing a record of the previous one along with the new transaction data. Once recorded, the data in any given block cannot be altered retroactively without altering all of the subsequent blocks, which makes it inherently difficult to copy.

Information on the blockchain is also publicly available so any transactions are instantly visible to everyone. This means that the blockchain can act as a public ledger. If one party sends Bitcoin (or some other cryptocurrency) to another, that information is publicly available on the blockchain. Other parties will not know the identity of the seller, but can access exactly how much value has been transferred from one person to another.

The main benefits of blockchain technology in relation to art center on its potential to improve authentication and provenance. The technology can allow the creation of safe and secure certificates of authenticity that follow artworks from their inception, hence reducing the possibility of fraud. However, at present this is really only interesting as it relates to digital art. A problem encountered in the digital art market, for instance, is the relative ease of replication and copying, which reduces underlying values for collectors. Blockchain could help to solve this for digital artists by issuing a limited number of copies and linking them to unique blocks, proving ownership. Artists can authenticate works, and this authentication is essentially recorded on the blockchain ledger permanently. They can also offer limited editions of digital works with each number tracked separately and publicly on the ledger, protecting both the artist and those who invest in their works. Buyers are also protected by a centralized and verifiable proof of ownership, which can act as a traceable and unalterable record of an artwork's provenance over time. This traceability also paves the way for tracking future sales and commissions due back to artists in resale royalties and copyright.

Aside from digital art, there are a number of companies in the sector aiming to use blockchain technology to verify physical works and help artists retain rights to their images. Companies such as Verisart, ArtByte, Artlery and Ascribe have recently been launched which help to attach authenticity to online images, helping artists and owners claim the rights and commercial value of their digital media. Verisart is also using blockchain to build a global ledger of physical art and collectibles, sold both online and offline. The problems of adherence are obvious to schemes such as this, however, as they rely on the voluntary participation of the current owners of works of art, many of whom are averse to offering up the price they paid for works of art because of considerations of discretion and security. Biddable, a new company launched by Codex in 2018, aims to let bidders buy privately and pay with cryptocurrencies using a deposit system that avoids having to register or go through any pre-clearance procedures with the auction house.

Other interesting startups in this area include Artory, which was founded in 2016 and aims to provide an independent public archive that allows those in the art trade and academia to create unique, secure and verifiable records for works of art and their history. The goal is for this to eventually replace documentary records with certificates stored safely online. The Artory Registry will immutably link relevant information to a work of art, keeping it safe from alteration by being backed up in the blockchain. Buyers remain anonymous to Artory while still having access to information about their work of art throughout its lifetime and receiving an anonymous, encrypted certificate as proof of purchase.

The main benefits of blockchain technology in relation to art center on its potential to improve authentication and provenance.

Artists can offer limited editions of digital works with each number tracked separately and publicly on the ledger, protecting both the artist and those who invest in their works.

The key potential in applications such as this is that while collectors and dealers may not wish to share their personal ownership details with a central registry, the blockchain would allow proof of ownership with encryption without sharing actual identity. In this way provenance could be tracked to help verify a history of ownership, while protecting the privacy of individuals.

Other claimed benefits of the technology include the potential for shared ownership for investment in art. Companies such as Maecenas launched blockchain platforms in 2018 by offering fractional ownership of artworks or the means to raise funding by offering existing artworks as collateral for lending. Such schemes are hardly new, however, the ability of blockchain to reduce transaction costs by cutting out the middleman has renewed interest in them. One of the main hurdles in the launch of these schemes in the past, however, has been a general lack of demand, particularly for fractional ownership schemes.

The art market, as a laggard on many fronts in the technology sector, has had a tendency in recent years to get very exited about technological innovations and their applicability to the market, with many proponents claiming that they would revolutionize the field overnight. In reality this has not happened mainly due to the relatively small overall size of the art market (and particularly its online component), the uniqueness of works of art, as well as the asymmetrical structure of the art market, with the majority of value and most of the highest value transactions conducted via a small number of companies and virtually all offline.

56% of online companies surveyed felt blockchain would have an effect on the art market.

While blockchain technologies could help reduce fraud in some sectors, the anonymity of cryptocurrencies could also create a black market of dubious transactions that could worsen the reputation of the online market with new buyers. The anonymity of Bitcoin and other similar currencies has been a powerful tool for financing crime, with virtual money keeping shady transactions secret. The paradox of cryptocurrency is that its associated data creates a trail that can make transactions and financial histories possible to track.

Much like e-commerce in the art market in general, it is therefore likely that rather than producing revolutionary short-term changes, there will be a slower adaption to the technological improvements these latest innovations provide, with the benefits ultimately being absorbed into existing systems.

Within the online sector, views were mixed regarding the impact of blockchain and digital currencies. The survey of online companies in 2017 revealed that 44% felt it would have no effect on the art market. 45% felt it would have some effect and a further 11% predicted it would have a significant impact. Of those who thought it would have an effect, most (80%) thought that the effect would be positive.

While blockchain technologies could help reduce fraud in some sectors, the anonymity of cryptocurrencies could also create a black market of dubious transactions that could worsen the reputation of the online market with new buyers.

5.5 | Website Traffic and Social Media

The main challenge for all of the companies in the online art market continues to be gaining the attention of buyers and sellers, and hence securing more website traffic.[42] Table 5.1 shows the global ranking based on website traffic of a selection of companies involved in e-commerce in the art and antiques market in 2017. The highest ranked sites in terms of traffic are the giant third-party (3P) marketplaces, such as Amazon and eBay, both with over 1 billion visitors a month, explaining their appeal for partnerships in the auction sector. These rankings are based on their visitors across all products, including art and antiques alongside many other products. The highest global rankings for art-specific sites were Artnet and Artsy, both with over 4 million visitors per month in late 2017. However, visits to these sites are highly driven by editorial and news content. In terms of pure e-commerce sites, some of the third-party retail and auction aggregators ranked the highest including LiveAuctioneers, the 3P platform 1stdibs, the-saleroom.com and Invaluable. All of these aggregators had in the region of 3 million visitors per month.

There is rising demand for clear information on pricing of artworks online.

In the traditional offline auction sector, or "bricks and clicks," Heritage Auctions led, followed by Christie's, both with around 2 million visitors per month. Sotheby's also ranked highly with around 1.5 million visitors. While visitors to these sites have all increased year-on-year, it is interesting to note that they are lower in number than the major aggregators, indicating the rising importance of such platform sites as a first port of call for many online buyers. The auction platforms also rated higher in terms of user engagement (how long visitors stay on sites and how many pages they visit once there), with visitors spending twice as long on sites such as Invaluable and thesaleroom.com as they did on Christie's or Sotheby's websites. The highest ranking sites in 2017 in terms of user engagement were in fact some of the regional auction consolidators, with average visit durations on sites such as drouotlive.com[43] and lot-tissimo.com exceeding 15 minutes.

The highest-ranking 1P retailer (that is a company or platform selling on their own account, including platforms for artists) was saatchiart.com with monthly visits of over 2 million, alongside the long-established art.com (which includes posters and non-original prints). These sites also had the highest engagement from visitors, with average durations of just over four minutes versus one to two minute averages for most of the other 1P retailers.

While traffic rankings give an indication of popularity, some sites are built on a more exclusive business model, targeted at attracting specific visitors rather than high volumes. An increase in visitor traffic is also only a first stage for any company, with the key challenge centered on how to convert more visitors into active buyers.

Social media has grown in importance, and while it has been well established as a tool for building brand awareness, many galleries are now increasingly exploring its use as a more proactive marketing and sales tool. Some dealers and auction houses are increasingly using paid social ad placements as well as creating content specifically for social media using video tools like Instagram Stories and Facebook Live. Instagram launched Instagram Shopping in 2017, piloting click-to-buy links for clothes, jewelry and beauty products. As this expands, it is likely to hold much appeal for businesses in the art market to promote and sell their works.

As collectors are increasingly browsing art works online, there is also rising demand for clear information on pricing as well as provenance, condition, exhibitions and other data. While some galleries are responding to this demand, there is still a marked reluctance to post prices online, especially at higher price levels. A gallery survey conducted by Artsy of their members in 2017 showed that almost 30% were using platforms to post prices, with 16% including price information on Instagram or Facebook. While some galleries post all prices, others often record only those at the lower end of the price spectrum. The analysis of fairs using Artsy data showed that only 42% of the galleries participating in fairs uploaded some price information. However, those galleries that did upload at least one price averaged three times as many inquiries as those that did not post any prices. This would indicate the importance of transparency as well as the reluctance of buyers to pursue more opaque sales online.

Although they can be relatively easy to manipulate, metrics on social media followers can offer some insight into the use and involvement of the companies in this sector. The news and editorial platforms of Artsy and Artnet had the highest number of Twitter followers, along with mega-galleries Gagosian and Saatchi and the top-tier auction houses (Christie's, Sotheby's and Heritage). Gagosian, Artsy and Sotheby's were the three leading art-specific companies which conduct e-commerce in terms of popularity on Instagram, and Artsy and Sotheby's also had among the highest number of Facebook likes.

42 Traffic statistics are primarily from SimilarWeb, one of the main web analytics databases. Databases such as SimilarWeb and Alexa have a number of measurement and accuracy issues and show a snapshot at a point in time only (extracted in December 2017). It is important to note that some of these indicators change rapidly. Social media statistics are taken directly from the source on social media (and not from these databases).

43 drouotlive.com re-launched in February 2018 as Drouot Digital (www.drouotonline.com). The visit duration refers to the original site at the end of 2017; visits to the new site averaged just over 7 minutes in 2018.

Table 5.1 | Website Metrics: Selected E-Commerce Companies in 2017[44]

a. Galleries, Artists and Retail

i. 1P Retail	Global rank 2017	Twitter followers	Instagram followers	Facebook likes
20x200.com	1,276,863	24,800	6,328	28,998
art.com	31,823	29,700	19,200	408,180
artandonly.com	2,965,623	761	4,052	3,459
artfuly.com	15,052,911	114	101	2,271
artgallery.co.uk	167,769	3,501	339	12,595
artists.de	951,872	7	–	–
artlead.net	6,011,722	257	3,773	3,342
artplode.com	2,163,359	39,300	1,830	2,193
artstar.com	3,063,789	1,756	5,942	3,150
artuner.com	4,191,362	8,852	6,905	4,933
blindspot.com	9,986,676	6,636	1,956	8,651
bluethumb.com.au	382,865	1,326	17,500	33,759
collectionair.com	8,406,685	476	7,892	2,100
culturelabel.com	3,923,988	11,500	4,653	17,874
exhibitiona.com	3,171,148	5,309	74,200	4,893
eyestorm.com	1,147,288	1,848	2,236	3,498
gagosian.com	433,762	395,000	754,000	160,799
gazelliarthouse.com	5,195,620	3,413	18,800	6,192
ideelart.com	854,378	2,000	18,400	6,073
indiewalls.com	3,527,349	1,440	1,856	2,189
lavacow.com	4,397,463	–	436	2,289
lumas.com	550,000	9,675	24,700	186,233
myartbroker.com	3,375,271	872	1,178	1,683
riotart.co	16,248,037	124	1,953	636
riseart.com	421,980	70,500	20,000	35,731
saatchiart.com	29,113	231,000	340,000	427,743
seditionart.com	1,857,135	3,831	7,703	465,003

44 Note that many companies offer a range of services, including combining auction and retail sales making them difficult to classify. Companies were classified based on their most relevant link to art sales or where their focus was primarily in 2017.

i. 1P Retail (continued)	Global rank 2017	Twitter followers	Instagram followers	Facebook likes
theartfulproject.com	3,017,684	2,482	5	387
theartstack.com	138,235	3,587	5,690	16,256
twyla.com	1,827,258	1,484	10,800	39,327
ugallery.com	726,005	4,020	23,500	21,369
wengcontemporary.com	8,175,857	221	14,600	1,657
wydr.co	9,602,012	818	5,354	2,806
yellowkorner.com	148,202	3,555	17,501	170,577

ii. 3P Retail Marketplaces				
1stdibs.com	22,658	19,500	380,000	73,163
amazon.com	20	2,720,000	620	28,288,674
artfinder.com	77,496	101,000	30,800	266,443
artsation.com	3,530,103	1,763	722	26,658
artspace.com	214,133	201,000	279,000	86,217
artsper.com	135,604	9,323	15,700	141,244
artviatic.com	9,015,128	15,300	175	4,819
artweb.com	846,649	32,300	–	25,875
ebay.com	39	674,000	323,000	10,233,348
etsy.com	208	2,720,000	1,600,000	3,098,091
goantiques.com	938,731	170	8,030	7,442
masterart.com	1,700,788	1,186	277	7,263
newbloodart.com	3,156,414	1,841	1,131	2,568
ocula.com	976,516	3,969	45,100	56,373
rubylane.com	38,612	11,000	8,103	174,545

Table 5.1 | **Website Metrics: Selected Companies in 2017 (continued)**

b. Auctions

i. Bricks and Clicks	**Global rank 2017**	**Twitter followers**	**Instagram followers**	**Facebook likes**
bonhams.com	93,097	39,000	30,100	20,032
bukowskis.com	81,599	–	25,800	13,593
christies.com	37,815	107,000	387,000	220,953
dorotheum.com	40,707	1,371	7,644	15,991
dreweatts.com	835,253	2,596	1,438	933
ha.com	27,892	57,400	2,772	83,608
heffel.com	1,659,362	1,483	1,366	18
interencheres-live.com	179,719	2,245	1,137	8,370
lauritz.com	39,212	–	5,654	32,780
phillips.com	167,651	38,500	123,000	27,611
saffronart.com	1,142,886	2,407	8,019	29,637
sothebys.com	33,948	97,600	578,000	468,575

ii. Online Only	**Global rank 2017**	**Twitter followers**	**Instagram followers**	**Facebook likes**
artnet.com	17,377	1,940,000	541,000	259,369
artprice.com	50,065	30,100	–	338,840
astaguru.com	3,496,078	376	1,428	103,374
auctionaftersale.com	6,041,792	951	508	3,167
catawiki.com	43,492	2,886	11,500	792,894
ebth.com	29,481	3,306	72,600	158,099
expertissim.com	379,778	2,221	1,262	4,813
hihey.com	4,146,619	17	44	71
paddle8.com	358,695	39,800	67,200	38,498
valuemystuff.com	110,940	29,200	93	15,145

iii. Aggregators	**Global rank 2017**	**Twitter followers**	**Instagram followers**	**Facebook likes**
artebys.com	29,898,164	115	–	1,545
artsy.net	18,769	1,350,000	579,000	564,147
auction.fr	91,496	465	911	3,465
auctionet.com	81,762	68	1,791	25,343
auctionzip.com	13,254	4,462	–	36,867
barnebys.co.uk	380,264	1,629	12,200	27,485
bidspotter.com	138,625	1,159	72	3,298
drouotlive.com[45]	286,611	7,859	18,700	100,706
epailive.com	2,152,925	1,008	441	52
igavelauctions.com	527,111	879	1,188	1,469
interencheres-live.com	179,719	2,245	1,137	8,370
invaluable.com	23,541	4,812	3,016	52,503
liveauctioneers.com	21,771	2,362	1,052	17,871
lofty.com	791,638	1,502	–	16,692
lot-tissimo.com	93,904	–	–	780
lotprive.com	547,590	552	–	4,253
the-saleroom.com	23,494	5,540	244	5,411
theauctionroom.com	2,904,420	2,093	4,066	668

© Arts Economics (2018) with data from SimilarWeb, Alexa, Facebook, Twitter and Instagram. Data measured in November and December 2017.

45 As noted above, drouotlive.com re-launched as drouotonline.com in 2018. This site has a rank of 235,105, 90 Twitter followers and 100,723 Facebook likes. Drouot Paris (drouot.com) has 20,800 Instagram followers.

Conclusions

The online art market has continued to evolve in interesting ways. Although it has maintained a steady increase in sales, its most critical function continues to be accessing new buyers, which the market critically needs to support sales, particularly in the middle and lower tiers. While online sales were limited to very low prices initially, this ceiling continues to rise gradually, allowing a much expanded range of interactions between buyers and sellers.

As more offline business continues migrating online, there are also online businesses moving offline in varying forms. Some are obvious, such as popups from online galleries, like Uprise Art, an initiative involving temporary retail outlets at empty mall spaces. Others are less so, such as the previously mentioned presence of Artsy technology and sales representatives at live auctions. These shifts indicate that some of the boundaries between online and offline are starting to blur, with many hybrid models and strategies slowly emerging in the sector.

While the past few years have seen bankruptcies, acquisitions and newcomers, some of the companies appear to now be seeing the longer-term effects of the steady march online. However, despite the emergence of many new companies over the last ten years, the level of sales is still relatively low compared to offline art sales. Moreover, the survival of many online companies has still been dependent on significant injections of capital investment, indicating, on the one hand, continued investor confidence in future prospects, but also a lack of consistent or sufficient revenue streams or a winning business model. Although audiences are steadily growing, some parts of the sector are arguably already populated with too many companies, which seems likely to indicate that there may be more bankruptcies, closures and mergers, as new and old ventures grapple with an overcrowded space.

Some of the most interesting developments are also occurring outside of the e-commerce sector with start-ups and development of companies in related areas such as services. This sector includes inventory and client management (ArtBinder and Arternal), logistics (UOVO, ARTA and ArtRunners), framers (Framebridge) and many others. This space continues to attract new talent and great ideas intended to make the art market more efficient. These companies, along with the increasing number of online data providers, will provide interesting avenues of future research in this sector.

6

Global Wealth and Art Buyers

Key Findings

Global Wealth and Art Buyers

1. In 2017, the number of millionaires worldwide reached a historical high of 36.1 million, increasing 7% annually Millionaire wealth rose by 10% to just under $129 million.

2. In 2017, the top 10% of wealth holders owned 88% of the world's wealth, leaving just 12% of the world's wealth for the remaining 90% of adults.

3. A survey of (high net worth individuals) HNWIs in the US by UBS and Arts Economics in 2017 revealed that 35% were active in the art and collectibles market.

4. The survey indicated that the most common price range for buying works was less than $5,000 (79% of respondents), and 93% reported that they most often bought at prices less than $50,000. Just less than 1% bought at prices in excess of $1 million.

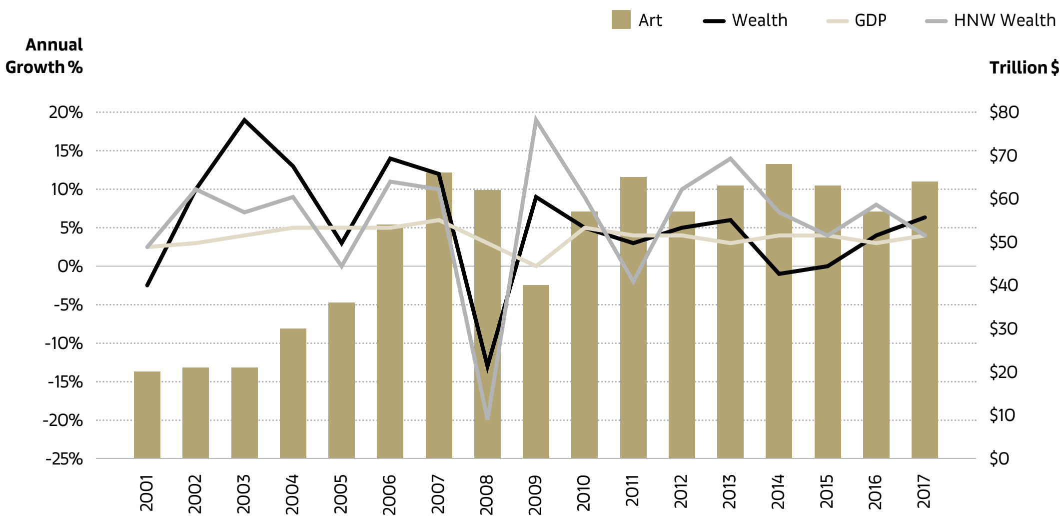
5. The most frequently used channel for purchases was a gallery or dealer, with 66% of the sample having used them to purchase art.

6. 11% of respondents reported that they had used credit or loans to purchase works of art or objects in their collections.

7. Only 32% of collectors felt that the expected financial return on their investment was important, although this was higher (at 47%) for those with wealth over $5 million. The majority of the collectors surveyed (86%) reported that they had never sold a work from their collection.

8. Sales to private collectors dominated the dealer and auction sectors, accounting for 66% of dealers sales in 2017 and 64% for second tier auction houses.

Figure 6.1 | Sales in the Art Market Versus Growth in Wealth, HNW Wealth and GDP



Correlation	2000–2017	2007–2017	2012–2017
Art v GDP	87%	43%	69%
Art v HNW Wealth	75%	29%	22%
Art v Wealth	90%	33%	19%

6.1 | Regional Performance in 2017

The various sectors of the art market have performed differently over the last decade, often showing a lack of correlation with each other as well as with financial markets. However, when considered at a macro level, trends in the growth of the global art market as a whole have been closely linked with key economic variables, particularly measures of national growth, prosperity and wealth. Gross domestic product (GDP), GDP per capita and household wealth have strongly driven trends in international buying in the art market, with income, be it national or individual, having a positive effect on the demand for art.

When an economy is booming, people have more money to spend on art. The rapid growth of China's economy in the last 20 years has undoubtedly helped fuel the development of the art market there. But the much smaller art markets in countries such as India show that rapid economic growth alone does not automatically generate the development of a large local market, with supply-side fundamentals and other factors still key.

When economies are in decline, income, consumption and investment often decrease. However, the effects on the art market have varied in level, intensity and duration. As other asset market returns diminish, some market participants use art either to diversify their portfolios or simply because of a lack of attractive alternative investment options and stores of value which lead to a positive substitution effect towards art and other tangible assets (such as real estate or precious metals). This can mean that some sectors of the art market are more resilient and can rally against economic indicators.

Over the long term, the performance of the art market has been highly correlated with the growth of the world economy and wealth, with correlation since 2000 of around 75% or more for world GDP, household wealth and high net worth (HNW) wealth. However, over shorter periods, art sales have displayed a low or negative correlation with wealth measures, and they tend to follow patterns of wealth with a lag or even run counter to short-term trends. In the short and long term, the highest correlation art sales have shown has been with GDP.

In reality, supply-side factors have the most critical influence on how art sales progress: what comes up for sale in galleries and fairs or on the auction market will determine aggregate trends. But even these are influenced to some degree by economic matters: the mood of the economy, perceived prosperity and financial confidence are all strong influences on the timing of vendors' sales decisions and on the channels they choose to use for sales.

Economic Growth

Looking briefly at the general economic context prevailing in 2017, there was strengthening in global economic activity, with global growth of 3.6% and notable pickups in investment, trade, and industrial production, alongside stronger business and consumer confidence.

This improving performance comes after several years of declining growth rates in world GDP. Following an initially strong recovery after the global financial crisis in 2010, growth in the global economy faltered, stuck in a slump in the aftermath of the recession and a debt crisis in Europe. Even some of the strongest growing economies such as China were slowing steadily, raising fears of economic fallout in other developing countries with strong trading links. Global GDP growth was stagnant or declined in most years between 2010 and 2016; however, in 2017, the recovery was robust and relatively widespread, with over 60% of countries worldwide seeing an increase in their GDP, and only 7% in recession. Inflation remained low (and below target rates) in most advanced economies, while unemployment rates also fell in the majority of countries (including the G7 and Eurozone) to their lowest rates since 2010.

There was marked improvement in 2017 in countries such as Brazil and Argentina, which resumed positive growth, pulling themselves out of recessions, while

Global GDP grew 3.6% in 2017 with notable pickups in investment, trade, and industrial production, alongside stronger business and consumer confidence.

the troubled Eurozone had its highest growth rate in ten years. The US grew slightly faster than expected at 2.2%, with resilient demand from consumers and businesses. While the US economy is generally agreed to be on a solid footing, most economists expect GDP growth to slow beyond 2018, moving closer to 2% (rather than the sustained 3% pace predicted as a result of the current administration's tax plan). The UK economy on the other hand saw its third year of slowing growth, with a decline in consumer spending offsetting boosts to exports and public investment.

While some of the larger mature economies such as the US are operating at what might be considered full capacity, there is still significant room for continued longer-term growth in emerging economies. Despite its slowdown in recent years, China remains one of the world's fastest growing nations, and in 2017 saw a slight increase in the rate of growth after seven years of decline, boosted by easier fiscal policies and financial conditions, and a supportive global context. Many of the other export-focused economies in Asia, such as Taiwan and South Korea, also experienced increased growth rates.

Despite this improved baseline, global economic growth remains below pre-financial crisis levels (with world growth averaging over 5% in the five years to 2007), and is still low in many countries. The reality for most of the world in 2017 was therefore that statistical economic gains were likely to have had only a negligible (if any) impact in terms of an improved quality of life. That said, the positive general climate (particularly versus the uncertainty that prevailed in 2016) may have increased confidence due to a generally more stable outlook, all of which trickles down to the art market and the activities of both buyers and sellers.

China remains one of the world's fastest growing nations, with a slight increase in GDP growth (to 6.8%) after seven years of decline.

Low but improving growth is expected to continue both in 2018 and over the next five years, which could provide an opportunity for policymakers in many regions to undertake critical reforms to stave off downside risks, raise potential output and improve living standards more broadly. Nonetheless, risks also remain. The volume of global imports and exports both grew by over 4% after declines in 2016, boosting growth in some of the major world economies, but a number of trade policy issues loom in 2018: continuing negotiations on NAFTA, Brexit and threats of other more local protectionist policies, for instance, could all affect economic growth, as well as the art market, in the years to come.

Table 6.1 | Growth in GDP Per Annum, Constant Prices (%)

Country	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018e	2022e	Change in Growth Rate 2007–2017
China	14.2	9.6	9.2	10.6	9.5	7.9	7.8	7.3	6.9	6.7	6.8	6.5	5.8	–7.4%
India	9.8	3.9	8.5	10.3	6.6	5.5	6.4	7.5	8.0	7.1	6.7	7.4	8.2	–3.1%
Malaysia	6.3	4.8	–1.5	7.5	5.3	5.5	4.7	6.0	5.0	4.2	5.4	4.8	4.9	–0.9%
Indonesia	6.3	7.4	4.7	6.4	6.2	6.0	5.6	5.0	4.9	5.0	5.2	5.3	5.5	–1.1%
Ireland	5.2	–3.9	–4.7	1.8	2.9	0.0	1.6	8.3	25.5	5.1	4.1	3.4	2.8	–1.1%
Luxembourg	8.4	–1.3	–4.4	4.9	2.5	–0.4	4.0	5.6	4.0	4.2	3.9	3.6	3.0	–4.5%
Hong Kong	6.5	2.1	–2.5	6.8	4.8	1.7	3.1	2.8	2.4	2.0	3.5	2.7	3.3	–3.0%
Czech Republic	5.6	2.7	–4.8	2.3	1.8	–0.8	–0.5	2.7	5.3	2.6	3.5	2.6	2.3	–2.1%
New Zealand	4.0	–0.4	0.4	2.0	1.9	2.5	2.1	2.8	3.2	3.6	3.5	3.0	2.4	–0.5%
Sweden	3.4	–0.6	–5.2	6.0	2.7	–0.3	1.2	2.6	4.1	3.2	3.1	2.4	1.7	–0.3%
Spain	3.8	1.1	–3.6	0.0	–1.0	–2.9	–1.7	1.4	3.2	3.2	3.1	2.5	1.7	–0.7%
Netherlands	3.7	1.7	–3.8	1.4	1.7	–1.1	–0.2	1.4	2.3	2.2	3.1	2.6	1.8	–0.6%
Canada	2.1	1.0	-3.0	3.1	3.1	1.7	2.5	2.6	0.9	1.5	3.0	2.1	1.8	0.9%
Korea	5.5	2.8	0.7	6.5	3.7	2.3	2.9	3.3	2.8	2.8	3.0	3.0	2.9	–2.5%
Finland	5.2	0.7	–8.3	3.0	2.6	–1.4	–0.8	–0.6	0.0	1.9	2.8	2.3	1.5	–2.4%
Singapore	9.1	1.8	–0.6	15.2	6.2	3.9	5.0	3.6	1.9	2.0	2.5	2.6	2.6	–6.6%
Qatar	18.0	17.7	12.0	18.1	13.4	4.7	4.4	4.0	3.6	2.2	2.5	3.1	3.2	–15.5%
Argentina	9.0	4.1	–5.9	10.1	6.0	–1.0	2.4	–2.5	2.6	–2.2	2.5	2.5	3.2	–6.5%
EU	3.3	0.7	–4.3	2.1	1.8	–0.4	0.3	1.8	2.3	2.0	2.3	2.1	1.7	–1.0%
Austria	3.6	1.5	–3.8	1.9	2.8	0.7	0.1	0.6	1.0	1.5	2.3	1.9	1.4	–1.3%
Australia	4.5	2.6	1.7	2.3	2.7	3.6	2.1	2.8	2.4	2.5	2.2	2.9	2.7	–2.3%
US	1.8	–0.3	–2.8	2.5	1.6	2.2	1.7	2.6	2.9	1.5	2.2	2.3	1.7	0.4%
Mexico	3.1	1.4	–4.7	5.1	4.0	4.0	1.4	2.3	2.7	2.3	2.1	1.9	2.7	–1.0%
Germany	3.4	0.8	–5.6	3.9	3.7	0.7	0.6	1.9	1.5	1.9	2.1	1.8	1.2	–1.3%
Taiwan	6.5	0.7	–1.6	10.6	3.8	2.1	2.2	4.0	0.7	1.5	2.0	1.9	2.2	–4.5%
Denmark	0.9	–0.5	–4.9	1.9	1.3	0.2	0.9	1.7	1.6	1.7	1.9	1.8	1.8	1.0%
Russia	8.5	5.2	–7.8	4.5	5.1	3.7	1.8	0.7	–2.8	–0.2	1.8	1.6	1.5	–6.7%
UK	2.6	–0.6	–4.3	1.9	1.5	1.3	1.9	3.1	2.2	1.8	1.7	1.5	1.7	–0.9%
Belgium	3.4	0.7	–2.3	2.7	1.8	0.1	–0.1	1.6	1.5	1.2	1.6	1.6	1.5	–1.8%
France	2.4	0.2	–2.9	2.0	2.1	0.2	0.6	0.9	1.1	1.2	1.6	1.8	1.8	–0.8%
Japan	1.7	–1.1	–5.4	4.2	–0.1	1.5	2.0	0.3	1.1	1.0	1.5	0.7	0.6	–0.2%
Italy	1.5	–1.1	–5.5	1.7	0.6	–2.8	–1.7	0.1	0.8	0.9	1.5	1.1	0.9	0.0%
Norway	2.9	0.4	–1.6	0.6	1.0	2.7	1.0	1.9	1.6	1.1	1.4	1.6	1.9	–1.5%
UAE	3.2	3.2	–5.2	1.6	6.4	5.1	5.8	3.3	3.8	3.0	1.3	3.4	3.1	–1.9%
Switzerland	4.1	2.1	–2.2	2.9	1.8	1.0	1.9	2.5	1.2	1.4	1.0	1.3	1.7	–3.1%
Brazil	6.1	5.1	–0.1	7.5	4.0	1.9	3.0	0.5	–3.8	–3.6	0.7	1.5	2.0	–5.4%
South Africa	5.4	3.2	–1.5	3.0	3.3	2.2	2.5	1.7	1.3	0.3	0.7	1.1	2.2	–4.7%
Saudi Arabia	1.8	6.3	–2.1	4.8	10.3	5.4	2.7	3.7	4.1	1.7	0.1	1.1	2.0	–1.7%
World	**5.6**	**3.0**	**–0.1**	**5.4**	**4.3**	**3.5**	**3.5**	**3.6**	**3.4**	**3.2**	**3.6**	**3.7**	**3.8**	**–2.0%**

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While larger mature economies, such as the US, are operating at full capacity, there is still room for growth in emerging economies.

Despite stronger growth in GDP and a rapidly expanding population of millionaires in newer art markets such as China over the last ten years, GDP per capita remains much lower than in the mature markets in Europe and the US, which has important implications for art sales. In US dollars, for example, incomes in China in 2017 were just 14% of those in the US. (Using purchasing power parity or PPP dollars, China's GDP per capita in 2017 was just 28% of the US and around 40% of that in the EU.[46]) Low average incomes mean that for many consumers in China and other emerging markets, purchases of luxury products including art are still out of their reach entirely or for regular purchasing, resulting in a relatively thin market of buyers.

However, this gap has continued to narrow significantly. In PPP terms, GDP per capita in the US in 1980 was over 40 times that of China, but this had narrowed to seven times by 2007 and to about four times in 2017, with growth rates in China in the decade between 2007 and 2017 averaging 10% per annum versus a much more sedate 2% in the US. Growth over the next five years is also expected to be more than twice the rate of the US, which will continue to reduce the gap, improving the potential for the development of greater depth in Chinese art sales.

China, India and other Asian economies have not only been the fastest growing over ten years, but are also expected to remain on the highest trajectory over the next five, growing at more than twice the rate of countries in the EU and G7, reducing the income differential with mature markets and potentially increasing the buying power of collectors and new buyers in these regions.

Low average incomes mean that for many consumers in emerging markets, purchases of luxury products such as art are still out of their reach.

46 In order to compare how much a GDP is really worth to individuals within a country, purchasing power parity (PPP) dollars can also be used. The actual purchasing power of any currency is the quantity of that currency needed to buy a specified unit of a good or basket of goods and services. PPP is determined in each country based on its relative cost of living and inflation rates. A PPP exchange rate is the number of units of a country's currency required to buy the same amounts of goods and services in the domestic market as a US dollar would buy in the US. In calculating GDP per capita, amounts in local currency units are converted to international dollars using this PPP exchange rate.

Table 6.2 | **GDP per Capita (Ranked Highest to Lowest in USD and PPP dollars)**

Measurement in USD

Country	2017	2016 –2017	2007 –2017	2017 –2022
Switzerland	$80,837	1%	26%	9%
Norway	$73,615	4%	–13%	8%
Qatar	$60,812	2%	–12%	36%
US	$59,495	3%	24%	18%
Denmark	$56,335	5%	–4%	22%
Australia	$56,135	9%	24%	19%
Singapore	$53,880	2%	37%	14%
Sweden	$53,248	4%	0%	25%
Netherlands	$48,272	6%	–6%	20%
Austria	$46,436	5%	0%	20%
Hong Kong	$44,999	3%	48%	15%
Canada	$44,773	6%	0%	19%
Germany	$44,184	5%	4%	22%
Belgium	$43,243	5%	–3%	20%
New Zealand	$41,629	9%	31%	22%
France	$39,673	4%	–8%	20%
UK	$38,847	–3%	–22%	12%
Japan	$38,550	–1%	9%	14%
UAE	$37,346	6%	–10%	13%
Italy	$31,619	4%	–16%	17%
Korea	$29,730	8%	29%	20%
Spain	$28,212	6%	–14%	25%
Taiwan	$24,227	8%	36%	15%
Saudi Arabia	$20,957	3%	26%	9%
Argentina	$14,062	13%	92%	33%
Russia	$10,248	15%	5%	24%
Brazil	$10,020	15%	36%	22%
Malaysia	$9,660	3%	31%	51%
Mexico	$9,249	8%	–3%	30%
China	$8,583	6%	218%	50%
South Africa	$6,089	15%	–1%	13%
Indonesia	$3,859	7%	87%	47%
India	$1,852	6%	72%	51%

Measurement in International PPP dollars

Country	2017	2016 –2017	2007 –2017	2017 –2022
Qatar	$124,927	0%	7%	24%
Singapore	$90,531	3%	40%	20%
Norway	$70,590	2%	14%	14%
UAE	$68,245	0%	–6%	11%
Switzerland	$61,360	2%	19%	13%
Hong Kong	$61,016	5%	41%	23%
US	$59,495	3%	24%	18%
Saudi Arabia	$55,263	0%	28%	9%
Netherlands	$53,582	5%	22%	20%
Sweden	$51,264	3%	24%	16%
Germany	$50,206	4%	28%	19%
Australia	$49,882	2%	27%	18%
Taiwan	$49,827	4%	46%	22%
Denmark	$49,613	3%	17%	17%
Austria	$49,247	3%	19%	15%
Canada	$48,141	4%	23%	15%
Belgium	$46,301	3%	18%	16%
UK	$43,620	3%	20%	16%
France	$43,551	3%	19%	19%
Japan	$42,659	3%	23%	16%
Korea	$39,387	4%	49%	25%
New Zealand	$38,502	4%	27%	18%
Spain	$38,171	5%	17%	23%
Italy	$37,970	3%	6%	16%
Malaysia	$28,871	6%	55%	31%
Russia	$27,900	4%	30%	20%
Argentina	$20,677	3%	21%	21%
Mexico	$19,480	3%	27%	19%
China	$16,624	8%	144%	45%
Brazil	$15,500	2%	23%	18%
South Africa	$13,403	1%	19%	12%
Indonesia	$12,378	6%	75%	35%
India	$7,174	7%	101%	51%

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Asian economies have been the fastest growing over ten years, and are also expected to remain so over the next five, potentially increasing the buying power of collectors and new buyers in these regions.

6.2 | World Wealth

While world wealth saw consistent and strong growth from 2000 to 2007, the global financial crisis stalled its progress and changed its content, with significant effects on the global art market. While wealth growth resumed in 2009, it did so at a slower pace and with a much less even distribution between regions, assets and wealth segments. In the period from 2007 to 2016, in every region bar China, median wealth declined and wealth inequality increased, with the share of wealth in the top tier rapidly escalating. This concentration and growth of wealth at the high end helped to boost art sales at the top of the market and maintain buoyancy in aggregate figures, but the contraction of mid-level wealth has put pressure on its lower and middle segments in many regions, which struggled to bounce back from the contractions of 2008 and 2009.

2017 was a positive year for the world's aggregate wealth, with robust growth of 6.4% (to just over $280 trillion), buoyed by advances in both financial wealth as it has been since 2009, but also by non-financial wealth in emerging regions during the year. The growth in wealth also outpaced the population growth, meaning that average wealth per adult rose by nearly 5%. Despite these positive aggregate results, inequality also edged up, meaning median wealth was stagnant worldwide and declined in several regions including the Asia-Pacific region, Africa and Latin America.

The main gainers during the year in terms of wealth were the US and India, which both saw wealth levels rise by 10%. In terms of geographical distribution, aggregate wealth remains dominated by the US, with North America accounting for 36% of the world's wealth despite being home to just 5% of the world's adults.

Europe also gained in wealth by 6% in 2017 (aided partially by an appreciation of the Euro), however, its wealth (in US dollar terms) and global share of wealth have both fallen over ten years. Nonetheless, with a current share of 28%, together with North America these two mature regions account for 64% of the world's wealth but only 17% of its population. This strong base of wealth, especially in the US, has helped to maintain a healthy market for art and antiques at different levels supported by both local and international buyers.

North America accounts for 36% of the world's wealth, despite being home to just 5% of the world's adults.

Figure 6.2 | Growth in Global Wealth and Wealth per Adult 2000–2016

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China accounted for the second highest national share of wealth (at 10% or 11% including Hong Kong). However, despite its rapid progress over the last decade (more than doubling in global share from 2000), the disparity between its share of wealth and its share of the world's adult population (at 22%) is still wide.

Latin America's growth in wealth at 4% was lower than the world increase, but better than recent years. While wealth in the region has increased over ten years, median wealth has declined, and its share of the world's adult population is more than three times its share of global wealth.

The Development of Wealth in Asia

If China and India are excluded, the Asia-Pacific region only grew 1%, but exchange rate issues accounted for much of the sluggishness (and with constant exchange rates wealth grew just under 5%). This region, dominated by Japan (which has the third highest share of world wealth at 8%), is also the most balanced of all in terms of its share of global population and wealth. The greatest imbalances on the other hand are in Africa and India, where populations are ten times the share of wealth.

Combined with China and India, the Asian region accounted for 32% of world wealth in 2017, spread over 62% of the world's adults, and wealth in the region in absolute terms has increased 48% in ten years and by over 160% since 2000. The rapid growth in wealth, particularly at the high end, has fueled stronger buying in the global art market as well as vibrant local art scenes throughout Asia. As wealth in Asia has grown, demand for art, as a luxury good or cultural commodity, has increased. This demand has been met through local sales of art as well as purchases abroad by Asian collectors in already established markets such as London and New York. In the top-tier international auction houses, Asian buyers now account for over 30% of buying by value, on par with or exceeding European buying in most cases.

90% of imports to China are into Hong Kong, where trade-friendly policies have created a hub for art entering Asia.

Further evidence of how these wealth dynamics have affected the market is that Asia has become a significant importer of art (accounting for 17% of total global imports of art).[47] Again, China dominates inward trade, accounting for 9% of that total, with over 90% of that accounted for by imports into Hong Kong, where much more liberal and trade-friendly policies have created a hub for art entering Asia. Hong Kong accounts for over 50% of the imports of art to Asia and 8% of world imports of art and antiques.

It is interesting to note the changing wealth and art buying dynamics of this region over time. In 1990, Japan was the major art buying nation in Asia, and the largest importer of art in the world with a share of 30% of world imports by value – greater than the UK and US. At that point, China (including Hong Kong), contributed less than 1%. This was very much a one-way, inward flow of purchasing (with Japan's exports of art less than 0.1% of the world total at the time). The infamous art market bubble of the 1980s was exacerbated by strong Japanese buying in international art markets over the latter half of the decade – most notably of Impressionist paintings.

47 Asia is defined here as 15 key Asian countries with imports of works of art reported in 2017 including China, Hong Kong, Japan, Singapore, Korea, India, Indonesia and Malaysia. Import data refers to 2016 and is from the UN database.

From 1986 to 1991, the Japanese economy was undergoing what is now referred to as the "Japanese asset price bubble," in which property prices and the stock market had become greatly inflated. In the post war period, Japan had one of the highest economic growth rates in the world, averaging around 8% per annum from the 1960s to 1980s. As a result of macroeconomic polices pursued by the government during the 1970s, Japan had a large stock of savings, significant trade surpluses, and an appreciating Yen. When combined with concurrent financial deregulation, this fueled aggressive speculation, especially in the Tokyo Stock Exchange and the property market, both reaching historical heights around the end of 1989. Land prices in major cities had risen by over 200% in the 20 year period from 1970 to 1990, leading to an unprecedented price bubble in the property market.

With an accumulation of wealth from property and stocks and a powerful Yen to buy US dollar- and British pound-denominated art in the US and Europe, the late 1980s saw very strong Japanese buying, mainly in the relatively well-known Impressionist and Post Impressionist sectors. This was very much a demand-induced bubble, largely fueled by an inflation-driven escalation of wealth in the property market. As art prices soared and returns and dividends on stock markets started to contract,[48] speculators began to enter the market, adding fuel to a market already overheating.

The surplus cash of the Japanese was combined with what some claim was insufficient knowledge on the part of some new purchasers, alongside high-risk financing and, in some cases, illegal transactions and practices using art assets.[49] As a result, prices rose sharply, with huge sums paid often for sometimes mediocre works. Dealers and auction houses noted that in 1990, at the height of the boom, Japanese buyers were responsible for around one-third of all bidding at auctions (successful and not successful), with the remaining two-thirds of buyers from the US and Europe. In late 1989, realizing the property bubble was unsustainable, monetary policy was suddenly tightened in Japan and the Finance Ministry sharply raised interest rates, abruptly terminating the bubble, and leading to the largest ever crash in the Japanese stock market, with an ensuing debt crisis, a crisis in the banking sector, and the burst of the property market bubble in 1991.

48 Many global investors were looking for alternative investments following the massive stock market collapse, or "Black Monday," of October 1987, when the Dow Jones Industrial Average fell by 23%.

49 It has been reported that some companies in Japan used the ambiguous valuation of art for borrowing, lending, and in some cases money laundering, the transfer or concealment of cash and tax evasion. See for example the case of Itoman & Company which used the purchases of art at inflated prices to transfer millions of dollars in cash: http://www.nytimes.com/1991/04/25/business/japan-police-stage-raids-in-art-case.html

Table 6.3 | Regional Changes in Wealth 2007–2017

Change 2007–2017	Africa	Asia-Pacific	China	India	Europe	North America	Latin America	World
Aggregate Wealth	–17%	33%	91%	45%	–2%	44%	18%	**27%**
Wealth Per Adult	–36%	11%	70%	19%	–4%	30%	–2%	**9%**
Median Wealth	–57%	–16%	23%	–4%	–22%	–2%	–16%	**–15%**
Share World Wealth	1%	1%	3%	0%	–8%	4%	0%	**n/a**

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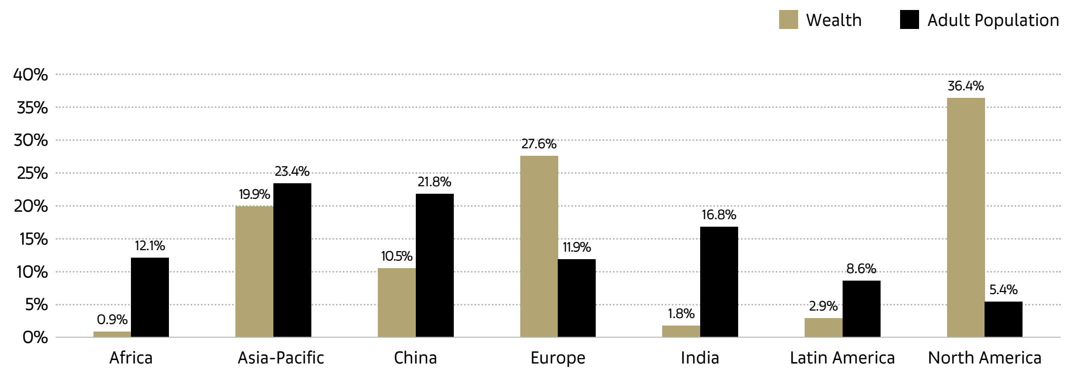
The art boom ended sharply in 1990. As the property market collapsed, Japanese buyers who had been supporting the market stopped buying art, often because of a collapse of liquidity caused by other unrelated investments, with around one-third of the global buying power wiped out overnight. Auction catalogs thinned, dealers noted a drop-off in buyer interest and the market stagnated with a sharp reduction in demand and supply. Total sales in the art market declined by nearly 65% in the space of one year, with the market falling to a low of just under $10 billion.

China accounted for 9% of world imports of art versus just 1% in India and 2% in Japan.

Asian buying on the global market was greatly reduced thereafter, with the share of imports of art in the region falling from 32% of global imports in 1990 to less than 7% by 2000 (with Japan accounting for 4%). It was not until about 2006, when China began to emerge as an international player in the art market, that the dynamics changed again. At that time, China accounted for just 2% of global imports, versus 3% in India, and there was much speculation about which of these art markets would take off. Despite initially similar income dynamics, comparable population size and fast economic growth, China ultimately prevailed both in terms of the expansion of its middle-class consumer base and its art market. Wealth inequality in India, on the other hand, has expanded: the cut-off salary to get into the top 1% of income earners in India is merely $20,000, which is below the poverty line in countries such as the US.[50] Using PPP dollars, this equates to roughly $75,000, well above average incomes in mature markets, but still considerably below what top earners in other markets command and the level that may make it feasible for households to afford the regular purchases of art and other luxury goods. China, with a burgeoning middle- and upper-middle class, therefore took the lead in both the development of a local art market and in global purchasing. While Japanese buyers all but disappeared from the art market after a short burst of intense activity, the Chinese market appears to have greater longevity and a broader focus, which has helped to sustain global values even during periods of financial crisis. By 2016, China accounted for 9% of world imports of art versus just 1% in India and 2% in Japan.

Figure 6.3 | Regional Shares of World Wealth Versus Adult Populations in 2017



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50 See The Economist (2017) *India's Missing Middle Class*. https://www.economist.com/news/briefing/21734382-multinational-businesses-relying-indian-consumers-face-disappointment-indias-missing-middle

6.3 | Wealth Distribution

The distribution of wealth across regions and between individuals within regions is another important factor that can influence art buying and the development of markets. Increasing wealth has come alongside rising wealth inequality, which has created both opportunities and threats in the art market. The widening inequality of wealth and incomes is considered by many to be the defining challenge of this century, and the gap between the rich and poor in many developed economies is at its widest point in history.

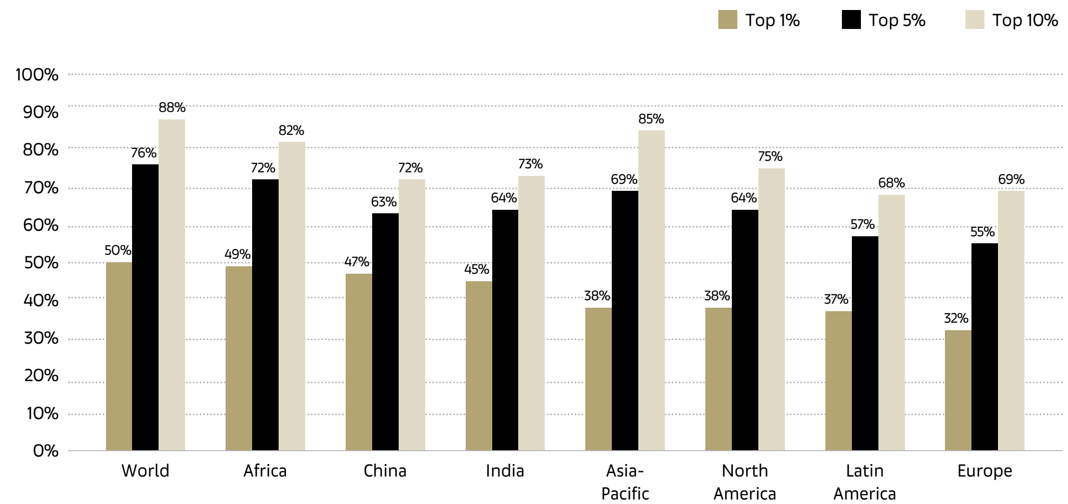
From the late 1940s until the 1970s, many of the mature economies in the West grew strongly, and the uplift in wealth and prosperity was generally spread across the board. However, since the 1970s, these trends reversed; economic growth slowed and the gap between incomes widened, with the middle and lower ends slowing while the top end continued to grow at a rapid pace.

Some emerging economies, such as China, have seen an expansion in their middle class population and wealth over the last ten years, but in most cases, those with the highest levels of wealth remain a very small share of an otherwise low-income population.

This changing distribution of wealth in emerging and mature regions is strongly linked to sales and the international cross-border trade in art. Sales and prices at the high end of the market are driven by HNWIs buying domestically and globally. While the concentration of wealth at the high end has led to greater spending on art and rising prices in some sectors, the pressure on the middle classes has also created a narrower market by value, with the strongest sales concentrated at the top end. However, the extent to which middle and upper income groups have been squeezed out in some mature economies, as the extremes of wealth and poverty rise, has also undoubtedly put pressure on the middle market for art and antiques. While the size and wealth of the middle class (as defined by wealth) grew until 2007, since the financial crisis growth has been more subdued, and rising wealth inequality has reduced the share of wealth in this sector in nearly all regions of the world. This middle-income squeeze in wealth has negatively affected the lower and middle segments of the market, which are critical to its infrastructure and where the bulk of the trade by volume operates.

There are worries if these disparities continue to grow. As more income has shifted to the wealthiest in society, the importance of inherited wealth continues to rise in many regions, alongside falling income mobility. This declining income mobility, along with issues arising from the global financial crisis in

Figure 6.4 | Share of Regional Wealth Holdings of the Regions' Top 1%, 5% and 10% in 2017



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property and capital markets has mounted pressure on young professionals, with studies showing that contrary to trends of the past, many millennials are doing less well in terms of income and wealth than their parents, despite better education levels. This could leave the art market out of reach for many potential new young collectors, which could be very damaging for its future. Even at the very top end of the wealth pyramid, the share of young millionaires and billionaires has fallen. According to *Forbes* Billionaires lists, in 2003, the share of billionaires under 30 was 6%, and despite the increase in self-made wealth and expansion of billionaire fortunes into new industries such as technology and social media, this had fallen to just under 3% in 2017.

In 2017, the top 1% of wealth holders owned half of the world's wealth, while the top 10% shared 88%, leaving just 12% of the world's wealth for the remaining 90% of all adults. The biggest share of wealth afforded to the top 1% were in the BRIC regions: Russia (56%), China (47%), India (45%) and Brazil (44%), however, inequality continued to be a pervasive trend, and in all countries the share of the population with wealth in excess of $1 million is a small minority.[51] From 2000 through 2007, the top 1% owned just around 45% of the world's wealth, falling to 42% in 2008. However, every year since then has seen an upward shift to its current 50%.

In 2017, 70% (or 3.5 billion) of the world's adults possessed wealth of below $10,000, while just under 1% (just under 35 million) had wealth in excess of $1 million (which accounted for nearly half, or 46%, of the world's total wealth). The dominance of wealth at the top and population at the bottom of the wealth spectrum has been a stable trend over the last few years. However, the extent of inequality has been slowly edging upwards. In 2011, those with personal wealth of over $1 million accounted for 38% of the world's wealth but this has risen over 8% since that point while the share of the population in the lowest wealth group has expanded (from 68% in 2011 to 70% in 2017). The share of adults in the lowest wealth segment dropped 3% year-on-year, and this is expected to continue over the next five years as more people push into the $10,000 to $100,000 segment. However, wealth in this lower-middle segment is expected to fall, leaving many worse off on average.

Art collectors tend to be found predominantly in the wealth brackets above a minimum of $100,000, and this segment has increased over time from 217 million people in 2000 (or 6% of the world's adults) to just under 392 million (8%) in 2017. A positive trend for the art market is that both the population and wealth in this and the over $1 million segments are expected to grow over the next five years, with wealth growth outstripping population growth in each case, implying rising average wealth per adult in these segments.

In many developed economies, such as the US and the larger markets in Europe, one-third to over a half of the adult population lies in the bracket above $100,000. In the BRIC and developing regions, however, most of the population still has wealth of less than $10,000 despite rapid advances in aggregate wealth.

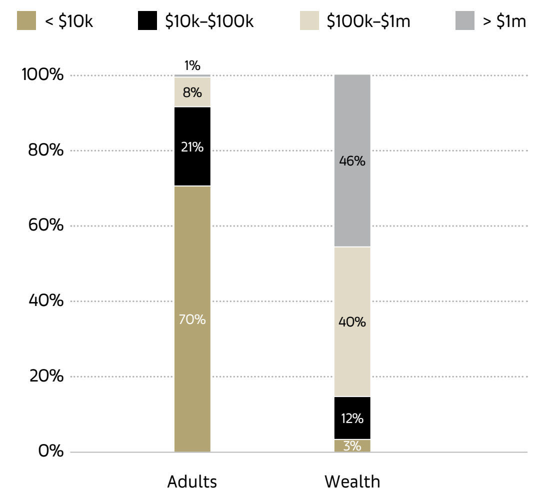
In terms of where the world's top 1% wealth holders are based, the US again dominates, with a share of 38% of the population, up 1% year-on-year. The next largest shares, by a significant margin, were found in the UK and Japan (both at 9%), as well as France and China (at 6% each). These markets are also where

51 In contrast, the lowest shares of wealth in the top 1% in 2017 were in Japan (14%), Belgium (18%), France, the Netherlands and Italy (all 22%), and Australia (23%).

the majority of art sales were based in 2017, with the exception of Japan, which has a very high proportion of wealth but a relatively small art market.

Despite this, as noted previously, Japanese buyers have been important in the art market's history, and many dealers have noted the reemergence of Japanese institutional buying in recent years, with several high-profile purchases in 2017 as well as some important new gallery and museum openings.[52] This also shows that while a high proportion of wealthy individuals is a necessary condition for substantial art sales, it is certainly not the only factor that determines their location and development. Many regions have emerged solely as bases for new buyers rather than as sales or trading centers for the market. These new buyers have been active in supporting sales in traditional art market hubs such as the US and UK, boosting sales there. The success of these art market hubs has depended on being able to assemble enough desirable art works for sales in one place to attract both local and high net worth buyers from around the world.

Figure 6.5 | The Distribution of World Wealth in 2017



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In 2017, the top 1% of wealth holders owned half of the world's wealth.

52 These have included Yoshitomo Nara's museum N'Yard, the Ishikawa Foundation, The Chain Museum, Hiroshi Sugimoto's museum for the Odawara Art Foundation and others.

6.4 | Global Millionaires and Billionaires

The biggest transformation in global wealth since the turn of the century has been the rapidly expanding number of millionaires. The population of millionaires has risen by 170% since 2000, with those at the highest end (with wealth in excess of $50 million) growing to five times their size. Although much of this growth is of course due to the fact that wealth has kept on rising, while the nominal entry point for millionaires ($1 million) remains unchanged, there are many interesting features both in the growth of wealth in this segment and its distribution that have a critical impact on the art market.

In 2017, the number of millionaires worldwide reached a historical high of 36.1 million, increasing 7% annually as 2.3 million individuals were added, representing an increase of nearly 50% from 2010.[53] Year-on-year millionaire wealth rose by 10% in 2017 to just under $129 trillion, and has advanced 86% since 2010. Credit Suisse estimates that by 2022, the number of millionaires will have reached just under 44 million, a further increase of 22%. If it assumed that their wealth stays at around the same share of total wealth as it is currently, this would imply that their wealth could reach $157 trillion, an advance of 127% since 2010.

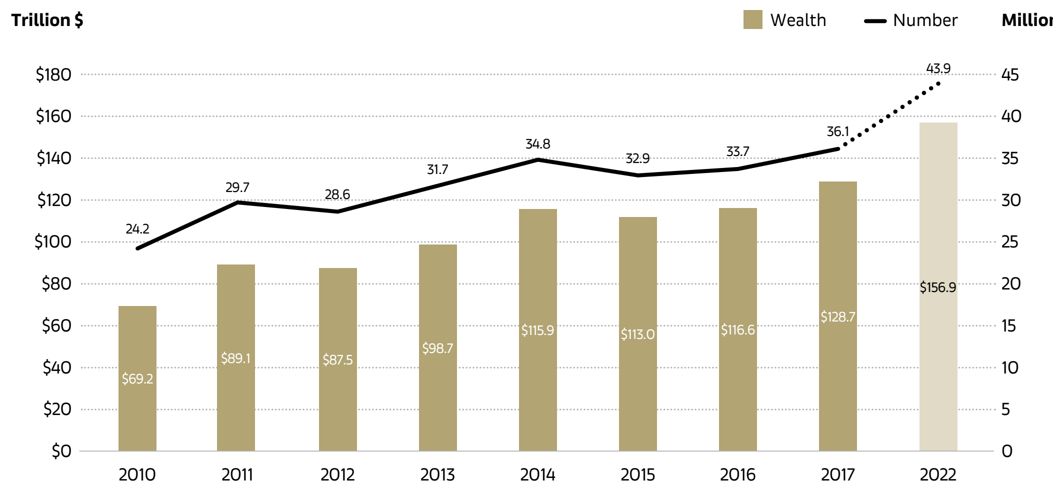
Around half of the increase in the population of millionaires in 2017 came from those living in the US, but there was also an additional 620,000 added from some of the larger Eurozone countries (Germany, France, Italy and Spain) aided by the appreciation in value of the Euro over the dollar. In Australia, 200,000 were added, and the same in India and China jointly, whereas the UK and Japan saw declines in their populations, with negative currency effects contributing to the fall in numbers.

The largest art market, the US, also had the greatest share of millionaires in 2017, at 43% (up 2% on 2017), with Japan maintaining the second largest share with 8%. The five top art markets in 2017 (the US, UK, China, France and Germany) accounted for a combined 66% share of the world's millionaire population.

The regional distribution of millionaires has changed significantly over the last 20 years. In 2000, there were just 12.9 million millionaires in the world and 96% of these were in high income economies. Since then, 23.2 million new millionaires have emerged and 2.7 million of these have come from new and developing economies. For those with wealth of over $50 million, the transition has been more marked. Emerging economies accounted for 6% of the $50 million-plus millionaire population in 2000 as against 22% in 2017. However, on aggregate the US has still accounted for much of the growth, adding twice as many high-end millionaires as Europe since 2000

53 The term "dollar millionaires" is used here to refer to the millionaire segment as set out in Credit Suisse's *Global Wealth Databooks*, dating from 2010 to 2017, which identifies those with net wealth greater than $1 million, with wealth defined as financial assets plus non-financial assets less debts. Non-financial assets include property, land and other physical assets to be considered when defining a millionaire.

Figure 6.6 | Number and Wealth of Dollar Millionaires 2010–2022



© Arts Economics, 2018 with data from Credit Suisse[54]

The five top art markets in 2017 (the US, UK, China, France and Germany) accounted for a combined 66% share of the world's millionaire population.

54 Data are generally published as they are cited in each year of publication, however, Credit Suisse revised the number of millionaires in 2015 and 2016 in their last two Databooks and the numbers in these two years in Figure 6.6 are therefore updated to reflect the changes in the source data.

Figure 6.7 | Global Share of Dollar Millionaires in 2017

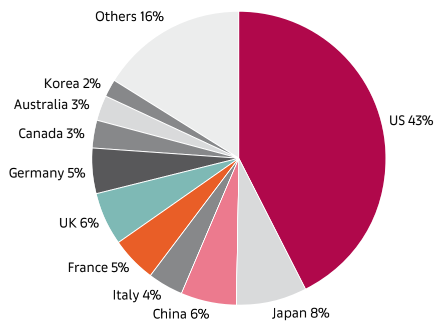


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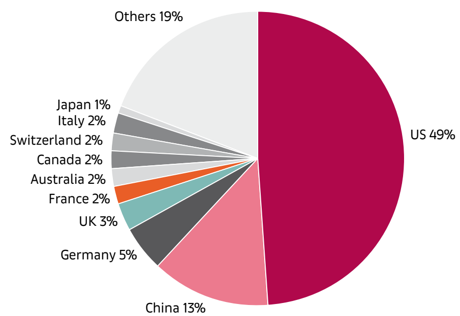
Figure 6.8 | Global Share of Millionaires with Wealth in Excess of $50 Million in 2017



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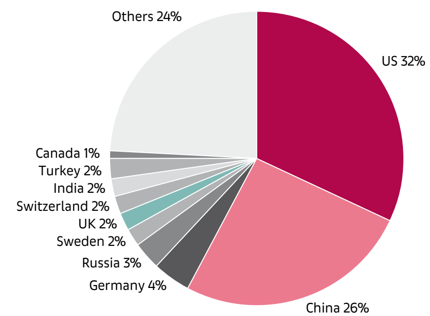
and accounting for just under half of the global population, with China in second place, at 13%, up 5% year-on-year, followed by Germany (at 5%).

Moving up the wealth ladder, however, to the wealthiest segment of billionaires, the US has lost share as the margin with China has become considerably narrower. China accounted for a 26% share of the world's billionaire population in 2017, up 10% from 2016, versus 32% in the US. Regionally, Asia (including Asia-Pacific, China and India) accounted for a considerably greater share of billionaires (at 41% in 2017), versus 33% in North America and 21% in Europe. This has changed considerably in the last five years: in 2010, North America accounted for 49% of the world's billionaires; China had just 6%; and Asia as a whole, as defined above, accounted for 24%.

Credit Suisse estimated that the number of billionaires worldwide rose by just 1% in 2017, reaching 2,232. Assuming certain wealth conditions prevail and there

Figure 6.9 | Global Share of Dollar Billionaires in 2017



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Asia accounted for a 41% share of global billionaires in 2017 versus 33% in North America and 21% in Europe.

is no significant change in wealth inequality, it is expected that the number of billionaires could rise to close to 3,000 in the next five years, with around 230 from North America, 205 from China and just 95 from Europe.

Estimates of the number of billionaires vary slightly between sources, depending on how wealth is defined and how data is collected. UBS maintain a database of around 1,550 billionaires, with an estimated wealth globally of $6 trillion.[55]

55 Data is from UBS and PWC (2017) *Billionaire Insights 2017* (at https://www.ubs.com/microsites/billionaires-report/en/new-value.html) and refers to 2016. Billionaires are defined by UBS as those with net worth in excess of $1 billion, including all assets.

Wealthy Chinese buyers had the most bullish spending plans in 2017 and were the most likely to be trading up in the luxury sector.

Their research confirms the dominance of Asia, with more Asian than US billionaires for the first time in 2016. It also showed that, on average, a new billionaire was created in Asia every two days, with the total number of Asian billionaires rising by 23% to 637 in 2016, compared to a rise of 5% (to 563) in the US and a stagnant 342 in Europe. The wealth of Asian billionaires grew by 31% in 2016 to $2 trillion, buoyed by resurgent commodity prices, heated property markets and US dollar fluctuations. However, Asian billionaire wealth still lags behind the US, which retained the greatest concentration of wealth, growing by 15% to $2.8 trillion. This margin is again forecast to narrow, with projections from UBS showing Asian billionaire wealth potentially exceeding that of the US in as soon as four years.

Despite the decrease in the margin of its lead, the US remains unlikely to decline from its premier position in terms of aggregate and millionaire wealth, and is therefore likely to retain its position as the leading art market by value for the foreseeable future. Although the reasons for the success of the US as an art market include its strong cultural infrastructure, business-friendly fiscal environment and liberal trading regime, its substantive base of wealth – spanning the highest echelons through its comparatively stronger upper middle-income segment – also undoubtedly continues to contribute to this, giving depth and scope to the market as a whole.

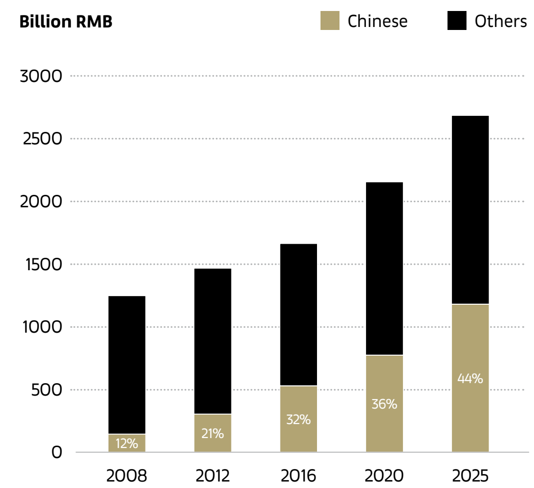
But the Chinese market is likely to be following this path closely, both developing wealth in the upper middle-income segments rapidly and showing strong tendencies for increased purchasing in local and global luxury markets. Estimates from McKinsey suggest that by 2021, China is expected to have the most affluent households in the world. They estimate that there are over 7.6 million households currently in China purchasing luxury goods, each spending over $10,000, which is already twice that of French or Italian households. Chinese luxury consumers currently represent almost a third of the global personal goods luxury market,[56] up from just 12% in 2008. From 2008 to 2016 it is estimated that more than 75% of the total growth in global luxury spending

56 Note that personal luxury goods do not include art and antiques, but cover fashion, accessories, jewelry, watches and beauty.

(over $65 billion) could be attributed to purchases made by Chinese consumers, either at home or abroad. From 2008 to 2014, the number of Chinese households buying luxury products doubled, with new purchasers entering the market for the first time through rising incomes and greater access to luxury goods. Since 2015, the primary driver of the increases in luxury spending has been incremental spending from existing luxury consumers, and the most active spenders in the market are those at the highest levels of wealth. Wealthy Chinese buyers[57] were found not only to have the most bullish spending plans in 2017 but also were found to be the most likely to be looking to trade up, either to more expensive brands or products. Estimates are that incremental spending from existing wealthy consumers will account for over half of the anticipated growth in Chinese luxury spending up to 2025, at which point Chinese consumers will account for 44% of the total global luxury market, with wealthy Chinese accounting for 37% (equivalent to the size in 2016 of the French, Italian, Japanese, UK, and US markets combined at RMB 1 trillion / $155 billion).

Finally, although the measurement of millionaires and billionaires cited above includes non-financial assets (including property, art and other illiquid assets), an even more significant group of potential buyers in the market consists of those with investable

Figure 6.10 | Global Personal Luxury Goods Market and Share of Chinese Buying



© Arts Economics (2018) with data from McKinsey

There are over 7.6 million households currently purchasing luxury goods in China.

57 McKinsey (2017) report that upper-income households, which they define as households earning RMB 100,000 ($15,550) to RMB 300,000 ($46,600), dominated the luxury market in the past, accounting for at least two-thirds of the active shoppers, however, in more recent years, "wealthy Chinese" (with household income in excess of RMB 300,000) have risen in importance and now represent half of the shoppers and nearly 90% of their total spending. From Lambert Bu, Benjamin Durand-Servoingt, Aimee Kim, and Naomi Yamakawa (2017) *Chinese Luxury Consumers: More Global, More Demanding, Still Spending*, from McKinsey.com.

wealth greater than $1 million, or what will be defined here as HNWIs (high net worth individuals).[58] By the end of 2016, the number of HNWIs worldwide totaled 16.4 million, an advance of 7.5% over the year and, after five years of growth, since 2011, the highest ever recorded population of HNWIs. The population in this category has more than doubled since 2000 and the Asia-Pacific region has been the fastest growing and was the largest in 2017, with a population of 5.5 million HNWIs, exceeding North America's 5.2 million. Together, the US, Japan, Germany and China accounted for 61% of the world's HNW population, and have accounted for much of the growth. However, this fell somewhat in 2016; while in 2006, 88% of the increase in population came from these regions, in 2016 this fell to 59% with some of the fastest growing markets including Russia, Brazil, the Netherlands and Indonesia, albeit from a much lower base.

The wealth of HNWIs also increased, reaching $63.5 trillion, its highest level in history, and growing 8% year-on-year and up nearly 50% from 2010. UHNWIs (with investable or liquid wealth exceeding $30 million) accounted for 34% of the wealth of HNWIs globally (despite being just 1% of the population) and their wealth grew 9% year-on-year. Capgemini (2017) estimates that the wealth of HNWIs in 2017 will reach $66 trillion (another 6% increase). By 2025, forecasts are that this may reach as high as $106 trillion. If as low a portion as 0.1% of that increase in investable wealth were to be invested in works of art over the eight-year period, this alone could add a further $40 billion to art sales, bringing the market well in excess of $100 billion.

The Asia-Pacific region had the fastest growing and largest HNWI population in 2017.

58 This definition of what will be referred to as "HNWIs" in this section is that used in Capgemini/RBC Wealth Management (2017) *World Wealth Report 2017*, from which these figures are derived. It measures HNWIs as those with US $1 million or more at their disposal for investing and therefore excludes personal assets and property, collectibles and other consumables.

6.5 | Top 200 Collectors

Although it is difficult to establish with any precision the number of HNW art collectors, research has suggested that the majority of billionaires own art, and that many are significant and regular collectors. Estimates are that billionaires' holdings of art average 0.5% of their net worth. In reality, this extends up to 10% or more for some major collectors. The research carried out by UBS on billionaires in 2017 showed a growing engagement with art by this top group of wealth-holders, as evidenced by greater representation on media lists of top collectors, the growth in private museums in Asia, and the increase in private funding to some public museums.

ARTnews, a US-based publication, has published a list of the Top 200 Collectors annually since 1990, which allows some comparisons of their changing backgrounds and whereabouts over time. The list showed that in 1995 there were some 28 billionaires, or just 14% of the top 200 collectors. In 2017, based on publicly cited combined net worth from a range of online sources, the number of billionaire collectors was over 90. Many of the top 200 collectors were also women, with 57% of the list entries being women (with 92 mentioned as part of a couple, and 21 referenced alone). This has increased from just 30% female representation in 1990.

Table 6.4 shows the breakdown by country and region from the 1990s to 2017. The US remains the largest base for top collectors, accounting for half or more in most years (and 51% in 2017, a rise in share of 2% year-on-year). The US share has fallen 8% in ten years since 2007, mainly due to the growing number of collectors emerging from China and other parts of Asia. However, despite the vast globalization of buying in the market over the last 20 years, the share of US collectors in the list has only fallen 11% since 1990, indicating that it still remains the key center for high-end buyers.

Top Asian collectors have more than doubled their share of the Top 200 over the ten-year period (from 5 in 2007 to 20 in 2017). Mainland China is now the densest location for these collectors, which contrasts with the 1990s, when Japan was the dominant nation in Asia. The number of Asian top collectors reached a high of 18 in 1990, two-thirds of these being Japanese. As the Japanese left the market in the fallout of the recession from 1991, the share of Asian collectors on the list dropped dramatically, with only five recorded in 2007. However, this expanded and diversified in the decade that followed, with new collectors not only from China and Japan, but also from Taiwan, Indonesia and South Korea.

Table 6.4 | Location of Top 200 Collectors (Based on Primary Place of Residence)

	1990	1995	2007	2016	2017
US	114	94	110	97	101
Canada	1	7	4	3	3
North America	**58%**	**51%**	**57%**	**50%**	**52%**
Brazil	1	1	2	5	4
Argentina	2	4	2	2	2
Mexico	3	4	3	3	2
Other Latin America	2	3	4	2	2
Latin America	**4%**	**6%**	**6%**	**6%**	**5%**
China	0	0	2	7	9
Hong Kong	6	4	0	3	3
Japan	12	8	2	4	4
Other Asia	0	1	1	7	4
Asia	**9%**	**7%**	**3%**	**11%**	**10%**
UK	12	11	13	12	13
France	10	17	11	9	7
Germany	10	17	12	11	10
Italy	5	9	4	3	3
Switzerland	9	4	10	11	11
Other Europe	5	14	18	12	14
Europe	**26%**	**36%**	**34%**	**29%**	**29%**
Russia	0	0	0	3	2
Middle East	0	1	0	4	5
Other	8	1	2	2	1
Other	**4%**	**1%**	**1%**	**5%**	**4%**

© Arts Economics (2018) with data from *ARTNews*

European collectors accounted for a substantial 29% of the list in 2017, stable from 2016, but down 5% over the decade, squeezed out by Asian entrants as they also were in 1990. The UK, Switzerland and Germany are still their main bases, however, countries such as Spain, the Netherlands and Greece have consistently maintained multiple entries. Overall, the share of Europeans has declined by 8% in the last ten years.

Unlike the increase in Asian collectors over ten years, those from Latin American have decreased marginally, representing 5% of the list in 2017, with 40% of those from Brazil. While these two regions were roughly on par in the mid-1990s, the margin between them has grown since then as Latin American representation remained stable while Asia grew more intensely.

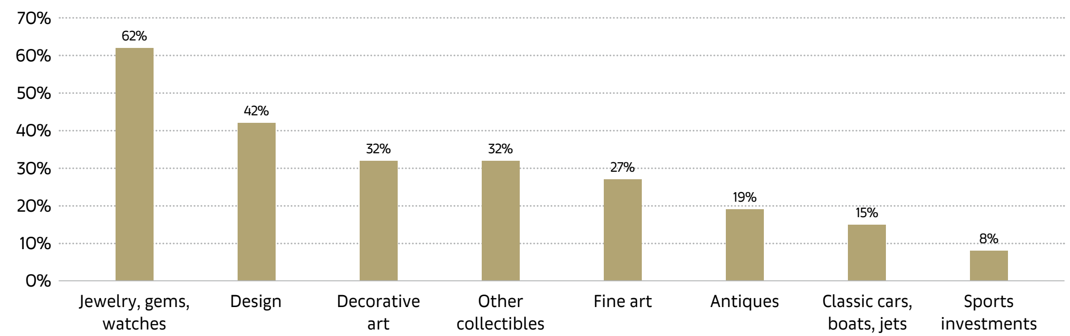
35% of the HNWIs surveyed in the US had been active in the art market in the last two years.

6.6 | Art Collector Survey

Gathering data on HNW art collectors is difficult, as they come from a variety of regions and industries and are not necessarily accessible as a discrete sample. However, surveys of HNWIs in specific regions can provide useful insights into some of their behaviors and preferences. To investigate some of the characteristics of wealthy collectors in 2017, Arts Economics and UBS surveyed 2,245 HNWIs in the US to investigate how they interacted with the art and antiques market. This follows a similar survey conducted in 2016 on US HNWIs, with the same sampling criteria used (that is, net worth in excess of $1 million).

To assess if they were active in the art and collectibles markets, respondents were initially screened by asking if they had purchased a range of assets including art, antiques and other collectible items in the previous two years. A total of 35% of the HNWIs surveyed had been active in the market and only these collectors were included in the analysis. In terms of demographics, this group of collectors were 65% male and 35% female, and the majority (66%) were currently working, while 33% were retired. The majority were aged 50 years and over, with just 16% in younger age groups. All those surveyed had personal assets in excess of $1 million (excluding property and private business assets), with 88% falling into the bracket between $1 million and $5 million, and just 2% in excess of $10 million.

Figure 6.11 | Share of Assets Purchased in the Last Two Years

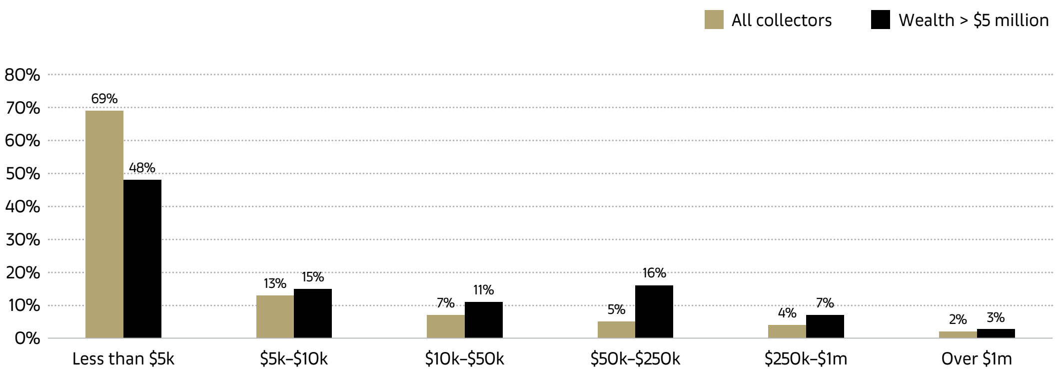


There was a high level of education in the sample, with 89% having third level university qualifications, including just under half with graduate degrees such as Masters or PhDs.

The most popular purchase from the range of art and collectibles was jewelry, gems and watches, with 62% of the sample having purchased such items in the last two years (this was also the highest ranked category in 2016 at 56%). Design objects again constituted the second highest share (at 42%), as they did in 2016. While the share of buyers that had purchased fine art was relatively stable (in 5th place at 27%), decorative art rated third at 32%, up six percentage points in share. While there were no significant differences in gender for those purchasing fine art and decorative art,[59] the share of purchasers rose with increasing wealth levels. While this applied to some degree to all of the assets outlined in Figure 6.11, it was most marked in the case of fine art: 26% of those with wealth under $5 million were recent fine art buyers, and this rose to 40% for those with wealth greater than $5 million.

59 Women had a slightly higher share purchasing decorative art, and men fine art, however the differences were within 2%.The only notable differences within the different assets were that women tended to purchase more design works than men (48% versus 38%), and fewer cars, boats and jets (9% versus 17%).

Figure 6.12 | Spending on Works of Art / Objects in the Last Two Years



The average number of works purchased in the last two years was three, and again this tended to rise with levels of wealth, with those with wealth greater than $5 million averaging over four (versus two for those with wealth below that point). As in 2016, the majority (89%) of respondents had spent $50,000 or less on their purchases of art and objects, with only 2% having spent more than $1 million. This rose for the wealthier respondents with 3% having spent more than $1 million in 2017.

84% of the works purchased during the last two years were works by living artists.

The most common price range for buying works was for less than $5,000 (79% of respondents), and 93% reported that they most often bought at prices less than $50,000. Just less than 1% bought at prices in excess of $1 million; 91% reported that the maximum price they had ever bought a work of art for was $50,000 or less, with again only 1% having ever paid over $1 million (and 3% of those with wealth greater than $5 million).

Unsurprisingly, based on their buying behavior, collectors with higher levels of wealth also tended to have built up more extensive collections: the majority (64%) of all those surveyed only owned ten or fewer works in their collections, as opposed to wealthier respondents (with wealth greater than $5 million) where the majority (65%) owned more than ten, including 14% who possessed 50 works. There was strong support of local and national artists and art scenes by collectors. Of the works purchased during the last two years, 85% were works by local or national artists in the US and 84% were works by living artists.

Figure 6.13 | Number of Works of Art / Objects in Collections in 2017

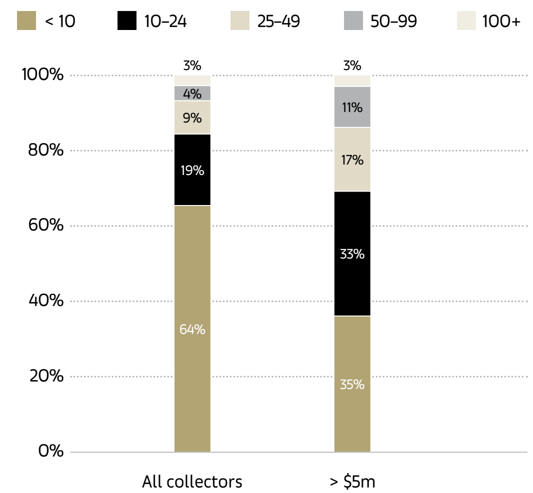


Table 6.5 | **Frequency of Use of Sales Channels for Art and Objects**

	Auction	Dealer / gallery	Online	Instagram	Art fairs	Artist studio	Private (c2c)	Advisor
Always	5%	8%	4%	4%	5%	5%	5%	4%
Often	7%	12%	5%	3%	9%	11%	5%	4%
Sometimes	14%	28%	10%	2%	24%	24%	12%	7%
Rarely	18%	18%	13%	4%	21%	19%	11%	9%
Never	56%	34%	68%	87%	41%	41%	68%	76%

Purchasing Channels

Collectors used a variety of channels to make their purchases, with only a very small share (8% or less) sticking to one source for accessing the market. The most frequently used channel for purchases was a gallery or dealer, with 66% of the sample having used them to purchase art, including 20% using them often or always. These were also the most preferred acquisition channels by collectors: 43% of respondents reported that buying through a gallery directly or at an art fair was their preferred channel for sourcing works. While the general rankings were fairly consistent between genders, women showed a higher preference for art fairs than men, and more men than women chose galleries and auctions as their first preference.

Buying directly from an artist's studio was also relatively popular, with 59% of respondents having bought art in this way. In contrast, only 44% had ever purchased at auction, although this did increase to 58% for those with wealth in excess of $5 million. (This wealthier segment was more likely to buy more, and more frequently, hence they were likely to use different channels as opportunities arose.)

The majority of the sample (68%) had never bought online, although this dropped to 54% for those in the higher wealth bracket. Despite the rise in social media as a means of communicating with potential purchasers, most (87%) of the respondents had never used Instagram as a vehicle to purchase artwork. Only a small share of 8% reported that online platforms or Instagram were their preferred mode to purchase artwork.

While 73% of those surveyed had a professional financial advisor who helped them manage their finances and make investment decisions, relatively few used an art advisor, with only 8% using them often or always and 76% never having used one. Their use did rise at higher wealth levels, with 30% of those with wealth in excess of $5 million having consulted with one, including 4% who always did so and 10% who did so often. The low use of art advisors is partially due to the fact that many collectors use dealers and galleries they buy from as primary sources for advice. When asked if they took external advice when purchasing a work of art for their collection, 62% reported that they did not. Of those who did take advice, 53% used a dealer or gallery, with a further 14% taking advice from auction experts. Just 24% reported taking advice from an art advisor or consultant, while 9% sought the advice of other consultants, such as financial advisors.

The most frequently used channel for purchases was a gallery or dealer.

Figure 6.14 | **Preferred Sales Channels for Art and Objects**

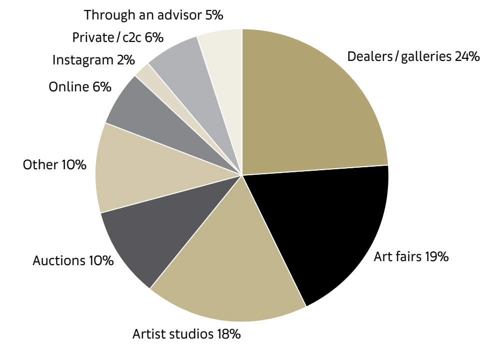
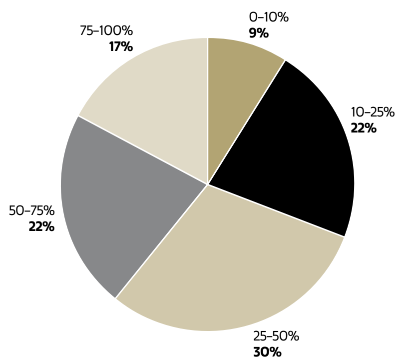


Figure 6.15 | Share of Collection Financed Through Credit or Loaned Funds



Financing Purchases of Art

Studies have shown that the use of credit and loaned funds to purchase investments of passion is common among HNWIs, with research showing that nearly 10% of HNWIs held some kind of credit to finance purchases of investments of passion.[60] In this survey, 11% of respondents reported that they had used credit or loaned funds to purchase works of art or objects in their collections, stable from 2016. The portion of their collections financed by loans or credit was significant: 30% had financed between 25% to 50% through credit, while 39% reported that more than half was financed through borrowed funds of some kind. However, the use of credit and loaned funds tended to be lower as levels of wealth increased (with only 23% of those with wealth in excess of $5 million having financed 50% or more of their collection through credit).

11% of respondents reported that they had used credit or loaned funds to purchase works of art.

60 The Cap Gemini and RBC Wealth Management *Global HNW Insights Survey* revealed that 9% of HNWIs held some kind of credit to finance purchases of investments of passion in 2015. This source quoted that there were 16.5 million HNWIs worldwide. Applying these shares to the latest figures on the HNW population and previously published estimates on the share of art and other assets in investments of passion indicates that nearly 569,000 HNWIs used credit to finance purchases of art, antiques and collectibles in 2017.

Collectors were asked to rank the importance of a number of factors in their decision to purchase works of art or objects for their collection. The top three considerations were unchanged from 2016. Aesthetic and decorative considerations were ranked highest, with 83% of the sample considering them important, including 57% who thought they were extremely or very important. A passion for collecting art or collecting as an expression of their personality ranked second, with 73% rating this important (including 44% who felt it was extremely or very important). Supporting artists and culture was also important for the majority (63%) of respondents, with a considerably higher rating for women (71%) versus men (59%).

The social aspects of collecting, including networking and friendships via the art market, were not important for the majority of those surveyed. The importance of status rose with wealth levels, however, with 45% of those with wealth greater than $5 million considering it important (versus 26% for those with wealth below $5 million). Family traditions were also more important for the higher wealth segment, with half of those respondents rating them important (versus 36% in the lower wealth segments).

86% of the collectors surveyed had never sold a work from their collection.

Figure 6.16 | **Ranking of Considerations When Purchasing Art**

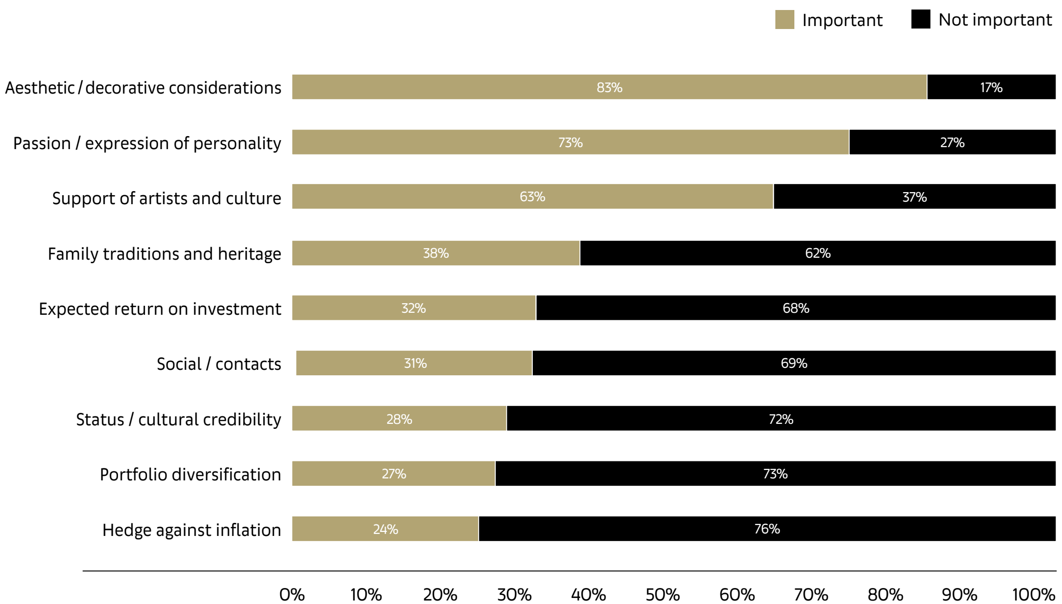
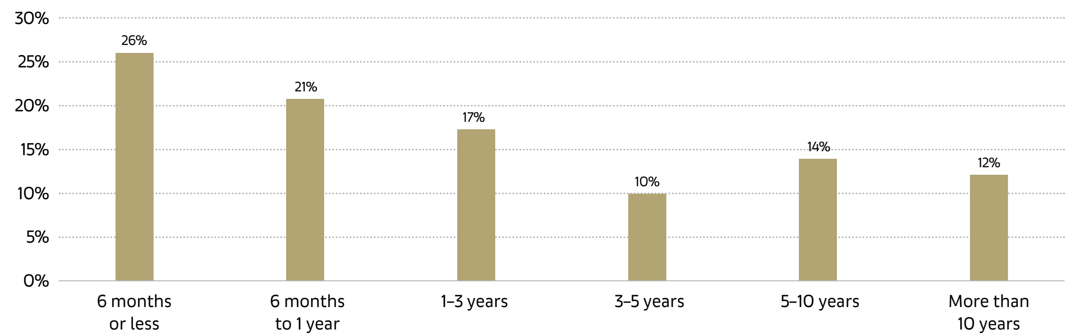


Figure 6.17 | **Resale Period for Works of Art Sold from Collections**



A major issue faced by collectors in the consideration of art as a fungible investment is a reluctance to sell works they have purchased; 86% of the collectors surveyed reported that they had never sold a work from their collection.[61]

For those who had resold works from their collections, the average period between original purchase and resale is given in Figure 6.17. This shows a relatively high share (47% of the total) having resold works within a year, and a majority (64%) within three years. While it is possible that this shows evidence of some more speculative activity among these collectors, with works being resold or flipped in a short period, the motives for resale are in fact likely to be very varied and could concern aesthetics and personal factors as much as financial ones.

61 This corroborates evidence found from another survey of HNW collectors by UBS published in 2017 (see *The Value of Collecting*, https://www.ubs.com/microsites/ubs-investor-watch/en/for-love-not-money.html). This showed that despite estimating that their collections amounted to on average 10% of their wealth (or just under half the share of their real estate investments), almost 40% could not estimate the value of their own collection and the majority had not discussed their collections with a financial advisor. This also showed a reluctance to sell, with the vast majority (81%) planning to leave their collections to their heirs when they passed away. Also unlike their real estate assets, 44% had also not insured their collection and just over half had not had their collections appraised.

6.7 | Art Buyers

While HNW art buyers influence many of the key trends in the art market from year to year, art buyers come from a range of backgrounds and wealth segments. As a group, buyers are difficult to survey directly due to their diversity, however, some useful information on how they interact in the art market can be obtained from the surveys of the dealers and auction companies from which they buy.

In 2017, according to the dealer survey, the average number of individual buyers that businesses sold to was 54, down 28% from the number reported in 2016, but with a relatively stable median of 41 (versus 40 in 2016).[62]

In contrast, the largest top-tier auction houses deal with thousands of multi-national buyers at all levels. Survey results for the second-tier houses showed that their average number of buyers in 2017 was also much higher than dealers, at 1,895 (which, despite increasing sales, was down 17% from the numbers reported in this sector in 2016), with a median of 500 (also down around 20%).

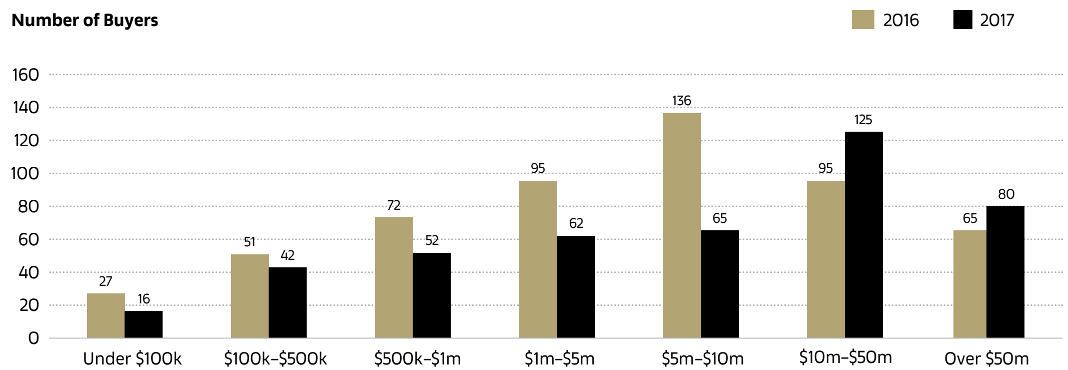
While the number of buyers at auction houses tended to rise proportionally with their turnover, this was only the case up to a certain point for dealers. The average number of buyers rose steadily up to a turnover level of $50 million, but then declined, as dealers at the top end, particularly in fine art, tend to sell a smaller number of higher value works each year and therefore can generate turnover from a slightly smaller group. However, the number of buyers in this highest segment increased by 23% in 2017 (to 80), indicating that even at this level dealers may have had to expand their reach in order to generate greater sales.

Dealers with turnover in the range from $10 million to $50 million dealt with the largest average number of buyers in 2017 (at 125). The number of buyers in this segment increased 30% year-on-year, with some dealers widening their client base considerably in an attempt to combat declining sales. As in previous years, the number of buyers declined again for dealers with a turnover of more than $50 million.

30% of dealers' sales in 2017 were to new clients, up 4% year-on-year.

62 The range in buyers reported was between three and 400. One outlier variable was removed in the calculation of the average (a dealer reporting over 7,000 buyers).

Figure 6.18 | Average Number of Buyers by Dealers' Sales Turnover in 2016 and 2017

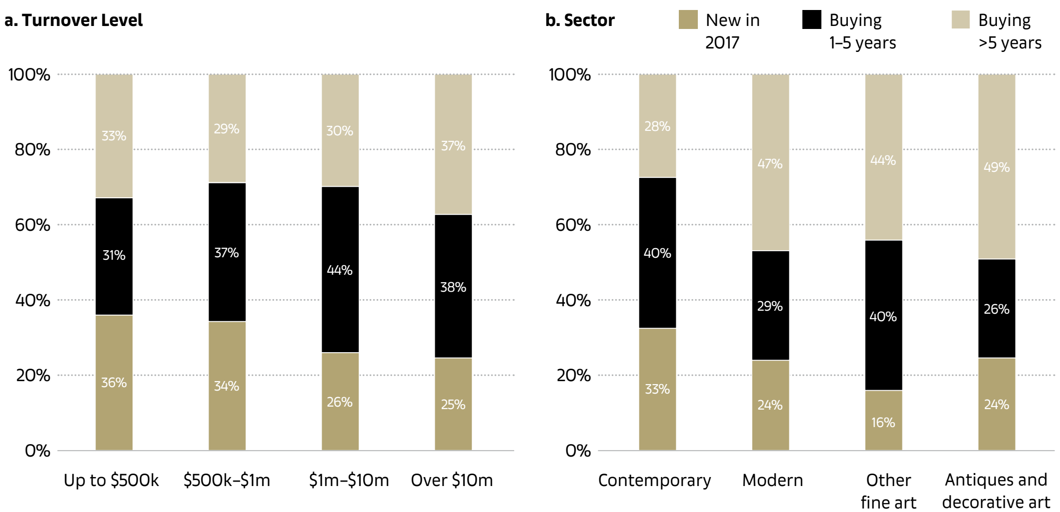


Dealers reported that their sales in 2017 were relatively well spread between new and older clients. On average, 30% of their sales were to new clients buying from them for the first time in 2017 (up 4% from 2016). The largest segment, as it was in 2016, was for buyers they had dealt with for between one and five years (at 37%). One-third were longer-term buyers of over five years, up 7% from 2016.

New buyers were more important for dealers with lower turnovers than for those at the highest end. For dealers grossing up to $1 million, new buyers accounted for over a third of their business. This dropped to 26% for dealers with turnover in excess of $10 million and lower still (18%) for those with a turnover greater than $50 million.

The importance of new versus long-term buyers differed between art market sectors. New buyers accounted for one third of the sales made by Contemporary dealers, whereas longer-term buyers were more important for dealers of antiques and decorative arts, accounting for close to half their sales. Dealers in the Modern sector also relied more

Figure 6.19 | Share of Dealers' Buyers by Purchase History



heavily on their more established client base, with the share of buyers purchasing from them for more than five years increasing 15% to 47% year-on-year. A similar trend occurred in the other older fine art sectors such as Old Masters and Impressionism, with an increase in the longer-term buyer segment (of 6%), while the share of new buyers was close to half that of 2016.

This picture fits partially with the anecdotal evidence of a more dynamic Contemporary market, with new buyers from younger demographics and wider geographical regions entering the market. In some of the older sectors, however, dealers are relying more on a lower volume of trade in higher priced items with their more established clients.

In contrast, second-tier auction houses had lower sales to new buyers and more sales to buyers of over five years. Those buying from them for the first time in 2017 accounted for 22% of their sales, up four percentage points from 2016. The remainder was split evenly between those who had been active for one to five years and those buying for more than five years at 39% each.

Sales to private individual collectors dominated the dealer (and auction) sectors in 2017, as they have in previous years. For dealers, on average, 66% of their sales in 2017 were to private collectors.[63] With the additional 3% to interior designers and 5% to art advisors (both of which purchased largely on behalf of private collectors), the share to private individuals would equate to 74%, its highest in three years. Despite much discussion on the role of art advisors, dealers reported that only 5% of their sales were directly to advisors. This may underplay their role in sales, as some private collectors may be working with advisors in researching and sourcing artworks prior to the actual purchase from a dealer. The share of sales to an advisor was highest for Contemporary dealers (6%) and lowest for antiques and decorative art dealers (at just 1%, but with unsurprisingly a much larger share of sales to interior designers at 7%).

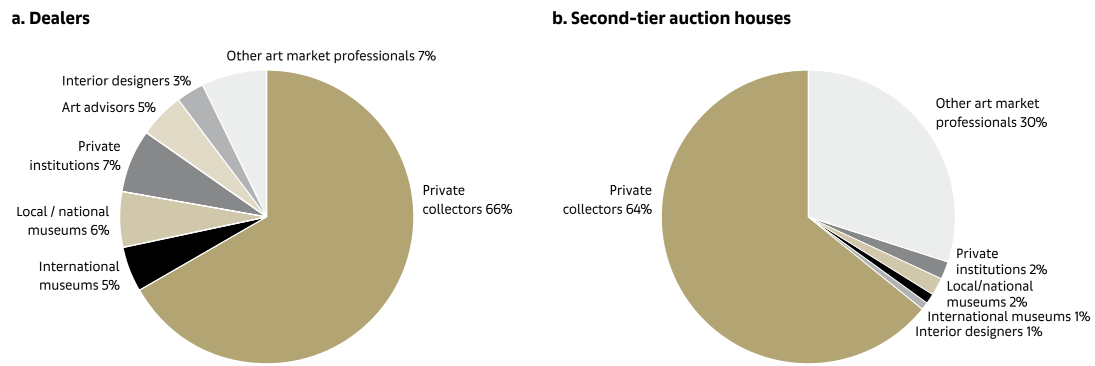
Sales to other members of the art trade were down marginally from 2016. There were notable differences between sectors, however. Intra-trade sales were relatively unimportant for Contemporary dealers (4%) but accounted for nearly one-quarter of the sales made by dealers in the decorative art and antiques markets. In contrast, sales to private institutions were much more significant for Contemporary dealers (9%), as opposed to 3% or less for all other sectors surveyed.

The share of sales to museums was stable at 11%, with a slightly larger share to local and national institutions. The share of museum sales was highest for Contemporary art dealers (at 14%) and lowest for those in antique and decorative art at just 2%.

Purchases by private collectors also represented the largest share for second-tier auction houses, accounting for 64% of their sales in 2017, up 10% year-on-year. Art market professionals were a more significant segment for auction houses than dealers, accounting for 30% in 2017, while sales to museums accounted for just 3%.

63 This was down slightly from the 69% reported in 2016, however, the new category of art advisors added in 2017 accounted for all of that difference.

Figure 6.20 | **Market Share of Sales by Buyer Group in 2017**



Local Versus International Buyers

Sales to local buyers made up the majority of the business conducted by dealers in 2017, accounting for 57% versus 43% to overseas buyers. The share of local sales was down 4% year-on-year and has declined 15% since 2010, as dealers increasingly have had to pursue more internationally focused business models to reach a geographically diverse base of buyers.

Despite being the most mobile and internationally traded sector, sales to local buyers were most important for Contemporary dealers (at 60%), likely reflecting the dynamic local primary markets and contemporary art scenes that many of the respondents were involved in. In the older sectors of fine art and decorative art and antiques, sales were more evenly split between local and international buyers. Modern art dealers were the only sector who reported a greater share of buyers from outside of their home market (at 58%).

The distribution of local and international buyers varied with turnover levels, with dealers with lower turnovers having a greater dependence on local buyers.

While this share declined as turnover rose, it only did so up to a point: as in 2016, for dealers with sales in excess of $50 million, local buyers again increased in importance, rising to over 60%. This is likely to reflect the significance of US buyers for high-end dealers, many of which are also based in the US.

There were other differences resulting from dealer location. In European markets, the share of local buyers tended to be at or below the average (51% in the UK, 45% in France and 58% in Germany). However, 72% of sales in the US were to local buyers, reflecting the importance of US-based buyers in the art market. This also applied to China, which had one of the highest average shares, at 83%, emphasizing the importance of local wealthy buyers in supporting the Chinese gallery market. Local buyers were less significant in Brazil, however, dropping from 75% in 2016 to 57%, and reducing the local average for the Latin American region to 46%. This could reflect local economic issues and the greater internationalization of galleries from this region, with greater participation in international fairs and sales.

Local buyers were also reported to have accounted for the majority of sales by second-tier houses at 74%, up 6% year-on-year. The share was varied between regions, with the larger markets such as the US and UK averaging in excess of 80%, with smaller countries below that average.

Table 6.6 | **Share of Dealers' Local Versus International Buyers in 2017 and 2016**

	2017		2016	
	Local	**International**	**Local**	**International**
All dealers	57%	43%	61%	39%
Up to $500k	66%	34%	70%	30%
$500k–$1m	57%	43%	54%	46%
$1m–$10m	49%	51%	52%	48%
$10m–$50m	44%	56%	40%	60%
Over $50m	60%	40%	80%	20%

Sales to local buyers made up the majority (57%) of the business conducted by dealers in 2017.

The largest top-tier houses have multi-national operations, with buyers spread across the US, Europe, Asia and elsewhere. While US buyers continued to represent a slightly larger share than other regions on average, their margin has decreased over the last ten years, particularly with the increased importance of Asian buyers. In 2017, surveys by Arts Economics of the top-tier houses showed that on average US buyers accounted for close to one-third of sales, with just less than 30% each from Asia and Europe. Chinese buyers accounted for just under one-quarter and Asian buyers (including Chinese, Indian and other Asian buyers) were now on a par with Europe at 30%. Russian and Middle Eastern buyers averaged around 5%, up marginally from 2016.

Dealers had a very diverse range of buyers from around the world. The US accounted for the largest share on aggregate, with a majority (68%) citing US buyers among their top three most important buyer nationalities. European buyers accounted for 42% of those reported, with Germany, the UK and France dominating. Asian buyers accounted for 15%, with Chinese buyers representing the majority at 10%, up significantly from just 4% in 2016 and reinforcing the anecdotal and other evidence of the continued growth of Asian buying power. The overall share of Latin American buyers contracted on the other hand, dropping from 6% in 2016 to 4% in 2017.

As in all years, the nationality of buyers varied depending on the location and nature of the respondent's business. Some of the primary drivers in buyer-seller relationships between countries tended to be:

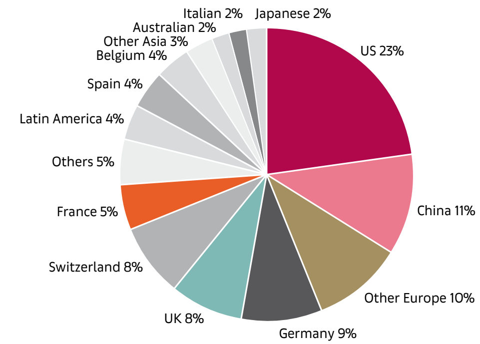
- Incomes (dealers and buyers from countries with higher incomes and larger art markets tended to trade more with each other; for example, between the US and UK).
- Distance (many dealers in Europe or Asia transacted more with buyers in neighboring countries. This is particularly the case with those with lower turnover, as shipping costs and logistics might have encouraged trade or prevented dealers from maintaining a wider global reach. In Europe, this may have also been facilitated by favorable regulatory structures reducing costs within the EU market).
- Cultural links (including common languages, for example Spain and Latin America; historical and other cultural links, for example post-colonial heritage in Asia and Australia with the UK).

When dealers were asked to name the top three challenges facing them in 2017, the biggest one cited was finding new clients (by 50% of respondents). Finding buyers was also seen as the number-one challenge they would face for the next five years (with a majority of 60% of responding citing this as one of their top three challenges looking ahead).

Dealers and auction houses both noted that the difficulty in finding new buyers was the result of the market becoming more competitive, with new participants and agents also looking for buyer access. They also noted that the narrowing group of artists which were the most highly sought after by many buyers had benefited a relatively small number of businesses, but increased the difficulty in attracting the attention of buyers for the work of other artists.

While the focus of many businesses at the top end of the market has been on securing the interest of existing HNW collectors, it is clear that they represent a very narrow share of the potential population of buyers worldwide. In order to support businesses at a wider range of levels in the market, greater interest from new buyers, including those in lower wealth segments, will be critical in the future. Making art more accessible to new audiences and securing greater engagement from a wider range of buyers will be a key challenge over the next five years in order to support a stable, balanced market in the future.

Figure 6.21 | Most Important Nationalities of Buyers for Dealers in 2017



The economy and its effects on the demand for art and antiques was the second biggest issue (cited by 47% of dealers, and the second highest rated challenge for second-tier auction houses in 2017 as well as their highest rated over the next five years). Economic and political dynamics cause changes not only in wealth but in the perceptions and actions of buyers and sellers of art. Politically, 2017 was a considerably more stable year than 2016, which many of those in the art trade believed helped to boost greater buyer and seller confidence, thereby encouraging sales.

At the start of 2018, there is a good deal of optimism concerning the wealth dynamics around the world, particularly with regards to the predicted robust expansion of the HNW population and its wealth over the coming years. However, there are many risks. In major economies such as the US and UK, there is still much uncertainty regarding policies on trade. The populist challenge in Europe lost some of its momentum during 2017 but there is still a political threat to globalization and divisive views on issues of sovereignty and immigration remain present. While these issues may seem removed from the business of the art market, the prevailing political mood and sentiment can do much to promote or deter spending at all levels. Future financial confidence (or how wealthy people believe they will become in years to come) can have a much greater effect on spending than considerations of current income.

Securing greater engagement from a wider range of buyers will be the key to a stable, balanced market in the future.

7

Economic Impact and Conclusions

Key Findings

Economic Impact and Conclusions

1. There were estimated to be 310,685 businesses operating in the global art, antiques and collectibles market in 2017, comprising 296,540 in the gallery sector and 14,145 auction houses.

2. The art market directly employed an estimated 3 million people in 2017, stable from 2016.

3. It is calculated that the global art trade spent $19.6 billion on a range of external support services directly linked to their businesses, supporting a further 363,655 jobs.

4. The largest area of spending, although only incurred by dealers, was on art fairs, which represented 23% of the total at $4.6 billion, an advance of 15% year-on-year. The second largest area of spending was on advertising and marketing, which totaled $2.8 billion.

7.1 | Employment in the Art Market in 2017

There were estimated to be 310,685 businesses operating in the global art, antiques and collectibles market in 2017. The majority of the companies involved in the market are small businesses (in terms of employees and turnover[64]), and their combined employment, including both the dealer and auction sectors, was just over 3 million people.

There were 310,685 businesses operating in the global art, antiques and collectibles market in 2017.

7.2 | Dealer Sector Employment

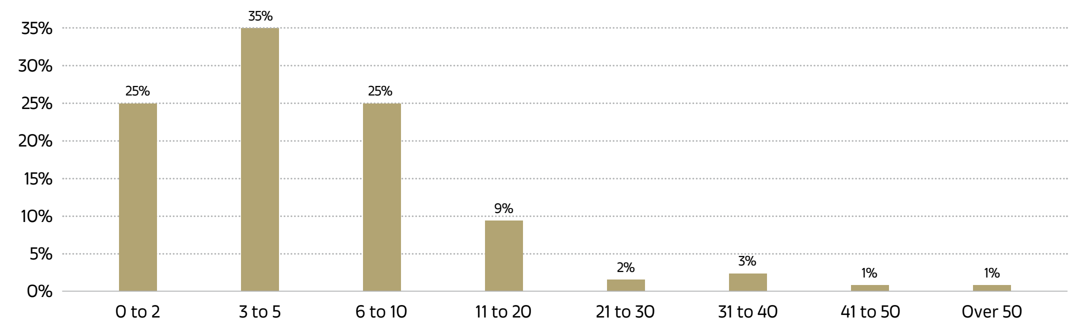
It is estimated that there were just over 2.7 million people employed worldwide in the gallery and dealer sector in 2017, in about 296,540 businesses. While there are a small number of global, mega-galleries with multiple premises, most art and antique dealers are small to medium-sized enterprises. Based on the surveys of the sector in 2017, the average number of employees per business was seven, stable from 2016, with a median of five (up from four in 2016). Businesses surveyed ranged from sole traders to those with just over 100 employees. Around 25% of the total businesses surveyed were sole traders or in partnerships of just two people, while 16% employed more than ten people.

The survey suggested that employment varied somewhat by sector, although there was more range within sectors than between them in 2017. Fine art dealers tended to employ larger numbers, although the differences were not as significant as in previous years, with a global average of seven in fine art versus just six in the decorative art and antiques sector. Within fine art, Modern dealers employed the most people on average (eight people), followed by Contemporary dealers (seven), while the average for Old Master dealers was six.

There were also some differences in employment numbers between countries. The average number of

64 A small business is defined as one with turnover less than €10 million and staff headcount of less than 50 in Europe (by Europa), and defined in the US, for art dealers, as one with a turnover less than $7.5 million (by the US Small Business Administration).

Figure 7.1 | Numbers Employed in the Dealer Sector in 2017



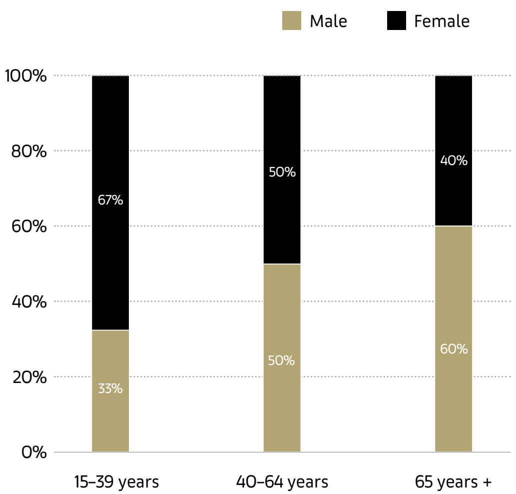
employees in the US was higher than global mean at ten (down from 12 in 2016). The average in China dropped from nine to seven, and Brazil from 15 to ten. In Europe, numbers varied: the UK was on par with global averages with seven; Germany and France had slightly higher averages at ten and nine, respectively; and some mid-sized markets such as Spain had slightly lower averages of six and below.

The majority of businesses (66%) maintained stable employment numbers year-on-year, 26% increased the numbers employed (on average by two people), while 8% experienced a decline in numbers (on average by three people).

Unlike many other industries, the gender balance in the dealer sector was predominantly female, with women making up 61% of the workforce. This is in contrast to gender ratios in the wider labor force in most countries, which tend to favor male participation (for example, a 39% female share of employment worldwide, 47% in the US in 2016 and 46% in the EU).[65]

65 General labor market data for the US is from the US Bureau of Labor Statistics and based on the civilian labor force aged over 16 years in 2016. Data for the EU is from the *Eurostat Labor Force Survey* for Q3 2017, based on those aged over 20 years in the labor force. Estimates for global participation are from the World Bank and related to 2017.

Figure 7.2 | Gender and Age Profile in the Dealer Sector in 2017



The majority (65%) of those employed in the dealer sector in 2017 were aged between 15 and 39 years, 31% were 40 to 64 years old and 4% were over 65. Those aged 65 years or more had a slightly higher share than wider regional averages such as 2% for the EU, but were on par with larger economies such as the UK (4%) and the US (6%). There was also a higher proportion of younger people employed in the dealer sector, compared with figures for the US in 2017 for example which showed that 56% of the general labor force was under 44 years, while in the EU the share of workers under 40 years was 42%. In markets such as the UK and France those aged under 40 represented 46% of the labor force.

As in previous years, the survey showed that the rate of female participation in the sector declines with age. The highest proportion of female employment is in the 15 to 39 years segment with 67%, whereas the middle segment (40 to 64 years) is gender-balanced. In the age range over 65, the share of women is a minority at 40% (down 5% year-on-year) and more in line with other industries. For example, the share of female employment across the EU in 2017 dropped from 46% in the age groups between 15 and 64 years to 38% for those 65 years and over. In industries such as wholesale and retail, the decline was similar (from 49% for those aged between 15 and 39 years to 42% for those 65 and over). However, for those in professional employment, the decline is even more marked: from 53% for those between 15 and 39 years; 52% for those between 40 and 64 years; down to 32% for those aged over 65 years.[66]

Most of those working in the sector in 2017 were employed in full-time positions (80%), with 20% in part-time or temporary positions. This share dropped 5% year-on-year, bringing it into line with most national averages. Most (90%) of those working in the dealer sector in 2017 had permanent employment status, with just 10% on temporary contracts, again on par with most wider regional averages. There was a much higher rate of part-time work for those on temporary contracts, at 54%, but this share was down 12% year-on-year. As in 2016, only a minority (17%) of the permanent workers in the sector worked part-time.

Surveys of the dealer sector over the last ten years have consistently shown a very high level of education. In 2017, 77% of those employed possessed a university or third level qualification, down 6% from 2016. These education levels are much higher than the general labor force in most countries, with the EU average for third-level qualifications in 2017 at 28%, 39% in the US (for bachelor's or higher degree) and 38% in the UK.

7.3 | Auction Sector Employment

The auction sector employed an estimated 288,480 people worldwide in 2017 in about 14,145 businesses.

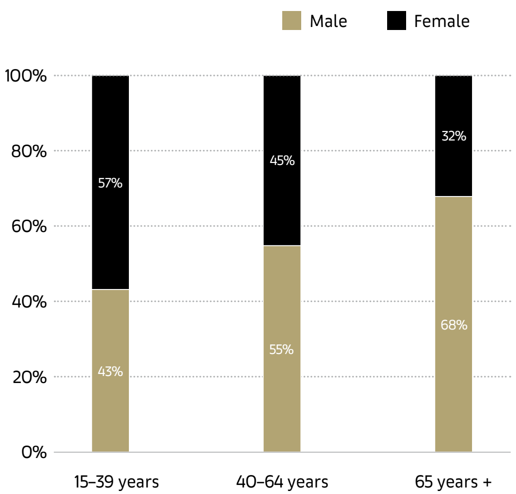
The top-tier segment of this sector consists of a small number of national auction houses such as Poly Auction and China Guardian, as well as multi-national global enterprises such as Christie's and Sotheby's, while the second and lower tiers are mid-sized and smaller companies, mainly operating locally and regionally.

In 2017, the largest multi-national top-tier auction houses employed between around 400 and 2,000 people worldwide. While changes in employment varied between individual businesses, aggregate employment in this tier decreased by 6% (in terms of full-time equivalents) as some of the larger houses reduced staff numbers. In the multi-national auction houses, employment in the US dominated (44% of those employed), with the UK accounting for a further 34%. China and other parts of Asia accounted for 10% of the total number in 2017, stable from 2016.

The average number of those employed in second-tier auction houses in 2016 was 20 (stable from 2016) with a median of 12. The majority (54%) of auction houses in this sector reported stable employment numbers from 2016, 36% reported a rise (by three people on average), and just 11% noted declines (of two people on average).

66 Professional employment is based on the ISCO-08 code OC2 including those in business, legal, scientific and cultural professions.

Figure 7.3 | Gender and Age Profile in the Second-tier Auction Sector in 2017



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The gender breakdown in the top-tier houses favored women, with an aggregate share of 62%. The second-tier businesses were more gender-balanced with 50% female employment (down from 54% reported in 2016).

The second-tier auction sector showed a stable age profile from the figures reported in 2016, with a slightly higher share of younger workers, and a higher share in this bracket than some of the regional aggregates. In 2017:

- 51% of those employed were aged 15 to 39 years, up 7% year-on-year.
- 42% were aged 40 to 64 years, down 7%.
- 7% were aged 65 years or over, stable from 2016.

As in the dealer sector, the share of female employment was highest in the youngest age group of 15 to 39 years (at 57%) and dropped with increases in age, with women representing only 32% of the workforce in this sector that were over 65 years.

In the top-tier auction houses, most of those employed in 2017 were engaged in full-time work, with just 15% part-time employment (down 2% year-on-year). Most employment in the second-tier auction sector was also full-time, with part-time workers accounting for just 22% on average in 2017, on par with the average for part-time workers in the general labor force in many regions, as noted above.

Most workers (86%) in the second tier also had permanent contracts, with just 14% working on temporary contracts. For those with permanent jobs, most also worked full-time (91%). For those working on contract, a smaller share of 69% were full-time, although this was up 16% in share year-on-year.

Like dealers, auction house employees have a high level of educational qualifications, with 57% of those in second-tier houses having university or third level degrees, stable from 2017. While this was lower than the dealer sector, it is still considerably higher than averages in the general labor force, showing again the high education levels predominant in the industry. In the top-tier houses, the level of those with advanced qualifications has varied in recent years, but has consistently been above 70% when reported.

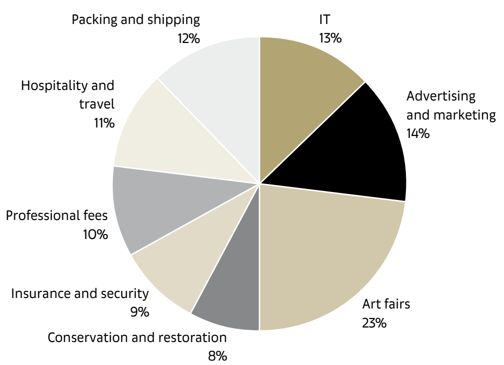
In 2017, the global art trade spent an estimated $19.6 billion on a range of external support services.

7.4 | Ancillary Economic Impact

Apart from employment in auction houses and galleries, the art market also creates an important economic impact through its spending on a growing range of ancillary and support goods and services. This creates substantial revenue and jobs in a number of areas used both by the art trade and collectors. Many of the support services are highly specialized, niche industries that have developed specifically around the art market and, in many cases, would not exist or survive without it.

In 2017, it is estimated that the global art trade spent $19.6 billion on a range of external support services directly linked to their businesses, an increase of 9% year-on-year. Figure 7.4 shows that, just as in 2016, the largest area of expenditure, although only incurred by dealers, was on art fairs. Spending on art fairs reached $4.6 billion, an advance of 15% year-on-year and representing 23% of total ancillary spending. This underlines the important economic impact of art fairs on their host economies, and represents only a tiny share of spending within the host cities during fairs. But the surge of incoming visitors creates a much greater impact in terms of spending both at fairs themselves and on a network of related and unrelated businesses during their visit (hotels, restaurants, transportation, retail). The rising level of spending also shows that the increase in sales at fairs (estimated to be 16% in 2017) has been accompanied by significant additional costs.

Figure 7.4 | Share of Expenditure by the Global Art Trade on Ancillary Services in 2017



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The largest area of expenditure, although only incurred by dealers, was art fairs at $4.6 billion.

The second largest area of spending was on advertising and marketing, which totaled $2.8 billion (14% of the total, down 6% in share year-on-year). Spending on advertising and marketing declined for the second year in a row, decreasing by 22% in value, with declines in both the auction and dealer sector. As in previous years, auction houses accounted for the majority expenditure on advertising and marketing (66%), their largest area of external expenditure. But nonetheless, this expenditure declined 27% year-on-year (versus a 12% decline for dealers).

The next highest area of aggregate expenditure, and by far the highest increase year-on-year, was on IT and third-party online costs. Spending totaled just under $2.5 billion, an increase of 8% year-on-year, representing 13% of total expenditure. This demonstrates the increasing emphasis placed by companies in the art market on improving their digital infrastructures and presence, which is now seen as a more direct route to buyers and vendors.

Next to IT, packing and shipping was a considerable area of expenditure, 12% of the total and increasing 12% year-on-year to $2.4 billion. This increase was driven entirely by increasing costs in the dealer sector, as auction houses reported an aggregate decline of 5%.

While some dealers mentioned that they hoped to cut back on spending on hospitality and travel,

Table 7.1 | Ancillary Expenditure and Employment Generated in 2017

Services	Expenditure ($m)	Employment Generated
Advertising / marketing	$2,839	52,680
Art fairs	$4,559	84,580
Conservation and restoration	$1,521	28,215
Insurance and security	$1,694	31,435
Packing and shipping	$2,385	44,245
Hospitality and travel	$2,078	38,545
Professional fees	$2,040	37,845
IT	$2,486	46,120
Total	**$19,602**	**363,665**

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this was not reflected in the overall figures, with expenditure rising in this area by 11% to $2.1 billion. The largest rises were in the auction sector (advancing 17% versus an 8% rise by dealers).

Table 7.1 sets out ancillary expenditure and estimates the associated employment generated by the global art and antiques trade. In 2017, based on average sales per employee in a range of similar service industries, it is estimated that the revenue directly generated by the art trade in ancillary industries supported 363,665 jobs.

The revenue directly generated by the art trade in ancillary industries supported 363,665 jobs.

7.5 | Conclusions

The global art market is made up of a number of mainly small, knowledge-intensive businesses, employing a gender-balanced mix of highly educated people. The $64 billion in sales it generated in 2017, conservatively estimated for the purposes of this report, are relatively small compared to other industries, and much less than the annual revenues of multi-national companies such as Google, Ford or Apple.[67] However, the art market's impact on the global economy is much greater in proportion to its revenues. Art markets around the world make a very significant economic contribution through the direct support of knowledge-based employment, nurturing highly specialized skills and supporting a range of high-value ancillary industries, as well as generating fiscal revenues.

The art market also has a wider positive impact in key industries such as tourism, through enhancing a nation's attractiveness and distinguishing its cultural identity. All of these quantifiable economic contributions come alongside the less measurable but significant cultural and social benefits.

Despite the year-to-year volatility in sales, employment in the market has remained relatively steady, and has advanced considerably over ten years as the market has become increasingly global in nature. While the preceding analysis has focused

Despite the year-to-year volatility in sales, employment in the market has remained relatively steady.

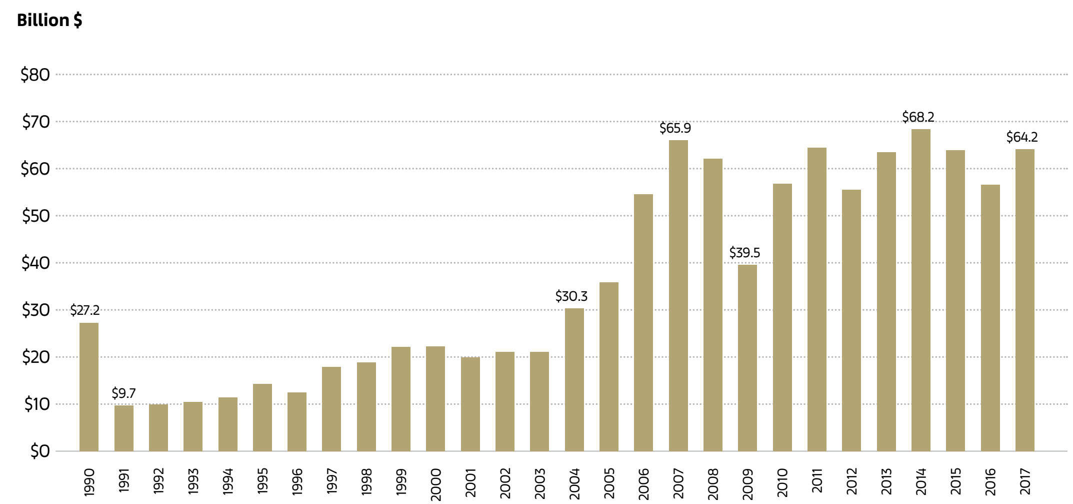
mainly on the traditional gallery, dealer and auction sectors, the market is now made up of a variety of different companies, institutions and individuals, interacting in new ways through both offline and online channels, creating wider areas of employment and revenues, greater international links and a variety of other positive externalities and non-economic benefits.

These new dynamics, along with the continuing globalization of art sales and buyers, have protected the market from downside risk, making it more resilient to specific crises than it was in the past, and more able to sustain a stable base of employment.

This is evident by looking at the way the market as a whole has bounced back from recessions in sales in recent years. As discussed in Chapter 6, after driving the boom in sales in the late 1980s, the departure of Japanese buying from the market in the early

67 Apple's annual sales in 2017 were $229 billion with just 123,000 employees, Google achieved $110 billion with 73,992 employed, while Ford's total sales were $157 billion with 202,000 employees.

Figure 7.5 | Global Sales in the Art Market Since 1990



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As sales and buying have become more global over the last ten years, the market is now more protected from protracted declines.

1990s resulted in sales plummeting to a 20-year low, with aggregate values falling to one-third of their size. The market's recovery was painfully slow, relying nearly exclusively on vendors and buying power from the US and Europe. According to those in the market during this period, demand was low and inconsistent, and most of the larger sales in the auction and dealer sectors were via estate sales or through forced sales. It is generally acknowledged that the market did not start to regain momentum until the mid- to late-1990s, and Figure 7.5 shows that it only returned to its pre-crisis size 14 years later in 2004.

This is in stark contrast to the relatively short duration of the more recent recession, where sales fell by over 40% in the two years between 2007 and 2009, but bounced back strongly in 2010, supported in part by a booming Chinese market and international buying in mature markets such as the US. The different growth trajectories of mature versus emerging economies, changing trends in the distribution of global wealth, and the supply dynamics of individual art markets have all diversified the fortunes of the global market. With sales and buying having become more globally diversified in nature over the last ten years, the market has become more protected from experiencing protracted declines. While beneficial at the macro level, this has also made many aspects of the art trade more competitive internally, both regionally (as seen, for example, with the shift in market share from Europe to Asia) as well as for individual businesses focused on certain sectors and segments of the market. When sales in the market shift to another region or segment, over time the important employment and other economic benefits that are driven by these sales also migrate.

The relative speed and longevity of any recession and recovery in the art market is also critically dependent on confidence, particularly on the part of sellers, with the art market remaining very supply-driven in nature. While up to 2007, it was seen as relatively easy to sell works at a range of price levels, anecdotally, both dealers and auction houses have reported that since the global financial crisis and the bottom of the market in 2009, much of the confidence and focus of interest in the market has been at the high end. While this segment of the market has recovered well since 2009, the middle market has come under increasing pressure in the more recent period.

The analysis of sales in both the dealer and auction sectors in 2017 provided empirical evidence of this polarization, confirming the top-heavy nature of the trade, with the ultra-high end dominating values despite the fact that most of the transactions and the majority of artists whose works come on to the market are at the middle and lower end.

In the dealer sector, while large galleries with turnovers in excess of $50 million saw a strong uplift in sales of 10% year-on-year, sales for dealers with turnovers less than $1 million fell, with those with turnover less than $250,000 faring the worst of all – including many at the emerging end of the spectrum that are critical to the market's infrastructure and have also played an integral role in stimulating more widespread interest in contemporary art. In the auction sector, analysis of fine art sales shows that over ten years, the middle market has fallen in value, whereas sales of works priced over $1 million have expanded, with the most growth at the highest end (over $10 million). While the highest priced works have always dominated to some extent, the gap between this segment and everything else is expanding; even at the top of the market in 2007, values were considerably less skewed than they were in 2017, and the middle market had a larger share. This new reality of an extremely thin market at the high end consisting of a very small number of artists and sales at very high prices has a disproportionately large influence on aggregate sales figures. The presence (or absence) of a relatively small number of sales can yield significant trends in aggregate sales, without these filtering down into most businesses in the art trade. An increase in industry-wide sales can therefore belie the difficulties of the majority of businesses in the market, as was the case in 2017 where many middle and lower end businesses continued to struggle despite the uplift in total sales.

Because it has been the fastest growing, competition at the top end of the market has also intensified. Dealers have noted that they can often achieve much higher margins for highly priced works, often with the same or less effort in making sales versus lower priced items. While this is true to some extent for auction houses, with commissions rising with sale prices, the very limited supply of the most popular and sought-after artists and works at the top end has made it incredibly competitive to secure consignments, with a range of financial incentives and guarantees

The analysis of sales in both the dealer and auction sectors in 2017 confirmed the top-heavy nature of the trade.

increasingly used for winning the highest value lots. Although such incentives are often seen to be critical to securing inventory and the publicity garnered by these sales, these very incentives have often substantially reduced the profitability of many top end sales – as well as potentially introducing added balance-sheet risk. Such guarantees have successfully masked weaknesses in the auction sector in recent years, as evidenced in some of the bigger sales in which unguaranteed lots with high estimates were passed over.[68]

In this highly competitive market, a very small number of artists, and the dealers and auction houses with access to their works, continue to drive the bulk of sales values, while others struggle to survive. This "superstar phenomenon" is pervasive in the art market, and has been discussed in previous Arts Economics reports. This top-heavy bias has increased over the last 10 years, but the superstar effect has been observed for at least a century, and has been widely written about both in academia and in media commentary on the market. Theoretical discussions of the issues date back to the 1920s when, in his book *Principles of Economics*, British neoclassical economist Alfred Marshall discussed the divergence in prices of works of art and in the fortunes and profits of businesses based on skills and luck. Marshall attributed this to the growing accumulation of wealth in the hands of a few, and the spread of modes of communication. The former allowed prices to rise for items coveted by the ultra-wealthy, while the latter gave those with greater means the ability to reach wider markets or audiences than before. Sherwin Rosen's 1981 paper "The Economics of Superstars" examined art, sports and other industries to show why large differences in earnings can often exist despite little or no differences in talent. Moshe Adler further demonstrated in 1985, in his paper on "Stardom and Talent," that when consumption requires specialized knowledge, the existence of stars did not necessarily derive from the differentiation of talent, but rather from consumers' need to share common

As the focus of publicity shifts to galleries and artists at the superstar level, the art market appears increasingly out of reach of new buyers.

68 There were several examples of this during the year. In the sale that included the Leonardo da Vinci lot at Christie's in November, Jean-Michel Basquiat's *Il Duce (1982)*, estimated at $25 to $35 million, was bought in. Earlier in London in October, the much publicized work by Francis Bacon, *Study of Red Pope 1962. 2nd version 1971*, also failed to sell at Christie's. This work had an estimate of £60 million to £80 million ($78.4 million to $104.5 million), which, if achieved, would have made it the most expensive work ever sold at auction in Europe.

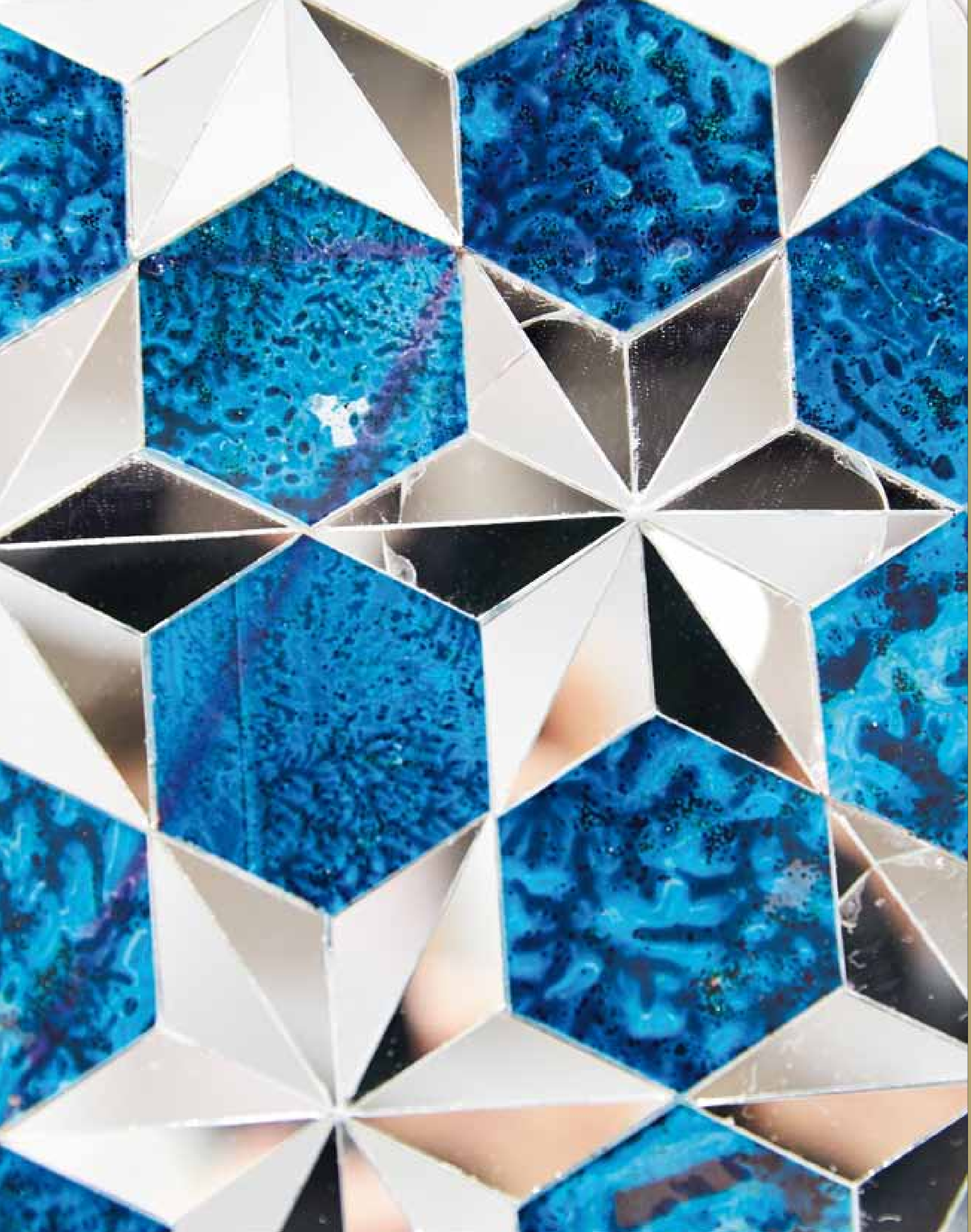
reference points. Adler's theory also helps explain how the top end of the auction and gallery sectors have become so dominant, through the risk-reducing tendencies of buyers to purchase only well-recognized works. This behavior reduces risk by relying on the established preferences of previous high-profile buyers. Collectively, these risk-reducing preferences tend to reinforce the superstar phenomenon: works by the most famous artists are in highest demand, and achieve by far the highest prices. On the whole, however, art businesses – and especially the smaller ones – find it more difficult to sell a wider range of works. A hundred years later, the two factors Marshall identified as driving the superstar economy – wealth accumulation and the ability to communicate and share information – are thus more relevant than ever. Together, they create and reinforce the art market's current top-heavy structure.

Numerous issues arise from this phenomenon, including threats to the market's underlying infrastructure, broader concerns regarding consolidation around promoting the work of very few artists, and homogenizing tastes around successful artists and those selling their works. As the focus of publicity shifts to galleries and artists at the superstar level, the art market also appears increasingly out of reach of new buyers, who feel they can only take part if they gain access to this top tier and its multi-million dollar price structure. In time, this could limit the potential for the market's future growth as people shift money elsewhere. Christie's heralded Leonardo da Vinci sale in 2017 was an example of this, pushing the limits of normality in prices, yet having little real trickle-down effect, despite generating much publicity in the art market.

A key issue in relation to economic impact is that the majority of employment and ancillary spending is not in the top end of the market, but comes instead from the very many other businesses below the top tier. Hence, the problem of sales shifting to the top tier threatens the benefits the art market offers economies, which, to be maximized, requires the market to be functioning well at all levels. However, as noted in Chapter 2, while much focus has been on the number of businesses closing in the market, that has not necessarily been the key problem. All industries show a turnover of businesses year-to-year and some businesses should close if there are too many to support sales, or if they are simply not competitive enough to survive. Viewed through a broader lens, the art market has actually fared considerably better than many other industries, and the loss of businesses in some sectors has been in most years about the drop in the number of businesses opening rather than businesses closing down. The bigger problem is twofold: first, that the closures are often of small and mid-sized galleries in the primary market, including those with highly professional and hard-working teams that form a critical part of the market's infrastructure, often discovering and raising key artists of a given generation, and producing a range of positive externalities for other businesses, artists and consumers; and second, that there has been a notable slowdown of new gallery openings over the past decade, indicating how potential issues could arise in the future regarding the discovery of new talent and both the introduction and cultivation of a more diverse range of buyers.

The discussion in this report has looked at some ways in which dealers and other businesses are combating the issues they face in this polarized market. Although there are a number of approaches they may need to take, one of the most important remains expanding the focus of the market to a broader base of buyers at different price levels. While some sectors of the market have enough businesses given the limitation of supply, the only way sectors such as the Contemporary market can support more businesses is by increasing the number of buyers. The use of online facilities holds much promise in achieving this. While these have done very little to disrupt sales in the traditional offline sector, they have been very successful for both dealers and auction houses in reaching new buyers in 2017. E-commerce to date has played a complementary role to traditional offline channels, without any radical overturning of the incumbent offline art businesses. However, by making art more accessible to new audiences, it has made great advances in democratizing art, which will undoubtedly prove important for a more stable, balanced market in the future. In the offline market, new models of collaboration and more flexible structures are also likely to prove important in expanding the scope and activities of some businesses. Especially important will be those that find positive and committed ways for vertical collaboration – finding ways for small and large galleries and other businesses to work together, as well as collaboration between sectors, including auction houses and dealers working together to expand the market.

The only way the Contemporary market can support more businesses is by increasing the number of buyers.



Appendix

Appendix – Sources Used in the Art Market 2018

Due to the complex nature of the art and antiques market, information presented in this report comes from a wide range of sources. All of the data is gathered and analyzed directly by **Arts Economics** from dealers, auction houses, art fairs, art and antique collectors, art price databases, financial and economic databases, industry experts and others involved in the art trade and its ancillary services.

I. Auction Data

The auction sector provides one of the main large-scale, global, and publicly available information sources on individual transactions in the art market. Even though the results of many auction sales are in the public domain, aggregating data within this part of the market is not without issues, particularly on a global scale, with some companies publishing limited, selective or no results at all. There is no one comprehensive source or database that covers the entire auction market for fine and decorative art and antiques. Auction data for 2017 used in this report therefore comes from four main sources:

a. Auction Club

Global auction data is supplied by Auction Club (www.auctionclub.com). Auction Club's database covers 4,000 auction houses, with consistent auction results gathered annually for 250 businesses in 35 countries. The database comprises results from major sales in first- and second-tier auction houses around the world, and does not restrict inclusion by final price or estimate value, hence offering coverage of the full range of prices and sales. Their historic database has over 7 million fine art auction records from 490,000 artists since 1985.

b. AMMA

Both fine and decorative auction data for the Chinese art market is supplied by AMMA (Art Market Monitor of Artron). Artron.net was founded in 2000 as an interactive online community devoted to Chinese works of art. AMMA is a subsidiary of the Artron Group and conducts independent research, monitoring and analysis of the Chinese art market. It has the most comprehensive and reliable database available on the Chinese art market. The Artron Chinese Artwork Database has recorded 5.6 million results from over 26,000 sales held at more than 1,000 auction houses since the first art auction in China in 1993, and adds 600,000 lots to the database annually. The company's database also contains information on around 35,000 artists, over 14,394 art institutions, and 4,606 galleries.

c. Auction Houses' Published Results

To supplement the coverage provided by these two databases, Arts Economics has also developed its own internal auction database, collecting data directly from the published auction results and press releases of auction houses around the world on an annual basis. Arts Economics would like to thank David La Cross, Anne Dayton and Melanie Boyne from Collectrium for their help organizing the data used in the report to ensure consistency.

d. Auction House Survey

Arts Economics distributes two surveys in the auction sector: a comprehensive top-tier survey of the 10 leading auction houses worldwide plus a second-tier survey of just over 550 national second-tier auction houses. The auction surveys provide additional sales data as well as a range of other more in-depth information on supply and inventories, employment, buyers, profit margins, debts and other aspects of the auction market which are used in the report. The surveys are sent directly to the auction houses from Arts Economics' database. In 2017, Invaluable also distributed the survey to their member auction houses.

For historical auction data, various sources were used in compiling previous reports, including Collectrium (2016), Artnet (2011-2015) and Artprice (2008-2010).

II. Dealer Data

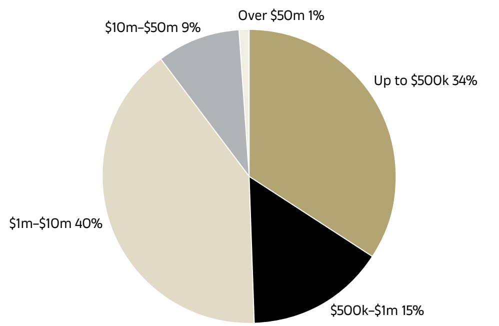
Data on dealer sales is more complex to gather due to the private nature of transactions in the sector. Most dealers are small to medium sized firms (in terms of turnover and their number of employees) with a tiny fraction of publicly listed companies in the sector, therefore listings of their financial results in public and private databases are limited.

Arts Economics has comprehensively analyzed and used company and industry data from various public and private sources such as Eurostat, the US Bureau of Labor Statistics, the Office of National Statistics in the UK, Companies House, Insee, Infogreffe, the National Bureau of Statistics in China, Mint Global and numerous other national, publicly available sources. However, these private and public sources are limited in scope and coverage, and in some cases publish data with a significant lag and only for a very small proportion of companies relevant to this report. Comparisons are also problematic between nations due to differences in the units used, the records required, how they are defined and recorded, and the classification of companies by sector and activity.

To overcome the lack of publicly available data, surveys of this sector are a necessary and critical element of the research process. To compile data on the dealer sector, Arts Economics conducted an anonymous online survey of approximately 6,500 dealers from the US, Europe, Asia, Africa and South America in 2017. Ideally to analyze the market without bias, a random sample of all businesses would be drawn and surveyed. However, due to the private nature of the industry and the potential problem of low response rates from random sampling, a stratified sample was used, based on the populations of dealers belonging to the main art dealers associations around the world, those exhibiting at art fairs, and some lists compiled with the help of experts in particular national markets.

The anonymous online survey was distributed directly by dealers associations such as CINOA, SLAD, ADAA and other key national associations. It was

Figure 1 | Share of Respondents by Turnover in 2017



also distributed by Art Basel directly to over 500 individual galleries who participated in its shows in Basel, Miami Beach and Hong Kong in 2017. The survey was distributed one to three times via these channels during December 2017.

Response rates varied between countries and sectors, but the aggregate overall response rate was 14% (or around 905 dealers). The response rate was down slightly from 2017 (by 3%) but falls well within the average response rate for external online surveys of 10% to 15%. This sample of respondents gives a margin of error of +/- 3% when applied to the wider population of dealers at the 95% confidence level.

While the survey revealed dealers with a wide range of levels of turnover, by the nature of the sampling process via vetted entry to associations and fairs, it is skewed towards the middle to higher end of the market and does not cover many of the very small businesses, consultants and other agents in the market that do not belong to associations or exhibit at fairs.

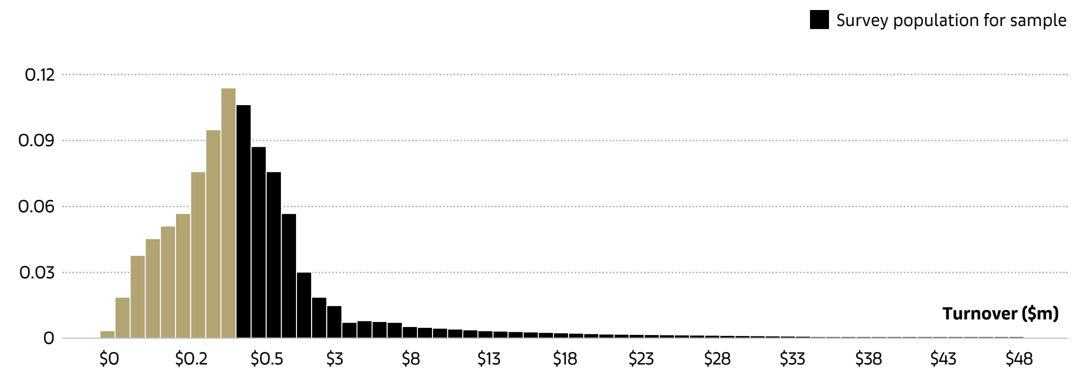
When using a broad definition of dealers and galleries, and deriving estimates from a range of official national government statistics and private directories, there were in the region of 296,540 dealers worldwide selling fine and decorative art, antiques and collectibles in 2017.[69]

In terms of the representativeness of the sample to the wider population, the 6,500 dealers surveyed account for a small share of the number of individual businesses. However, these dealers represent over 75% of the value of sales in the sector.

Therefore, the survey allows us to estimate the value and changes in this core portion of the market, while the additional sales from the remaining small businesses are very conservatively estimated based on official statistics and censuses which report sales by industry, business or sector. As some of the highest selling dealers may not answer surveys, the survey results are also checked against the reported turnover of the highest selling galleries and dealers as reported in Companies House and other databases of company records.

69 Data on the number of businesses in the art market is built from an extensive search of official and commercial secondary sources and listings. The search included art galleries, antique shops, dealers of art or antiques, and auction houses or auctioneers that sell art, antiques and collectibles either exclusively or as a considerable part of their business. Figures are compiled from official statistics such as Eurostat, the Bureau of Labor Statistics and others and cross-referenced with art-specific directories as well as general business directories. Changes year-on-year can therefore reflect changes in listings and classifications, as well as business openings and closures. The figures are also recorded per business outlet rather than by company.

Figure 2 | Estimated Dealer Population Distribution and Sampling



As has been the case for the last three years, in 2017 the survey was conducted in Mainland China both through the online survey and via in-person interviews with more than 30 art galleries in Shanghai and Beijing with the assistance of the Shanghai Culture and Research Institute.

The survey was supplemented by a series of interviews with dealers in different sectors and countries conducted from November 2017 to January 2018 to gain in-depth insights on the art market, which were used to inform the analysis in the report and help interpret the findings.

III. Artfacts.net

Data on exhibitions, gallery openings and closures, and art fairs was sourced from Artfacts.net. The ArtFacts database is the largest of its kind, containing over 37 million data points covering exhibitions from 192 countries, from the beginning of the 1860s to the present.

ArtFacts monitors over 500,000 contemporary artists, covering information on their exhibitions, biographies, gallery representation, collecting institutions, art works, ranking and other output through a range of other analytics.

For the 2018 report, Artfacts.net provided new data on openings and closures of galleries. This was based on a dynamic base of between 5,000 and 6,000 of the top galleries around the world. The galleries included in the analysis were only those that had participated in at least one major fair in the last 11 years, with new branches of headquartered locations also appearing if the primary operation has participated in a fair.

The exhibition data was sourced from their global database of exhibition data with information on close to 600,000 artists for over 15 years. The database contains information from 750,000 exhibitions and over 30,000 galleries, museums and art fairs, providing an authoritative record of exhibition histories.

Artfacts.net also provided comprehensive art fair data covering close to 300 fairs. The analysis provided in the report included specific and detailed information for a sample of 165 fairs in 2017 that had at least 20 exhibitors. This included information on close to 12,000 exhibiting galleries.

IV. Artsy

Information on art fairs was also supplied by Artsy. As part of its many offerings Artsy offers comprehensive previews of all of the major art fairs through their online platform. The data is taken from a sample of 68 major fairs available on Artsy in 2017 and included those galleries that had submitted data to the platform.

Besides its fair coverage, Artsy also currently has more than 2,300 member galleries with more than 500,000 available works for sale, 25 auction partners (with 190 auctions conducted in 2017) and Artsy magazine, with more than 1.2 million monthly unique readers.

V. Online Data Sources

The research on the online sector was informed in part by a survey of around 50 online businesses selling art and antiques in 2017. This was supplemented by a series of interviews with those working in the online art space, collectors, and other experts. Several companies also provide aggregate results to Arts Economics on an anonymous basis for the purposes of this research.

The two main databases used for web analytics were Alexa and Similar Web. There are many sources available and these two are commonly used and have among the widest coverage. There are weak spots in all of the web analytics databases due mainly to lack of coverage in certain areas, and small samples which lead to various limitations and inaccuracies. The data should therefore be only treated as a relative view of the companies presented at a point in time. Other data was taken directly from social media, including Facebook, Instagram and Twitter.

Invaluable.com provided Arts Economics with data on online bidding in various years from a sample of around 1,035 auction houses from their membership in 2017.

Data on the UK online auction sector was also supplied by the-saleroom.com, which included information from 300 UK-based auction houses that were members of their platform in 2017.

VI. UBS Survey

Arts Economics partnered with UBS to conduct a survey of 2,245 HNWIs in the US in 2017. The survey used the largest online affluent panel in the world, which was provided by Research Now for the survey.

Respondents were screened to ensure that they were active in the art and collectibles market over the last two years, which included 35% of the sample. These 791 active buyers/collectors were then asked a series of questions on their preferences and activities in the market.

The panel all had household investable assets in excess of $1 million, excluding real estate and business assets. The sample of active buyers included 12% who had assets in excess of $5 million. The sample was 35% female and 65% male; 86% had a bachelor's degree, including 48% with graduate degrees; 66% were currently employed, and 33% were retired.

VII. Secondary Sources

The report uses a large number of secondary sources as cited throughout the text. Some key sources used for data on a regular basis include:

- The IMF World Economic Outlook (database)
- UN Comtrade Database (imports and exports)
- Merrill Lynch and Capgemini *World Wealth Reports* (various years)
- Credit Suisse *Global Wealth Databooks* (various years)
- *ARTNews* Top 200 Collectors

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