The Art Market 2019

An Art Basel & UBS Report

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Art Basel | UBS

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Acknowledgments

The Art Market 2019 presents the results of comprehensive research on the global art and antiques market in 2018. The report describes some of the key high-level trends in the global art trade, analyzing 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 (artseconomics.com) from dealers, auction houses, collectors, art fairs, art and financial databases, industry experts, and others involved in the art trade. (The Appendix offers an outline of some of the main 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 2018, with a review of performance in the decade from 2008. It provides an overview of sales in some of the major national and regional art markets over this 10-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 presents an analysis of important areas such as profitability, supply, inventories, financing, and buyers, as well addressing longevity and other key issues facing galleries in 2019.

Chapter 3 focuses on artist representation, looking at issues such as gallery exclusivity and cross-subsidization of sales. The chapter also looks at gender issues, highlighting the low representation of female artists in the gallery sector and art market as a whole.

Chapter 4 reports on the auction sector, looking 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, and price distribution.

Chapter 5 provides an overview of art fairs, reporting on sales, costs, visitors, exhibitors, and other key variables. The chapter also presents an analysis of the turnover rate of galleries at fairs, along with an overview of the gender of artists represented at these events worldwide.

Chapter 6 looks at sales and developments in the online art market, reporting on its size and key structural features. The chapter also reports on how big data and new technologies are transforming some areas of the market.

Chapter 7 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 comprehensive survey of high net worth collectors in the UK, Germany, Japan, Singapore, and Hong Kong carried out in 2018 in conjunction with UBS.

Chapter 8 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 in 2019.

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 and untiring 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 survey. 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 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).

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I would also like to thank UBS for their help with the HNW collector surveys, which provided important regional and demographic insights for the report. I am grateful also to Professor Olav Velthuis for his comments and suggestions on the survey instrument.

The primary fine art auction data supplier for this report was Artory, and I am most grateful to Nanne Dekking, along with Lindsay Moroney, Anna Bews, and Chad Scira, for their hard work and dedication in putting together this very complex set of data. The auction data on China is supplied by AMMA (Art Market Monitor of Artron) and my sincerest thanks for its continued support of this research on the Chinese auction market.

I am very grateful to XU Xiaoling the Shanghai Culture and Research Institute for her dedication and insight in helping research the complexities of the Chinese art market.

We were able to tackle the very important issue of gender in the art market in this report, and much of that important analysis was made possible by the support of Artsy, who allowed Arts Economics to use part of its extensive database on galleries and artists to analyze this and other issues dealt with in the report. My sincerest thanks to Anna Carey and the team at Artsy for their willingness to support this and other important research in the sector.

My sincerest thanks also to Taylor Whitten Brown, whose sociological perspectives on gender in the art market were a highly valuable addition to this report, and whose continuing academic work in this area is so critically important in expanding the knowledge base with objective, scientific, and rigorous research.

Many thanks also to Professor Roman Kräussl for the use of his extensive gender database for the auction sector and his thoughts on gender in the art market. I'm grateful also to Diana Wierbicki of Withersworldwide for her help with information and insights into US tax regulations.

Thanks also to Susanne Massmann and Marek Claassen at Artfacts.net for their support and provision of data on 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 Florian Jacquier for their time and encouragement in helping to coordinate the research.

Dr. Clare McAndrew
Arts Economics

Director's Foreword

This year's edition of the Art Basel and UBS Art Market report marks our third foray into the complex task of trying to quantify a market that is notoriously hard to analyze precisely – especially due to the huge role that galleries and private dealers play. That said, recent times have witnessed far greater willingness on their parts to discuss finances and the broad spectrum of business challenges, including wide-ranging debates about art-market imbalances. In an industry with a genteel tradition toward talking money, this is a sea change, and ultimately, a welcome development.

Throughout the report, readers will notice that seemingly clear large-scale trends often turn complex when examined granularly. While the market overall is incredibly robust, and growing, that growth very much benefits a small number of galleries – and even within those 'mega-galleries' favors a handful of artists. The same holds true at auction, where a small number of works makes up the predominant share of the entire global auction market.

One of the fascinating new dimensions of this report is its probing of the much-discussed dynamic around female artists. Here again, the overarching trend and the underlying data offer mixed messages. Yes, much media attention was paid to female artists making breakthroughs at auction. Yet women still score a tiny proportion of the market's top sales. And when it comes to the critical question of representation by major galleries and even in the exhibition landscape, the analysis shows that men still dominate, markedly.

However unique the art-market *modus vivendi* may be, issues such as market consolidation, globalization, and gender inequality parallel most other industries. Perhaps the only significant way in which the artworld remains singular is its low level of digital disruption compared to other sectors, where companies such as Amazon and Uber have rapidly rewritten the rules of the game. Today, online sales represent 9% of the art market – not nothing, but comparatively low by 2019 standards.

Once again, we must thank Dr. Clare McAndrew and her team for their persistence in this daunting task, and for her perseverance in seeking new data sets that make the report ever-more valuable to those who read it. Likewise, we thank our Global Lead Partner UBS, not only for supporting the production of this report, but also for contributing substantially when it comes to its research on collectors, and especially on how differently millennials are entering and engaging with the art market.

Marc Spiegler
Global Director,
Art Basel

Statement by UBS

2018 was a year of steady growth for the global economy. Yet heightened US-China tensions, tighter monetary policy and worries over the possibility of a global slowdown, contributed to the first annual decline in global stocks since 2011. For the art market it was a year of growth.

The number of billionaires worldwide has more than quadrupled since 2000, and many devote part of their wealth to building up collections, driven by a passion for art. Today's globalized art market is bolstered by such shifts in wealth creation. Notably, a survey of over 600 high-net-worth individuals, undertaken in a collaboration between UBS and Clare McAndrew for this report, illustrated increasing engagement and spending power of millennial collectors in Asian markets. Meanwhile, demand in the US remained strong.

The global art market is constantly evolving and provides its participants new opportunities and challenges. Fine artworks can sometimes generate capital gains. But too strong a focus on financial returns can undermine the true value of art. Art can be a unique source of pleasure, fascination, and cultural enrichment. This perspective is typically shared by many of our clients. Around 86% of US collectors we surveyed recently for our UBS Investor Watch Pulse Report had never, in fact, sold a work from their collection.

We believe that art has the potential to provide insight into our complex world, to challenge the status quo, and to offer global perspectives. At UBS we have built one of the largest corporate art collections in the world over the past 60 years, with over 30,000 artworks by artists from 75 different countries. We share our passion for art and collecting with a truly global community of visionary collectors and cultural philanthropists through our UBS Art Collectors Circle. We also connect exceptional people in the art world through our extensive network of cultural partners and specialists.

For just over 25 years UBS has been the Lead Partner of Art Basel and since 2017 we have been proud to partner with them on The Art Market Report. We hope this publication will be a useful guide to you to get an even deeper understanding of the art world today.

Mark H. Haefele
Chief Investment Officer, Global Wealth Management
UBS, Global Lead Partner of Art Basel

Key Findings

Global

1. Sales in the global art market in 2018 reached $67.4 billion, up 6% year-on-year. This second year of positive growth brought the market to its second-highest level in 10 years, and has advanced sales values 9% over the decade from 2008 to 2018.

2. Sales in the three largest markets – the US, the UK, and China – accounted for 84% of the global market's total value in 2018.

3. The US was the largest market worldwide, accounting for 44% of sales by value. The UK regained its position as the second-largest art market (21%), while China was the third largest, with 19%.

4. Sales in the US reached $29.9 billion in 2018, the highest-recorded level to date.

5. Despite Brexit worries, the UK had a relatively strong year of sales, with values rising 8% to just under $14 billion. In the rest of Europe, performance was mixed in 2018, with many of the larger markets declining.

6. Sales in China reached $12.9 billion in 2018, a decline of 3% year-on-year.

Dealers

1. Dealer sales in 2018 reached an estimated $35.9 billion, up 7% year-on-year.

2. The best-performing segment for sales year-on-year was dealers with turnover between $10 million and $50 million (up 17%), while the poorest performance was in the lower end of the market, below $250,000 (down 18%).

3. Looking ahead to sales in 2019, dealers had mixed views: 29% thought that their sales would be lower than in 2018, while 30% were optimistic that they would increase. This represents a considerably less-optimistic picture than in 2017, when the majority of dealers (58%) were expecting rising sales.

4. Finding new buyers remains the biggest challenge cited by dealers in 2018. New buyers were more important for dealers with lower turnovers than for those at the highest end. For dealers with sales of less than $1 million, new buyers accounted for 32% of their total sales by value in 2018 versus 25% and below for dealers with turnover in excess of $1 million.

Artist Representation and Gender

1. Dealers working solely in the primary market had the lowest median turnover at $500,000 in 2018 versus $5.1 million for those working in the secondary market only, while those operating in both had $1.8 million.

2. Of galleries working solely in the primary market in 2018, on average 63% of their total sales came from their top three artists, with 42% of value accounted for by one leading artist.

3. For those galleries working in the primary market, 36% of the artists they represented in 2018 were female, and sales of the work of female artists accounted for an average of 32% of their annual turnover.

4. Larger primary-market galleries tended to represent fewer female artists. Those with turnover up to $1 million had a share of 38% female artists on average, versus 35% for those over $1 million, and 28% for those over $10 million.

Auctions

1. Sales at public auction of fine and decorative art and antiques (excluding auction house private sales) reached $29.1 billion in 2018, an increase of 3% year-on-year, and up nearly 30% on 2016.

2. The three largest auction markets – the US, China, and the UK – had a combined share of 88%, a rise of 4% on 2017. The US was the largest auction market, with a share of 40%, followed by China (29%).

3. Works of art selling at prices in excess of $1 million accounted for 61% of total sales value in the fine art auction market but for just 1% of lots sold. The number of lots sold in this segment grew by 9% year-on-year, while values increased 13%, providing much of the drive for the rise in aggregate auction sales over the year.

4. Post-War and Contemporary sales accounted for half the fine art auction market's value in 2018, reaching $7.2 billion, an increase of 16% year-on-year, despite a slight drop in the number of lots sold (by 5%).

Art Fairs

1. Art fair sales were estimated to have reached $16.5 billion in 2018, a rise of 6% year-on-year.

2. The share of the total value of global dealer sales made at art fairs has grown from less than 30% in 2010 to 46% in 2018. The share of sales at international events in 2018 was 31% versus 15% at local or domestic fairs.

3. On average, dealers took part in four fairs in 2018, down from five fairs reported in the surveys of 2016 and 2017. However, attendance ranged between sectors and segments, with more than 25% of the sample having exhibited at 10 or more fairs.

4. From a sample of 82 fairs and 27,000 artists in 2018, only 24% of the artists exhibited were female.

Online

1. In 2018, global sales in the online art and antiques market reached an estimated $6 billion, up 11% year-on-year.

2. Aggregated online sales accounted for 9% of the value of global sales, slightly lower than the global online retail sector, where e-commerce represented 12% of total retail sales in 2018.

3. A survey of just over 70 companies engaged in e-commerce in 2018 showed that most online-only companies still sell the majority of their works in the segment of $5,000 and below, with less than 10% of transactions reported at price points above above $250,000.

4. 93% of millennial HNW collectors reported that they had bought from an online platform, compared to a majority of baby boomers who had not bought art online before.

Wealth

1. In previous surveys of US collectors, the majority of respondents were aged 50 years and over. However, surveys of HNW collectors conducted in collaboration with Arts Economics and UBS in 2018 revealed a very different age profile in newer markets in Asia. 46% of the collectors surveyed in Singapore were millennial collectors, and millennials represented a share of 39% of the total in Hong Kong.

2. Collectors from the millennial generation were considerably more active art buyers than others, with 69% having purchased fine art and 77% having purchased decorative art in the period from 2016 to 2018.

3. 16% of HNW collectors had spent more than $1 million on works of art or objects from 2016 to 2018. Millennial collectors made up just under half (45%) of these high-end spenders, underlining the importance of the spending power of this demographic.

4. While galleries and auction houses were the most commonly used channels for purchasing, art fairs were highly important in Asia, with between 92% and 97% of collectors from Hong Kong and Singapore having purchased from an art fair.

Economic Impact

1. It is estimated that, in 2018, there were 310,700 businesses operating in the global art and antiques market, employing close to 3 million people, which was relatively stable on 2017.

2. The gender breakdown of employment in the top-tier auction houses was 65% female, up 3% year-on-year, while second-tier businesses were more gender-balanced, with an average of 52% female employees (up 2% on 2017). 61% of those working in the dealer sector were women.

3. It is estimated that, in 2018, the global art trade spent $20.2 billion on a range of external support services directly linked to their businesses, an increase of 3% year-on-year, supporting 375,030 further jobs.

4. The largest area of expenditure was on art fairs, which reached $4.8 billion, an advance of 5% year-on-year and representing 24% of total ancillary spending. The second, largest area was advertising and marketing, which totaled $3.2 billion, an annual increase of 12% after two years of decline.

1

The Global Art Market in 2018

Key Findings

The Global Art Market in 2018

1. Sales in the global art market in 2018 reached $67.4 billion, up 6% year-on-year. This second year of positive growth brought the market to its second-highest level in 10 years, and has advanced sales values 9% over the decade from 2008 to 2018.

2. The number of transactions reached its highest level since 2008, increasing 2% year-on-year to an estimated 39.8 million transactions.

3. The auction sector (including both public and private sales) made up 46% of the market, down 1% year-on-year, while the dealer sector (including dealer, gallery, and online-only retail sales) accounted for 54%.

4. Sales in the three largest markets – the US, the UK, and China – accounted for 84% of the global market's total value in 2018.

5. The US was the largest market worldwide, accounting for 44% of sales by value. The UK regained its position as the second-largest art market (21%), while China was the third largest, with 19%.

6. Sales in the US reached $29.9 billion in 2018, the highest-recorded level to date.

7. Despite Brexit worries, the UK had a relatively strong year of sales, with values rising 8% to just under $14 billion. In the rest of Europe, performance was mixed in 2018, with many of the larger markets declining.

8. Sales in China reached $12.9 billion in 2018, a decline of 3% year-on-year.

1.1 | Overview of Global Sales

Sales in the global art market in 2018 reached $67.4 billion, up 6% year-on-year. Although the increase in sales was lower than in 2017, this second year of positive growth brought the market to its second-highest level in 10 years, and has advanced values 9% over the decade from 2008 to 2018.

Sales in the global art market in 2018 reached $67.4 billion, up 6% year-on-year

Following the large decline in sales of 40% from 2007 to 2009, as supply contracted in the fallout from the global financial crisis, a strong recovery in the US and booming Chinese market restored global growth, with sales reaching $65 billion in 2011. The Chinese boom ended abruptly in 2012, bringing growth to a temporary halt. However, in the two years that followed, the strong performance of the US market buoyed the market to $68.2 million, an historical peak that meant it had doubled in size within a decade.

All of the major markets declined in 2016, as economic and political uncertainties dampened market confidence, with sales losing 16% of their value in the years from 2014 to 2016.

In 2017, stronger consumer confidence and increased supply at the top of the market led to a much more favorable environment for sales. Buoyed by outlier record prices in the auction sector, the market enjoyed a strong and positive gain of 12%, with the auction sector outperforming the dealer segment as more vendors were willing to bet on ample demand and the potential for outsized returns.

The mood of the market in 2018 was generally less optimistic, as many wider economic and political issues continued to weigh heavily on the sentiment of investors and consumers around the world. This drove some risk-averse buyers and sellers toward private sales in the dealer market, which saw growth of 7% in 2018. However, the auction market also advanced 3%, and there was also further e-commerce growth. Most of the growth at auction continued to be at the top end of the market, with many parts of the middle and lower segments stagnant or in decline, which was also a continuing trend in the dealer market.

While slower growth rates at auction could indicate some cooling in the market, particularly in certain sectors, a degree of slowdown was also inevitable after 2017, with multiple record-breaking multimillion-dollar lots skewing overall results.

As sales have reached a much higher level generally over the past 10 years, it has become ever harder to maintain continued high levels of growth, particularly in a supply-limited art market.

There were also significant differences between regions last year, with the US market driving growth, while China's sales contracted. These divisions in the market's performance by segment and region once again moderated aggregate annual changes.

The volume of sales as measured by the number of transactions grew at a lower rate than values, increasing just 2% year-on-year. The number of transactions reached an estimated 39.8 million, its highest level since 2008. This was led mainly by increasing sales by dealers and in the online sector, with fine art auction transactions declining slightly for the second consecutive year. However, the volume of global sales has still declined by 9% in the 10-year period between 2008 and 2018.

The number of transactions reached an estimated 39.8 million, its highest level since 2008

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

Year	Value ($m)	Volume (m)
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	$63,683	39.0
2018	$67,380	39.8
Growth 2017–2018	6%	2%
Growth 2008–2018	9%	–9%

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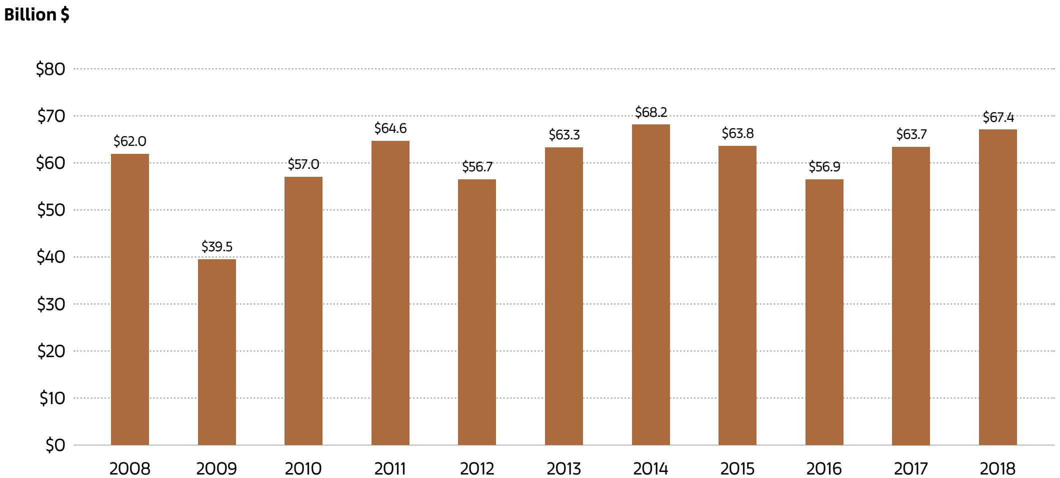
Figure 1.1 | **Sales in the Global Art Market 2008–2018**



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The division between public auction sales and private sales varies widely between countries and between the different sectors of the market. The traditional division of the market into two distinct sectors has become less clear in recent years as boundaries became increasingly blurred (for example, with increasing private sales by auction houses) and hybrid business models gained in popularity (for example, in the online sector, where buyers are given an option to place a bid on a work or buy it instantly).

In 2018, sales in the auction sector (including both public and private sales auction houses, both on- and offline) made up 46% of the market, down 1% year-on-year, while the dealer sector (including dealer, gallery, and online-only retail sales) accounted for 54%. A detailed analysis of the dealer sector is given in Chapter 2, while Chapter 4 examines the auction sector.

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

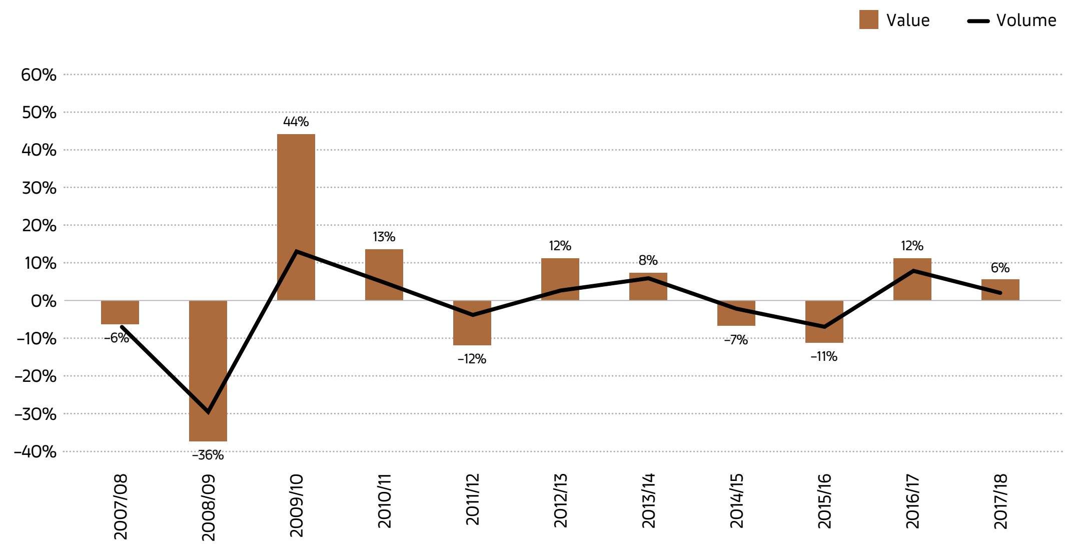

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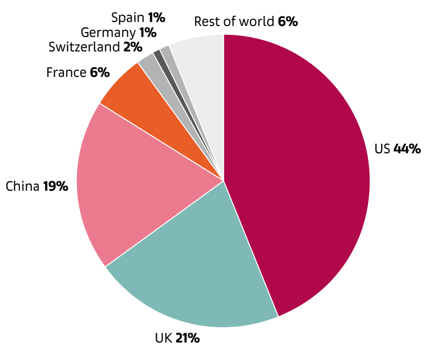
Figure 1.3 | Global Art Market Share by Value in 2018



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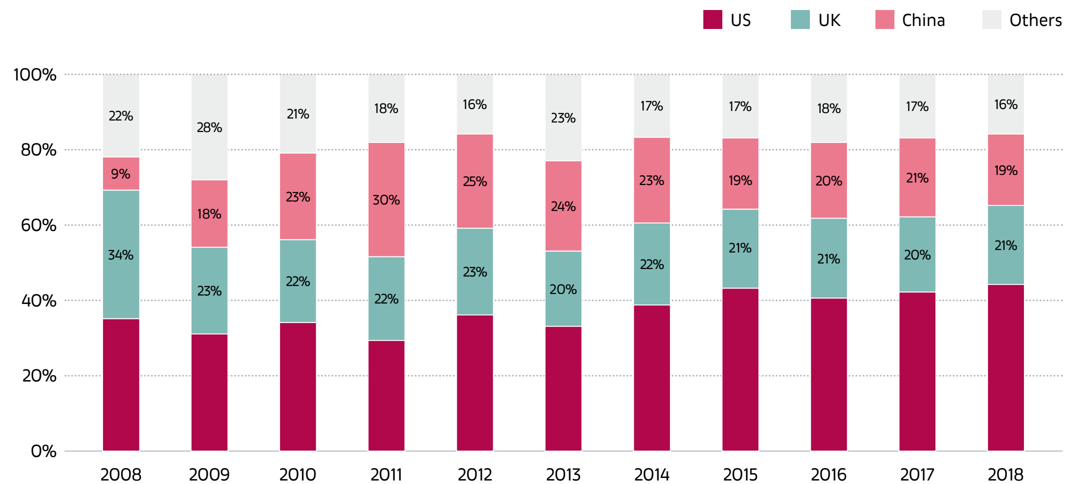
1.2 | Global Market Share

The dominance of the three largest art markets, the US, the UK, and China, continued in 2018, with their combined sales accounting for an 84% share of the global market's total value, up 1% year-on-year. The US became the premier market for art as far back as the 1960s, and maintained a share of more than 50% by value in most years up to 2000. This margin has been diluted somewhat in recent years, particularly with the emergence of China as a third global leader. However, the US still retains a strongly dominant position and increased its lead again in 2018. The US market advanced 2% in share year-on-year to account for 44% of world sales by value in 2018.

The global reshuffling for second place that has been a feature of the past several years continued in 2018. After taking second position from the UK in 2010, China maintained a higher share until 2014. In the two years that followed, the UK regained its number two rank, but a strong year of sales in China in 2017 and weak pound in the aftermath of the Brexit vote saw China take the lead again by a small margin. Despite the escalation of the Brexit crisis and widespread uncertainty regarding its future, the UK had a relatively strong year of sales in 2018, while in China, a contraction in supply of high-quality works and cautious buying, as trade and debt crises loomed, led to declining values in the dominant auction sector. This mixed performance saw the UK regain share (to 21%), while China decreased by two percentage points to 19% and third place.

The global art market is dominated by these three countries, which act as global entrepôts for the art trade, maintaining a wide margin in terms of value, with the next largest, France, in a distant fourth place at 6% (stable on 2017). Demand in these centers is not fueled solely by national wealth, but also by the existence of the market itself. Art brought into the US, for example, is often just as likely to be bought by buyers outside

Figure 1.4 | Global Market Share of the US, UK, and China 2008–2018



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The dominance of the three largest art markets, the US, the UK, and China, continued in 2018, with their combined sales accounting for an 84% share of the global market's total value the US as by American collectors. A successful entrepôt market enables a critical mass of works to be accumulated together for sale at any one time in order to provide an attraction for art collectors.

One of the factors ensuring the success of the US market has been the relative ease of cross-border movements of art, with few restrictions on imports and exports, apart from narrow categories of antiquities. A major driver of the more bearish global outlook for 2019 is the continuing trade hostilities between the world's two largest economies of China and the US. An example of how this could directly affect the art business arose in 2018, when the US government announced a range of tariffs to be imposed on Chinese imports, which originally included works of art and antiques created in or imported from China.[1] Although these represent a relatively small share (less than 5%) of the total value of imports of art and antiques to the US (versus close to 50% from France and the UK), there were fears that this might deter international vendors from bringing works to the US for sale.[2]

After vigorous protesting from members of the US art trade, the US government ultimately revised the list of goods in September, removing works of art and antiques. However, this shows how easily trading conditions can change, and the perverse effects that an introduction of a tariff such as this would have on an entrepôt market: while it would have little detrimental effect on China's trade, it would potentially damage sales in the US, where works are brought for sale, generating substantial revenues and ancillary benefits for the economy.

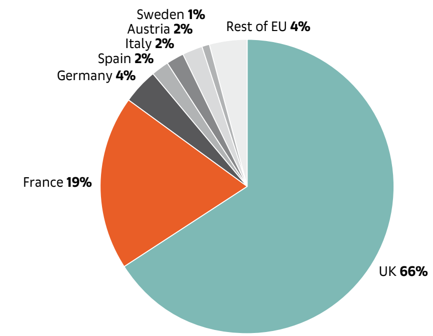
The second-largest art market, the UK, has also acted as an entrepôt, serving as the low-cost entry point for sales in Europe. The success of London's art market has not been built on sourcing business locally, but on sending works of art to and from the UK for sale.

The future trade policies for the art market post Brexit are still unclear, 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, the value of sales to and from the UK art market is currently dominated by extra-EU trade, which is estimated to account for up to 80% of imports and exports of art and antiques. This means that the value of the market may be less affected by intra-EU trade policies negotiated post Brexit, reducing some of the effect on aggregate sales.

Brexit-related trade policies are nevertheless likely to have a significant effect on sales for a large number of businesses in the UK, as well as those in Europe that rely on supply (and sales) from the UK. Dealers in the art trade in Britain interviewed in 2018 felt that larger businesses, with multiple global premises, would not be overly affected or may even benefit. However, smaller businesses, particularly those with less capital to ride out any periods of volatility, could be under increasing pressure in the short term.

The most obvious effect of Brexit on the analysis of the art market from 2019 will be the reduction in the size of EU sales. The global share of the EU has fallen over the past decade, particularly as sales in Asia and the US have gained ground. The EU's share by value in 2008 was 49%. However, in 2018, with a fall of 1% year-on-year, this reached a 10-year low of 32%. The UK has maintained a dominant position in Europe for several decades, and its share increased in 2018 to 66%, up four percentage points on 2017. Without the UK, the EU market would have accounted for just 11% of the global art trade in 2018.

Figure 1.5 | EU Art Market Share by Value in 2018



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The Chinese government has successively reduced import VAT, including a further decline from 3% to 1% in 2018. Nevertheless, with an additional 17% of further national taxation on imports still to be added, the VAT reduction has not proved to be a strong stimulus to trade. However, Hong Kong's business-friendly environment and liberal trade policies have secured its position as the main conduit for international sales in Asia. While the peak of the Chinese market as a whole was in 2011, sales in the dominant auction sector in Hong Kong reached their highest-ever level in 2017, at $3.9 billion. This was their highest share versus Mainland China in more than a decade. However, in 2018, auction sales in Hong Kong also slowed considerably, dropping 22%. This compared to a 6% decline in auction sales in Mainland China.[3]

1 The original tariff list published on July 10, 2018, included Chinese paintings, drawings, pastels, prints and lithographs, original sculptures, and antiques of an age exceeding 100 years. A tariff of 10% was proposed on these items for 2018, rising to 25% in 2019. This applied to works imported from China as well as those created in China and exported from any national port in the world.

2 Several articles explored the possible detrimental effects of the tariff. See, for example, Sussman, A. (2018) "What the US-China Trade War Means for the Art Market." Artsy.net, July 23, 2018; Reyburn, S (2018) "Will Art Become a Casualty of the US-China Trade War?" *The New York Times*, August 24, 2018.

3 Data on auction sales in China is from AMMA (Art Market Monitor of Artron) supplied in January 2019.

1.3 | Regional Sales

The US has been one of the best-performing art markets of the past two years, driving the growth in global sales. US sales led the recovery of the global market in 2010, with values reaching a peak of just over $27 billion in 2015, buoyed by strong sales in the Contemporary and Modern sectors. While the market endured a contraction of 16% in value in 2016, as political and economic uncertainties caused a shortage of high-end supply, the next two years saw strong performance, with an increase of 12% in 2018, more than twice the global average. Sales reached $29.9 billion in 2018, the highest-recorded level to date. The market has advanced 38% in the decade from 2008 and has more than doubled in size from its low point of $12.1 billion in 2009 during the global financial crisis.

Sales in the auction sector grew strongly, with several record lots and an increase of 17% in the fine art auction sector. Many dealers reported their 'best year to date', with aggregate sales increasing by 9%.

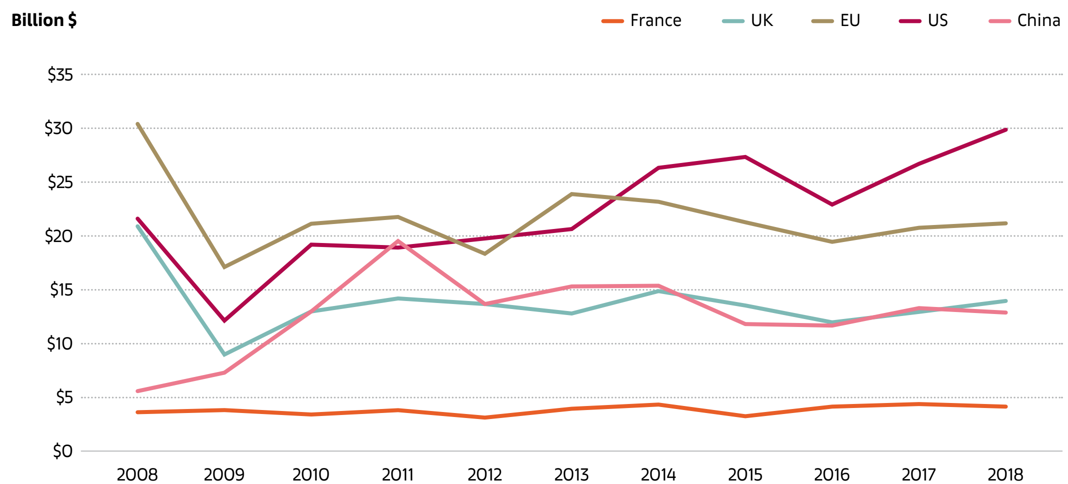
The US has been one of the best-performing art markets of the past two years, driving the growth in global sales

The withdrawal of Like-Kind Exchanges (or 1031 Exchanges) at the start of 2018 as part of the Tax Cuts and Jobs Act – the US tax reform act – brought fears of reduced liquidity and sales in the US market in 2018. However, while any last-minute exchanges were required to be filed by then, taxpayers had 180 days to complete an exchange. This meant that in the first six months of 2018, there was still significant activity relating to closing 1031 Exchanges that had begun in 2017. Experts in the market thus believe that 2019 will be a more accurate test of the impact that the loss of these exchanges will have on the market.

Other tax breaks were also introduced in 2019 in the US that may offer similar, or even fuller, capital gains relief on the disposal of assets. These included 'opportunity zone' reliefs, which offer a tax break on capital gains on the disposal of art if the profits are reinvested within six months in a fund or private investment in one of 8,700 low-income communities that have been designated as qualified opportunity zones within the US.[4] These breaks are being tracked to assess their effects on the market in 2019. They are expected to have less impact on liquidity than 1031 Exchanges and are also only likely to be relevant to more investment-focused collectors.

4 This new provision in the Tax Cuts and Jobs Act allows investors selling appreciated property to defer tax on capital gains until 2026, as long as the gain is reinvested in a qualified opportunity zone fund within six months. Qualified opportunity zone funds may therefore be attractive to those selling highly appreciated art who want to defer their capital gains tax and are comfortable investing in the real estate industry. (Thanks to Diana Wierbicki, global head of art law, Withersworldwide, for this and other information and insights provided on US and EU regulation and taxes in this chapter.)

Figure 1.6 | Sales in the Major Art Markets 2008–2018



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Despite the successes of 2018, many in the art market also expressed concerns at what lies ahead for the coming year or two in the US, particularly with continuing uncertainties in the political situation domestically and the effects this might have on trade and other policies. These issues, combined with generally slowing global economic growth, contributed to less optimism from some auction houses and dealers working at the high end of the market, who expressed unease about the immediate future, with fears of a retraction in supply as vendors may view 2019 as a poor time to sell.

The Chinese market has seen the most volatile growth of all the major markets over the past decade. The market barely registered in the distribution of global sales in 2000. However, since 2006, when it overtook France as the third-largest art market worldwide, China has been consistently in the top three global markets and is by far the largest market in Asia. After a boom in sales from 2009 to 2011, when other markets were struggling to recover from the fallout from the global financial crisis, China temporarily became the largest global art market, with sales of $19.5 billion. This came to an abrupt halt in 2012, with a sharp contraction in values of 30%, followed by slow and declining sales up to 2016.

While the market rebounded in 2017, the dominant auction sector struggled in 2018. Demand was still strong for the highest-quality works, but supply at this level continued to be an issue. Meanwhile, a looming debt crisis and other economic issues dampened demand, leading to a cautious climate for both buyers and sellers. Sales reached $12.9 billion in 2018, a decline of 3% year-on-year. Despite this, Chinese sales have seen the largest advance of any major country over the past 10 years, growing more than 130% between 2008 and 2018.

Elsewhere in Asia there was improved performance, with sales in Japan, Singapore, and South Korea all rising. While these markets make up a combined share of only about 2% of the global market, their impact has been much wider, with collectors from these markets active in sales internationally, including buying at a high level.

As noted, despite Brexit worries, the UK had a relatively strong year of sales, with values rising 8%, its second year of consecutive growth. This brought the market to just under $14 billion. Despite this positive trend, the market is still almost one-third below the values of its peak in 2008, when it reached $20.9 billion, one of its closest margins with the US, with only 1% difference in share. Since that point, the margin between the markets has widened significantly and the UK has also lost share to China.

The difference in performance is evident in the recovery from the global market's low point in 2009, with US sales having advanced 144% versus a more modest 55% in the UK. However, the UK has performed significantly better than many of its European counterparts. In the same period, the EU market as a whole has grown at half the rate of the UK, increasing in value by 24% between 2009 and 2018. When UK figures are excluded, EU sales fell by 11%.

In the rest of Europe, performance was mixed in 2018, with many of the larger markets declining. After two years of growth, France, the fourth-largest market worldwide, saw sales drop by 5% in 2018 to $4.1 billion. Sales also declined in Germany, Switzerland, and Italy. Sales in the EU as a whole were net positive, rising just 2% year-on-year to $21.1 billion. However, taking out the influence of the dominant UK, values for the remainder of the EU states on aggregate fell by 8%, and in 2018 were 24% lower than they were 10 years previously.

While the exit of the UK from the EU is likely to cause many challenges for intra-EU trade, it has been cited as an opportunity for another market in Europe to act as a gateway for trade between the EU and the rest of the world. However, even if France or another EU state reduced its import VAT to the minimum level allowed in the EU (5%), it will still struggle to compete, particularly if the UK, once out of Europe, extricates itself from some of the European directives that have added to the costs of its art trade over the past 20 years.

The reality is that art centers in Europe, such as Paris and London, have competed on an equal footing for decades, and London has remained the most dominant market by a very large margin, with considerably greater international outreach. The factors that have made Paris and other centers in Europe less competitive, such as overregulation and tax complexities, are domestic, homegrown issues that will not disappear because of Brexit. As noted earlier, the bulk of the UK's trade by value is already extra-EU and this is likely to remain unaffected by Brexit.

Despite clear analysis showing the consequences of some of the policies, such as import VAT, export licensing, and artist resale royalties, Europe has repeatedly passed up many opportunities to support a thriving art market. It is currently considering a new regulation that would apply to the introduction and import of cultural goods more than 250 years old from non-EU countries. This proposed regulation could negatively affect the EU's antiquities market, as it requires importers to undergo a complex import-verification procedure, which is likely to deter trade.[5]

The legislative proposal for this regulation was first adopted by the European Commission in 2017, and its wording was finally confirmed in December 2018, with the rollout expected over the next two years. With mounting regulations such as this over time, Europe is becoming increasingly perceived as a costly and complicated place in which to transact in the art and antiques market. There is a real risk that once the UK leaves, the high-value trade in art could bypass Europe, with the internal market becoming a lower-priced, regional center for sales.

5 This new regulation requires the importer to apply through an electronic system and provide supporting evidence to show that the cultural goods have been lawfully exported from the country either: (i) in which they were originally created or discovered; or (ii) where they have been located for a period of more than five years, if either the country in which they were created or discovered cannot be reliably determined or they left the country they were created or discovered in before April 24, 1972 – information that may be difficult to obtain.

Dealer Sales

2

Key Findings

Dealer Sales

1. Dealer sales in 2018 reached an estimated $35.9 billion, up 7% year-on-year.

2. The advance in sales continued to be driven by the high end of the market. Dealers with turnover less than $500,000 saw a drop in sales of 10%, while those with sales above this level all increased.

3. The best-performing segment for sales year-on-year was dealers with turnover between $10 million and $50 million (up 17%), while the poorest performance was in the lower end of the market, below $250,000 (down 18%).

4. 57% of dealers reported declining sales (versus 28% in 2017) and 28% reported an increase in sales (versus 59% in 2017).

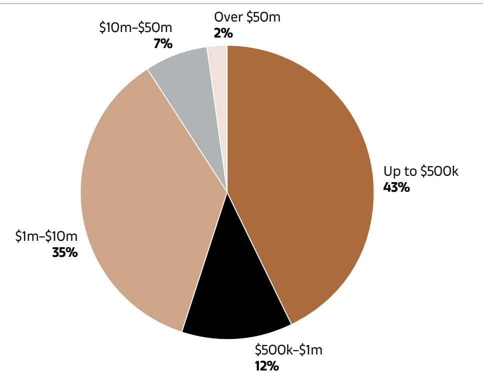
5. Looking ahead to sales in 2019, dealers had mixed views: 29% thought that their sales would be lower than in 2018, while 30% were optimistic that they would increase. This represents a considerably less-optimistic picture than in 2017, when the majority of dealers (58%) were expecting rising sales.

6. Finding new buyers remains the biggest challenge cited by dealers in 2018. New buyers were more important for dealers with lower turnovers than for those at the highest end. For dealers with sales of less than $1 million, new buyers accounted for 32% of their total sales by value in 2018 versus 25% and below for dealers with turnover in excess of $1 million.

7. While gallery closures have varied, the general trend for gallery openings has been a steady decline. Based on the Artfacts.net database tracking close to 6,000 galleries, and including only galleries that have exhibited at, at least, one major art fair, the number of new galleries established in 2018 was 86% less than in 2008.

8. In terms of the general longevity of the sector, many dealers are showing strong company-survival rates compared with other industries. 73% of the businesses surveyed had been operating for longer than 10 years, compared to 58% for US retail and 48% for the US private sector generally.

Figure 2.1 | Share of Surveyed Dealers by Total Sales in 2018



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2.1 | Dealer Sales

Dealer sales in 2018 reached an estimated $35.9 billion, up 7% year-on-year. The sector consists of an estimated 296,550 businesses (over 90% of the total businesses involved directly in buying and selling fine art, decorative art, and antiques worldwide, including auction houses, galleries, and dealers).[6] However, less than 5% of those businesses were responsible for more than 50% of the value of sales in the sector.

Sales by galleries and dealers are private, with little current, publicly available data. As in other industries where private sales and smaller firms dominate, to overcome the lack of available information, surveys are a critical element of researching the market.

In 2018, Arts Economics, with the assistance of dealer associations throughout the world, conducted its annual global survey of more than 6,500 dealers from the US, Europe, Asia, Australia, Africa, and Latin America. The survey had a response rate of 18%, up four percentage points from 2017. The findings provided some interesting insights into the sector and the challenges it has faced through the year. In order to investigate these issues in more detail, the survey was supplemented with dealer interviews across different regions and market sectors. Official statistics and other databases were also used to check and cross-reference the data where possible. More information on the sources used in the report is given in the Appendix.

The survey covered respondents across a wide range of turnover levels. As in previous years, they 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. 9% of respondents had sales over $10 million.

6 This figure was measured at the start of 2018 and 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 2018. Figures are recorded per business outlet rather than by company. The sales figure of $35.9 billion excludes online-only 1p retailers and platforms.

Unlike 2017, when gainers outweighed losers year-on-year, in 2018 a smaller share of dealers saw increasing sales versus those experiencing declines:

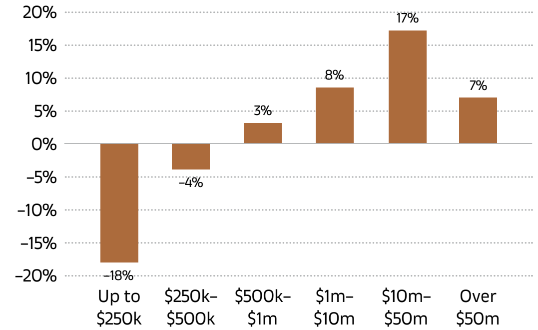
- 57% of dealers reported declining sales (versus 28% in 2017),
- 15% said their sales were stable (versus 13% in 2017), and
- 28% reported an increase in sales (versus 59% in 2017).

However, the magnitude of the year-on-year changes varied widely between segments of the market.

While aggregate dealer sales rose, survey data indicated that the median turnover for this sample of dealers fell 5%, from $875,000 to $832,500, as the higher end drove most of the rise in values. The ongoing divergence in performance between the higher and lower ends of the market continued in 2018, with considerably different performance reported by dealers at different turnover levels.

In 2017, the worst performance year-on-year was for dealers with turnovers of under $1 million. However, in 2018, the cut-off point was lower, at $500,000: on average, dealers with turnover below this level saw a drop in sales (of 10%), while those with sales above this level increased. Dealers with sales below $250,000 reported the most significant drop in average turnover, with a decline of 18%.

Figure 2.2 | Change in Turnover by Dealer Turnover Segment 2017–2018



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In contrast, dealers with sales between $500,000 and $1 million saw a turnaround from negative growth in 2017 to low positive growth of 3% in 2018. The most improved segment was dealers with turnover between $10 million and $50 million: in 2017, these dealers showed a decline in sales of 3%, whereas in 2018 they increased by 17%.

For dealers at the highest end (sales over $50 million), sales growth continued to be positive, at 7%, although this was down three percentage points on 2017. These results, as always, are based on a relatively small number of respondents relative to other segments, a structure that is paralleled in the market itself. Beyond the aggregated survey results, the majority of dealers interviewed from this segment reported stable or moderately increasing sales during 2018, with some noting that demand continued to be strong for the best examples of artists' works, but that second-tier works by those same artists were harder to sell than in previous years, making the market thinner at the top.

The survey covered dealers in a range of sectors, including fine art and decorative art and antiques. The split of respondents between these segments was approximately 80% fine art and 20% decorative art and antiques. The majority (57%) of respondents sold Contemporary art, either solely or in combination with another sector.

Figure 2.3 aggregates the results into broad market sectors including:

- those who sold Contemporary art, alone or with other sectors (most commonly Modern art);
- those who sold only Contemporary art;
- Modern art dealers (including those selling Modern art exclusively or Modern and Impressionist works);
- dealers of other, older fine art sectors, including Impressionism, Old Masters, 19th Century and other pre-Modern works; and
- dealers of decorative art and antiques.

Modern art dealers had by far the highest average sales in 2018, at $9.2 million, and they also saw strong growth of 17% year-on-year. The biggest percentage rise (of 18%) was for those dealers who only sold decorative art and antiques, although their average sales were much lower at just under $920,000. The growth of sales in this sector was driven largely by a small number of dealers in Tribal art, antiquities and some other decorative arts. Considering only more traditional antique dealers, there was a small drop in sales of 2% (with a lower average of $724,330). Despite strong sales for some Old Masters dealers, the 'other fine art' sector as a whole also saw a slight decline year-on-year of 1%.

In all sectors, the best performance tended to be at the high end, and there were greater differences in sales values year-on-year within sectors than there were overall differences between the sectors. This consistent finding of the high end outperforming other segments shows that the polarization of the market is a systemic phenomenon and not confined to Contemporary art.

Figure 2.3 | Average Sales by Sector 2017 and 2018

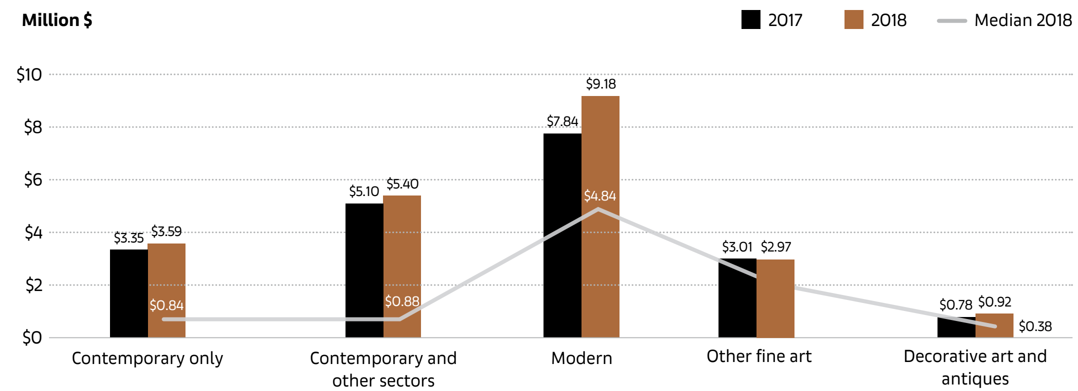


Figure 2.3 shows the median sales in 2018 in each sector. It is clear that in all sectors the median, or middle, of the market is significantly below the average, indicating that the range of sales by dealers in the art market is not symmetrical, but heavily skewed by a few dealers with very high turnovers who pull the averages upward, while the majority are in the lower range. The Modern art sector still had the highest median sales (at $4.8 million versus $838,125 in the Contemporary sector).

The Contemporary sector is one of the most skewed of all, with the average turnover four times that of the median. For those mixing Contemporary art and other sectors, the divide is even wider, with the average six times the median value. The moderate growth in average sales in the Contemporary sector of 7% (or 6% including other sectors) was driven largely by sales at the higher end. Businesses with turnover greater than $1 million accounted for more than 95% of the growth in the sector, and those with $10 million-plus, about half of the expansion.

Looking ahead to sales in 2019, dealers had mixed views of how the year might unfold:

- 29% thought that their sales would be lower than in 2018 (including 8% predicting significantly lower);
- 41% thought they would be stagnant; and
- 30% were optimistic that they would increase.

This represents a considerably less-optimistic picture than in 2017, when the majority of dealers (58%) were expecting rising sales, with only a small minority (6%) predicting a decline. The less-optimistic results also resonated with some of the interviews, with a number of dealers expressing relief for a good year in 2018, but preparing for more bearish prospects over the next 12 months.

A common theme in interviews with dealers was that many felt that they were in a period of change, underlined by a need to forge new models and channels for future sales. While there were hopes for innovative ways to expand their businesses, the uncertainty that this created tended to make the outlook less clear for the immediate future.

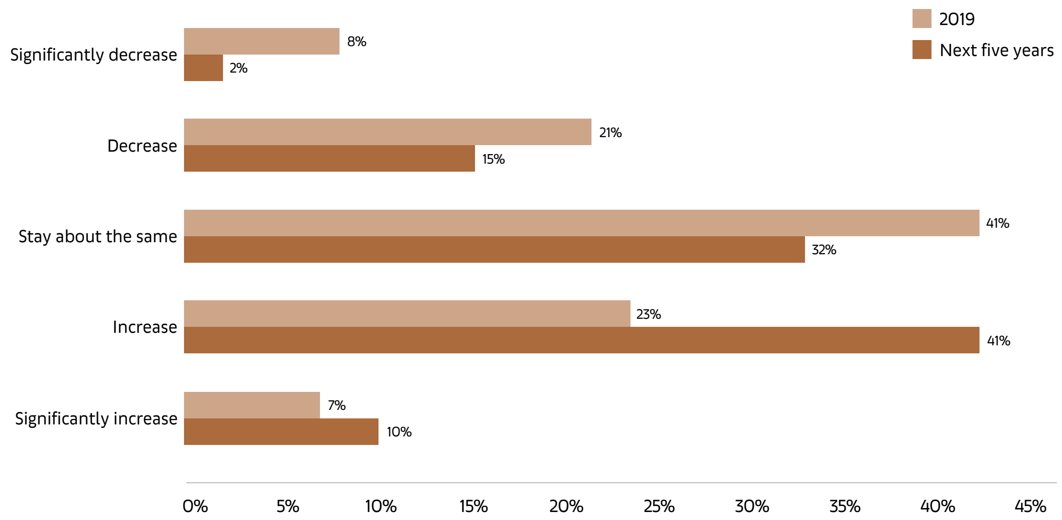
However, there was a brighter outlook over the longer term: just over half of those surveyed forecasted an increase in sales over five years and only 17% predicted declines.

There was also a notable divide in the outlook between newer, regional markets versus mature markets. The majority of dealers in Latin America, the Middle East, and Africa were optimistic about sales in 2019, compared to only about one-quarter of those in the EU and US. Although optimism increased over the longer term in mature markets, close to 30% or more of dealers in markets such as Germany, Italy, and the UK were expecting declines over five years, whereas the dealers in Asia, Africa, the Middle East, and Latin America thought their positions would either remain stable or improve.

This was echoed in the anecdotal evidence from interviews with dealers, with many of those in Europe and the US concerned that sales had reached a plateau. A significant number of businesses there were focusing on new regional buyers, since clients from mature markets were described as buying more cautiously or, in some cases, becoming saturated in terms of their collections. Some dealers remained uncertain about the future, which they saw as dependent on gaining more traction in newer markets.

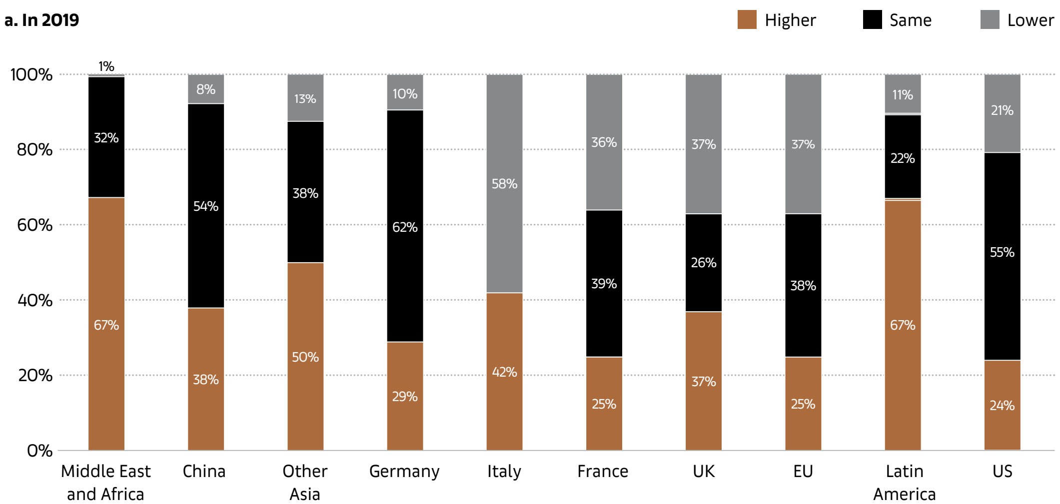
While most of the optimism has been at the top end of the market in recent years, the most optimistic about sales in the coming year were dealers with turnover less than $1 million: about one-third thought that their sales would increase (with 39% predicting

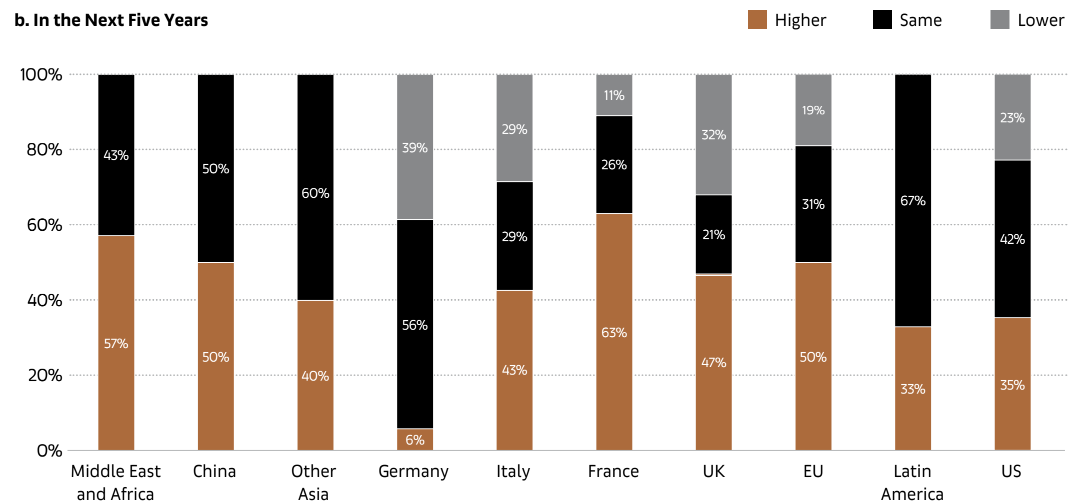
Figure 2.4 | Dealers' Views on Sales in the Future



stability). This contrasts with the high end (turnover in excess of $10 million), where only 22% expected an increase (although the majority, 52%, thought they would remain stable). Again this fits with the anecdotal evidence from some dealers who had concerns that there were segments of their core buyers who they felt had reached a point of saturation, having supported very high-end sales for the past several years. They now felt that unless they could broaden interest from new regions and demographics, sales might begin to lose their pace of growth in the short to medium term.

Figure 2.5 | **Dealers' Forecasts of Future Sales – Selected Regions**[7]





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An analysis of the volume of sales showed that the average number of works sold by dealers rose slightly year-on-year by 4% to 178.[8] The average volume of sales can be skewed by some dealers carrying out large volumes of transactions in lower price segments. This is true in all sectors, but can especially be the case with dealers working in decorative art and antiques, where the average volume of works or objects sold in 2018 (at 314) was more than double the volume of fine art works (at 147, and 140 for Contemporary dealers). 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 2018 was therefore more representative at 78, a slight decrease of 3% on the reported figures for these respondents in 2017.

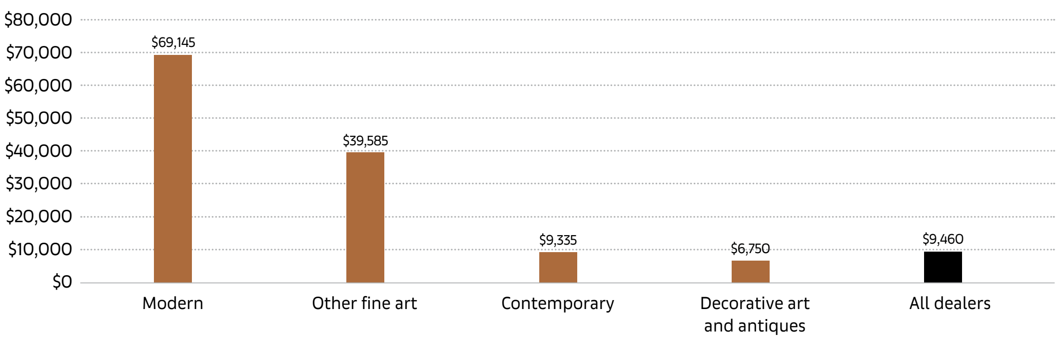
The median number of works sold in 2018 was 78, a slight decrease of 3% on 2017

The median number of works sold by dealers in decorative art and antiques rose by 7% (to 75), and there was a slight decline (of 1%) for those in the Contemporary market (to 82). For fine art overall, the median volume was stable at 80.

7 Percentages given in the tables and figures throughout the report are rounded to the nearest whole number. This rounding presents the data in its most accurate form, but means that some shares do not add up to 100%.

8 The percentage change year-on-year is based on two-year sales volumes reported by dealers surveyed in 2018.

Figure 2.6 | **Median Prices by Sector in 2018**



2.2 | Prices in the Dealer Market

Respondents to the survey did not supply individual transaction prices, but based on the value and volume of their aggregate turnover, the highest average prices were found in the Modern art sector, where median prices at $69,415 were up 39% year-on-year from 2017, versus declines in all other sectors. Figure 2.6 shows the median of the distribution of average prices for all businesses, based on their reported sales values and volumes. This shows that, as in 2017, the highest median prices were in the Modern sector, while the lowest were in decorative art and antiques. The median price for a work of art across all dealers was just $9,460.

Works priced over $1 million accounted for 40% of the market by value, but just 3% of transactions

Figure 2.7 | **Share of Total Dealer Sales by Price Bracket in 2018**

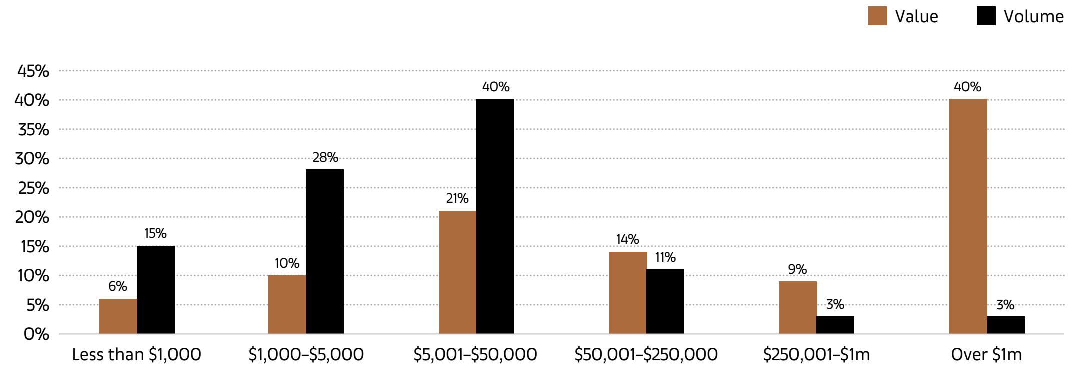


Figure 2.7 shows the distribution of the total number of individual sales and the value of sales in different price segments, as reported by dealers. The highest volume of works sold, as it was in 2017, was in the segment of sales priced between $5,000 and $50,000, at 40%, although this accounted for just 21% of the value of works sold. The majority (83%) of individual transactions in the dealer sector were for prices below $50,000, but again these represent a smaller share of the value of sales (37%).

While the share of sales at the top of the market (works priced over $1 million) fell in 2017, this segment was significantly larger in 2018, accounting for 40% of the market by value but just 3% of transactions (versus 18% and 2% respectively in 2017). While many dealers in 2017 reported increasing sales for those artists just below the top tier (with the $250,000 to $1 million segment accounting for a much larger 30% in 2017), this trend reversed to some extent in 2018, with some dealers reporting that their regular high-end buyers were more cautious and it had been easier to sell works over $ 1 million than those below.

While some dealers noted that there were good markets for both top- and lower-tier works by leading established Post-War and Contemporary artists, in earlier sectors, such as Modern and Impressionist art, there was only a good market for the very best works and much less demand for what might be considered second-tier works by even the best artists. Many dealers at the higher ends of the market noted that the 'buying on impulse' had gone from the market over the year, and that collectors were more willing to wait for very specific works that they would buy at top prices.

In other tiers, some dealers noted that newer, millennial collectors had virtually the opposite buying behavior, being more willing to make quick purchases and buy on impulse or spontaneously. However, they were mostly still buying at much lower price levels and represented a much smaller group in terms of the value of sales. (See Chapter 7 for a discussion of millennial collecting habits in different regions.)

2.3 | Dealer Margins

One of the biggest issues confronting dealers continues to be a lack of financing and credit in the face of volatile sales and rising costs. The market is characterized by a small number of businesses often making super-normal profits, while a majority struggle to break even. However, even at the high end, the surveys (along with annual financial accounts available for some companies) show that, in many years, sales and profits can be variable.

While some galleries have found investors for their businesses, or occasional public subsidies, most say that they find it difficult or impossible to access bank credit and, as such, are self-financed, relying on selling on consignment rather than through the more traditional model of owned inventories. There was evidence of this in the survey results, which showed a low level of debt on average. Most dealers (57%) had a debt ratio of less than 10%,[9] down 10 percentage points on 2017. And the significant majority (94%) had a ratio of less than 50% (stable on 2017).

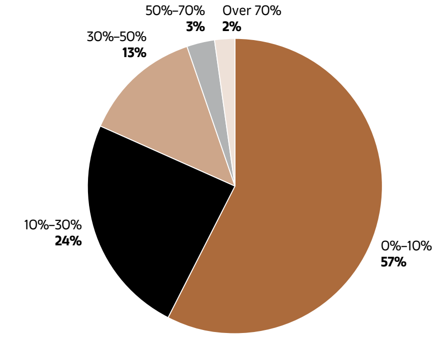
For purposes of comparison, at the start of 2018 in the US, the market debt-to-equity ratio across all industries was 56%, while general retail industries averaged 21% (although these ranged from as low as 10% for online retailers to 58% for automotive retail).[10] Most art and antique dealers, by comparison, therefore have a moderate-to-low level of debt.

There was a range of levels of debt by turnover level, but dealers with a turnover of less than $1 million tended to have the lowest debt levels, with a majority (62%) of these businesses below 10%, versus 45% of those with sales greater than $1 million. While the lower levels of debt at the lower ends of the market could indicate correspondingly low financial risk at this level, it is most likely related to a lack of available lending and credit when compared to dealers at the higher-value end. This is an ongoing and significant problem for the sector, as it can be difficult for galleries to fund expansions and new programs if they do not have access to external or private investment or credit.

Access to credit and financing was the third-biggest challenge dealers felt their companies would face in the next five years, next to the economic context and finding new clients (see Table 2.3).

Many dealers interviewed reported that 2018 continued to be a year where the focus remained on trying to find ways to cut or control costs in order to maintain profitability in the face of uncertain and volatile sales. Several dealers reported that they had engaged in, or were contemplating, major experimental changes in their businesses, from consolidating or changing premises, to merging permanently with other businesses, or launching collaborative projects and exhibitions (often vertically integrating up and down the value spectrum).

Figure 2.8 | Debt Ratios in the Dealer Sector in 2018

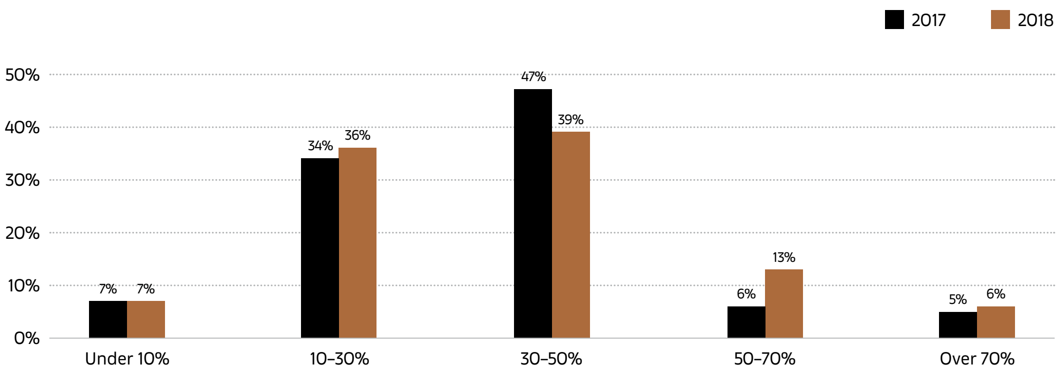


One of the biggest issues confronting dealers continues to be a lack of financing and credit in the face of volatile sales and rising costs

9 Debt ratio in this instance is used to describe 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.

10 These ratios are defined differently from those in the survey and for general comparison only. The market debt-to-equity ratio here is estimated using the cumulated market value of equity for the sector and cumulated debt for the sector, where debt is defined as including both short-term and long-term debt (but not accounts-payable or non-interest-bearing liabilities), and the book value of debt is used as a proxy for the market value of debt. The data on US companies was supplied in January 2018 courtesy of Aswath Damodaran, Stern School of Business at New York University.

Figure 2.9 | **Dealers' Gross Profit Ratios in 2017 and 2018**



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Dealers were asked to report on the profit margins of their businesses in 2018. The largest share of dealers (39%) had a gross profit ratio of between 30% and 50%.[11] However, the share of dealers in this range fell eight percentage points year-on-year as more dealers reported higher gross profits, with the biggest advances in the 50% to 70% range.

Gross profit margins did not necessarily rise with increasing turnover in a systematic way and there was considerable variation within segments and sectors. There is a very wide variety of reasons why these vary year-on-year for individual businesses, from their agreements with artists to their varying mark-ups and discounts. These aggregate measures are primarily for benchmarking against other industries. Again, using the US for comparison, at the end of 2018, the average gross profit margin for the aggregated retail market in the fourth quarter of 2018 was 16%, but was 42% in specialty retail, 36% in furniture and fixtures, 50% in apparel, and 32% in

11 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).

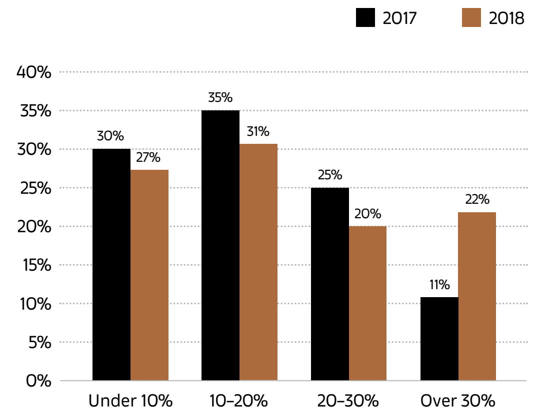
professional services.[12] This largest segment of 39% of dealers is therefore on a par with some of these averages, while 19% are exceeding them.

Dealers also reported net profit ratios, which measure sales relative to all costs and expenses, and more precisely define how profitable individual companies and industries are by expressing their retained profit per dollar of sales.[13] On aggregate across all dealers, results showed some improvement, with a higher share of dealers reporting net margins above 30% (at 22% versus half that share in 2017).

Net margins did not rise consistently with sales turnover, and there was evidence of some reductions in profits at the very top end of the market versus 2017. Dealers with sales in excess of $10 million had the highest share of those reporting profits in excess of 30% in 2017. However, in 2018, they had the lowest share of representation in this profit segment. For dealers at all levels, the largest proportion of dealers reported net profits between 10% and 30%. Again, for comparison, net margins vary considerably in other industries but the average net profit margin in general retail in the US had dropped to just 2%: 6% in consumer discretionary goods, 13% in professional services, and 30% in consumer financial services.[14]

In all sectors, the majority of dealers had margins between 10% and 30%. As in 2017, and despite many

Figure 2.10 | **Dealers' Net Profit Ratios in 2017 and 2018**



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In all sectors, the majority of dealers had net margins between 10% and 30%

12 Q4 2018 data courtesy of CSI Markets.
13 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.
14 Q4 2018 data courtesy of CSI Markets.

Table 2.1 | Dealers' Net Profit Ratios in 2018

a. By Turnover Level

Segment	Net Profit	2017	2018	Difference
Under $500,000	Under 10%	33%	31%	–2%
	10–30%	54%	42%	–12%
	30% +	13%	27%	14%
$500,000-$1m	Under 10%	27%	20%	–7%
	10–30%	60%	52%	–8%
	30% +	13%	28%	15%
$1m–$10m	Under 10%	23%	29%	6%
	10–30%	67%	55%	–12%
	30% +	10%	16%	6%
Over $10m	Under 10%	42%	18%	–24%
	10–30%	41%	76%	35%
	30% +	17%	6%	–11%

b. By Sector

Segment	Net Profit	2017	2018	Difference
Decorative art and antiques	Under 10%	17%	23%	6%
	10–30%	52%	45%	–7%
	30% +	31%	32%	1%
Contemporary	Under 10%	38%	34%	–4%
	10–30%	53%	45%	–8%
	30% +	9%	21%	12%
Modern	Under 10%	6%	5%	–1%
	10–30%	88%	76%	–12%
	30% +	6%	19%	13%
Other fine art	Under 10%	20%	24%	4%
	10–30%	80%	63%	–17%
	30% +	0%	13%	13%

individual dealers reporting significant struggles with sales and costs, dealers of decorative art and antiques again accounted for the highest proportion of those, with net profits above 30%. The share of Contemporary dealers with profits in excess of 30% also more than doubled to 21%, although, as in 2017, compared with other sectors, they also had the largest proportion in the lowest bracket of 0% and 10%. As noted, this may be due to many reasons, such as much higher production costs and overheads in this segment or simply more new businesses in the sector.

Dealers in the Modern sector also saw a significant boost in those reporting higher profits, with 19% reporting net profit above 30%. However, anecdotally, performance in this sector was mixed: some businesses who had secured strong, high-end inventory reported 2018 as one of their best years ever, while others struggled to break even.

2.4 | Supply and Inventories

Dealers either own the stock they sell, work on a commission or agency basis, or sell works on consignment, with many doing a combination of these, depending on their circumstances. The most common business model for dealers up to 50 years ago was based around the idea of 'buy cheap, sell dear', sourcing art and antiques from sellers eager to access cash and liquidity and selling to buyers at a substantial mark-up. Many dealers relied on the auction market as a source of supply, buying works for lower prices and marking them up for sale to collectors in the private market. However, over the course of the 1980s and 1990s, the supply and demand fundamentals changed significantly in the art market, as did the balance of power. Along with greater competition within the dealer market itself, auction houses began to compete directly with dealers, and the supply of the best-quality works in some sectors such as Impressionist, Modern, and Old Masters paintings started to dry up.

When auction houses entered into direct competition with dealers and began actively cultivating relationships with private buyers during this period, it became much easier for the end clients to find out what the sale prices were. This made it much more difficult for dealers to add such substantial mark-ups, and 'shortened the food chain'. The increasing transparency of the market in the past 20 years, with auction prices for individual works easily accessible online, has also reduced the scope of some arbitrage-based pricing models formerly used in the sector. Rising prices in the art market also made it much more difficult for dealers to buy works for inventory outright, as this required increasing amounts of capital, which was not offset by a commensurate rise in access to external financing to support such acquisitions. Overall, this has forced more dealers to work as commissioned buyers rather than buying outright to resell in the future.

Nowadays, many dealers base their competitive strategies on being able to successfully access the best-quality artists and artworks for their clients, and adding a range of high-value services and expertise. Faced with increasingly competitive markets for supply, some dealers, particularly in the secondary market, have also tried to opportunistically increase inventories to secure sales of hard-to-access works as they appear at auction or for private sale.

Despite the general trend of the past few decades, in 2018, sales from owned inventories edged up (on the basis of weighted averages for the sectors), although sales of work on consignment were still the largest. Based on the average share of sales weighted by reported turnover, dealers reported that in 2018:

- 56% of their sales came from sales of works on consignment (down 2% on the average reported in 2017);
- 36% were from sales of inventory that they owned (up 10%); and
- sales on commission or as an agent were just 8% (down 9% on 2017).

These averages varied widely by sector. Working on consignment was most common in the Contemporary sector (at 56%, down 9% on the previous year as the share from owned inventory rose). Sales of works from owned inventory were much higher for decorative art and antiques dealers, at 69%, and high also in the Modern art sector, at 61% – a rise of 8% year-on-year.

56% of dealer sales came from sales of works on consignment in 2018

Dealers also access their inventories and consignments from a range of sources, depending on the sector. For dealers operating in the Contemporary market, the most common method for accessing works for sale is through consignments from artists. On average, 63% of their inventories came directly from artists.

While this means that dealers operating in the primary market may have lower capital requirements versus buying stock, many actively financially support artists in the production, marketing, and exhibition of their works, which adds substantial additional financial burdens connected to their inventory. Private collectors were again the most important source of inventory for other sectors of the fine art market, accounting for 34% of the value of Modern art dealers' inventories, and 40% for other fine art dealers. The art trade (other dealers and auctions) were the main source of supply for decorative art and antiques dealers, accounting for a combined 63% of their inventory. This was, however, down 20% on 2017 as the importance of private collectors as a source of inventory for this sector expanded.

Figure 2.11 | Share of Sales by Inventory Basis and Sector in 2018

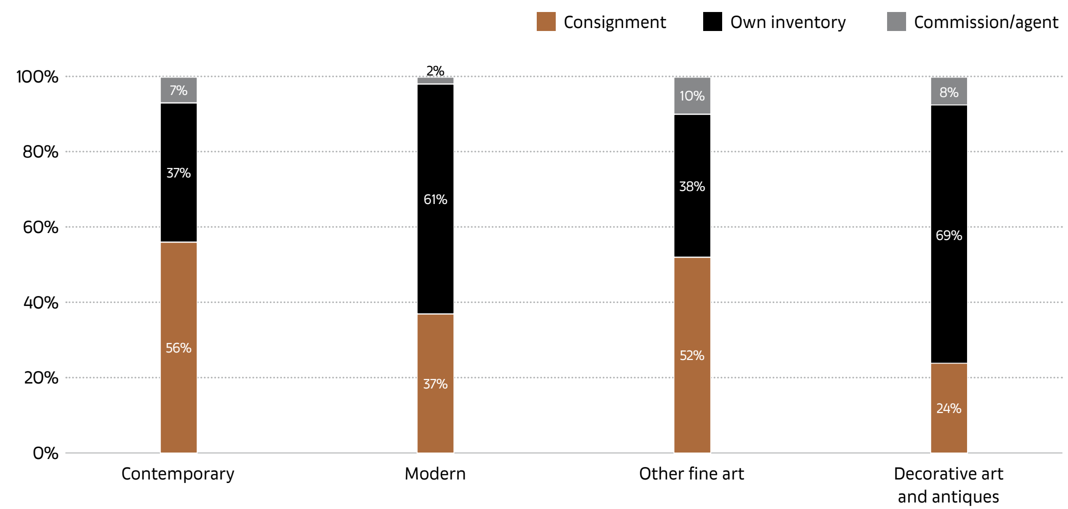


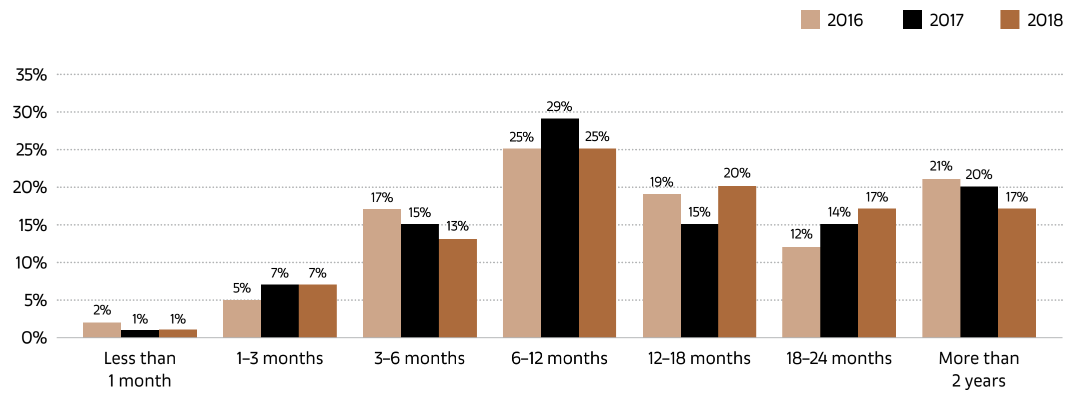
Table 2.2 | Sources of Supply for Dealers in 2018

	Private collectors	Estates	Institutions or companies	Other dealers	Auctions	Artists	Other sources
Contemporary	14%	8%	2%	6%	3%	63%	4%
Modern	34%	11%	2%	14%	19%	19%	1%
Other fine art	40%	11%	3%	14%	19%	11%	2%
Decorative art and antiques	24%	6%	0%	27%	36%	4%	3%
All dealers	19%	8%	2%	11%	12%	45%	3%

Dealers were asked how long the average period was from the time works entered into their inventories to final sale. The most common inventory cycle for dealers, as it has been for the previous two years, was between six and 12 months (25%). While the very slowest cycle of more than two years has dropped in share consecutively for two years, the shares in other segments exceeding one year grew, which shows the persistence of low liquidity and slow-moving stock in some parts of the market.

The share of those with very fast cycles of inventory (up to three months) were steady. However, the share in the three- to six-month cycle has steadily declined. This slow pace of sales is putting dealers under considerable financial strain in some sectors, as the up-front costs of producing and promoting works, maintaining an exhibition program, and exhibiting at fairs are often significantly disconnected from the timing of some of the sales they make. Along with other regular and rising business costs in many regions, this has resulted in cash-flow issues for some dealers, which are again exacerbated by limited access to finance that could otherwise be used to smooth incomes over a longer period.

Figure 2.12 | Average Time Taken to Sell Works from Dealers' Inventories 2016–2018



A slow pace of sales is putting dealers under considerable financial strain, as the up-front costs of producing and promoting works, maintaining an exhibition program, and exhibiting at fairs are often disconnected from the timing of sales

Contemporary dealers had the quickest inventory cycle, with just over half (52%) selling within a year. One of the slowest cycles on average was in the decorative art and antiques sector, which, as in 2017, showed a majority of businesses taking longer than a year to sell works from inventory, with a share of 23% taking more than two years. This compares to just 11% in the Contemporary sector.

For businesses in this sector with a slow turnaround, the drain on their finances is considerable, as much of their inventory is owned by dealers and some requires substantial investment to conserve or restore. This has made cash flows critical for some in recent years, with many businesses having to downsize and close retail premises in order to cut costs.

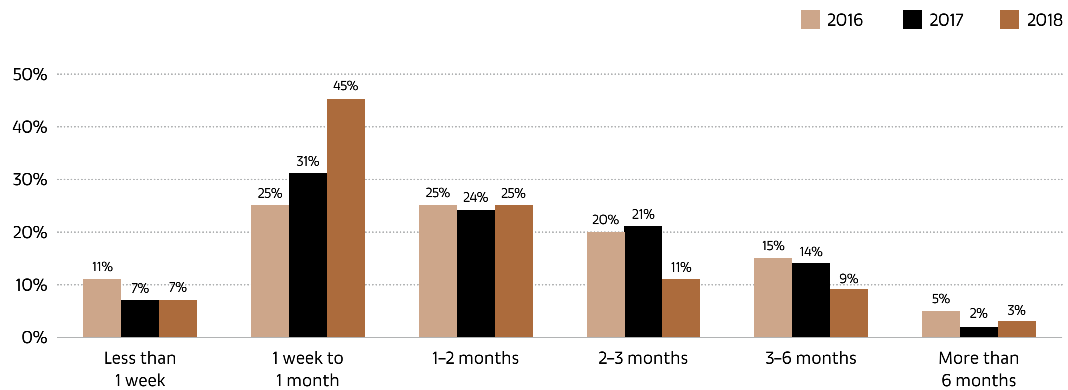
Dealers in the decorative art and antiques sector interviewed in both Europe and the US have said that banks are particularly ignorant about the nature of their business and its capital-intensive requirements, and that, despite having many profitable individual sales, in a market bereft of lending, they have had to rely on personal or external investment capital to ride out slow sales periods. Anecdotally, this is equally the case for dealers in the Contemporary and other fine art markets: static, physical galleries with reducing levels of footfall are no longer viable in many instances, with dealers increasingly relying on fairs in order to make sales and find new clients.

Although fairs have been shown to successfully drive sales and new-client introductions, they also carry high levels of up-front costs, while gains can be volatile and distributed over a long period (see Chapter 5).

Compounding the problem of a slow inventory cycle is the fact that that some buyers can take a considerable amount of time to pay for purchased works. However, there were some signs of the payment cycle improving on aggregate in 2018, with 77% of dealers being paid within two months of a sale. This was up 15 percentage points on 2017, with the largest increase in those who paid up within one month. The share of dealers with a cycle of longer than three months also dropped 4% year-on-year to 12%, its second consecutive year of decline.

While these changes may be due to earlier payments from buyers, the extension of flexible payment terms by dealers was often an option they used to offer a less-pressured and more flexible relationship with new and established clients. The reduction in the payment cycle may equally be the result of dealers simply being unable to extend flexibility due to the financial pressures of escalating costs.

Figure 2.13 | Average Payment Cycle for All Dealers 2016–2018



Payment cycles differed between regions and also reflect, to some degree, the business culture of their region, rather than being specific to the art market. Some of the shortest payment cycles for dealers were in the larger European markets, with British and French dealers having among the shortest. More than 86% of payments owed were made within two months or less, ahead of the US at 78%. The slowest cycles were in Italy, where, on average, only 44% of payments were made within two months, and Spain with 68%.

China has a persistent problem of late payment in the auction sector (see Chapter 4), and 43% of dealers there reported not being paid within two months. Nevertheless, this was an improvement on the results in 2017, when the slow-pay rate was 56%. Dealers in China were asked how often buyers paid outside their standard terms. They reported that, on average, Just over 30% of their buyers did not pay on time, and the average time outside their standard terms was one to two months. While the majority of galleries (62%) reported that this was because they liked to offer more flexible terms to buyers, the remainder thought it was due to a general culture of late payment in China rather than any specific issues related to legal issues or buyers' finances.

Anecdotal evidence suggests also that slow and non-payment remains a major issue for the increasing number of Western galleries doing business with collectors from Mainland China. These galleries often find it more difficult than domestic businesses to enforce payment terms or incorporate these extended terms and flexible practices into their regular financial planning.

Slow and non-payment remains a major issue for the increasing number of Western galleries doing business with collectors from Mainland China

2.5 | Buyers

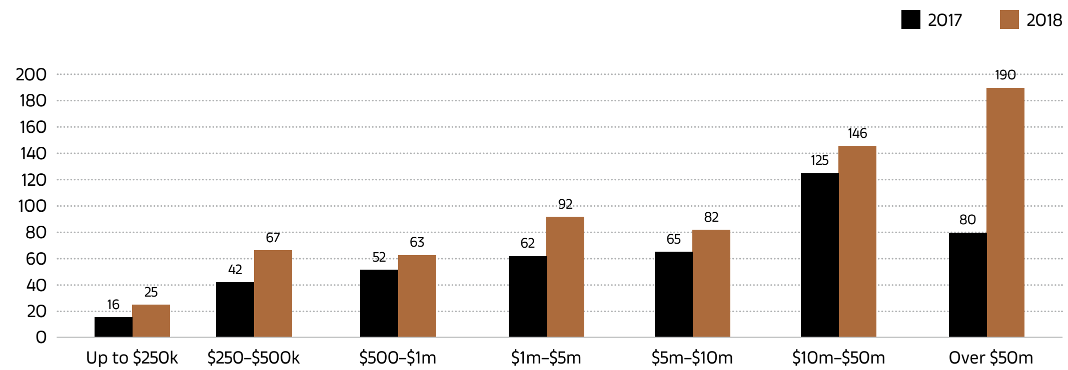
In 2018, businesses in the dealer sector sold on average to 73 clients each, an increase in number of 35% year-on-year, although slightly less than the average of 75 reported in 2016. The median number has remained more stable over three years, although it also advanced from 41 in 2017 to 48 in 2018.[15]

The average number of buyers rose relatively steadily with turnover level in 2018. While this also occurred in 2017 up to a point, the numbers of buyers declined when dealer turnover reached $50 million. However, 2018 showed a more linear progression upward as dealers at the higher end, many in multinational premises, reached an increasing number of buyers on average. While the average number of buyers rose for dealers at all turnover levels, the advance was greatest for those at the highest level of over $50 million, where the numbers more than doubled. This was the second year of increases in the highest-end segment, showing that, even at this level, businesses have had to expand their reach in order to generate greater sales.

Dealer sales in 2018 were relatively well spread between new and existing clients, with the densest segment overall being those buyers who had been with the gallery for one to five years. This has been the case for the past two years. On average, 29% of dealers' sales were to new clients buying from them for the first time in 2018 (down 1% on 2017), and 38% were

15 The range in buyers reported was between three and 750. A small number of outlier variables was removed in the calculation of the average (including a dealer reporting more than 2,000 buyers).

Figure 2.14 | Average Number of Buyers by Dealers' Sales Turnover in 2018



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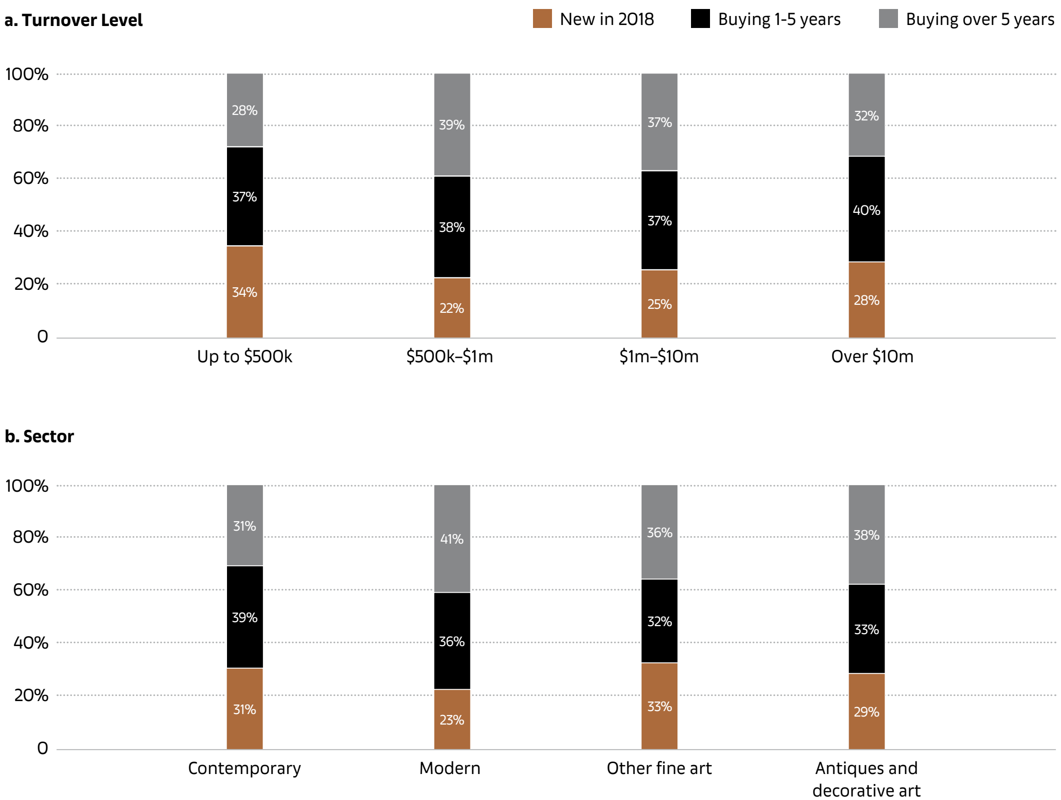
buyers they had dealt with for between one and five years (up 1%). One-third were longer-term buyers of more than five years (stable on 2017).

Continuing the trend of the previous year, new buyers were more important for dealers with lower turnovers than for those at the highest end. For dealers with turnover of less than $1 million, new buyers accounted for 32% of their sales versus 25% and below for dealers with turnover in excess of $1 million (and just 18% for those with a turnover greater than $50 million, which was stable on the share in 2017). The value of sales to longer-term buyers (more than five years) rose considerably for dealers in the segments between $500,000 and $1 million and between $1 million and $10 million, increasing by 10% and 7% respectively on their share in 2017.

There were differences between market sectors. New buyers accounted for 31% of the sales made by Contemporary dealers, but had a lower share

Figure 2.15 | Share of Sales by Purchase History



of those dealing in Modern art and decorative art and antiques. Dealers in the Modern sector also relied more heavily on their more-established client base, with the share of buyers purchasing from them for more than five years at 41%. However, in the other, older fine art sectors, such as Impressionism and Old Masters, there was a shift away from the longer-term buyers to new buyers, with this segment doubling in share when compared to 2017. Similarly, in decorative art and antiques, the share of sales to most-established buyers dropped year-on-year by 11%, as more sales went to new buyers and those working with dealers for up to five years.

Sales to private individual collectors dominated the dealer sector in 2018, as they have in previous years, increasing in share by two percentage points to 68%. With the additional 3% to interior designers and 4% to art advisors (both of whom purchased mainly on behalf of private collectors), the share to private individuals would be 75%, up 1% on 2017 and its highest level in four years.

Sales to other members of the art trade were stable on 2017, and there were again differences between sectors, accounting for a low 3% for Contemporary dealers versus 16% for those in the decorative art and antiques markets. Sales to corporations and private institutions were much more significant for Contemporary dealers (9%), as opposed to 4% or less for all other sectors surveyed.

The share of sales to museums was stable for the third year at 11%, with a slightly lower share to local and national institutions than in 2017. The share of museum sales was highest for other fine art dealers at 13% and lowest for those in decorative art and antiques at just 1%, while for Contemporary dealers they accounted for 11%.

Sales made via art advisors only accounted for 4% of the total. However, as noted in previous years, this may understate their significance, as some collectors work with advisors prior to a sale, researching the market and sourcing works before making a final purchase from a dealer. The share of sales to an advisor was highest for Modern dealers (7%) and lowest for decorative art and antiques dealers, at just 1%. A much larger share of sales for decorative art and antiques was to interior designers, at 10%.

Sales to private collectors dominated the dealer sectors in 2018 at 68% of total values

Figure 2.16 | **Market Share of Sales by Buyer Group in 2018**

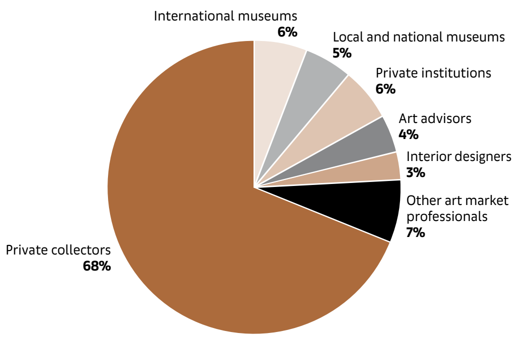


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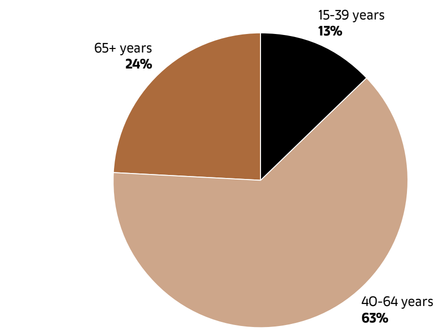
Figure 2.17 | **Share of Number of Buyers by Age Group in 2018**



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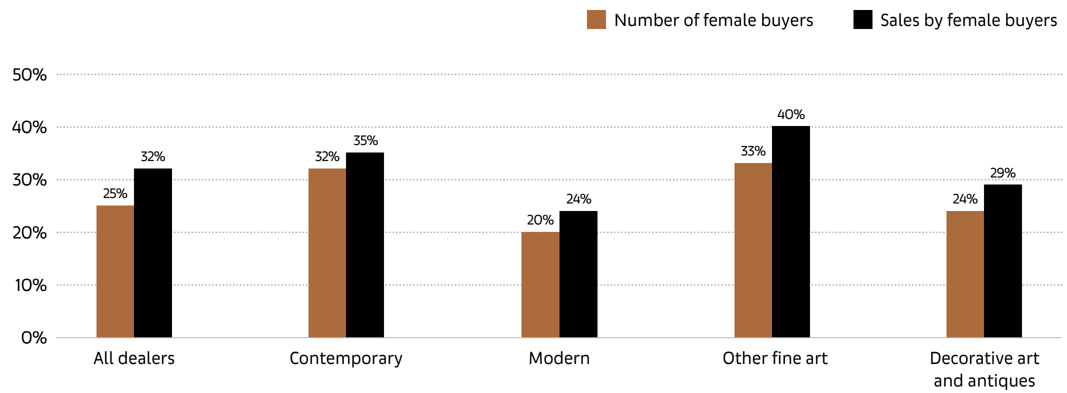
Buyers aged between 40 and 64 were the key demographic segment for dealers in 2018, accounting for 63% of their total buyers. This segment also generated the greatest share of sales for dealers (at 66%). This finding was consistent across sectors, with the Contemporary market showing a slightly higher-than-average share of younger buyers, with 16% aged 15-39 years versus 11% in the decorative art and antiques sector.

On average, just 25% of buyers were female, and they generated one-third of the sales values in the sector in 2018. Female buyers were in a minority in every sector, with a slightly higher average in the Contemporary market and other fine art sectors. Female buyers generated the greatest share of sales in the other fine art sectors, such as Old Masters and Impressionism, and the least in the Modern sector.

Figure 2.18 | **Share of Number of Sales by Female Buyers in 2018**



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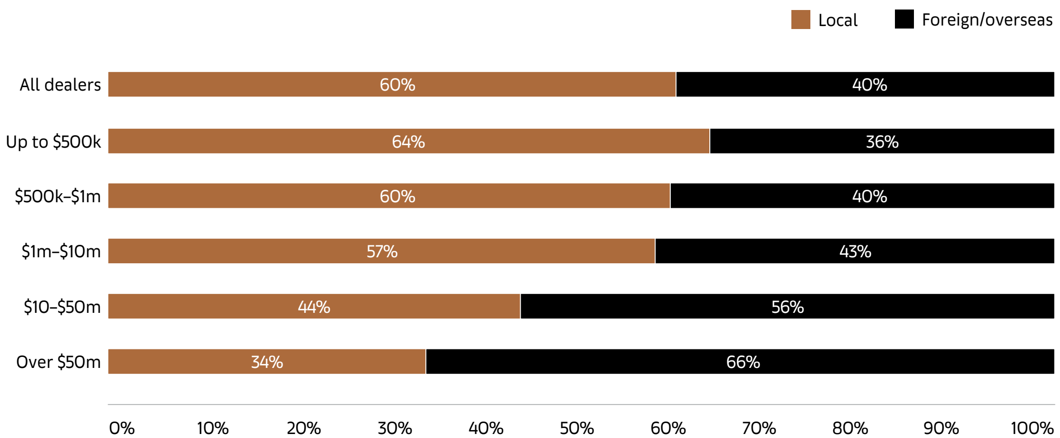
Local buyers also dominated in 2018, accounting for a share of 57% of total buyers, versus 43% from outside the galleries' countries of origin. Sales to local buyers also made up the majority of total sales at 60%, up 3% in share year-on-year.

The distribution of local and international buyers varied by level of turnover, with dealers with lower turnovers having a greater dependency on local buyers. The share in all segments was stable year-on-year, apart from a substantial 26% increase in the share of foreign buyers in the $50 million-plus segment. Although this may reflect changes in the sample, with a greater share of higher-end respondents than previous years, it may also indicate that dealers in this top segment are increasingly pursuing more internationally focused business models to reach new and geographically diverse buyers (fitting with the anecdotal evidence from interviews).

Figure 2.19 | **Share of Dealers' Sales to Local Versus International Buyers in 2018**



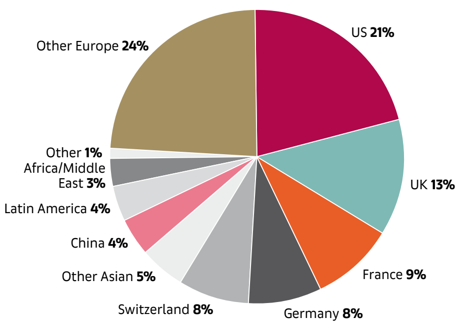
Local buyers made up the highest share of buyers for Contemporary dealers (64%) but a slightly lower share of sales, at 59%, indicating that, on average, some international sales were higher value than local ones. The opposite held for some other sectors, including Modern-art dealers, who had the lowest share of local buyers at 33%. Nevertheless, these buyers accounted for 47% of their sales on average. Similarly, in decorative art and antiques, the 44% share of local buyers was responsible for 55% of sales in 2018.

Dealers had a very diverse range of buyers from around the world. Buyers from the US accounted for the largest segment when aggregated across all dealers, with a majority of dealers (57%) citing them among their top three most important buyer nationalities. This was down from 68% in 2017. European buyers accounted for 62% of those reported, with the UK accounting for 13%. Asian buyers accounted for 9%, with Chinese buyers representing the majority at 4%, down 6% on 2017. The overall share of Latin American buyers was stable at 4%.

As in previous years, high-income countries tended to trade more with buyers from other high-income countries. Countries that were geographically close traded more, particularly the smaller art markets in Europe and Asia, possibly due to lower costs and regulatory ease. Those with historical links and common languages also maintained links, such as Spain and Latin America.

Local buyers dominated in 2018, accounting for a share of 57% of buyers and 60% of total sales

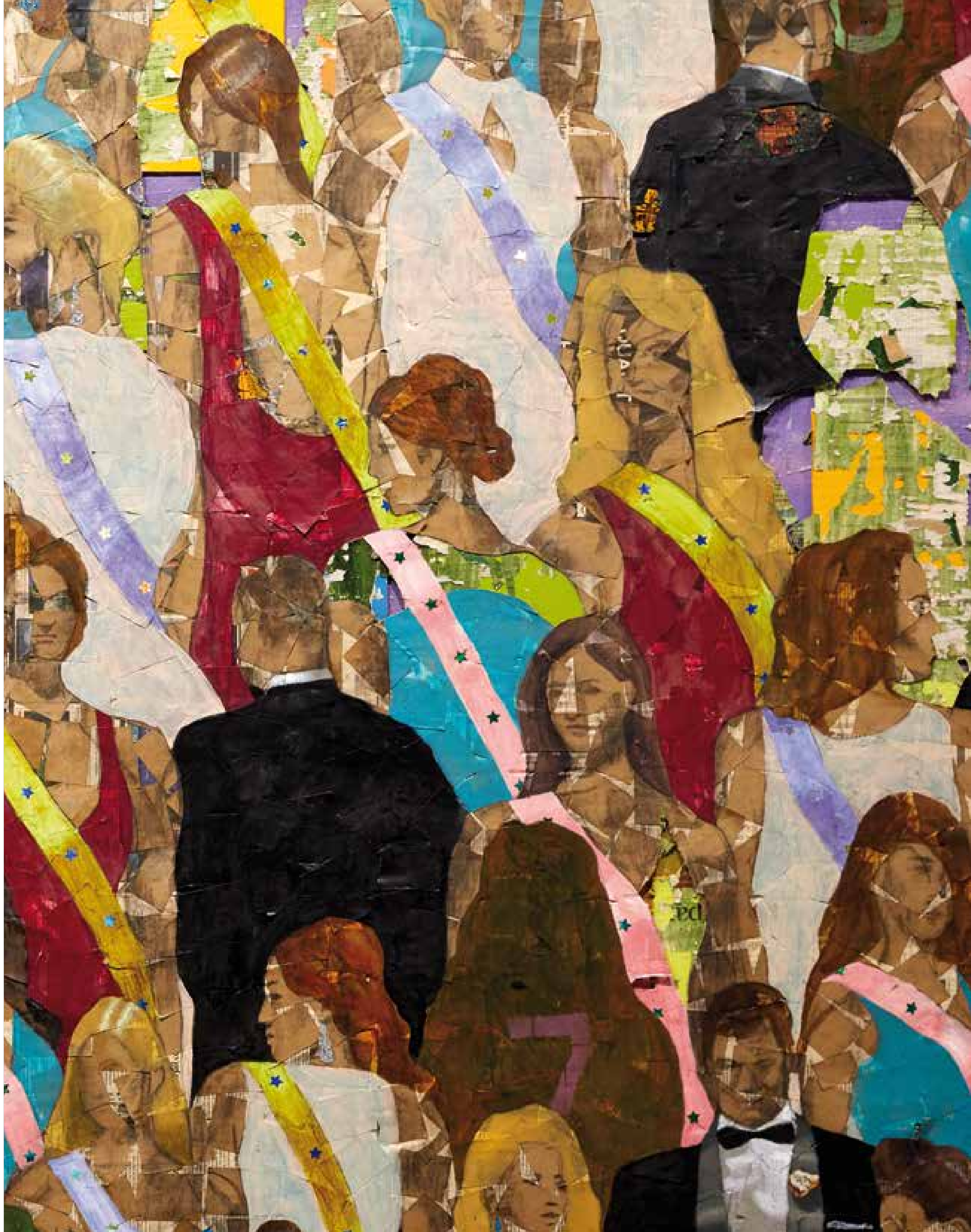
Figure 2.20 | Most-Important Nationalities of Buyers for Dealers in 2018



Finding new buyers remains the biggest challenge cited by dealers in 2018. Dealers with lower turnovers reported this as a key struggle in their efforts to expand beyond local markets and gain a competitive foothold. Dealers at the higher end also noted the need to find clients in new regional and demographic bases. As noted by one dealer:

'Our most established core client group of high net worth buyers in mature markets has been buying strongly for several years, but some of them are becoming maxed out in terms of their collections and exhausted…'

There was a general recognition in the dealer sector that, in order to support businesses at a wider range of levels in the market, greater interest from new buyers, including those in new regions as well as lower wealth segments, will be of critical importance in the future. Many businesses were therefore focusing their efforts on making their programs accessible to new, geographically dispersed audiences through fairs, online platforms, and collaborative exhibitions.



2.6 | Gallery Longevity

The divergence in performance between different value segments of the market was evident again in 2018. There has been a widening gap in the past few years between the performance of those galleries at the high end of the value spectrum and the mid-size and lower-end galleries, many of which are presenting lesser-known or less widely recognized artists and programs.

Variable performance alongside rising costs has put significant pressure on many dealers' businesses, and the period between 2016 and 2018 has seen fewer galleries opening and a number of businesses closing.

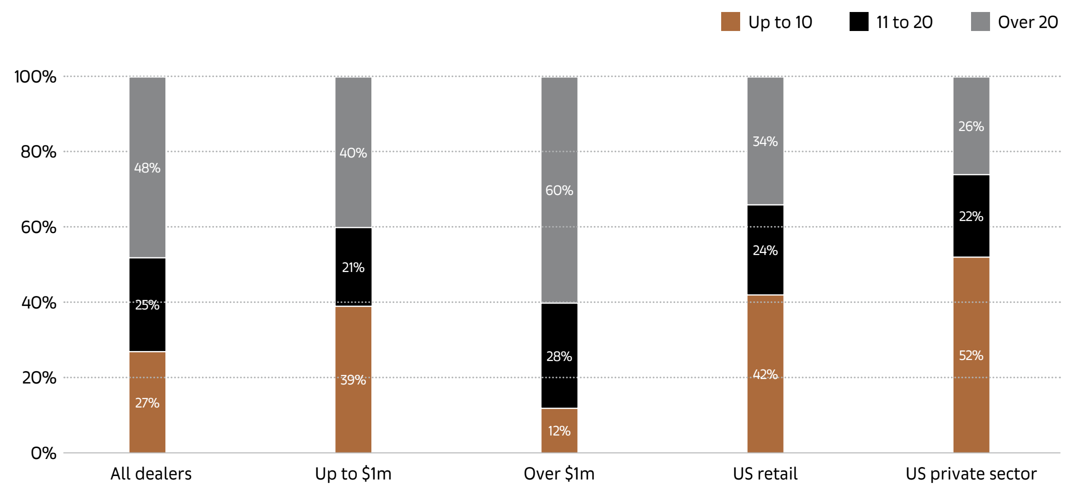
In terms of the general longevity of the sector, however, many dealers are showing strong company survival rates compared with other industries. Of the dealers surveyed, the average number of years in business was 25, a consistent finding in 2017. This compares favorably with other businesses. In 2018, data from the Bureau of Labor Statistics showed that just 21% of private-sector firms started in the US in 1998 were still in business 20 years later. This was down from 23% in 2017. In retail, within the US in 2018, 34% of the firms operating had been in business for more than 20 years, and in private retail, just 26% had the same longevity.

Just under half of the dealers surveyed had been in business for more than 20 years, down slightly (by 2%) on 2017. 73% of the businesses surveyed had been operating for longer than 10 years. This compares to 58% for US retail and 48% for the US private sector generally.

There were differences in longevity based on dealer turnover. For those dealers with a turnover of more than $1 million, there was a much larger share (60%) of those who had been in business for more than 20 years than in the segment with turnover of less than $1 million (40%). The median number of years in business for the higher end was 26 years, and for those with less than $1 million it was 15. By sector, Contemporary dealers had a significantly lower median years in business than other sectors or the sample on aggregate, although there was still a significant range here, including a small share of businesses that had been around for 50 years or more.

Overall, therefore, the data indicates that the dealer sector as a whole has greater longevity than some other industries. However, while there is a normal level of frictional openings and closures common to all industries, there have been worries in recent years that the closure of small and mid-sized galleries in the primary market, which form a critical part of the market's infrastructure, has caused a hollowing out of the middle of the market. Therefore the issue is not merely the number of businesses closing, but that they are businesses in a specific and important part of the market's infrastructure.

Figure 2.21 | Number of Years in Business in 2018 (Share of Companies)



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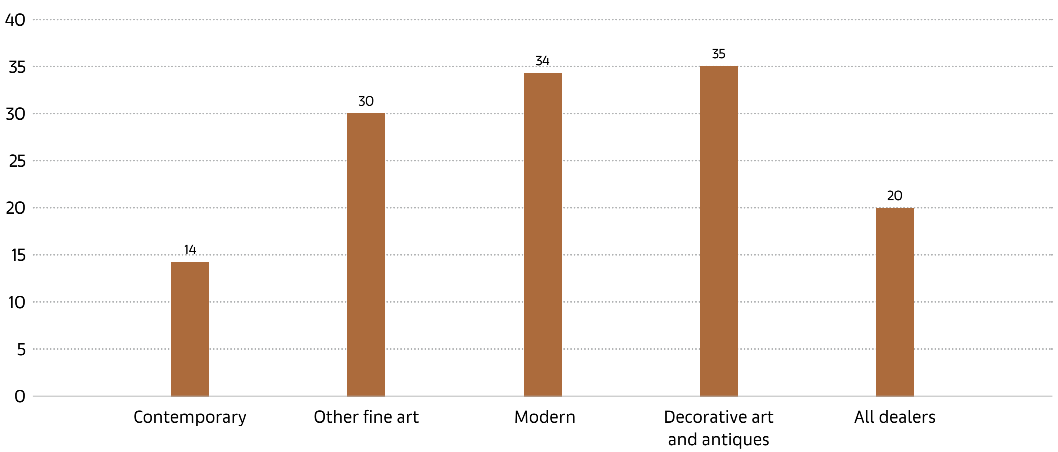
In terms of the general longevity of the sector, many dealers are showing strong company-survival rates compared with other industries

Figure 2.22 | Median Years in Business in 2018 by Sector



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According to data from Artfacts.net, over the past decade, the number of galleries opening each year has exceeded the number closing. Artfacts.net tracks the openings and closures of galleries from a dynamic international base of between 5,000 and 6,000 of the top galleries. The galleries included in the analysis in Figure 2.23 are only those that have participated in at least one major fair in the past 11 years, with new branches of headquartered locations also appearing if the primary operation has participated in a fair. It is important therefore to note that the data on openings is skewed by the criteria for inclusion: a gallery opening in 2018, for example, is unlikely to exhibit at a fair in its first year of operation, which means that the numbers for openings are lower in recent years than they are in the previous years. This also creates changes in the annual figures, as galleries are only revealed in the public domain as they appear in fair programs. Updates to previous years' data are therefore necessary, as galleries are only revealed as opening with a lag.

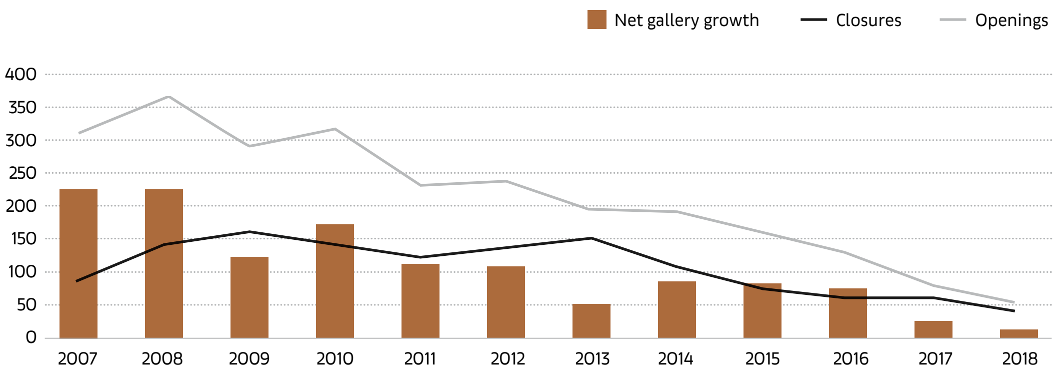
Closures may also appear with a lag as some galleries close privately without publicizing their closures, and their departures only become apparent through their non-appearance at fairs and through exhibition records in subsequent years. This means that the figures change from year to year, as updates are required for the data in each subsequent year. Galleries are only included in the data where a clear year of commencement or closure is available, and therefore it does not include the large numbers of very small galleries and shops opening and closing in the wider art market year-on-year.

While this data volatility poses issues in the interpretation of findings (particularly those in most recent years), the figures still provide some indications of the broad trends in openings and closures over the past 10 years.

While the ratio of openings to closures in 2007 was in the region of 4:1, this has declined rapidly since then. By 2011, the ratio had fallen to consistently below 2:1. ArtFact's figures for 2017 initially indicated that the ratio of openings to closures had dropped to 0.9:1, that is, more galleries had closed during the year than opened. However, during 2018, 46 new galleries (that had opened in 2017) began exhibiting at art fairs, which alongside 12 additional confirmed closures, brought the ratio to 1.6:1 (that is, net positive openings: 30 more galleries opened than closed in 2017). The preliminary estimates at the start of 2019 for the year 2018 indicate that while remaining positive for net openings, the gap has narrowed further (to 1.2 openings per 1 closure).

73% of the galleries surveyed had been operating for longer than 10 years, compared to 58% for US retail and 48% for the US private sector generally

Figure 2.23 | **Gallery Openings and Closures**



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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, despite some noteworthy closures over the past year, and even given some variability in the data year-on-year, closures appear to have been at their lowest aggregate levels in 2017 and 2018, at less than one-third of their 2013 level.

Although there has been some fluctuation, the general trend for openings on the other hand has been a steady decline. The number of new galleries established in 2018 was 86% less than in 2008. While it is likely that more galleries will be added to the database for 2018 as they are revealed in art fairs over 2019 and subsequently, in recent years, it appears to be the reduction in openings rather than a significant rise in closures that has mainly caused the drop in net openings in the sector.

2.7 | Outlook

Looking ahead, despite the changes in the market and different sources and channels for buying and selling, dealers and galleries will continue to play a crucial role outside their commercial functions as a source of information on artists and works of art, as well as directly supporting the production of work and acting as important gatekeepers, administrators, and promoters.

While there is much more information available to collectors directly online, the high-level expertise required to critically sift through this volume of data and provide guidance, ideas, and advice is still limited and highly valued.

Most of the informational asymmetries and risks in the art market are in the primary market (discussed in more detail in Chapter 3). Collectors are often more wary of new or emerging artists' works and there is comparatively less supporting information, such as past or comparable sales or major exhibitions. Faced with this uncertainty, buyers reduce risk by only buying artists that are well known or by avoiding the market altogether. This parallels George Akerlof's 'market for lemons'[16] (but with the most risk in the primary rather than secondary market): despite the fact that potential buyers would be willing to pay a high price for a 'good artist', their fear of them turning out to be a lower-quality one leads to either less trade or lower prices on the primary market.

Of course, given this informational asymmetry, there is an incentive for dealers of 'good artists' to demonstrate their quality and value in any way they can. Doing so, however, isn't always easy, as they cannot use prices to stimulate demand in the usual kinds of ways. Whereas a drop in price would boost demand in another market, in the art market it can drive buyers away. Dealers may therefore even increase prices or restrict supply to stimulate demand among the market's status-hungry, conspicuous consumers.

For art buyers faced with this asymmetry of information, and without recourse to greater transparency in the market where information and margins are fully and clearly explainable, the solution is to establish close personal relationships with dealers and artists so that they can trust their prices and the signals they send out.

But again, this not always easy and both of these solutions take considerable time and effort. In part, this explains first why the art market, although large, is not nearly as big as other industries and, second, why many new collectors tend to avoid new artists and purchase established ones. They rely instead on what critics, other successful collectors, curators, or dealers are buying, instead of their own personal tastes, which creates the pervasive superstar, or winner-takes-all, art market that we see today.

16 Nobel Prize-winning economist George Akerlof focused on another market with a parallel but reversed primary and secondary tier – the new- and used-car markets – noting the problems of adverse selection and inefficient levels of trading due to the difficulties in ascertaining quality and the problem of asymmetrical information.

Vertical collaboration in the dealer sector remains a critical challenge

Although asymmetric information and a lack of transparency in the dealer sector is one of the market's major problems, it has also created advantages for dealers who can signal their quality through, for example, membership of a dealer association, or participation in exhibitions and fairs. It also creates entrepreneurial opportunities for other experts, such as art advisors, and even alternative marketplaces and platforms that bring sellers and buyers together with shared information (and sometimes even vetting) alongside sales.

Looking ahead, the growing importance placed on being able to differentiate based on expertise and access may lead to some dealers returning to business models in which their businesses are highly specialized, focusing more intently on highly defined fields and segments and building stronger vertical integration and knowledge in those niches. While this can be highly successful in some segments, it also entails a lot of risk, as the success of their business model is dependent on a smaller area of the market in comparison to either their more generalized counterparts, or to auction houses. It can also make it difficult for dealers to expand their businesses, as their revenue model relies on one sector doing well. These pressures may inevitably cause a degree of industry shakeout over the coming years as individuals try to stake out their corners in narrow markets, with a lower number of businesses surviving in some areas.

To try to combat some of these risks and relieve financial pressures, it also seems likely that surviving galleries operating away from the high end of the market will increasingly experiment with new and existing models of collaboration, including shared exhibition spaces and events, cost sharing, and merging parts or all of their businesses.

Although there are several examples of galleries engaging in horizontal collaboration, in order to tackle some of the difficult underlying structural issues in the market, vertical collaboration, or finding ways for small and large galleries to work together, remains a critical challenge. Important collaborative models, such as Condo and other initiatives, have continued to build momentum over 2018, challenging the dominance of the event-driven fair models, and providing smaller galleries with deeper networking opportunities with lower up-front costs and risk.

Table 2.3 | Top Challenges in the Next Five Years

Challenges	2018 rank	2017 rank
Finding new clients	1	1
The economy and the demand for art and antiques	2	2
Financing your business and debt	3	8
Participation at fairs	4	3
Competition with auction houses	5	4
Internet and online sales	6	9
Overheads for your business premises	7	5
Accessing supply of objects, works of art, artists	8	7
Political instabilities	9	6
The increased regulation of the art market and cross-border trade	10	11
Competition with other galleries	11	10
Currency issues and exchange-rate fluctuations	12	12

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At the top of the market, some of the largest galleries seem likely to continue to expand their global reach as regional buyers become an increasingly important component of top-tier sales. So far, galleries have taken different approaches, with some attempting to adapt to regional tastes, while others have remained more focused on introducing existing programs to new audiences. While part of this international expansion has been driven by digital initiatives, the importance of a physical presence appears to remain critical at this level, with many larger dealers operating in an increasing number of physical galleries in multiple and diverse locations, as well as expanding their presence at fairs and other events.

3

Artist Representation and Gender Issues

Key Findings

Artist Representation and Gender Issues

1. Dealers working solely in the primary market had the lowest median turnover at $500,000 in 2018 versus $5.1 million for those working in the secondary market only, while those operating in both had $1.8 million.

2. Primary-market dealers had exclusive representation with 41% of their artists on average (down 7% in share on 2017), and those who did often limited this to national or regional exclusivity.

3. Of galleries working solely in the primary market in 2018, on average 63% of their total sales came from their top three artists, with 42% of value accounted for by one leading artist.

4. In the primary market, 45% of the sales for those dealers with turnover less than $1 million are accounted for by one leading artist, versus 29% for those with turnover exceeding $10 million.

5. For those galleries working in the primary market, 36% of the artists they represented in 2018 were female, and sales of the work of female artists accounted for an average of 32% of their annual turnover.

6. Larger primary-market galleries tended to represent fewer female artists. Those with turnover up to $1 million had a share of 38% female artists on average, versus 35% for those over $1 million, and 28% for those over $10 million.

7. For artists represented by just one gallery, the gender breakdown is 36% female. However, when artists are represented by multiple galleries, the share of female artists declines. Considering artists represented by five or more galleries, the share of female artists drops to 17%, and for more than 15 galleries, female artists represent only 10%..

3.1 | Primary Versus Secondary Market

The art market has a basic two-tier system: the primary market for first-time sales and the secondary or resale market. Although this division is not unique to the art trade, unlike other industries that operate via this dual system, the secondary or resale market dominates values in the art market and is often where the highest prices are achieved.

In the primary market, living artists sell new works to collectors directly or more commonly through galleries. Very rarely, extremely well-known living artists make initial sales directly through auction houses. Works sold in the primary market range from those by new and emerging artists through to well-established Contemporary artists. Some segments of this market are made up of unknown or less-established artists, and the quality of their particular work might be difficult to discern, meaning buyers are faced with a lack of full information. Because of this, purchasing can entail a significant degree of risk.

The much larger secondary market is where vendors offer works of art for resale, generally using dealers and auction houses as agents or intermediaries. One of the distinctive features of the art market versus other markets with a secondhand element is the predominance of trade in this secondary tier. The bulk of trading in the art market takes place between former and future consumers and their intermediaries, rather than between producer and consumer, as is the norm in other industries.

By the time a work acquired on the primary market is resold on the secondary market, it often achieves a higher price. Information costs are lower on the secondary market, meaning buyers and sellers are likely to have more information about the artists and their works, making purchases less risky. This decline in risk is connected to the potential for works of art to appreciate rather than depreciate in value over time, which can be very different from other goods traded on secondary markets – for example, cars.[17]

Dealers working in the primary market had the lowest median turnover of $500,000 in 2018 versus $5.1 million for those working in the secondary market

While all dealers (and auction houses) are faced with some of the same challenges, the business models of dealers in the primary versus secondary market are very different, creating unique issues for each sector. Primary-market dealers play a critical role in promoting and developing artists' careers, establishing the initial sales-price levels for an artist's work, and then once a defined price base has been established, they control supply, using gradual increases to help increase liquidity and broaden the market. They also often directly support the production of artists' work and act as important gatekeepers, administrators, and promoters. While there are many very successful living artists with stable and high prices, in general, average prices in the primary market as a whole tend to be lower than the secondary market and more volatile, as it is made up of artists at various stages of their careers. These characteristics mean that dealers in this sector often need to make substantial investments to support artists' development during the early stages of their careers, while also having volatile and unstable revenue streams themselves until an artist becomes established. At the core of their business success, therefore, is the relationship they maintain with their artists.

3.2 | Number and Nationality of Artists Represented

To investigate this and some of the other issues relating to artists' representation, fine art dealers were asked a series of questions regarding the artists they represented in 2018. The fine art dealers[18] surveyed by Arts Economics in 2018 included:

- dealers working solely in the primary market (about 52% of the fine art dealers sampled);
- dealers working solely in the secondary market (8%); and
- dealers working in both markets (40%).

Dealers working solely in the primary market had the lowest median turnover of $500,000 in 2018 versus $5.1 million for those working in the secondary market only. Those dealers working in both markets had a median turnover of $1.8 million and their average split of sales was 55% primary market and 45% secondary market.

Dealers in the primary market play a very active role in the establishment and subsequent management of an artist's career and therefore tend to represent a limited number of artists at any one time. On average, primary-market dealers represented 22 artists in 2018, down from 25 in 2017. Some dealers may have lost artists from their roster to other galleries, but anecdotal evidence suggests that others have pursued

17 It is important to note that a vast majority of art appearing on the primary market never makes it onto the secondary market and therefore has no resale value. Also, works that are resold on the secondary market can decline in value. However, a key feature of art is that due to its inherent scarcity, durability, and the fact that its value does depend on any degenerative practical function, it has the potential to appreciate or maintain its value over time.

18 Excluding decorative art and antiques dealers who do not represent artists.

more focused strategies in 2018, increasing concentration on those artists who are key to their programs. Dealers in the secondary market sold or were active in the markets of the work of 41 artists (up marginally on the 40 reported in 2017).

Dealers working across both markets tended to represent a higher number of artists on average, at 46 (from 45 in 2017). This was split between 54% in the primary market and 46% in the secondary market.

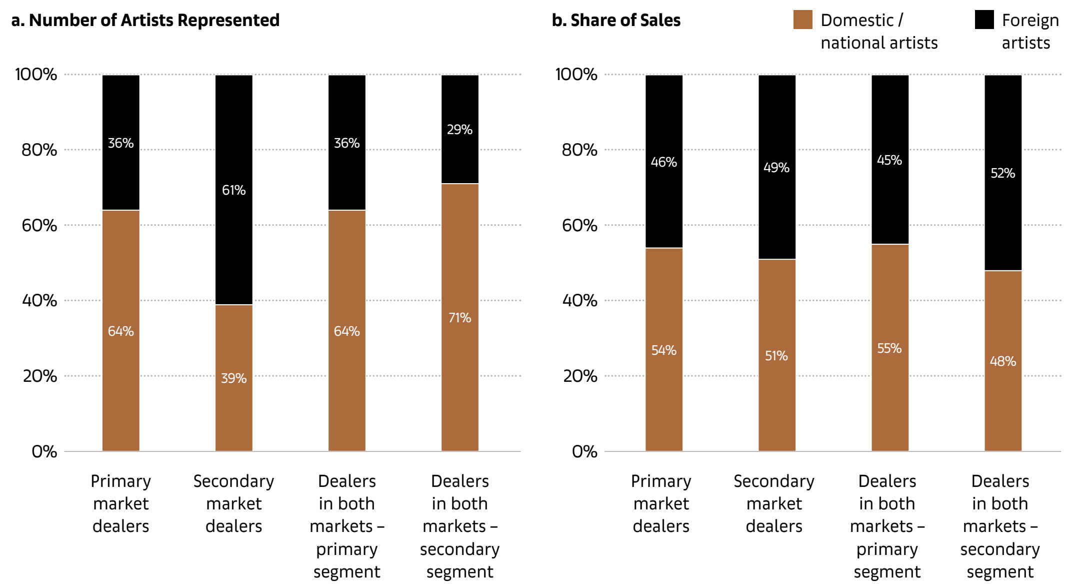
For those dealers working in the primary market, whether exclusively or in combination with the secondary market, the majority of the artists they represented were local or national artists, and these artists also generated the majority of the value of their sales in 2018. These results were consistent with the findings in 2017.

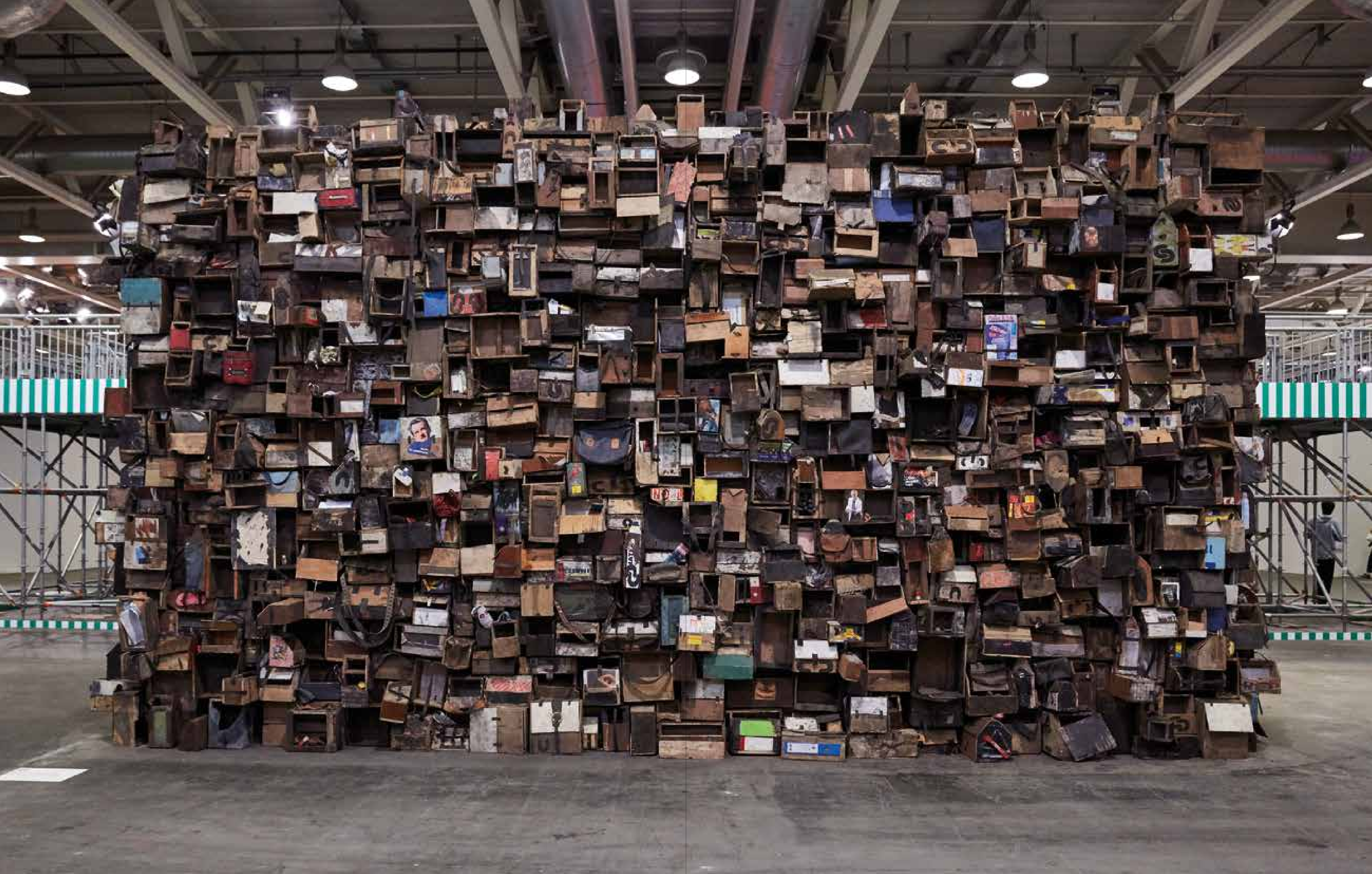
In the secondary market, on the other hand, those working exclusively in this market tended to represent a smaller share of local artists (39%), even though these generated just over half of their sales. The share of local artists was significantly lower than that reported in 2017 (65%), which may indicate that dealers in this segment of the market have had to broaden their programs internationally, either in response to demand or through shortages of supply.

Those working across both markets had a different profile again, with local artists making up a significantly larger share of their secondary-market artists. Some dealers indicated that the artists they represented in the secondary market were those whose careers they had launched and whom they had maintained links with in the resale market, with many selling works at both levels for these artists.

On average, primary-market dealers represented 22 artists in 2018, down from 25 in 2017

Figure 3.1 | Foreign Versus National Artists Represented in 2018





3.3 | Exclusivity and Cross-Subsidization

Dealers in the primary market maintain a variety of relationships with the artists they represent, including global exclusivity, regional or national exclusivity, and non-exclusive relationships. While exclusivity was common in the past, it has become less so in recent years, with most dealers engaging in collaborations with other galleries to promote their artists' careers. This shift has been seen as essential by most artists and dealers in launching an artist's career in the increasingly global market, which now requires greater visibility than can be offered by one gallery. In these relationships, one gallery may maintain a position as the 'lead gallery', having primary responsibility for the overall management of an artist's career, while others collaborate on specific projects or sales.

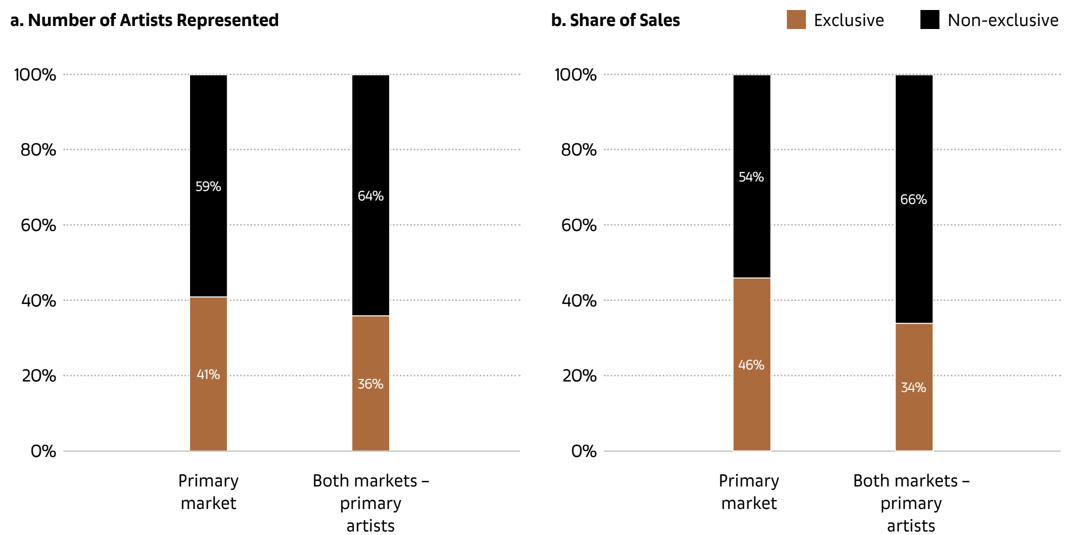
Primary-market dealers had exclusive representation with 41% of their artists on average (down 7% in share on 2017), and those who did often limited this to national or regional exclusivity. Dealers tended to have more exclusive relationships with local artists than foreign ones (with the former making up a 72% share of all exclusively represented artists). In terms of sales, exclusivity generally did not translate to a significantly greater share of sales, with these artists representing 46% of dealer sales (stable on 2017).

For those dealers who worked in both the primary and secondary markets, exclusivity was again predominantly with local artists but was less common (36% of artists), and these artists produced a substantially lower share of sales (34%). Some of these dealers noted that they used their high-end sales in the secondary market to financially support primary-market programs, including those involving emerging artists starting their careers with the gallery and only represented by them.

A dominating trend in recent years has been the superior performance of top-tier galleries, while many smaller and mid-sized galleries in the primary market have struggled to achieve or maintain profitability and, in some cases, have gone out of business. This trend has ignited significant debate over the representation of artists. Previous reports have discussed the subject at length, along with the issues surrounding top-tier galleries cherry-picking artists from smaller galleries and the pressures and problems this causes in the infrastructure of the art market. While the issues around contracting artists are still unresolved in many sectors, it is important to clarify some aspects of the discussion.

In this ongoing debate, top-tier galleries are often classified as having very narrow programs that only deal with superstar artists, while those at the lower end of the market shoulder the burden

Figure 3.2 | Exclusive Versus Non-Exclusive Artists Represented in 2018



Primary-market dealers had exclusive representation with 41% of their artists on average, and those who did often limited this to national or regional exclusivity

of developing emerging artists. While this is the case for some businesses, in reality, many galleries have a range of artists at different levels on their programs. It is a relatively common practice in the sector for businesses to use the success of one or a few of their artists (including those in the secondary market) as a form of cross-subsidization of the careers of other emerging or less-successful artists. In many instances, only a relatively small number of artists that a dealer represents are commercially successful, and the profit they make through the sale of their work is often invested in the careers of others.

The number of artists a gallery represents is therefore not necessarily proportional to sales or profitability, although there was a tendency on average for dealers with more artists to have larger sales. In the primary market, dealers with turnover of up to $1 million in 2018 represented 21 artists on average, while those with sales of over $1 million had a higher average of 27. In the secondary market this was more marked, with 33 on average for those below $1 million versus 53 for those above.

With dealers working in both markets, however, those with turnover in the lower end worked with more artists (50 on average, with 30 in the primary market) versus those with more than $1 million in sales (43 artists). While some dealers at the lower end of the market make secondary-market sales based on opportunistic access to inventory, at the higher end of the market, many galleries have noted that they often maintain their relationships with artists over the length of their careers, including conducting sales for some artists simultaneously in both the primary and secondary markets, which may account for the lower number of artists.

Dealers in the primary market were asked to estimate how their artists and sales were broken down into the categories of 'emerging', 'mid-career', and 'established'.[19] The survey revealed that, for dealers working only in the primary market, there was in fact a range of artists represented, with as many emerging artists as established ones. The largest share of artists (40%) that these galleries worked with were mid-career artists, and these also accounted for their greatest share of sales.

19 These categories were not specified but left to dealers to assign themselves, which will have brought some differences in interpretation into the data. They do not relate to the age of the artist, which was asked separately. Primary-market dealers reported that 26% of the artists they worked with were under 40 years of age and that hese artists generated 30% of their sales (the largest segment by age was artists aged 40 to 64 years, accounting for 54% of total artists on average). For those working in both markets, the share of younger artists was somewhat lower, at 19%, and these accounted for just 17% of their sales.

Only 15% of dealers worked solely with emerging artists, and just 4% worked only with established artists, indicating that the normal model in the sector is a mix of artists at varying stages. However, this share did vary by turnover level. Dealers at the lower end (with sales of less than $1 million) averaged 38% emerging artists, 42% mid-career, and just 20% established, while those with more than $1 million in sales had significantly more established artists (40%) and fewer emerging ones (18%). This was even more extreme at the highest end when turnover exceeded $10 million: emerging artists made up only 3% versus 49% established artists.

In terms of sales generated, established artists accounted for an average of 34% of total value across all galleries. Unsurprisingly, the share of sales accounted for by established artists rises with turnover: those at the lower end, with less than $1 million in sales, averaged 29% sales by established artists versus 50% for those dealers with sales greater than $1 million.

The results for those working across both markets were much more skewed toward established artists:

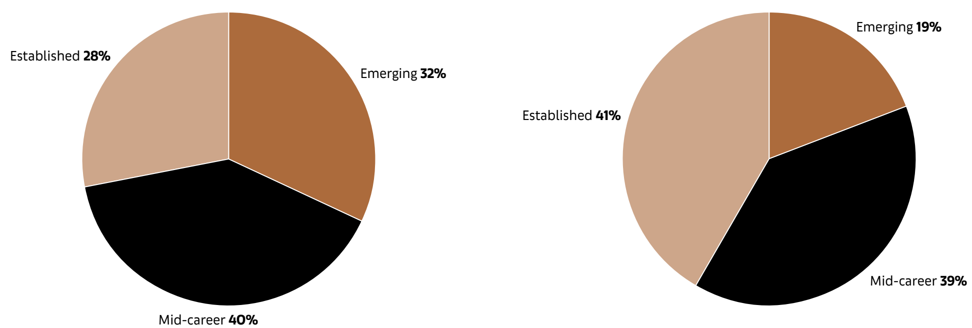
- 19% of their primary-market artists were emerging and these accounted for only 14% of their sales;
- 40% were mid-career and accounted for 35% of sales; and
- 41% were established artists and accounted for 50% of their sales.

However, these averages cover a range of galleries, including those with no established artists on their programs. Figure 3.3 shows the averages for only those galleries that have at least some artists from each category. In this case, it is again clear that while galleries have artists on their programs at a mix of levels, cross-subsidization is likely to occur, with a smaller number of established artists creating the greatest share of sales, more than twice that of emerging artists on average.

Only 15% of dealers worked solely with emerging artists, and just 4% worked only with established artists, indicating that the normal model in the sector is a mix of artists at varying stages

Figure 3.3 | Number of Artists and Share of Sales: Primary-Market Dealers

a. Number of Artists **b. Share of Sales**



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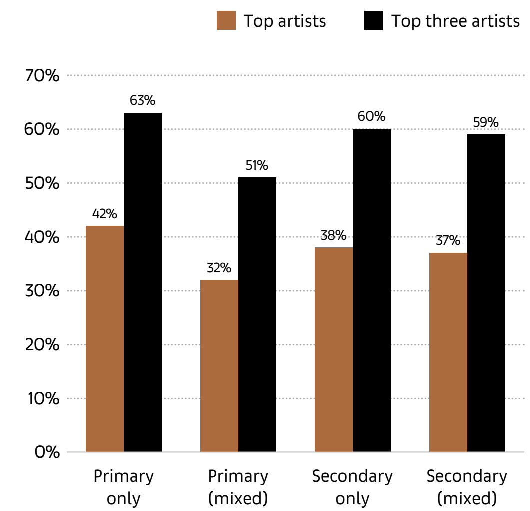
Regardless of the artists' career stage, dealers have often reported in interviews that they rely heavily on one or a small number of artists to support their sales, whether they are established or mid-career. The survey showed that 63% of the total sales of galleries working solely in the primary market came from their top three artists, with 42% of value in 2018 accounted for by one leading artist. These artists accounted for a smaller share if the gallery mixed primary and secondary sales, although their top three primary-market artists still accounted for half their sales in 2018.

The importance of a very small number of key artists for a gallery's sales shows the highly risky nature of many businesses in the sector. It also underlines the seriousness of dealers 'poaching' artists, especially from smaller galleries. In the case of small galleries who may not have spare capital or access to financing, the loss of one or a few artists could have devastating effects on their livelihoods, due to the outsized share of sales these artists account for. Despite being discussed at length in previous reports and at various industry forums, the issues of contracts and the trading and ownership rights of galleries for the artists they represent are largely still unresolved at an industry level.

Secondary-market dealers' sales were skewed to a few top artists, with close to 60% of their sales coming from their three top names. While it can be difficult for artists to secure supply in this market, these dealers are not subject to the same risk of the artist switching galleries. However, securing the representation of estates has also become highly competitive, including competition with auction houses and other agents, as well as other galleries.[20]

Overall, the skewed nature of sales toward a few top names indicates strong evidence of cross-subsidization on the one hand and, on the other, the precarious nature of many businesses in the sector, which could clearly come under significant financial pressure with the loss of a small number of key artists.

Figure 3.4 | Sales Share of Top Artists in 2018 (By Market Sector)



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63% of the total sales of galleries working in the primary market came from their top three artists, with 42% of value accounted for by one leading artist

20 For example, Sotheby's, through its subsidiary Art Agency Partners, began promoting advisory services to artists' estates (and living artists) in 2017 and represents the estates of a number of artists, which has been seen by some as further encroaching on what once was traditionally dealers' territory.

Figure 3.5 | Sales Share of Top Artists in 2018 (By Turnover Level)

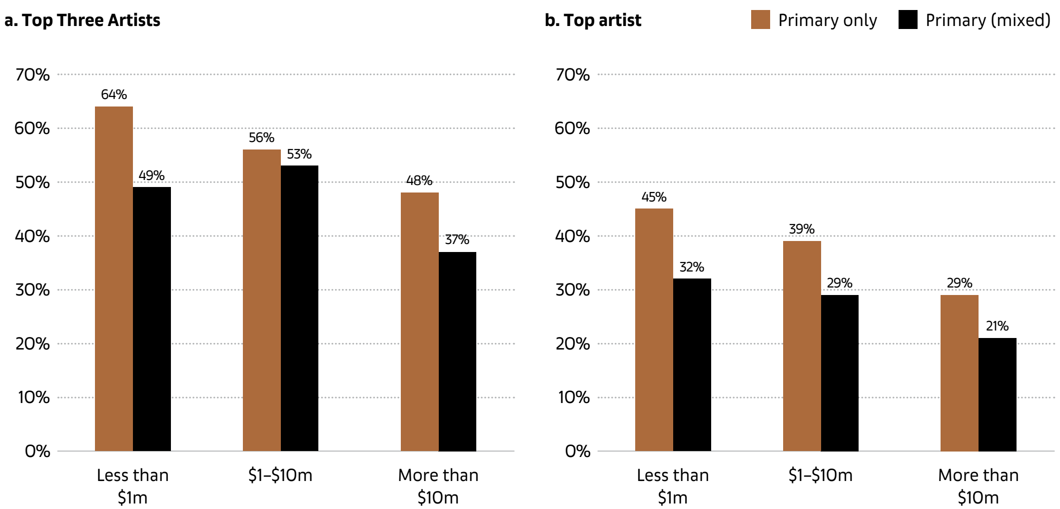

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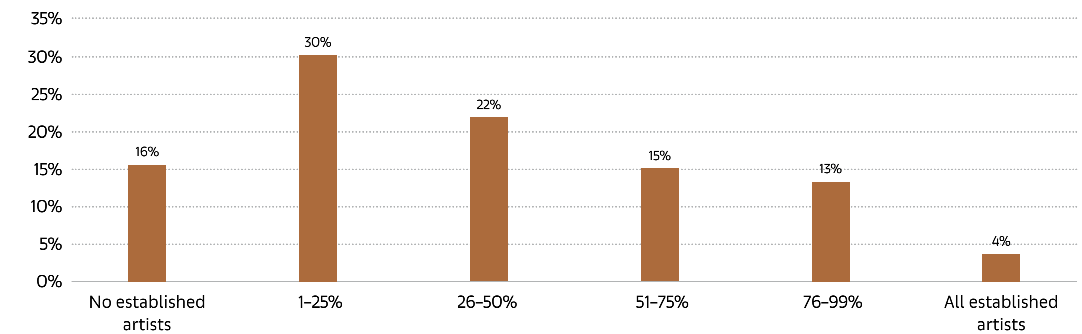
Figure 3.5 breaks down the share of sales accounted for by these top artists for primary-market dealers and those who mix primary and secondary. It is evident that dealers working solely in the primary market are more reliant on their top artists and are also at greatest risk at the lower ends of the market, as a much more significant proportion of their sales comes from these few artists versus those with larger annual turnovers. For dealers working in the primary market, 45% of the sales for those with turnover less than $1 million are accounted for by one leading artist versus 29% of those with turnover exceeding $10 million.

To explore these issues further and test their robustness in a larger sample, a selection of galleries

Figure 3.6 | Share of Established Artists from Total Artists Represented by Galleries in 2018



© Arts Economics (2019) with data from Artsy

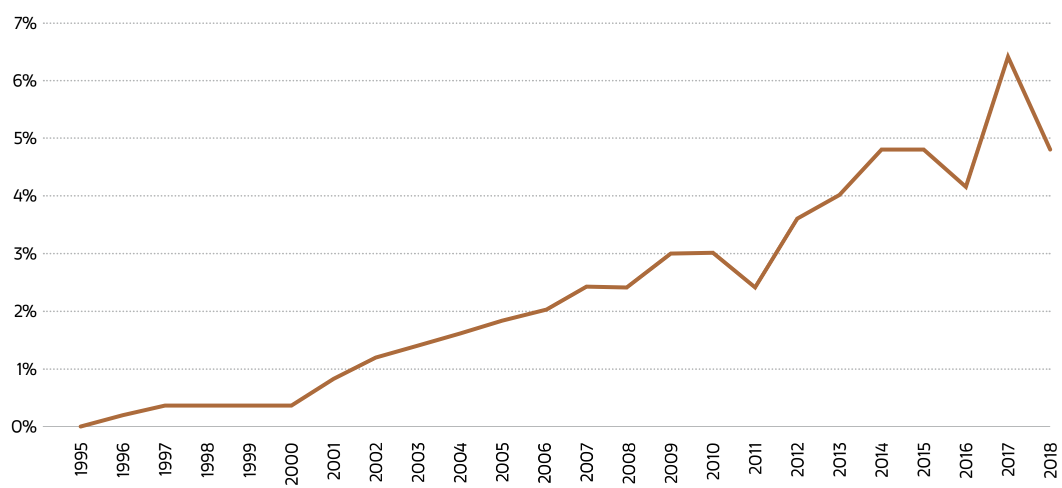
from the Artsy database was examined. Artsy.net was founded in 2012 and is one of the largest and most-used online platforms, with a database of more than 1 million works of art produced by more than 130,000 artists represented by more than 3,000 partner galleries, auction houses, fairs, and museums.

For this analysis a selection of 3,050 galleries from different regions was examined.[21] Using this sample of galleries, the average number of listed artists per gallery in 2018 was 33. To test whether these were established or not, an objective criterion was applied, assigning an artist as established if they had a recorded sale at auction. Using this criterion, the average share of established artists was 37%. The share of galleries with no established artists was 16%, and removing these brought the rate of established artists to 44% on average. However, Figure 3.6 shows that a wide range of models exists in this gallery sample also, and it is uncommon for galleries to have only established artists (just 4% of the sample), and just less than one-third had a greater-than-50% share of established artists represented.

21 The galleries in the sample were regionally diverse, with 49% from North America, 37% from Europe, 6% from Asia, 4% from Latin America, 3% from Africa and the Middle East, and 1% from Oceania.

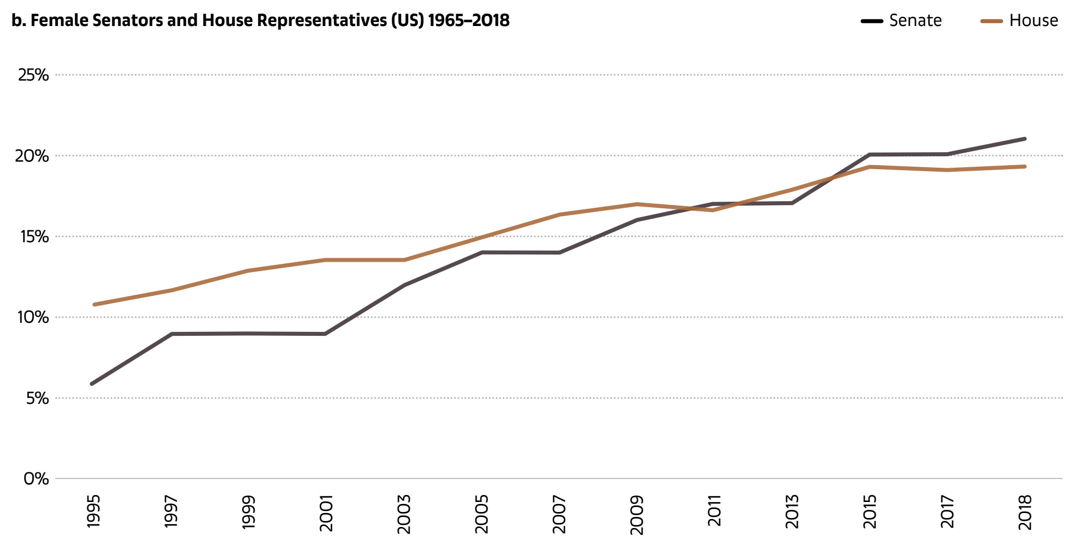
Figure 3.7 | **Some Gender Disparity Examples in 2018**

a. Female CEOs of Fortune 500 Companies (US) 1995–2018



© Arts Economics (2019) with data from Pew Research Center

b. Female Senators and House Representatives (US) 1965–2018



© Arts Economics (2019) with data from Pew Research Center

3.4 | Gender and Representation

Gender equality has been established as a fundamental human right, with the reduction in disparity in areas such as education and labor markets directly correlating with economic growth, growth in GDP per capita, and various measures of social development. However, despite some significant progress in promoting equality of opportunities, large gaps in outcomes and pay still exist. Figure 3.7 shows the increasing share of women in various senior positions in politics and industry over the past 20 years. These show positive and significant changes over time for many regions, however they also make clear that women remain grossly underrepresented in politics and other high-level industry decision-making roles in 2018.

> The share of women in global exhibitions has grown from 25% in 2000 to 33% in 2018

Table 3.1 | Some Gender Disparity Examples in 2018

c. Share of Seats in Parliament: Selected Countries (1997 versus 2017)

Country	1997	2017	Change in 20 years
Brazil	7%	11%	+ 4%
Japan	8%	14%	+ 6%
Russia	8%	16%	+ 8%
US	11%	20%	+ 9%
United Arab Emirates	0%	23%	+ 23%
Singapore	5%	23%	+ 18%
China	21.8%*	24%	n/a
UK	12%	29%	+ 17%
Switzerland	20%	29%	+ 9%
Italy	10%	30%	+ 20%
Germany	26%	32%	+ 6%
France	9%	35%	+ 26%
Spain	20%	39%	+ 19%
Argentina	23%	39%	+ 16%
Mexico	14%	41%	+ 27%
Sweden	40%	44%	+ 4%

*in 2000

© Arts Economics (2019) with data from the United Nations

Gender disparities in the art market have been the subject of continued study and debate for many years, with renewed interest in the role of women being highlighted over the past two years as gender issues came under the spotlight more generally in the media with the #MeToo movement. The underrepresentation of female artists in different segments of the art market has been highlighted in various studies over the past few years. Research on the auction sector has shown that there is a gender discount of close to 50% in the paintings market. While lower values may, to some extent, be explainable in older sectors where the supply of female artists is low due to a variety of historical factors impeding women from training and working in the arts, the disparity also holds in Contemporary art auctions. This discount is also higher in countries with greater gender inequality (see Chapter 4 for further discussion).

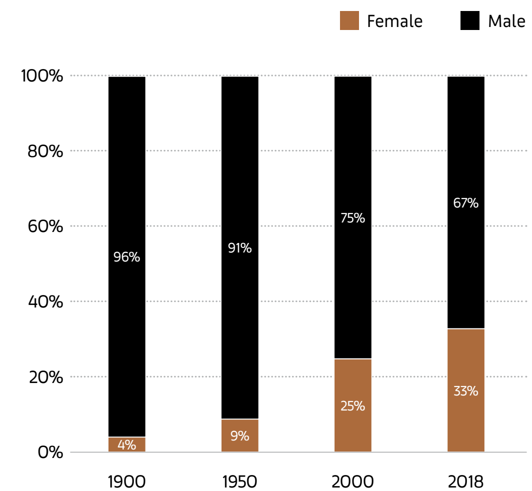
Statistics have also been tracked over time to show the changing share of female artists in exhibitions. Data from Artfacts.net shows that the share of women in global exhibitions has grown from just 4% in 1900 to 25% in 2000, and up to 33% in 2018, with nearly half of the women represented appearing after 1950 and relating largely to the Contemporary market. While Figure 3.8 shows substantial progress over time, it also indicates a significant and continuing gender disparity, despite more women entering arts education and working as visual artists.

Gender imbalances in the gallery market are no exception and have been brought to light in different contexts for some time, with rising debate in recent years regarding the reasons for their persistence. Exhibitions and scholarly debates in the gallery sector in recent years have focused on discovering female artists who have been previously overlooked or marginalized by gender in some way in attempts to highlight their importance and better understand the reasons for their lack of commercial or popular success.[22]

While there have been sporadic attempts to gather some information in specific cities on the representation of female artists in the gallery sector, to be able to more comprehensively assess the progress or otherwise in gender equality, it is important to gather some universal benchmark statistics within the sector at a global level. To do so, galleries surveyed by Arts Economics in 2018 were asked to report on the gender division of the artists they represented.

For those galleries working in the primary market, 36% of the artists they represented in 2018 were female artists, and sales of the work of female artists accounted for an average of 32% of their annual turnover.[23] This is more than twice the share of female artists reported by dealers working in the secondary market only, with the much lower share due in part

Figure 3.8 | Share of Female Versus Male Artists in Global Exhibitions Over Time



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22 A recent example is 'Radical Women: Latin American Art, *1960-1985*', an exhibition that traveled to the Brooklyn Museum in 2018 and showed the work of about 120 female artists from countries in South and Central America, the Caribbean, and the US, who had been overlooked or marginalized both as women and as Latin Americans.

23 In the survey questions related to gender, galleries were asked to report on artists in three categories, including female, male, and a non-binary gender category. The results presented in this chapter present the difference in male and female artists only. The role of non-gendered artists in the art market is of increasing importance for future studies, but the very low share of responses in this category in the current results prevented the use of this data to draw meaningful or statistically valid comparisons.

to the fact that some of these galleries specialize in older sectors of the market, where there are fewer female artists historically.

Primary-market galleries tended to have a higher share of emerging female artists (43%), but this share declined as artists became more established. While this could be attributed to some of the reduction in gender disparities in the current generation of artists, it is also likely to be at least in part an indication that fewer female artists become successfully established versus male artists.

For those galleries working in both markets, the share of female artists from their primary-market artists was slightly lower (32%), but with a similar and even steeper progression downward from emerging artists to established artists. These dealers attributed an even lower share of sales to female artists, at just 23%.

In the primary market, gender disparities also tended to rise with the age of the artist:

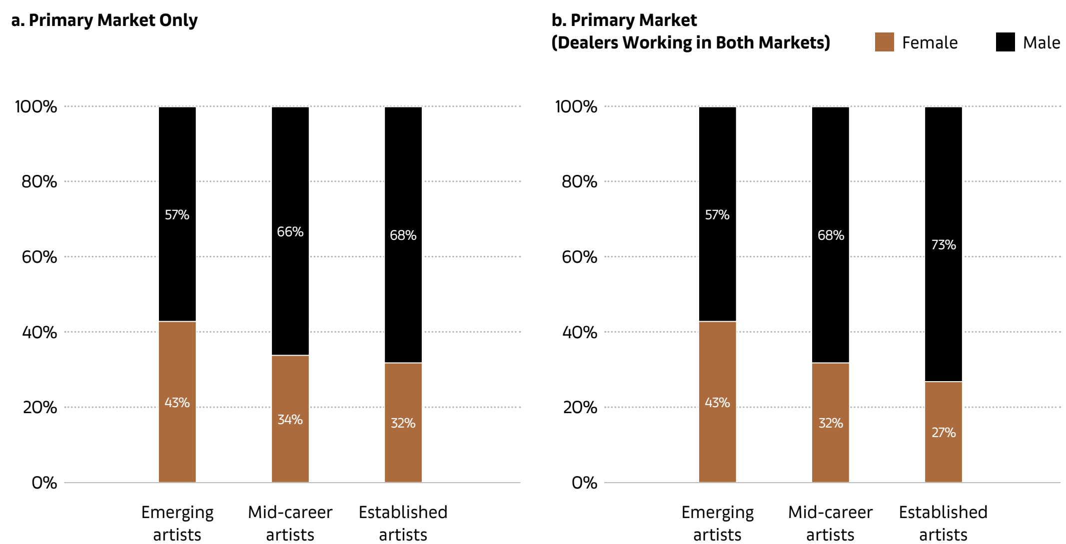
- of those artists aged 15 to 39 years, 40% were female (36% for mixed galleries);
- of those between 40 and 64 years, 37% were female (30% for mixed galleries); and
- of those over 65 years, 33% were female (23% for mixed galleries).

Larger primary-market galleries also tended to represent slightly fewer female artists. Those with turnover up to $1 million had a share of about 38% female artists on average versus 35% for those over $1 million and 28% over $10 million. While this shows a steadily declining share (which is likely to be indicative of a larger share of established artists in larger galleries), it also makes it clear that the issue of gender imbalance is systemic in the gallery infrastructure.

Again, to test the robustness of the results using a larger set of galleries, the Artsy database was used to investigate gender and representation by galleries in 2018. For the artists listed as represented by galleries on Artsy.net, a similar gender breakdown emerged: 73% male and 27% female out of all listed artists. The slightly lower female representation in the data is due to the wider mix of galleries, which includes both secondary-market and primary-market galleries. The former have a much lower share in some cases, due to the galleries dealing in older sectors of the market, which have a much lower representation of women artists. Looking at the average share of female representation per gallery across all galleries, female artists had a lower average share worldwide, at 25%.

This analysis also revealed that only 10% of galleries had a share of 50% or more female artists. While many galleries had some female artists (with only 10% having none), for most they were a minority share of up to 25%.

Figure 3.9 | Share of Female Versus Male Artists Represented by Galleries in 2018



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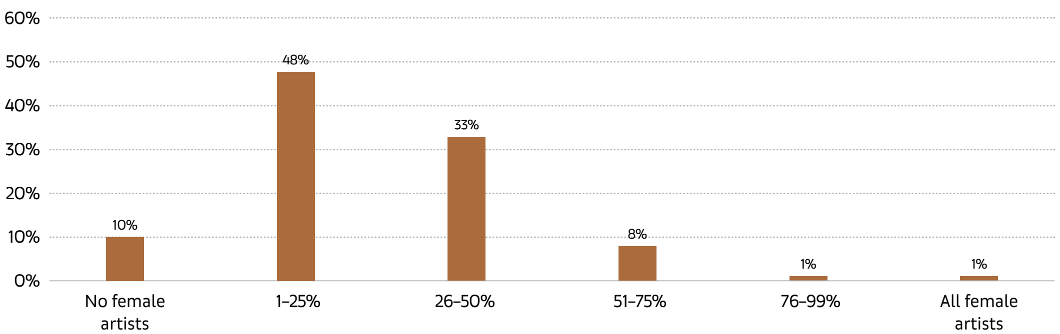
Primary-market galleries tended to have a higher share of emerging female artists at 43%, but this share declined as artists became more established

Figure 3.10 | **Share of Female Artists in 2018**

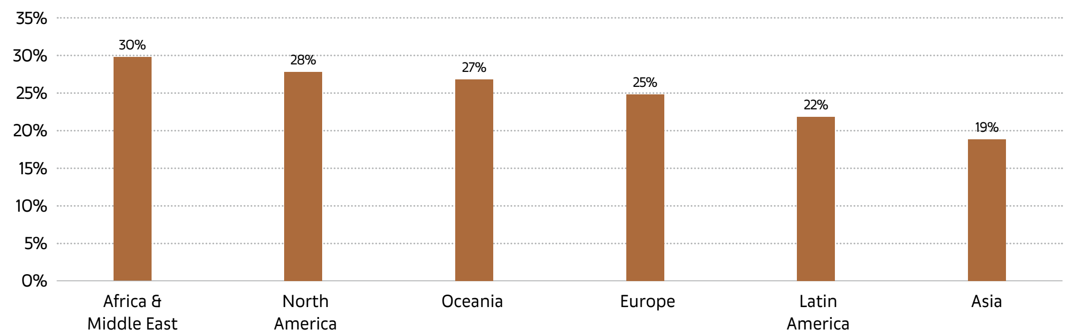


© Arts Economics (2019) with data from Artsy

Looking at the breakdown of representation across regions, Asian galleries showed the lowest representation of female artists, six percentage points lower than the global average, at 19%, while galleries in Africa and the Middle East had a higher-than-average 30%. The higher share in Africa and the Middle East also parallels greater success for female artists in the auction sector, where several of the top African artists by value of sales in 2018 were women.

It is interesting to also consider how gender divides between established and non-established artists (using the objective auction-record criterion). The analysis of the Artsy data showed that, like the survey data, the share of established female artists was considerably lower than the average share for all artists. For non-established artists the gender division was 36% female to 64% male artists, however there was a considerably lower share of female established artists (just 16%) compared to 84% established males.

Figure 3.11 | **Share of Female Artists by Gallery Region in 2018**



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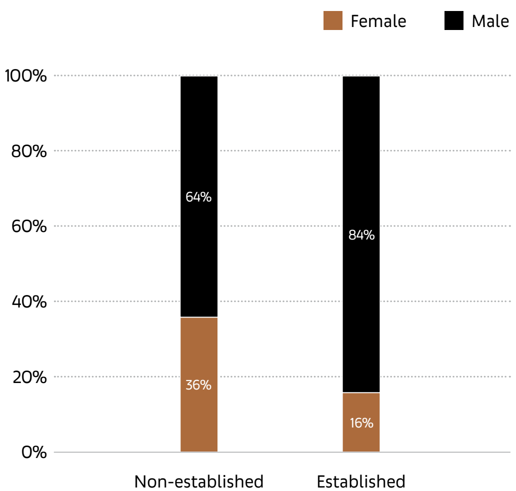
Galleries in Africa and the Middle East had a higher than-average representation of female artists at 30%

Figure 3.12 | Share of Non-Established and Established Artists by Gender in 2018



© Arts Economics (2019) with data from Artsy

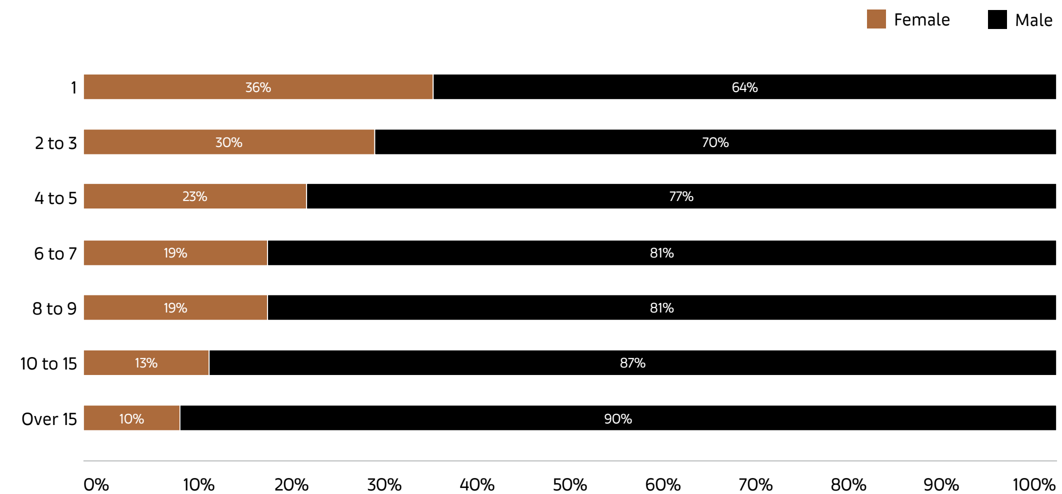
If an artist is represented by multiple galleries, it can be assumed that, in most cases, they have reached a higher level of success or demand in their careers. To investigate the differences in success and career paths between genders it is instructive, therefore, to look at differences in gender disparities based on the number of galleries artists are represented by.

Most artists, regardless of their gender, have one or a small number of galleries representing them, with an average of two galleries for male artists and one for female artists. Of the male artists listed, 71% were represented by only one gallery, while this share was 78% for female artists.

However, when the data is analyzed for those artists who are represented by more than one gallery, the findings start to diverge. While the gender breakdown for those represented by one gallery is much like the overall average (36% female, 64% male), when the representation at galleries starts to increase, the share of female artists steadily declines. When considering artists represented by five or more galleries, the share of female artists drops to 17%, and for more than 15 galleries, only 10% female artists on average.

Female artists have been a focus of media attention in recent years, with much writing and discourse pointing to the growth of more artists in public exhibitions, at auction, and generally in the spotlight. In some cases, this has been tied to better sales, with some observers even worrying that the trajectories are moving too fast for some artists to sustain a long-term rise. However, while there are several notable examples of high-profile exhibitions and sales, there is little evidence that, as a group, this heightened visibility is translating into more sales.

Figure 3.13 | Share of Female Versus Male Artists and Gallery Representation by Number in 2018



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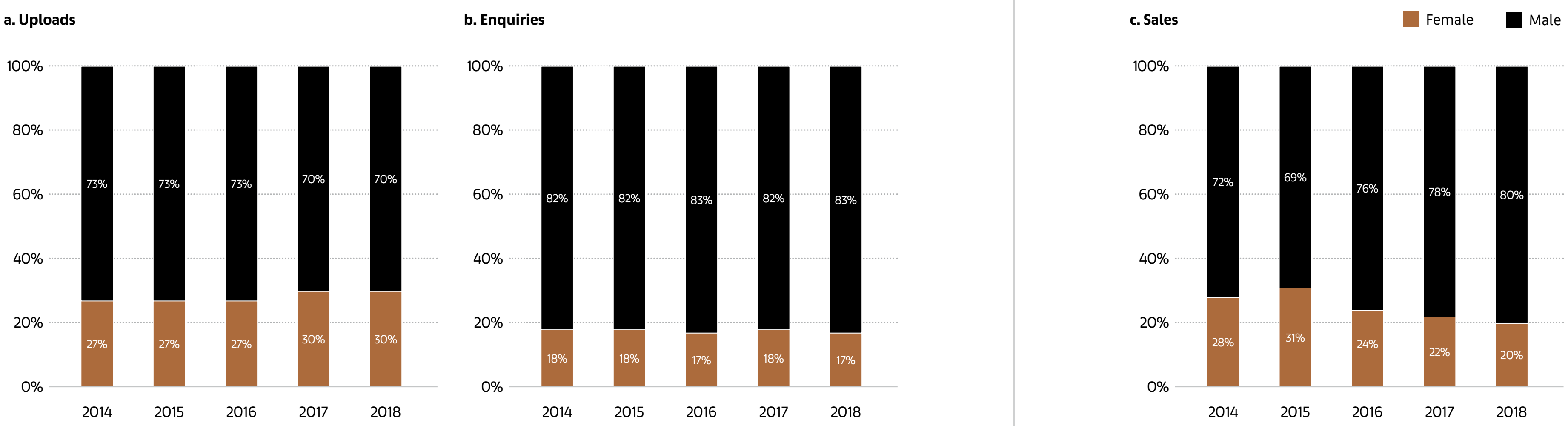
There were some limited indications, for example, that some galleries have been trying to highlight female artists by uploading more of their work online for viewing: the share of female artists uploaded per gallery on Artsy rose from 27% in 2014 to 30% in 2018. However, this did not lead to a greater number of enquiries about female artists through the platform, which were a minority at 17% in 2018. Artsy also has proprietary systems in place to track sales on the platform, and these revealed that in fact sales of female artists tracked using these methods actually declined in the five years shown, from a high of 31% in 2014 to 20% in 2018.

Figure 3.14 | **Share of Female Versus Male Uploads, Inquiries, and Sales via Artsy (2014–2018)**



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It is important to qualify that some of the gender bias in gallery representation (and sales) is due to limited choice for galleries in older sectors of the market. Galleries can only represent the works of artists that are available and, historically, there is a much greater share of male artists than female. The very low representation of female artists, therefore, does not always necessarily imply a gender bias or skewed choice by gender.

However, in the Contemporary sector for living artists, there are many different statistics that show there are just as many (or more) female artists graduating from universities and art colleges and working as visual artists. Looking at the US market, the National Endowment of the Arts published statistics in recent years showing that 51% of working visual artists in the US are female. Similarly, for the main arts colleges, statistics show that the balance is strongly in favor of women, with an average share of enrollment in top US art programs being 65% female students.[24]

A report by the Freelands Foundation published in 2018 in the UK showed that, of students studying postgraduate courses in 2017 in creative arts and design, 66% were female. According to the Universities and Colleges Admissions Services (UCAS), 63% of undergraduates studying creative arts and design in 2017 in the UK were female. Despite this disproportionate amount of female students and graduates, in the 30 years from 1988 to 2018, only 27% of the Turner Prize winners were female.

These issues are not confined to the art market. While the global gender-parity gaps in education have narrowed significantly (the World Economic Forum measured a gap of just 4% in terms of educational attainment worldwide in 2018), the economic participation and opportunity gap remains at 42%, while the widest of all is the political-empowerment gap, at 77%.[25] However, the reasons for the persistence of these issues specifically in the Contemporary market warrants further investigation, and a brief introduction to some of the pioneering scientifically based research in this area is given in the following section.

Of those artists represented by five or more galleries, only 17% were female

24 This was based on a survey of the gender of students enrolled on arts programs in 2018 at top US universities, including CalArts, Skidmore, Columbia University, and the School of the Art Institute of Chicago.

25 World Economic Forum (2018) *The Global Gender Gap Report 2018*. This research examines the gap between men and women across four fundamental categories: economic participation and opportunity (measuring statistics such as labor-force participation, wages, and positions in employment); educational attainment (including literacy and educational placement); health and survival (including birth ratios and life expectancy); and political empowerment (including seats in parliament, ministerial positions, and political terms with female heads of state).

3.5 | Why Does Gender Disparity Persist in the Gallery Sector? A Note on the Science of Inequality in the Art Market[26]

The statistics of the past few decades confirm that the artworld is not one of gender parity. Works by female artists comprise a small share of major permanent collections in the US and Europe, while at auction, women's artworks sell for a significant discount compared with men's. Only two works by women have ever broken into the top 100 auction sales for paintings, despite women being the subject matter for approximately half of the top 25.[27]

It is not hard to grasp the origins of this inequality, given that women were largely barred from artistic professions and training until the 1870s. Untangling the reasons why this inequality persists today is more difficult. Differences in gallery representation, the cultural biases of art interpretation, the cliché of the artworld 'bad boy', the sexism of aging, the imbalanced weight of parenthood, the proportion of curators, collectors, and gallery representatives who are female, and the lack of assertiveness among female artists have all been proposed as hypothetical causes. They are probably all correct, to some degree or another. Together, these and other mechanisms contribute to a 'Matthew effect'[28], in which advantage begets advantage and starting over is not possible.

Yet while the causes of gender inequality in the art artworld today are multiple and complex, they are not inscrutable. In fact, the abundance of new data provided by online art platforms such as Artsy make the operations of the artworld, including those associated with inequality and gender, more explicable than ever before. They also enable the consideration of hypotheses that are rarely entertained, such as the idea that women and men make different kinds of art.

Theories for a Gender Wage Gap

To propose that women and men make different kinds of art, and that this contributes to the gender gap in artistic valuation, strikes some as offensive. And in its extreme, or essentialized, version, the proposal is offensive. But when couched in history and sociological theories of gender, the proposal becomes a hypothesis to be tested, not just a claim to be rejected. It is a hypothesis that, if supported, would expand the mechanisms by which we understand inequality to reproduce across time and context, even as our judgments on the artistic talent of women progress. This hypothesis can be approached at first from a more general perspective, and then considered in the specific case of art. This is because a gender gap in wages exists not only in the artworld, but also in the labor market at large.

26 This section is researched and written by computational sociologist Taylor Whitten Brown (Duke University).
27 A statistic also true of the top 20 paintings sold at auction in 2018. See Chapter 4.
28 A term first coined by sociologists Robert Merton and Harriet Zuckerman, a Matthew effect refers to a social process of accumulated advantage, wherein those who already have status or power are often well positioned to gain more, while those with less have increasingly less. See Merton, Robert K. (1968) "The Matthew Effect in Science." Science. 159 (3810).

Women's involvement in the labor market began to surge in the 1970s, and since that time, economists and sociologists have sought to account for the differences in compensation between male and female workers. Generally speaking, these accounts have fallen into two camps: those that emphasize supply-side mechanisms, and those that emphasize demand-side mechanisms.[29]

Supply-side Mechanisms and the Social Construction of Gender

Supply-side perspectives on the gender wage gap look to the characteristics of women and men as potential labor-force participants. Stated crudely, these perspectives argue that women earn less than men because they choose different training and occupations. It is still hotly debated whether women do so primarily for the sake of actual or expected motherhood responsibilities,[30] but gender differences in college-major and occupation selection have been widely documented. Indeed, supply-side explanations account for upward of 50% of the gender wage gap in the US alone.[31]

Turning this supply-side perspective to the artworld, the argument seems at first less robust. Women, as noted in the previous section, major in the arts at higher proportions than men. An analogy can be drawn to job characteristics, however, and articulates as follows: part of why female artists earn less than men is that they produce art with different characteristics, be that in medium, size, style, or subject matter. This does not imply that any differences are a result of biology. Unsubstantiated and misdirected claims about the innate abilities and preferences of women and men, such as Bauhaus founder Walter Gropius's claim that women do not think well in three dimensions, have little validity in light of the cultural forces that strongly pattern people's lives according to their gender.

Sociologists have long insisted that cultural norms and expectations extend the concept of gender beyond biology and into the realm of social learning. Cultural gender norms that are learnt in childhood and throughout contexts of adulthood shape everything from the color and cut of clothing and hair, to preferences in hobbies and the age of romantic partners, the right to vote, the ability to travel, the amount of time spent with children and the elderly, and the probability of being president, a priest, or the victim of a violent crime. It is possible that both past and present gender norms also shape the characteristics of artistic production. If we expect that the artwork of artists may reflect their lived experiences, then we may expect that the shared experiences of men and women as groups could

29 Blackburn, R., Browne, J., Brooks, B., & Jarman, J. (2002) "Explaining gender segregation." *The British Journal of Sociology*, 53(4); Blau, F., & Kahn, L. (2007) "The Gender Pay Gap: Have Women Gone as Far as They Can?" Academy of Management Perspectives, 21(1); England, P. (2005) *Comparable Worth: Theories and Evidence*. Transaction Publishers.
30 England 2005; Blackburn 2002; Lindemann, D., Rush, C., & Tepper, S. (2016) "An Asymmetrical Portrait: Exploring Gendered Income Inequality in the Arts." Social Currents, 3(4).
31 Blau, F., & Kahn, L. (2016) "The Gender Wage Gap: Extent, Trends, and Explanations." (IZA DP No. 9656). Institute for the Study of Labor.

appear as differences in their art. In other words, the gender of artists may be one factor that shapes artistic choices in an otherwise heterogeneous object market.

An example of artistic difference resulting from cultural gender norms is seen in the fact that there are more textile works by female than male artists in the Contemporary art market. Men are not unskilled or incapable of weaving, but one need not point to biology in any effort to explain why it is more common to see women producing textiles. In more explicitly sexist eras of art history, the textile arts were a medium that women were permitted and encouraged to adopt. One of Gropius's conclusions regarding his belief that women worked best in two dimensions was that they should weave instead of study architecture or design. Not all women adhered to this injunction, but the copious amount of textiles produced by women in the Bauhaus era can largely be explained by it. The increasingly valued collections of Bauhaus textiles produced by artists such as Gunta Stölzl, Benita Koch-Otte, and Anni Albers, along with the traditions of female weavers across millennia and cultures, provide a lineage and language that burgeoning female artists may be more likely to pride themselves on as they envision their own work. This is an empirical question that could be asked to explain why textiles are more commonly produced by female artists, even today.

Supply-side explanations that emphasize differences in the characteristics of art by gender are unlikely to match demand-side mechanisms

Demand-Side Mechanisms and Discrimination

Despite their possible validity, supply-side explanations that emphasize differences in the characteristics of art by women and men are unlikely to match the more commonly offered demand-side mechanisms. Even in the general labor market, a gap in the wages earned by men and women remains after accounting for industry, part-time work status, work experience, seniority, training, and other supply-side variables.[32] It is at this point that scholars turn to demand-side mechanisms, including processes of discrimination and bias, to explain the remaining gender wage gap. Studies have repeatedly shown that employers are more likely to discriminate against women in job applications in some fields,[33] and further indicate that women are judged differently from men by managers, coworkers, and consumers in regard to their competence, productivity, ability to innovate, and leadership style.[34] This is especially true in contexts that are traditionally male-dominant.[35]

32 Waldfogel, J. (1997) "The Effect of Children on Women's Wages." *American Sociological Review*, 62(2); Budig, M., & England, P. (2001) "The Wage Penalty for Motherhood." *American Sociological Review*, 66(2); Lundberg, S., & Rose, E. (2000) "Parenthood and the earnings of married men and women." *Labour Economics*, 7(6); and others.

33 Riach, P., & Rich, J. (2002) "Field Experiments of Discrimination in the Market Place." The Economic Journal, 112(483).

In the artworld, demand-side explanations for gender inequality point to the behavioral patterns of gatekeepers and tastemakers (for example, critics, curators, and dealers) and to a preference among collectors for works by male artists. In other words, demand-side explanations are the claims of discrimination and bias regularly discussed. Further research is needed to comprehend the full extent of their impact.

Yet while differences in supply- and demand-side mechanisms of inequality are useful to acknowledge, an important insight comes at their intersection. Considering again the case of textiles and the Bauhaus, the useful question may not be whether the men and women produced different types of work – because they did. Rather, we might ask why it took so long for the artworld to value the characteristics of the Bauhaus women's work, such as textiles. Surely it has something to do with the fact that women produced them. And even more importantly, are other qualities of art traditionally produced by women being similarly undervalued today? If so, their devaluation comprises a part of the puzzle behind gender inequality in the Contemporary art market.

Why Theories Matter

Accounting for both supply- and demand-side explanations of inequality is necessary not only because good science will consider all reasonable hypotheses, but also because prescriptions of how best to reduce inequality will vary, depending on what perpetuates it. Demand-side explanations of inequality would insist that women be permitted into institutions and exhibitions without prejudice, and that their labor be valued equally when they complete the same work as men. Solutions in this realm may be like those devised by symphony orchestras, many of which now blind judges to the gender of the musician during auditions. In a study conducted in 2000, researchers found that the introduction of blind auditions increased the selection of female musicians by 30%.[36] In some cases, the likelihood increased even further when candidates were instructed to remove their shoes, so as not to produce the give-away clicking of heels.

By contrast, supply-side explanations of inequality may require alternative solutions. If certain characteristics of art are more likely to appear in the work of women, then, as stated previously, the question is whether the characteristics themselves are undervalued. If so, a full solution would require not only that women's art be valued equal to men's for the same characteristics, but also that characteristics traditionally produced by women

34 Heilman, M. (2015) "Gender stereotypes and workplace bias." Research in Organizational Behavior, 32; Rudman, L., & Phelan, J. (2008) "Backlash effects for disconfirming gender stereotypes in organizations." Research in Organizational Behavior, 28; Eagly, A., & Karau, S. (2002) "Role congruity theory of prejudice toward female leaders." *Psychological Review*, 109(3); and several other studies.

35 Ko, I., Kotrba, L., & Roebuck, A. (2015) "Leaders as Males: The Role of Industry Gender Composition." Sex Roles, 72(7-8); Steele, J., James, J., & Barnett, R. (2002) "Learning in a Man's World: Examining the Perceptions of Undergraduate Women in Male-Dominated Academic Areas." *Psychology of Women Quarterly*, 26(1).

36 Goldin, C., & Rouse, C. (2000) "Orchestrating Impartiality: The Impact of Blind Auditions on Female Musicians." *The American Economic Review*, 90(4).

be valued equally to those traditionally produced by men or both sexes. The focus of efforts to reduce inequality would therefore include changing the underlying value framework to one that is less male-centric and does not inherently devalue artistic characteristics simply because they are or have traditionally been associated with women. We might hope and even expect that such a process of undervaluation is not at work, but research in the general labor market has shown that both women and men earn less in 'female' jobs,[37] and that the percentage of female workers in a profession is negatively associated with wages.[38] An analogy to the artworld would not be difficult to make, and is yet another empirical question to answer.

Online platforms – Artsy and The Art Genome Project

Answering questions related to gender inequality in the contemporary artworld has been notoriously difficult to date. To test hypotheses of supply-side arguments, data is required not only on artists, but also on the qualities of the artwork they produce. Until recently, such data was not available. Online art platforms such as Artsy have changed this by unifying the fragmented pieces of the traditional art ecosystem into a single, centralized database.

As noted earlier, Artsy maintains a global database of more than 1 million works by 130,000 artists. A large sample of artists and artworks in this database is described by The Art Genome Project, Artsy's proprietary classification system and technological framework that connects artists, creators, artworks, and other creative objects, using more than 1,000 art-relevant features. These features describe such concepts as artistic disciplines, materials, physical attributes, styles and periods, object type, and geographic setting.[39]

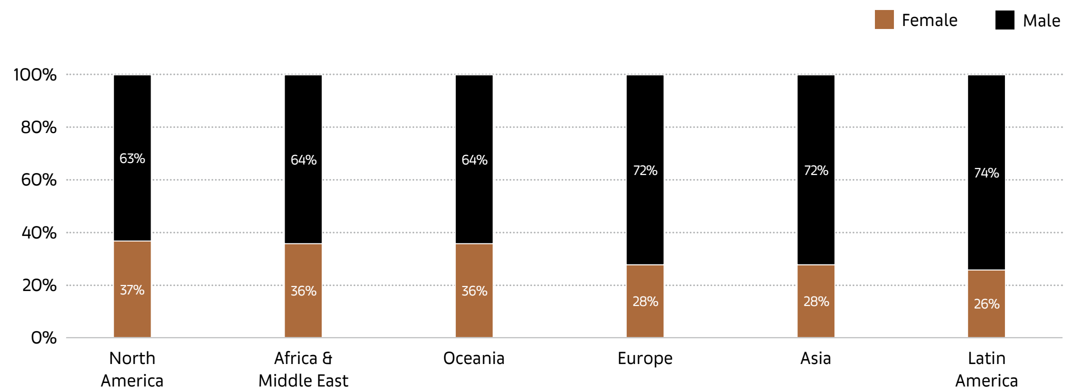
The Art Genome Project has coverage from the prehistoric to the present and a global scope, although the taxonomy is specially designed to accommodate the rapid evolution of Contemporary art. Beyond its ability to serve in art discovery and collection, therefore, the data available through Artsy creates an unprecedented opportunity to study the artworld, including issues of inequality. Drawing on both the qualitative and quantitative aspects of The Art Genome Project, as well as demographic information on artists, galleries, and fairs, scholars can begin to test hypotheses previously out of reach.

37 England, P. (1992); England, P., Herbert, M., Kilbourne, B., Reid, L., & Megdal, L. (1994) "The Gendered Valuation of Occupations and Skills: Earnings in 1980 Census Occupations." Social Forces, 73(1); Johnson, G., & Solon, G. (1986) "Estimates of the Direct Effects of Comparable Worth Policy." *The American Economic Review*, 76(5); Tam, T. (1997) "Sex Segregation and Occupational Gender Inequality in the United States: Devaluation or Specialized Training?" *American Journal of Sociology*, 102(6); and others.

38 Levanon, A., England, P., & Allison, P. (2009) "Occupational Feminization and Pay: Assessing Causal Dynamics Using 1950-2000 US Census Data." Social Forces, 88(2); Baron, J.N., & Newman, A.E. (1990) "For What It's Worth: Organizations, Occupations, and the Value of Work Done by Women and Nonwhites." *American Sociological Review*, 55(2); Huffman, M. L., & Velasco, S. C. (1997) "When More Is Less. Sex Composition, Organizations, and Earnings in US Firms." *Work and Occupations: An International Sociological Journal*, 24(2).

39 Examples include: African Diaspora, Blurred, Censorship, Digital Art, Eye Contact, Fluxus, Grotesque, Humor, Impasto, Japonisme, Kitsch, Linear Forms, Mosaic, Nude, Op Art, Personal Histories, Related to Music, Self Portrait, Taxidermy, Urbanization, Violence, and Watercolor.

Figure 3.15 | Share of Female Versus Male Artists' Works (Created After 1999)



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Is There Gender Inequality in Primary Online Art Markets?

To demonstrate an initial investigation of gender inequality with Artsy data, research was carried out on a sample of 108,654 artworks that have been produced since 1999 by a set of 11,675 individual artists associated with 2,069 galleries. These artworks have been coded by the taxonomy of The Art Genome Project, with an average of 24 artistic features applied to each, on a scale from 0 to 100, depending on how well the feature is represented in the work.[40]

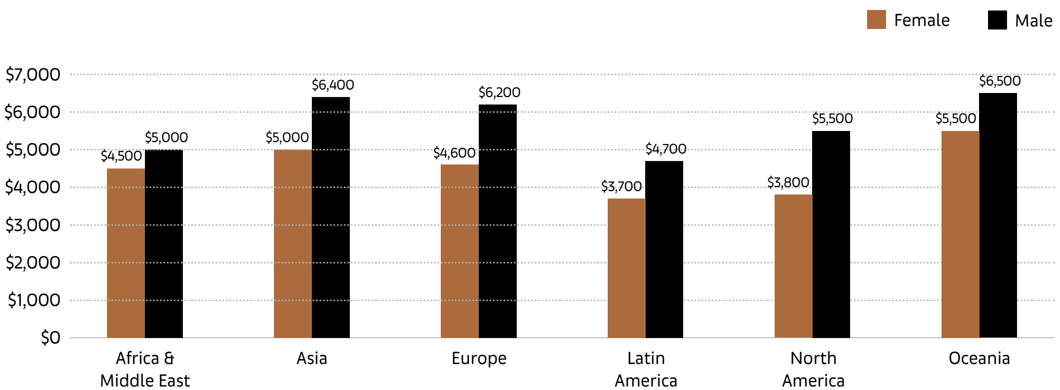
To enter this sample, it was also required that the artwork have a listing price on Artsy.[41]

The median number of artworks by an artist in the sample was 16, with a small difference of 16 for women and 17 for men. Approximately 35% of the artists in this sample were female, and they produced approximately 35% of the artwork. This statistic varied somewhat across geographic regions, according to the location of associated galleries.

40 This sample does not include design objects or artworks that are primarily classified as performance, digital, or video art.

41 This is important to note because it limits the generalizability of findings to the degree that artworks with a listing price on Artsy differ from artworks without a listing price.

Figure 3.16 | **Median Prices for Female Versus Male Artists' Works (Created After 1999)**

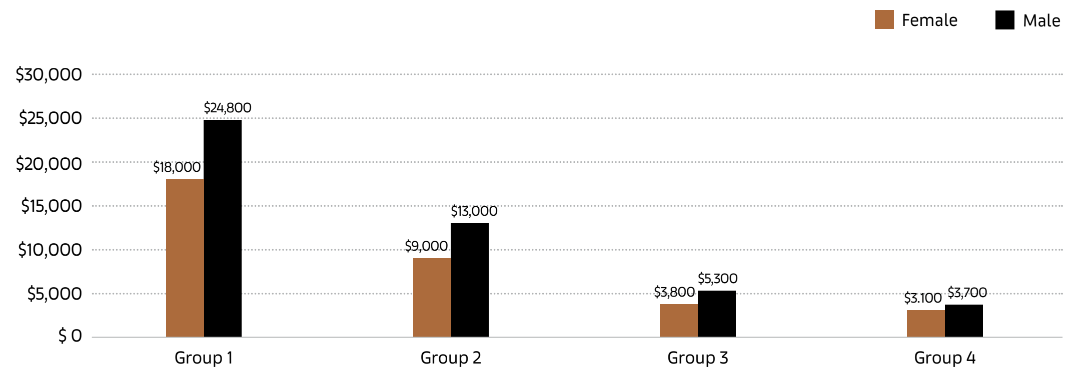


© Arts Economics (2019) with data from Taylor Whitten Brown / Artsy

Using the gallery listing price for artworks as an outcome of valuation, there is evidence of a gap between men's and women's art. The median price for all works in this sample was $5,000, with an average of $14,670 due to significant skew in the listing prices of art, allowing some very expensive works to raise the average far above the median. (The maximum listing price for an artwork in this sample was $15 million.) For men, the median price was $5,500 (with an average of $17,160), while the median price for women was $4,000 (with an average of $10,070). This gender gap does not vary significantly by the geographic region of the gallery, although prior work investigating auction prices found significant variation by location, explainable, in part, by the gender norms of the country in which the auction was held.[42]

42 Adams, R., Kraussl, R., Navone, M., & Verwijmeren, P. (2017) "Is Gender in the Eye of the Beholder? Identifying Cultural Attitudes with Art Auction Prices." At https://ssrn.com/abstract=3083500.

Figure 3.17 | **Median Prices for Female Versus Male Artists' Works (Created After 1999) by Gallery Group**



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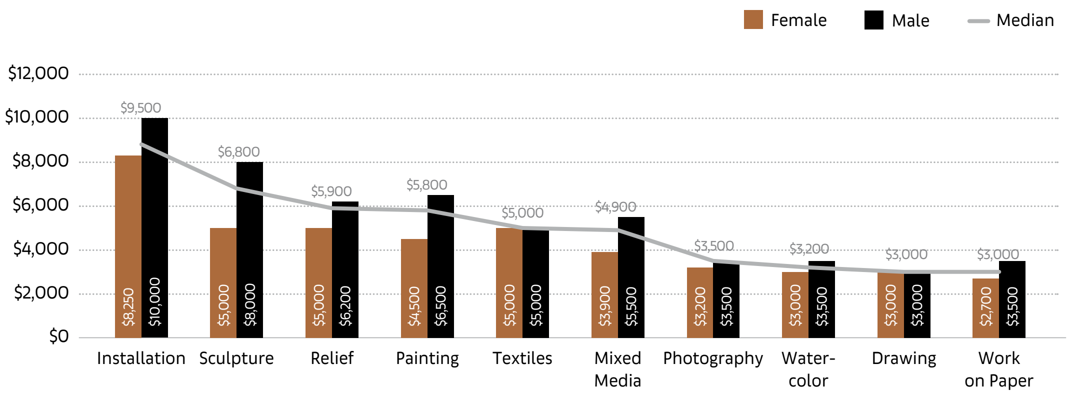
The gap between median prices for women's and men's artwork also varies by gallery group, which is a measure constructed to indicate a gallery's engagement with the international art market through fair participation on a scale from 1 to 4. Group 1 aggregates 'blue-chip' galleries who maintain multiple locations internationally and participate annually in global art fairs, while Group 2 encompasses established galleries that primarily operate in single countries and regularly exhibit at both international and national art fairs. Groups 3 and 4 both include regional and local galleries, distinguished by national fair participation for the former. For Group 1 galleries, women's work had a median listing price 27% below men's. This statistic was 30% for Group 2 galleries, 28% for Group 3 galleries, and 16% for Group 4 galleries.[43]

43 Differences in the average listing price are much larger, with women's work listing 52% below men's on average for Group 1 galleries, 33% below men's in Group 2, 37% below men's in Group 3, and 31% below men's in Group 4.

Figure 3.18 | Median Prices for Female Versus Male Artists' Works (Created After 1999) by Medium



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For blue-chip galleries, women's artworks had a median listing price 27% below men's

However, care needs to be taken when interpreting these statistics, as they do not account for important characteristics, such as the size and medium of the works being offered. That such differences may influence price gaps is suggested by the fact that the median price gap varies across mediums.

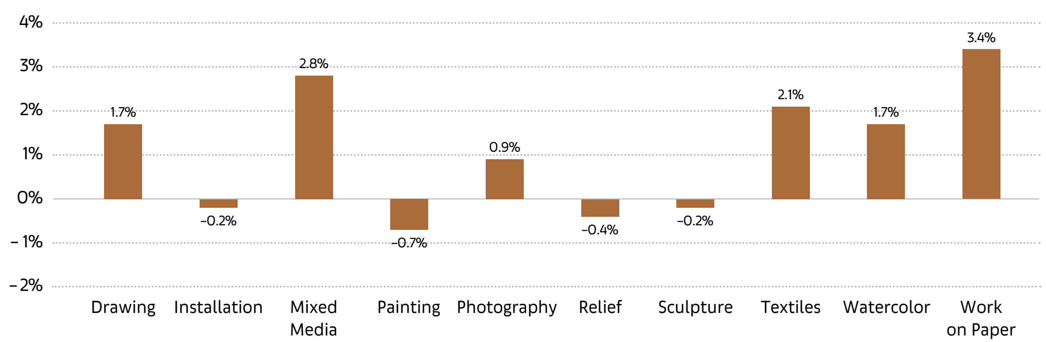
Given this preliminary evidence of a gender gap in the primary art market, the aim, going forward, is to examine the mechanisms behind it. Specifically for this report, a brief foray into supply-side explanations is considered.

Recalling again that supply-side explanations for inequality focus on differences in the type of work produced by male and female artists, an initial question may be whether works by men and women in this online marketplace differ by size. They do not. For those artworks accompanied by a measure of size in the Artsy metadata, men's work does tend to be larger, but this gap is not statistically meaningful.[44]

There is, however, some indication that men and women may differ in the mediums of art that they produce. Figure 3.19 depicts the proportion of artworks by men and women in 10 of the top mediums represented on the Artsy platform. Artworks are not limited to a single medium, and therefore may be represented in more than one category. The chart shows differences in the proportion of female and male work for each medium. For example, 11% of works by female artists on the platform are drawings versus 9% of the works by men, with a resulting difference of approximately 2%. Of the works by male artists, 54% are paintings versus 53% by women, with a resulting difference of approximately -1%.

44 Statistical significance measured by both a t-test for difference in means, and both Mood's and Mann-Whitney-Wilcoxon tests for difference in medians.

Figure 3.19 | Proportional Difference of Female Versus Male Artists' Works (Created After 1999) by Medium



© Arts Economics (2019) with data from Taylor Whitten Brown / Artsy

The above chart indicates that, although they are small, some differences in the mediums used by male and female artists exist, with the notable observation that men remain the dominant producers of conventional media, such as painting and sculpture.

Drawing this inquiry further, basic log ratio analyses indicate that there are also differences in the 1,000-plus characteristics applied to the artworks by The Art Genome Project. That is, in some respects, women and men produce different characteristics of art according to this taxonomy. Although the large majority of features show no substantive difference by gender, there are those that do. Analyses in ongoing research further suggest that, provided with these features of The Art Genome Project, a machine learning algorithm can classify art by the gender of the artist with a relatively high degree of precision. How this finding maps onto the claim that women and men make art with different characteristics is a central focus of the research.[45]

45 This research is part of a large-scale project being undertaken by Taylor Whitten Brown (Duke University).

If the preliminary finding that men and women, in some respects, produce art with different characteristics is upheld by further scientific scrutiny, then the next step is to investigate whether the characteristics more commonly appearing in women's work are also associated with lower prices or other outcomes of artistic value. If so, then the undervaluation of 'female' characteristics may contribute to our broader understanding of gender inequality in the artworld. Evidence that this hypothesis could be upheld is provided by a small but negative correlation found between the odds of an Art Genome Project feature appearing in women's, as opposed to men's, artwork and the listing price of the artworks displaying that feature.[46]

Sociologist Pierre Bourdieu once quipped that 'sociology and art do not make good bedfellows'.[47] His reasoning was grounded in the tension between the artworld's desire to focus on individual creative genius, and sociology's insistent aim to explain phenomena in terms of social forces. Who and what defines art and quality, which institutions matter and how they are accessed, who knows whom, whether advantage is accumulated from a prejudiced past, and where conscious and subconscious biases of culture interrupt economic valuation – these are the questions that sociologists ask to explain greatness. It is not a denial of quality, talent, innovation, or genius, but a way to contextualize them.

As shown here in a brief analysis, efforts to analyze this context in the domain of the contemporary artworld can be aided by online art platforms. Data from these platforms help answer not only questions about gender, but also race and ethnicity, age, career stage, and socioeconomic status. And not only about inequality, but also networks and curation, the shifting influence of roles and institutions, the position of art in social life, the tastes and demographics of collectors, and the emerging sway of algorithmic recommendation systems and social media. In other words, the marriage of these platforms with scholarly research will teach us more than ever before about the roles, patterns, and processes that together produce and reproduce the artworld as we know it.

46 This analysis was conducted on the aforementioned sample of artworks and requires significantly more investigation to fully understand, which is forthcoming as part of ongoing research by Taylor Whitten Brown. The statistical analyses investigate gender inequality in the value of art by matching similar artworks by men and women. These analyses also account for much more information on the artists, the artworks, the galleries representing the works, art critical discourse, and art fairs and exhibitions.

47 Bourdieu, P. (1993) *Sociology in Question*. SAGE.

Auction Sales

4

Key Findings

Auction Sales

1. Sales at public auction of fine and decorative art and antiques (excluding auction house private sales) reached $29.1 billion in 2018, an increase of 3% year-on-year, and up nearly 30% on 2016.

2. The three largest auction markets – the US, China, and the UK – had a combined share of 88%, a rise of 4% on 2017. The US was the largest auction market, with a share of 40%, followed by China (29%).

3. Auction sales in the US had the strongest growth of all the major art markets, increasing by 18% to $11.8 billion. Sales in the UK advanced by 15% year-on-year to $5.3 billion.

4. Auction sales in China declined by 9% to $8.5 billion. The market also saw one of its highest rates of buy-ins, with 57% of the works offered on the auction market in 2018 not finding buyers.

5. Works of art selling at prices in excess of $1 million accounted for 61% of total sales value in the fine art auction market but for just 1% of lots sold. The number of lots sold in this segment grew by 9% year-on-year, while values increased 13%, providing much of the drive for the rise in aggregate auction sales over the year.

6. In the market over $1 million, the three leading markets (the US, China, and the UK) accounted for 97% of the value of sales, with the US having the largest share at 51%, up 5% year-on-year.

7. Post-War and Contemporary sales accounted for half the fine art auction market's value in 2018, reaching $7.2 billion, an increase of 16% year-on-year, despite a slight drop in the number of lots sold (by 5%).

8. Two years of strong growth brought sales of Modern art to $4.3 billion in 2018, up 19% year-on-year, despite a decline of 10% in the volume of transactions, giving the sector a 29% share of the global fine art auction market by value.

9. After a substantial increase in 2017, sales values in the Impressionist and Post-Impressionist sector declined by 8% to $2.1 billion in 2018, while the number of lots sold also contracted by 12%. Sales of Old Masters works at auction also declined 31% year-on-year, to $905 million.

4.1 | Auction Sales in 2018

Sales at public auction of fine and decorative art and antiques (excluding auction house private sales) reached $29.1 billion in 2018, an increase of 3% year-on-year. While growth was considerably more subdued than the 26% uplift in 2017, after two years of positive performance, values have advanced nearly 30% on 2016.

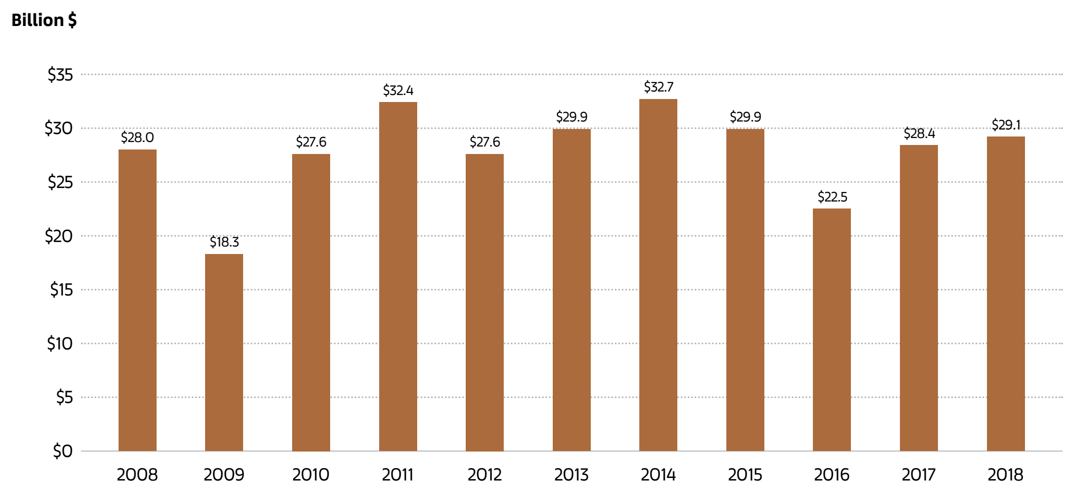
Although less extreme than in 2017, growth in 2018 continued to be driven by the high-priced end of the auction market, particularly works priced over $10 million. Many of the highest-priced multimillion-dollar lots of 2018 were in the Modern sector, however the record was also broken for the highest-priced work by a living artist at auction. Outside these sales, many other segments in the middle and lower ends of the market continued to struggle, and most showed declines on aggregate. There were also considerable differences in sales performance by region, with the US and UK driving growth, while China, France, and many mid-sized markets declined in value.

The auction market boomed up to 2007, reaching a peak in sales of close to $33 billion, having more than tripled in size since 2000, as strong supply and rapidly increasing prices for fine art (particularly in the Post-War and Contemporary and Modern art sectors) pushed up values. However, from 2007 to 2009, supply and demand contracted in the fallout from the global financial crisis and the market lost 44% of its value.

An unprecedented boom in the Chinese market and rapid recovery in the US helped the market recover quickly in 2010, and despite some volatility, sales reached a new high of $33 billion by 2014, marginally below the 2007 high. While the highest-value lots had driven growth up to that point, a decline in the supply of these over the next two years led to a fall in the market of 30% in value to $22.5 million, its lowest level since 2009. Sales bounced back quickly, however, and year-on-year growth in 2017 was the highest the market had achieved since it pulled out of recession in 2010. Combined with another positive year in 2018, sales reached 4% higher than in 2008, but still below the peak in 2014.

The auction sector is multi-tiered, with value highly concentrated in the top-tier businesses. The top five auction houses (Christie's, Sotheby's, Poly Auction, China Guardian, and Phillips) accounted for over half of the value of global sales, with Christie's and Sotheby's share at more than 40%. There are more than 500 mid- to large-sized second-tier auction houses that also generate a significant share of value, dominating the national markets where they operate and often engaging in international trade.

Figure 4.1 | Global Market for Public Auction Sales 2008–2018



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Sales at public auction of fine and decorative art and antiques reached $29.1 billion in 2018, an increase of 3% year-on-year

Third-tier houses are small but significant businesses in most domestic markets and tend to specialize in their own national art and related areas. 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, the share of fine art sales has increased over time and accounted for an average of about 80% of total sales in 2018. However, many top-tier houses in China sell a much higher proportion of decorative art and antiques, along with large auction houses such as Heritage Auctions, where fine art has a minority share. In the second tier, the share of fine art averaged 56% in 2018, and 30% in the lower-tier houses.

In the top tier, Christie's led the auction sector, with $7.0 billion in total auction sales, up 6% on 2017. This growth was driven by its public auction sales, which advanced 6%, to $6.3 billion. The increase in value was particularly positive in relation to 2017, when figures had been significantly buoyed by the sale of Leonardo da Vinci's *Salvator Mundi* for $450 million, which should be considered an outlier price, even among multimillion-dollar lots.

The majority of sales at Christie's (51%) took place in the US and the Americas, with American buyers accounting for 39% of total global expenditure.

Despite its increasingly global reach, 40% of Christie's new buyers also came from America. About 12% of its sales were in Asia, with Asian buyers' expenditures accounting for 25% of total global sales. Christie's reported that Asian buyers were also increasingly looking outside traditional Asian sales, with 57% of their spending in 2018 in non-Asian sales, such as Old Masters, Post-War and Contemporary Art, and Luxury.

Sales in Europe and the Middle East declined year-on-year but still accounted for 27% of the global total, with clients from Europe and the Middle East accounting for 36% of global expenditure.

Sales of important collections continued to be a very strong contributor to Christie's revenues, providing a vetted, low risk, and collector-approved selection of works that helped to boost sales at all levels. The sale of art belonging to Peggy and David Rockefeller, which included 10 days of online sales and three days of live sales, brought in a total of $833 million. This was the highest-ever sum paid for a single collection, and included some of the highest-priced lots of the year. Later in 2018, the sale of the Barney A. Ebsworth Collection totaled $323 million. This included several record prices for American Modern artists.

Private sales were up by a reported 7%, to $653 million, accounting for 9% of Christie's total sales, a stable share on 2017. The company reported that new buyers continued to drive its growth in sales in 2018, representing 32% of its total buyers, an increase of 1% on 2017. The online channel remained a key route for accessing these new buyers, accounting for 41% of all new buyers in 2018, up from 36% in 2017. (See Chapter 6 for a discussion of online sales in the auction sector.)

Sotheby's total sales reached $6.4 billion, up 16% on 2017. Sales at public auctions reached $5.3 billion, up 15% from $4.6 billion in 2017. The US was the most important market for Sotheby's in 2018, accounting for close to half (45%) of its public auction sales by value at $2.4 billion. The highest priced lot sold at Sotheby's in 2018, Amedeo Modigliani's *Nu couché (sur le côté gauche)* for $157 million, was sold in New York, which along with other top lots helped to boost its Impressionist and Modern sales 9% year-on-year. It also reported increasing sales of Contemporary art (up 14%), Old Master works (by 33%) and Chinese works of art (by 14%).

The US also accounted for 47% of the company's total 2018 revenues (including auction and private sales commissions and revenues from financial services and other segments of its business) versus 40% in 2017.

36% of Sotheby's auction sales by value in 2018 were in Europe, with the UK accounting for the majority of these (25%). Auction sales in Europe declined slightly year-on-year by 2% to $1.9 billion.

Sales in Asia accounted for 19% of total auction sales, and increased by 16% year-on-year to $995 million, an historical peak for the region. However, despite this rise, revenues generated from the company's operations in Hong Kong and China fell by 22%, and their share of total company revenue also dropped 5% to 17%.

Private sales continued their rapid increase, growing 37% year-on-year to just over $1 billion, the second year of double-digit increases in this sales channel and their highest level in five years. The share of private sales at Sotheby's have fluctuated over the past five years, from a high of 21% in 2013 to a low of 9% in 2014. At 16% in 2018, they were at their highest level since 2013.

China's Poly Auction was again the third-largest auction company, with public auction sales of $1.2 billion,[48] down 24% on 2017. More than 70% of its sales took place in Beijing, but the auction house now operates in several other cities, including Hong Kong and Shanghai.

Phillips overtook China Guardian to secure fourth place in the 2018 global ranks, with an increase in sales of 29% year-on-year, to $916 million, its highest-ever recorded total. Public auction sales rose 27% to $794 million, and private sales advanced 46% to $122 million. 20th century and Contemporary

48 Sales data is from the Art Market Monitor of Artron (AMMA). Data is reported to Arts Economics in January each year and pertains to all data available and reported to AMMA by December 31 of the previous year. All sales data from Artron is reported to Arts Economics in RMB and converted to US dollars using the 2018 average annual exchange rate.

art made up about 75% of sales, having risen by 40%, to $593 million.

China Guardian was in fifth place worldwide in 2018, with sales of $873 million, down 17% on 2017 (including sales in Beijing and Hong Kong). While the bulk of its sales (84%) by value were in Beijing, sales in Hong Kong went against the aggregate trend and increased 13%, to $141 million, the highest annual total since it launched there in 2013.

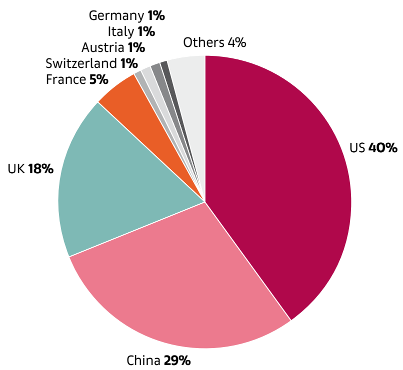
The next-largest house worldwide was Heritage Auctions, with sales of $826 million, up slightly on the $816 million achieved in 2017. Heritage's sales differ considerably from other top-tier houses such as Christie's and Sotheby's because they are focused largely on the antiques and collectibles categories, with a smaller share of fine art. Heritage Auctions also places a strong emphasis on online sales, which accounted for 59% of its turnover by value, a rise of 5% in share year-on-year.

As noted, the extent to which top-tier houses engage in private sales varies considerably, and private sales are at a low or non-existent level for many of the smaller and second-tier houses, often only occurring on an ad hoc basis as opportunities arise. The survey of more than 500 second-tier auction houses carried out by Arts Economics in 2018 revealed that, for this group, private sales constituted just 5% of their annual totals on average, up 1% year-on-year. The second-tier houses reported that 76% of their sales were made at public auction, with 19% taking place online.

While the largest top-tier auction houses deal with thousands of multinational buyers at all levels, the survey results for the second-tier houses showed that their median number of buyers in 2018 was 580 (up from 500 in 2017), and significantly more than the median for dealers (reported as 48 in Chapter 2). About two-thirds of these were local or nationally based buyers, and the majority (67%) were private collectors. 44% of their buyers were those that they had been dealing with for one to five years, while 32% were long-term clients of more than five years' standing. The remaining 24% were new to the business in 2018, a slightly lower share than at the top auction houses such as Christie's and also the 29% proportion reported by dealers in 2018.

In 2018, most of the sales made by second-tier houses were to middle-aged men: 61% of the value of sales reported were to buyers aged between 40 and 64, while only 15% of sales were to buyers under the age of 40; 72% of sales by value were to men.

Figure 4.2 | Auction Market Global Share by Value in 2018



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4.2 | The Global Distribution of Auction Sales

The three largest auction markets – the US, China, and the UK – had an even more dominant position in 2018 than in the previous few years, accounting for a combined share of 88%, a rise of 4% on 2017.

The US market was by far the largest, with a share of just over 40%, up 5% year-on-year. Auction sales in the US had the strongest growth of all the major art markets, increasing by 18% to $11.8 billion. After two years of solid growth, the market reached its highest recorded level to date, exceeding the peak of $11.4 billion in 2014.

Sales in the UK also advanced by 15% year-on-year, to $5.3 billion, although it remained in third position, with a substantial margin of 11% behind China. The UK's global share increased 2% year-on-year, and it accounted for by far the greatest share of sales values in the EU auction market, reaching 68% of the total in 2018. The performance of the UK was not enough

Auction sales in the US had the strongest growth of all the major art markets, increasing by 18% to $11.8 billion

to boost values in the EU art market. These remained stagnant over the year, with sales of $7.8 million, as nearly all of the other major art markets in Europe, including France, Germany, and Italy, experienced declining sales. The share of the EU market by value also contracted slightly, to 27%.

The Chinese market retained its second position in the global auction ranks, but lost 4% of its share in 2018, as sales declined by 9% to $8.5 billion. In 2016, as auction sales declined in the US, the Chinese auction market was the largest worldwide, accounting for 34% of total global auction sales (versus 32% in the US). However, in 2017, strong growth in the US market saw China fall back to second place, with this gap widening again in 2018 as performance between the two nations' markets once again diverged.

Auction sales in Mainland China declined 6% in 2018, and those in Hong Kong fell 22%. The larger drop in Hong Kong was due in part to their reaching an historical peak in 2017 of $3.9 billion – a rise in value of more than 90% from 2016. Even with the decline over 2018, at $3.1 billion, Hong Kong sales were still at the second-highest recorded level. In Mainland China, on the other hand, performance has been much more subdued since the contraction of sales in 2012. Sales in China as a whole in 2018 were 44% below their peak of $15 billion in 2011, but when considered over the longer term, values increased by more than 200% between 2008 and 2018.

While it remains one of the smallest segments of the Chinese auction market (with 15% of sales), oil painting and contemporary art was the one sector of the market that performed positively over 2018, growing by 14% to $1.2 billion. The biggest sector, ceramics and other wares, fell 12% (to $3.6 billion), while Chinese painting and calligraphy dropped by 15%, to $3.2 billion.[49]

The Chinese market retained its second position in the global auction ranks, but lost 4% of its share, as sales declined by 9% to $8.5 billion

49 The classification of works sold at auction in China differs considerably from those used in Western auctions (and those used in Section 4.4 in the discussion on sectors). An explanation of these sectors is given in the Appendix.

A decline in the number of highly priced lots sold contributed to the decline in sales, with 20% fewer lots sold for more than RMB 100 million ($16 million) than in 2017. This top segment decreased in value by 36%. However, there were declines across all segments over $1 million. Buyers were reported to be increasingly cautious as economic, trade, and debt crises loomed, seeking only the highest-quality works, which, as always, were in short supply.

While the economic context may have altered vendors' plans at the high end, there was no shortage of works being offered on the Chinese market, most of which did not find buyers. The number of works offered increased by 14% to more than 424,000 in 2018. However, 57% of these did not sell. This buy-in rate is one of the highest experienced in the past 15 years, and considerably more than other national averages – for example, 18% in the US fine art auction market and 27% in the UK.[50]

Considering only fine art, oil painting and contemporary art fared somewhat better, with a buy-in rate of 39%. The much larger categories of Chinese painting and calligraphy and ceramics and other wares both had buy-in rates of 57%. These persistently high rates are indicative of both supply and demand issues, with 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, particularly in these older sectors of the market.

The problem of late payments and non-payment by winning bidders at auction also persisted in 2018. The Chinese Auctioneers Association published figures based on a sample of auction houses for lots paid by June 2018. This reflected payments still due by that date from sales from June 2017, and showed that for lots over RMB 10 million (about $1.5 million), the share of those unpaid fell slightly year-on-year by 4% to 37%. However, the remainder of sales at this level were made up of 39% fully paid lots (down from 48% in 2017) and 24% of lots that were 'partially paid', which was double the share in 2017. This suggests that some auction houses may have had to extend more flexible payment conditions in order to secure sales in a difficult year for the Chinese auction market.

Although there are no comparables available for this issue in other national markets, as noted in many previous reports, with more than one-third of works unpaid at this level, it undoubtedly creates problems for market participants. This is particularly true for small and mid-sized auction houses that may not have the capital needed to absorb the cash-flow problems such slow payment may entail.

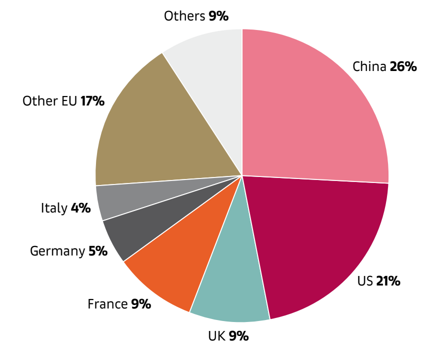
50 Estimates for China include all auction houses and are supplied by AMMA, whereas those for other countries are from Artory and based on fine art auctions only.

Volume of Fine Art Auction Sales

Changes in the volume of auction sales in the global fine art and decorative art market are often less-conclusive indicators of market performance than trends in the value of sales, with many auction houses selling large volumes of decorative art and collectibles, which can vary widely between sale types and regions and over time. To compare the lots sold between countries on a consistent basis, fine art auctions offer a clearer benchmark for comparison.

The number of fine art auction transactions declined 7% year-on-year in 2018. As in 2017, China had the largest share of fine art auction sales (26%), while the US accounted for 21%. The share of transactions in the French market declined 4%, leaving it level with the UK at 9%. Nearly all of the major art markets showed a decline in volume (from -1% in the US to -7% in the UK), which shows that the rise in value of the auction market is being driven by higher prices rather than just more sales taking place.

Figure 4.3 | Fine Art Auction Market Global Share by Volume in 2018



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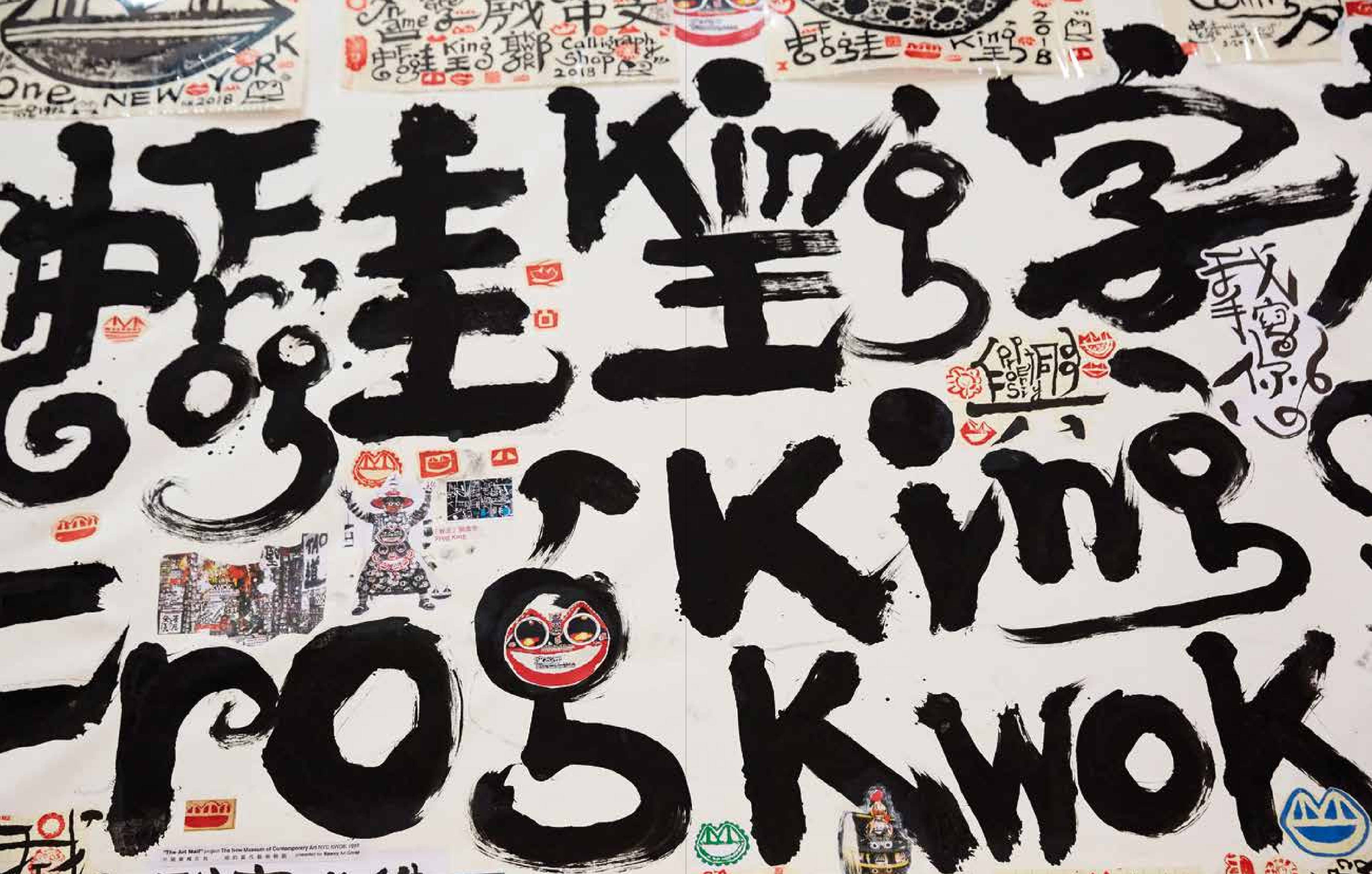
The number of fine art auction transactions declined 7% year-on-year in 2018


NEW YORK
One
2018
Calligraph Shop
King
King
Kwok

4.3 | Price Segmentation in Fine Art Auctions[51]

Values in the fine art auction market continued to be dominated by the highest-priced works in 2018, with works over $1 million accounting for the majority of value in a tiny fraction of lots sold. As most of the highest-priced works sold at auction are fine art, this segment has shaped some of the biggest trends in the market over the past 10 years, with the addition or subtraction of a small number of lots having a significant influence on aggregate sales.

Trends in the wider market can therefore be largely unrelated to the day-to-day experience of those businesses that operate primarily at much lower price levels. The most dominant trend reported, particularly since the recession of the art market in 2008 and 2009, is that the gap between the performance of the high end of the market and all other segments has become wider, putting pressure on the majority of the businesses in the art market that operate at this more modest end.

The boost in industry-wide sales in 2018 belied the performance of many businesses in the broader auction market, which continued to struggle despite the uplift in total sales.

Figure 4.4 shows the skewed distribution of fine art sales in 2018: 92% of the works sold at auction were for less than $50,000, yet these accounted for just 10% of the market's value. The majority of works sold (68%) were for below $5,000, although these made up just 2% of sales values.

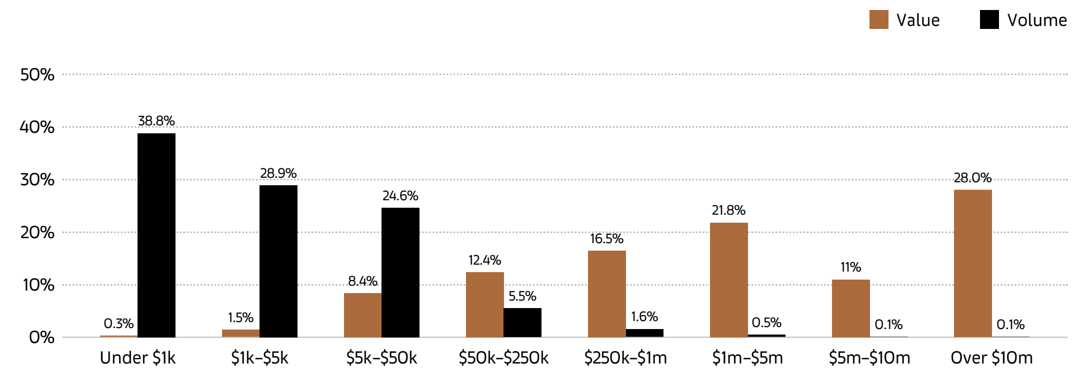
At the high end of the market, works sold for more than $1 million accounted for 61% of value in just 1% of lots. This share was down slightly, by 3%, on 2017 but still considerably higher than in 2016, when, during the temporary cooling of the high end of the market, 48% of the market's value came from works at this price level. The number of lots sold at auction for more than $1 million grew by 9% year-on-year, with sales values in this segment growing 13% and providing much of the drive for the rise in aggregate values over the year. The largest segment by value in 2018 was works sold for more than $10 million, which accounted for 28% of sales, down 4% year-on-year.

To look a little deeper into the performance of the different value segments of the market, the following very broad definitions are used to divide the market.

1. The low end: prices up to $50,000.
2. The middle market: price segments falling between $50,000–$250,000 and $250,000–$1 million.
3. The high end: prices in excess of $1 million, including the 'ultra-high end', with prices in excess of $10 million.

51 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.

Figure 4.4 | Share of Total Value and Lots Sold at Global Fine Art Auctions in 2018 by Price Bracket



At the high end of the market, works sold for more than $1 million accounted for 61% of value in just 1% of lots

Over the past 10 years, except for the lowest end of the market (below $1,000), growth rates of different segments of the market have risen in direct proportion with the price levels in auction sales, with the highest end of the auction market growing at a much faster rate than the lower or middle segments. In the decade from 2008 to 2018, the segments between $1,000 and $250,000 showed low or negative growth rates. In contrast, the market over $1 million grew at double-digit rates, with the biggest increases at the highest end. The total value of works sold for more than $10 million increased by 133% in the 10-year period, and its share grew by 11%.

The market was less skewed a decade ago, in 2008, when the middle market had a larger share. The share of market accounted for by works priced more than $1 million had edged up from 33% in 2005 to 49% in 2008, reaching 61% in 2018. This has been at the expense of the middle market, which dropped from 45% in 2005 to just under 29% in 2018, while the low end fell from 15% to 10%. While this is partially due to the increasing prices of works sold generally over time, it also indicates that the higher end is growing faster than the rest and gaining a more dominant share of sales.

It is interesting to note in Table 4.1 that the highest year-on-year growth in 2018 was not at the highest end (which still performed very well, given the outsized performance in 2017 with the outlier Leonardo da Vinci lot), but for works priced between $5 million and $10 million, which saw an uplift of 35%, while all segments under $1 million declined.

Figure 4.5 shows an index of the growth in sales values in the fine art market in the different price segments, using 2005 as the base year to show a more extended period. It is clear that the highest end of the market (works sold for more than $10 million) has grown at a much faster rate than the other value segments over time. It has also been the most volatile, with large declines in 2009 and 2016, as the presence or absence of a relatively small number of very high value works radically altered growth. For example, in 2009, all segments of the market dropped in value, including a decline of 8% in the low end and 25% in the middle market. However, the high end saw a much sharper contraction of 54%, with the $10 million-plus segment dropping by 63% year-on-year from 2008 to 2009. Similarly, in 2016, this very highest end fell 53%, more than double the decrease of any other segment of the market. Nevertheless, from the bottom of the market in 2009 to 2018, aggregate values have grown by 534%, significantly higher than any other segment.

Table 4.1 | 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 2008	0.2%	2%	13%	17%	19%	22%	9%	17%
Share in 2018	0.3%	2%	8%	12%	16%	22%	11%	28%
Change in Value 2008–2018	**146%**	**0%**	**–5%**	**5%**	**26%**	**43%**	**76%**	**133%**
CAGR 2008–2018	9%	0%	0%	1%	2%	4%	6%	9%
Change in Value 2009–2018	**99%**	**–6%**	**7%**	**35%**	**74%**	**166%**	**274%**	**534%**
CAGR 2009–2018	8%	–1%	1%	3%	6%	11%	16%	23%
Change in Value 2017/2018	**–7%**	**–7%**	**–8%**	**–6%**	**–3%**	**6%**	**39%**	**11%**

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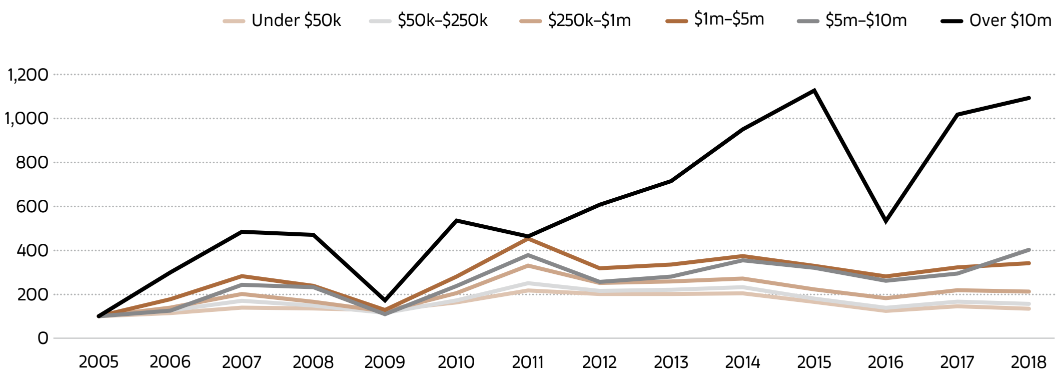
The total value of works sold for more than $10 million increased by 133% from 2008 to 2018, and its share grew by 11%

Figure 4.5 | **Growth of Sales by Value in Auction Price Segments 2005–2018**



© Arts Economics (2019) with data from Artory and other sources   Index = Base 100 = 2005

The high end of the auction market also saw an increase in the number of works sold in 2018, while the volume of sales in all other segments declined year-on-year, with the segment of $5 million to $10 million sales showing the greatest annual increase of 36%. The low end has seen the most growth over 10 years (with growth in the three segments of 48%), but this has been nearly entirely driven by the segment below $1,000.

In terms of the share of different segments, there has been very little change over 10 years, with the high end consistently accounting for about 1% of the number of lots sold, while the low end makes up the bulk of transactions (at 90% or more in both periods).

Table 4.2 | **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 2008	13%	40%	37%	8%	2%	0.5%	0.06%	0.04%
Share in 2018	39%	29%	25%	5%	2%	0.5%	0.07%	0.06%
Change in Volume 2008–2018	**330%**	**5%**	**–4%**	**4%**	**27%**	**38%**	**69%**	**118%**
CAGR 2008–2018	16%	1%	–0.4%	0.4%	2%	3%	5%	8%
Change in Volume 2009–2018	**439%**	**–3%**	**2%**	**30%**	**74%**	**147%**	**257%**	**412%**
CAGR 2009–2018	18%	1%	–0.5%	0.4%	3%	4%	6%	9%
Change in Volume 2017/2018	**–7%**	**–8%**	**–8%**	**–7%**	**–1%**	**4%**	**36%**	**26%**

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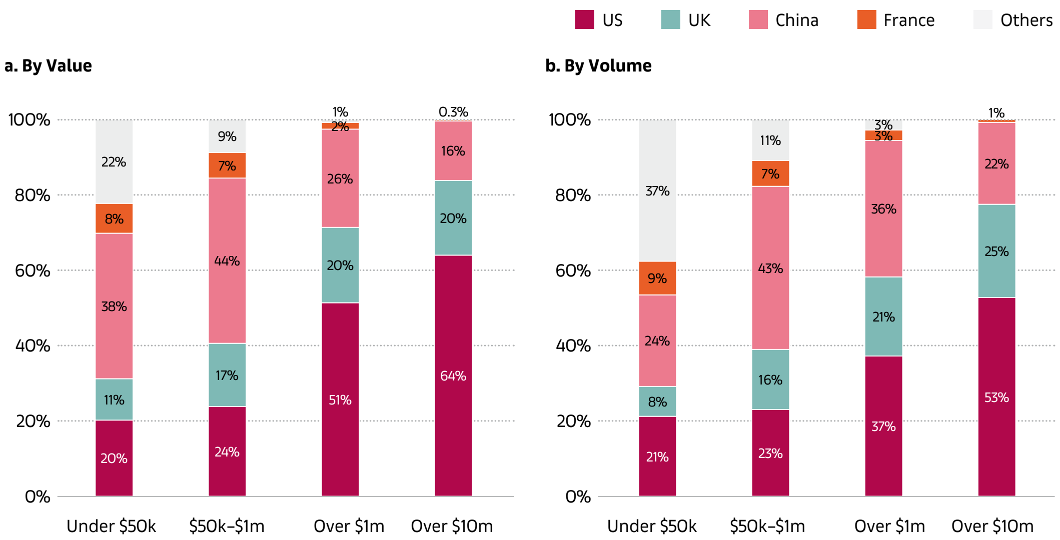
The global distribution of fine art auction sales also varies significantly with price level. The dominance of the top three markets (the US, UK, and China) is clear in all segments of the market by value. However, their combined share increases with increasing prices, especially the US, where the largest share of the highest-priced works at auction are sold.

In the market for works priced below $50,000, the US, China, and the UK accounted for 69% of sales values in 2018 and just over half of the lots sold. In the middle market (works priced between $50,000 and $1 million) their share increased to 84% (and 82% by volume). China maintained a dominant share in both of these segments, as it had during the previous two years.

In the market of sales over $1 million, the three leading markets accounted for 97% of the value of sales, with the US having the largest share, at 51%, up 5% year-on-year. And in the highest end of works sold (over $10 million), virtually all of the value of sales came from these three markets, with the US accounting for the majority of sales, with a 64% share by value, up 12% on 2017.

Figure 4.6 | Market Share of the Fine Art Auction Market by Price Segment in 2018



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A detailed analysis of the fine art auction results makes it clear that the ultra-high end dominates values, despite the fact that most of the transactions and the majority of artists whose works feature at auction are at the lower end. The high end has grown faster than other segments of the market and this has increasingly polarized values around the top of the market.

This very thin market at the highest end has a disproportionately large influence on aggregate figures, even though it is made up of a very small number of artists and sales. In recent years, the auction data has consistently shown that only a tiny share (less than 1%) of the artists active in the auction market has works that sell for more than $1 million. It is also worth noting that most of the works selling at auction at this higher level are by male artists. However, the dominance of male artists at auction, both in terms of number of artists and value of sales, is well established at all levels.

The ultra-high end dominates values despite the fact that most of the transactions and the majority of artists whose works feature at auction are at the lower end


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4.4 | A Note on Gender in the Auction Market[52]

Since at least as far back as 1985, with the founding of the Guerrilla Girls and their data-gathering efforts that highlighted women's low representation in the artworld, the discussion about gender bias in the art market has gained momentum. It is now a well-established fact that the art auction market is biased in terms of gender: women have rarely featured in the top 100 artists at auction, although, ironically, it is depictions of women that often fetch the highest prices. Only six women have ever reached the multimillion eight-digit level in the sector, while their male peers regularly cross that benchmark.

Using a large data set of almost 2 million auction transactions from 1970 to 2016 in 49 countries for 69,189 individual artists, research in 2017 showed that auction prices for paintings by female artists were significantly lower than those by male artists.[53] The study revealed an average gender discount for paintings by female artists of 48% compared to the prices reached by their male peers. This significant gap could not be explained by the size, style, or medium of the artworks, the age of the painter, or the subject matter.

Following on from this study, an important question to ask is if the gender discount has started to decrease over time as gender equality increases. Over the past two years, numerous media reports and other studies have reported hopeful signs of women 'catching up': more sales, more record prices, more exhibitions, more visibility. However, there is little evidence of this translating into values in the auction sector. Looking at the data for male versus female artists in the auction market for paintings in the period from 2008 to 2018, the gender disparity has not closed in any significant way over time in the secondary market.

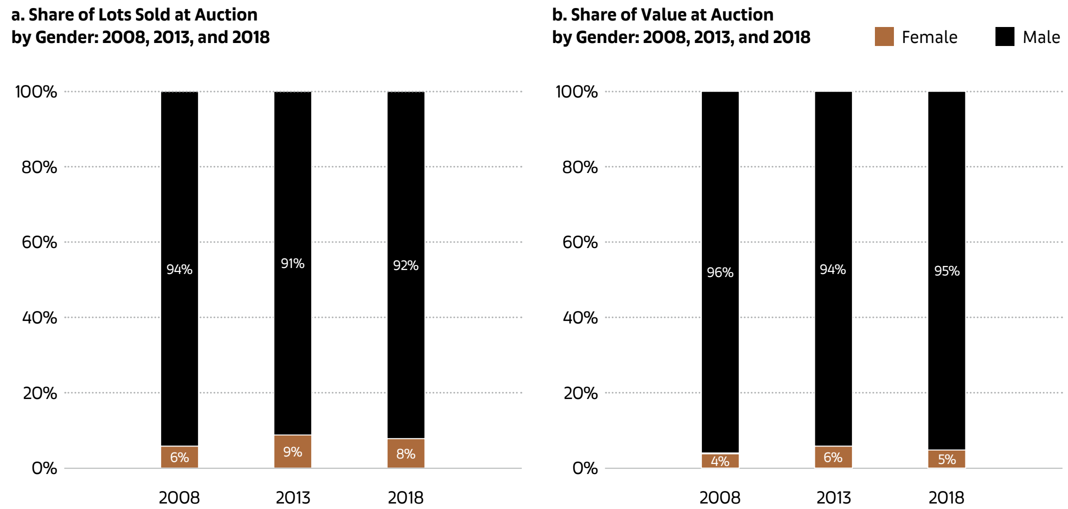
Figure 4.7 compares the number of lots sold by female versus male artists for the years 2008, 2013 and 2018. There are no significant changes in the distribution of either the value or volume of paintings by female and male artists at auction during these periods. Female artists' works do not sell better now than a decade ago, with a share of just 8% of the total lots sold in 2018 versus 6% in 2008. Taking a more historical view, however, this staggeringly low figure is more than twice the level of two decades ago, when just 3% of auction lots in the paintings market were by women.

The gender disparity has not narrowed by value either. Paintings by male artists fetch higher prices than those by female artists, and the aggregate value of sales is very unevenly skewed toward men, who had a 95% share of total values at auction in 2018.

52 This section was researched and written by Dr. Roman Kräussl, professor at the Luxembourg School of Finance and visiting fellow at the Hoover Institution at Stanford University.

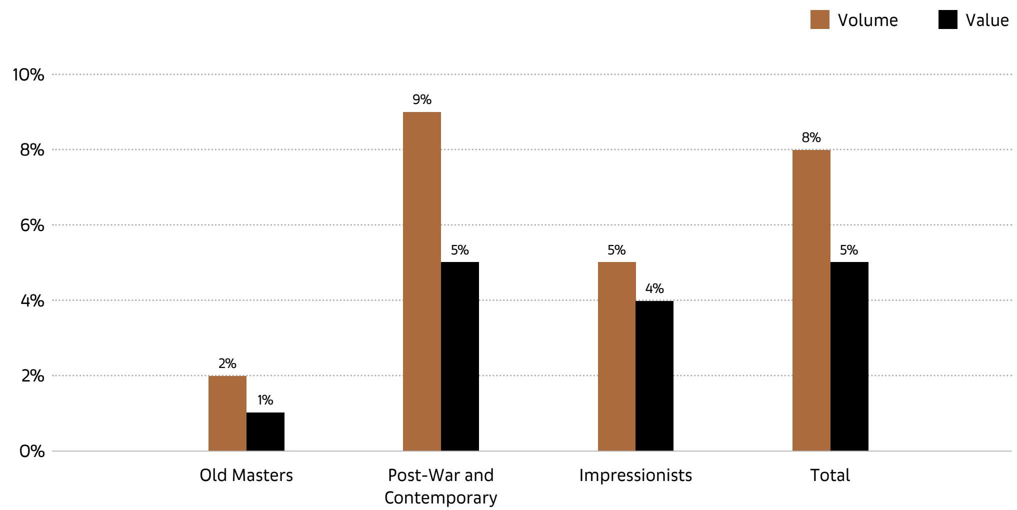
53 This research was documented in Adams, R., Kräussl, R., Navone, M., & Verwijmeren, P. (2017) "Is Gender in the Eye of the Beholder? Identifying Cultural Attitudes with Art Auction Prices". Available at https://ssrn.com/abstract=3083500.

Figure 4.7 | Gender Disparity in Auction Sales: 2008, 2013, 2018



Female artists' works do not sell better now than a decade ago, with a share of just 8% of the total lots sold in 2018 versus 6% in 2008

Figure 4.8 | **Share of Female Artists in Auction Sales by Sector in 2018**



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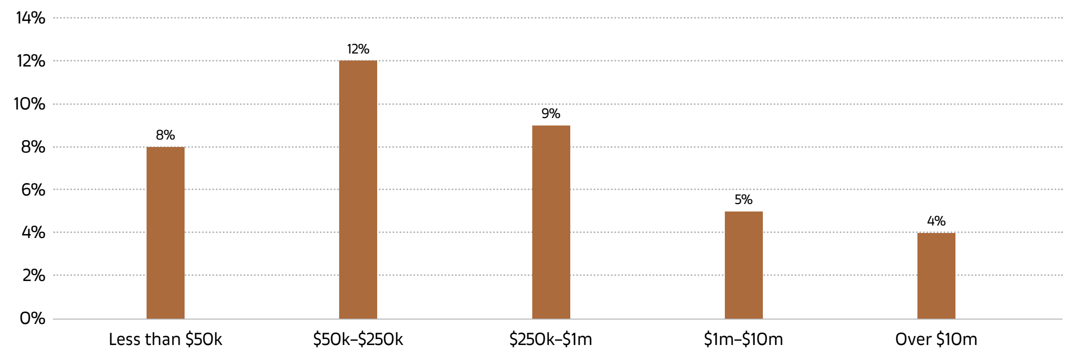
In most recent years, aggregate sales of female artists are less than 10% of the value of sales achieved by male artists

Figure 4.9 | **Share of Female Artists by Price Segment (Lots Sold in 2018)**



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The top 100 prices achieved at auction in 2018 were all by male artists. The price paid for works by those women leading sales in the auction market – such as Cecily Brown, Yayoi Kusama, and Joan Mitchell – is rarely more than half of that paid for works by top male artists. In most recent years, aggregate sales of female artists are less than 10% of the value of sales achieved by male artists, with the greatest disparity occurring in Old Masters. This is not surprising given the paucity of work by female artists in this and other older sectors, which limits sale frequency and holds down prices. However, even in the more contemporary sectors, the data still shows a massive gender difference in both the value and volume of sales.

The auction data also indicates that gender disparities worsen at higher-priced segments of the auction market. The share of lots sold by female artists was highest in the segment between $50,000 and $250,000 in 2018. However, this share more than halves when prices reach more than $1 million.

With artworks by female artists selling at a substantial discount when compared to those by men, a woman's signature could also be construed as representing a bargain or undervalued work, driving interest from more investment-focused collectors. The top female artists at auction in 2018 were Yayoi Kusama, with a hammer-price turnover of $86 million, Joan Mitchell ($71 million), Georgia O'Keeffe ($57 million), Cecily Brown ($27 million), and Louise Bourgeois ($21 million). It is clear from Figure 4.10 that sales for these individual artists have also risen substantially over 10 years.

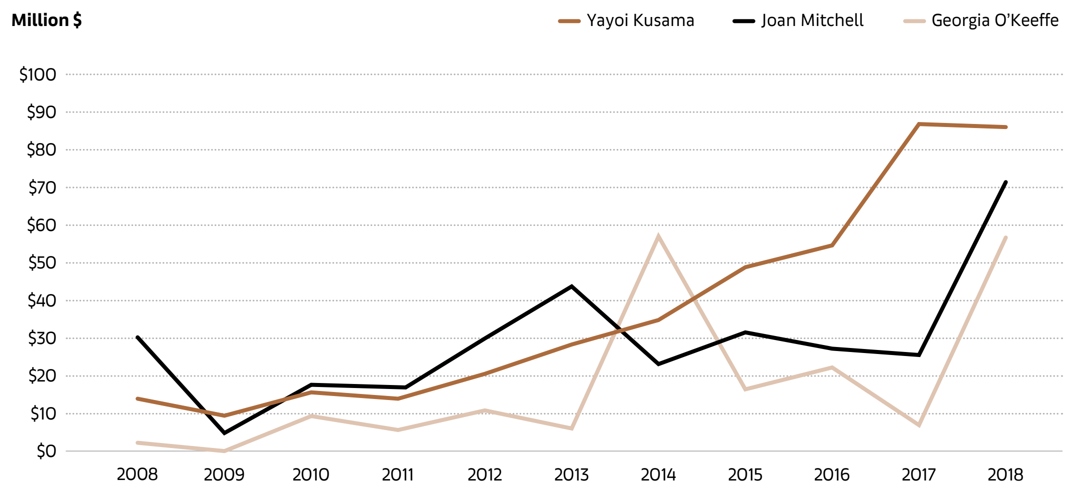
Several records were also set during the year for female artists, including $6.6 million for *Suddenly Last Summer* by Cecily Brown; $16.6 million for Joan Mitchell's *Blueberry*, setting a new record for the artist; and $12.4 million for Jenny Saville's portrait *Propped* which set the record for the highest price achieved for a living female artist at auction. However, this progress has to be considered in the context of the record price achieved by David Hockney's *Portrait of an Artist (Pool with Two Figures)*, which at $90 million made him the single most expensive living artist at auction, with the value of this one lot exceeding the total annual sales of any of the top female artists for the entire year.

The question remains, therefore, why does the gender gap persist in today's auction market, particularly in Contemporary art? Although some have advanced the hypothesis that biological factors would lead women to produce systematically inferior art or art that does not sell well at auction,[54] there is no credible theoretical basis nor scientific evidence for this.

Some experiments have found that participants could not infer the gender of an artist by looking at a painting, which also makes it inappropriate to attribute the price difference in paintings to biology. The analysis of auction data here, however, has shown that the gender-discount rate varied across countries and was higher in those with greater gender inequality, implying that the discount reflects the effect of culture on economic outcomes for female artists. It correlated with cultural factors relating to gender inequality (such as the percentage of women in parliament in the country and year of the auction). Or, to say it as it appears: works by female artists are valued lower in some societies because they are made by women.

54 See a discussion of this in Cowen, T. (1996) "Why Women Succeed, and Fail, in the Arts", *Journal of 29 Cultural Economics*, Vol. 20, 93-113. There is also a vast literature on this topic outside of the arts, analyzing the role of biology in labor-market outcomes.

Figure 4.10 | Sales of the Top Three Female Artists at Auction 2008–2018 (Hammer Prices)



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Auction data indicates that gender disparities worsen at higher-priced segments of the auction market

4.5 | Fine Art Sectors

Fine art sales have been a key driver of trends in the auction market in recent years, with the sectors of Modern and Post-War and Contemporary dominating the market since the 1990s. Apart from having the greatest share, these have also tended to be where most of the higher-priced works of art have been sold, both at auction and in the dealer sector.

To analyze the performance of sales by sector in the auction market it is necessary to define these sectors based on specific criteria, such as an artist's date of birth, the date of creation of their works, and 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, we have used the following definitions[55]:

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

b. Living artists, defined as artists alive in 2018, which are analyzed as a subset of the Post-War and Contemporary sector

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

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

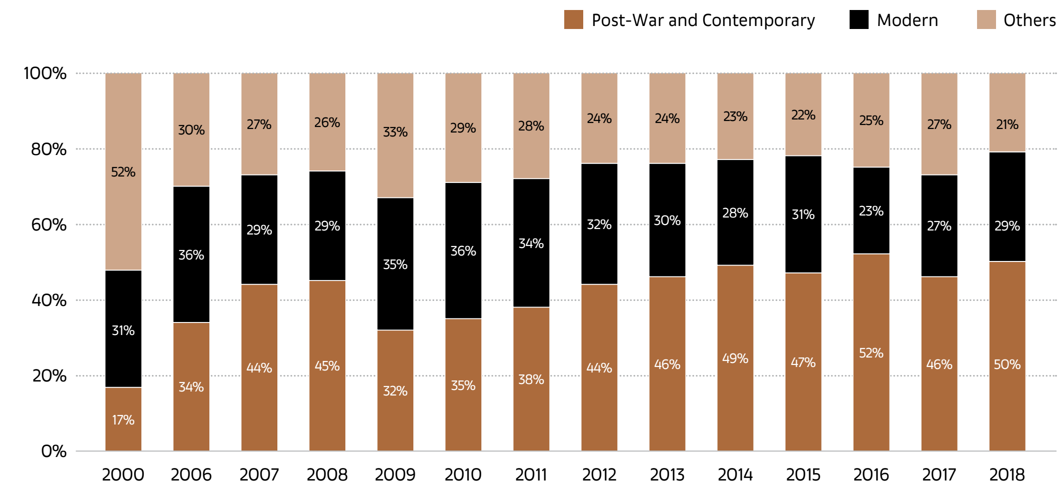
e. Old Masters, defined as artists born between 1250 and 1821

f. European Old Masters, defined as Old Masters artists of European origin, which are analyzed separately as a subset of the Old Masters sector

To ensure the most comprehensive and consistent analysis of the art market sectors, one central art database, part of the Artory Registry, is used, with data for Chinese sales supplemented with data from Artron. The Artory database covers auctions from 4,000 auction houses, with consistent auction results gathered for about 250 businesses in 40 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. The data by sector that follows is based on the sample of 250 auction houses, and only includes data 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 these top auction houses represent about 80% of the value of the market in most sectors.

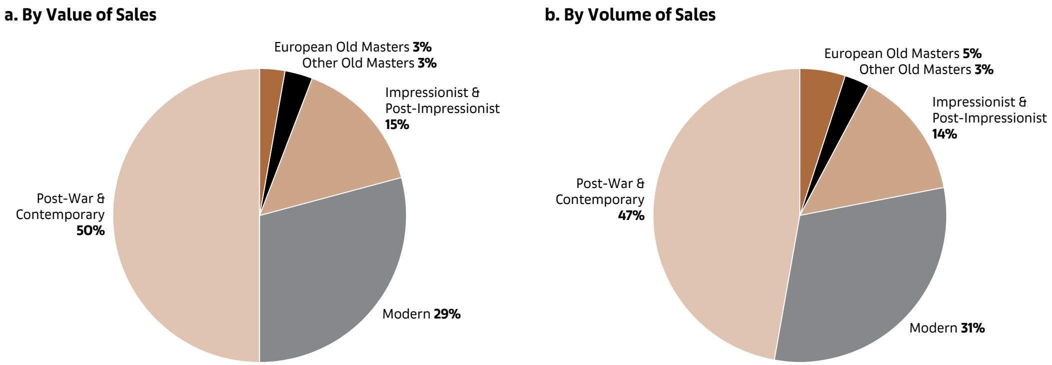
55 Most artists' categorization is based on date of birth, but there are a small number of artists who are included in different sectors because of their relevance to a particular movement, for example Francis Bacon (born 1909) and Mark Rothko (born 1903) are both included in the Post-War and Contemporary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

Figure 4.11 | Market Share by Value of the Fine Art Auction Market: 2000–2018



Post-War and Contemporary sales accounted for half the fine art auction market's value in 2018

Figure 4.12 | Market Share by Sector of the Fine Art Auction Market in 2018



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In 2018, the largest sectors in the fine art auction market by value were Post-War and Contemporary and Modern art. Figure 4.11 shows the growth in the share of these leading sectors versus the other sectors of the fine art market.[56] In 2000, these two accounted for less than half of the overall value of the fine art market, with a combined share of 48%, with the Modern sector the larger of the two. However, since about 2006, in most years, the combined share of these two sectors has exceeded 70%, with Post-War and Contemporary having the greatest value (with the exception of 2009 and 2010).

Post-War and Contemporary sales attained their highest share in 2016 at 52%, and in 2018 accounted for half the market's value, with Modern art having a 29% share.

Post-War and Contemporary art was also the largest sector by volume of sales, with a share of 47%, while the Modern sector accounted for 31% of total lots.

56 The shares in this figure and throughout the chapter indicate the share of these sectors out of the four main sectors of the fine art auction market: Post-War and Contemporary, Modern, Impressionist and Post-Impressionist, and Old Masters (including European Old Masters). It excludes the small number of transactions that cannot be classified within these distinct sectors.

4.6 | Post-War and Contemporary Art

Post-War and Contemporary art was the largest sector of the fine art auction market in 2018, accounting for 50% by value and 47% by volume. After two years of growth, the sector reached total sales of $7.2 billion in 2018, an increase of 16% year-on-year, despite a slight drop in the number of lots sold (by 5%).

The Post-War and Contemporary sector has been one of the fastest-growing segments but has also seen relatively volatile annual changes over the past 10 years. Sales grew rapidly to 2007, increasing by more than 450% from the level of 2003 as volumes and prices advanced. However, it was also one of the hardest-hit segments during the global financial crisis, with sales contracting by 58% in value between 2007 and 2009, as prices and the supply of high-quality works declined. It bounced back quickly, however, and reached a new record high of $7.9 billion in 2014. From this peak, sales fell for two years, but saw a turnaround again in 2017, with most major markets advancing in value, with the exception of China.

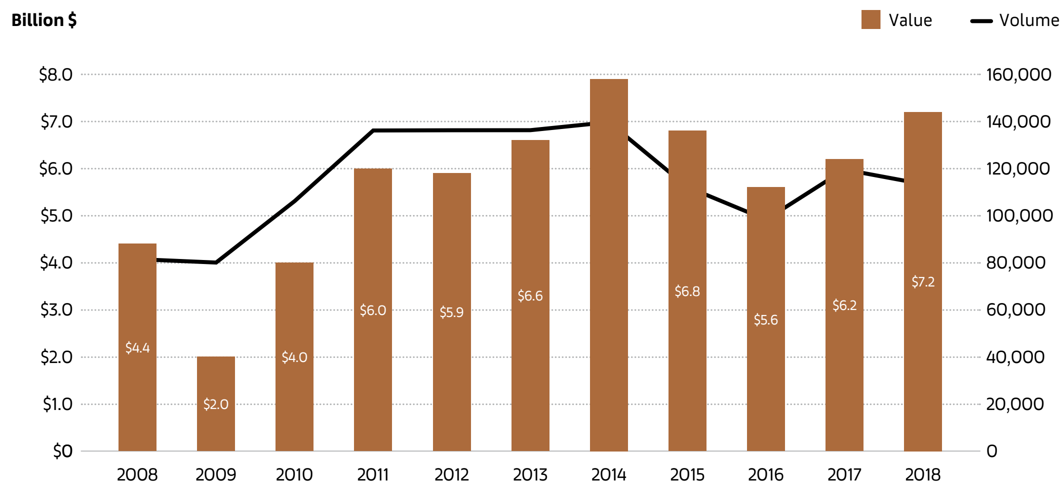
After another strong year of growth in 2018, sales of Post-War and Contemporary art increased in value by 63% in the decade from 2008 to 2018, although they are still down 8% from their peak in 2014.

The US was the largest center worldwide for sales of Post-War and Contemporary art in 2018, as it has been during most years in recent history, with a stable share of 41% by value and 20% of the number of transactions, the latter being second to China (at 23%).

After five years of rapid growth in sales up to 2014, the US market decreased in value between 2014 and 2016, bringing values to $2 billion. However, strong growth in both 2017 and 2018 saw sales reach $3 billion, an increase of 15% year-on-year and 74% in the 10 years from 2008. Although still shy of its peak, the market has gained more than 310% in value since the bottom of the market in 2009.

China maintained its position in second place in 2018, with Contemporary art being one of the few sectors of the market in China that showed annual growth. The market grew by 25% year-on-year to $2.1 billion, with some strong performing artists such as Zao Wou-Ki setting new records for sales by Asian artists. Sales were still less than the peak of 2011, when China was temporarily the largest market for Post-War and Contemporary art globally at $2.2 billion. However, despite volatility, the market has advanced to more than four times its size in 10 years and averaged 28% annual growth in the period from 2008 to 2018.

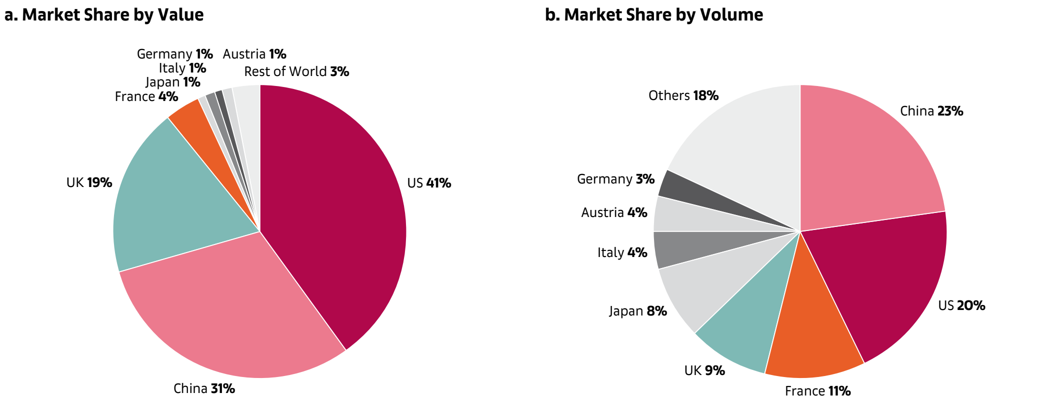
Figure 4.13 | The Post-War and Contemporary Art Sector 2008–2018



The share of sales in the UK market was also relatively stable at 19% by value. Sales in the UK increased 21% year-on-year, the market's second year of growth (reaching just under $1.4 billion), still just 5% below the peak in 2015. However, even with this growth and several top lots auctioned in London, the market is still 11% below the level of 2008.

Elsewhere in the EU, France saw sales contract by 3%, to $310 million, with mixed performances in other markets. The strength of growth in the UK market was enough to ensure a rise of 13% year-on-year for the EU, to $1.9 billion. The global share of the EU by value was down marginally (by 1% to 26%), but measured without the UK market, EU sales would have declined by 6% and would account for only 7% of this global sector.

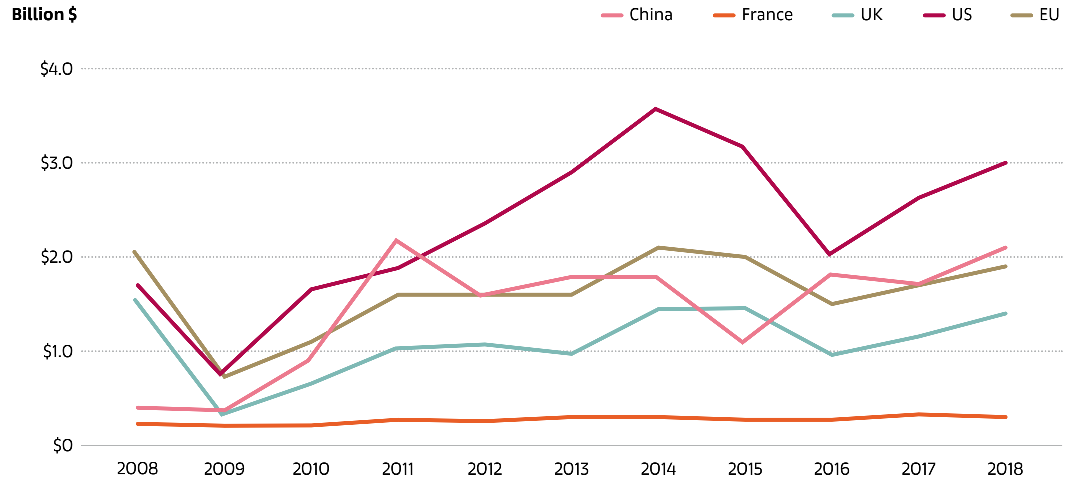
Figure 4.14 | **Market Share of the Post-War and Contemporary Sector in 2018**



While many of the multimillion-dollar works sold at auction have been in the Post-War and Contemporary sector in recent years, the bulk of transactions in the sector are at much lower price levels. In 2018, 92% of works that were sold at auction in this sector were priced below $50,000, despite accounting for just 10% of total sales values. As in 2017, the majority (67%) of works sold were at prices of less than $5,000, and these lower-value sales only accounted for 2% of the sector's total value.

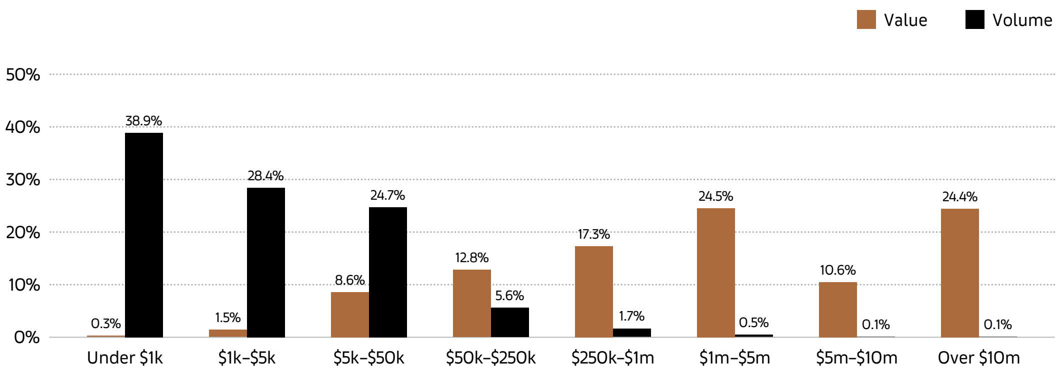
Works priced at more than $1 million, on the other hand, accounted for the majority (60%) of value in 2018 in less than 1% of lots sold, and the share of value in the highest segment of works sold in excess of $10 million was stable year-on-year, at 24%.

Figure 4.15 | **Sales in the Post-War and Contemporary Sector 2008–2018: Key Markets**



Works priced at over $1 million accounted for 60% of value in the Post-War and Contemporary sector in 2018 in less than 1% of lots sold

Figure 4.16 | **Sales by Price Bracket in the Post-War and Contemporary Sector in 2018**



Most of the highest-priced lots in the Post-War and Contemporary sector were sold in New York in 2018

The highest-selling artist at auction in 2018 in the sector was Zao Wou-Ki, with sales of $310 million. His work *Juin-Octobre 1985* sold for $65.2 million at Sotheby's Hong Kong, setting a new record for an Asian oil painter, and becoming the most expensive work of art ever sold in Hong Kong. Jean-Michel Basquiat moved down to second place, with $254 million in sales, while Andy Warhol ranked third, with a market of $237 million. The top 20 artists in this sector accounted for 36% of the value of total sales (up 3% year-on-year).

Most of the highest-priced lots in this sector were sold in New York in 2018 and the major auction houses dominated, with Christie's, Sotheby's, and Phillips accounting for nearly three-quarters of the total sales values.

Table 4.3 | **The 20 Top-Selling Post-War and Contemporary Artists in 2018**

Rank	Artist	Share of Value	Nationality
1	Zao Wou-Ki	4.3%	Chinese
2	Jean-Michel Basquiat	3.6%	American
3	Andy Warhol	3.4%	American
4	David Hockney	2.9%	English
5	Willem de Kooning	2.2%	Dutch
6	Gerhard Richter	2.0%	German
7	Francis Bacon	1.8%	English
8	Jackson Pollock	1.5%	American
9	Lucio Fontana	1.5%	Argentinian
10	Alexander Calder	1.4%	American
11	Mark Rothko	1.4%	American
12	Richard Diebenkorn	1.4%	American
13	Yayoi Kusama	1.3%	Japanese
14	Wu Guanzhong	1.3%	Chinese
15	Joan Mitchell	1.2%	American
16	Christopher Wool	1.1%	American
17	Peter Doig	1.1%	Scottish
18	George Condo	0.9%	American
19	Roy Lichtenstein	0.9%	American
20	Jasper Johns	0.8%	American
Others		63.9%	

Table 4.4 | **Top Prices in the Post-War and Contemporary Sector in 2018**

Artist	Title	Price ($m)	Auction House	Sale Region
David Hockney	*Portrait of an Artist (Pool with Two Figures)*	$90.3	Christie's	US
Willem de Kooning	*Woman as Landscape*	$68.9	Christie's	US
Zao Wou-Ki	*Juin-Octobre 1985*	$65.2	Sotheby's	China
Jackson Pollock	*Composition with Red Strokes*	$55.4	Christie's	US
Francis Bacon	*Study for Portrait*	$49.8	Christie's	US
Jean-Michel Basquiat	*Flexible*	$45.3	Phillips	US
Andy Warhol	*Double Elvis*	$37.0	Christie's	US
Mark Rothko	*Untitled (Rust, Blacks on Plum)*	$35.7	Christie's	US
Jackson Pollock	*Number 32, 1949*	$34.1	Sotheby's	US
Gerhard Richter	*Abstraktes Bild*	$32.0	Sotheby's	US

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A Note on Living Artists

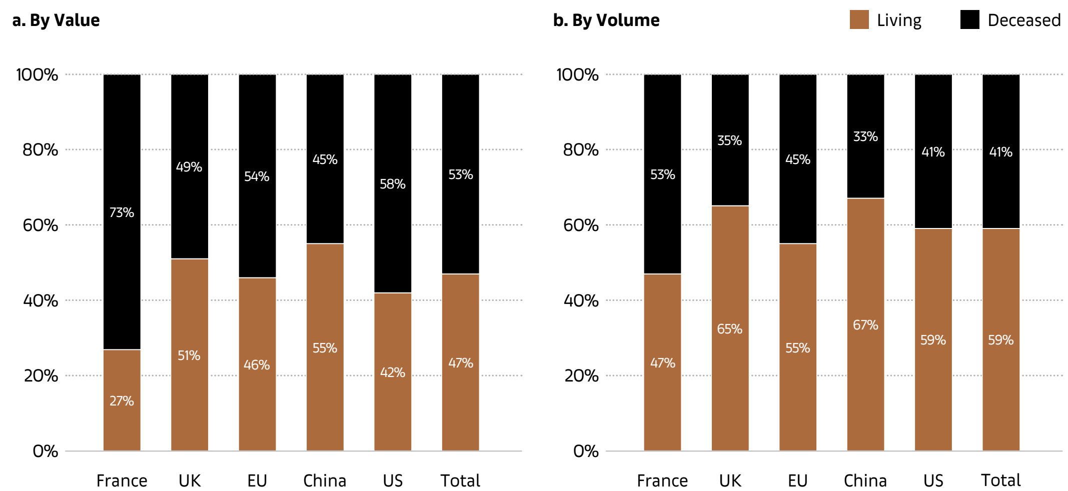
The Post-War and Contemporary sector covers a very wide range of artists, including both deceased and living artists at various stages of their careers. Although there are some noteworthy examples of primary-market sales at auction, they are very rare and most sales of works by living artists at auction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

The sales of living artists' work typically comprise a minority of the value of all sales of Post-War and Contemporary art. However, this proportion has fluctuated annually and varies between countries.

2018 was a notable year for sales in this segment, with English artist David Hockney's *Portrait of an Artist (Pool with Two Figures)* achieving the top overall price in this sector, at $90.3 million at Christie's New York, a record price for a living artist and far surpassing the previous record, held by Jeff Koons for *Balloon Dog (Orange)*, which sold for $58.4 million in 2013.

The auction market for works by living artists increased by 23%, to $3.3 billion, in 2018. This was a larger increase in value than the Post-War and Contemporary sector as a whole, and despite a drop of 4% in the number of lots sold. This brought the

Figure 4.17 | **Share of Sales by Living Versus Deceased Post-War and Contemporary Artists in 2018**



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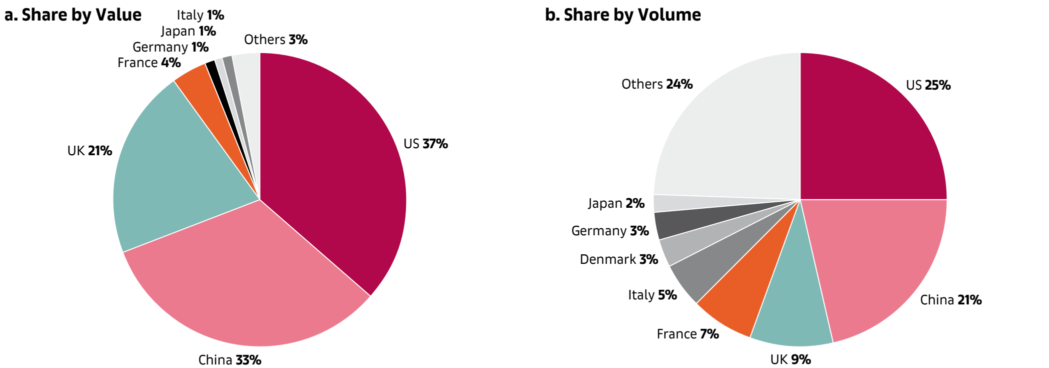
The auction market for works by living artists increased by 23% to $3.3 billion in 2018 – a larger increase in value than the Post-War and Contemporary sector

Figure 4.18 | **Share of Sales of Works by Living Artists at Auction in 2018**



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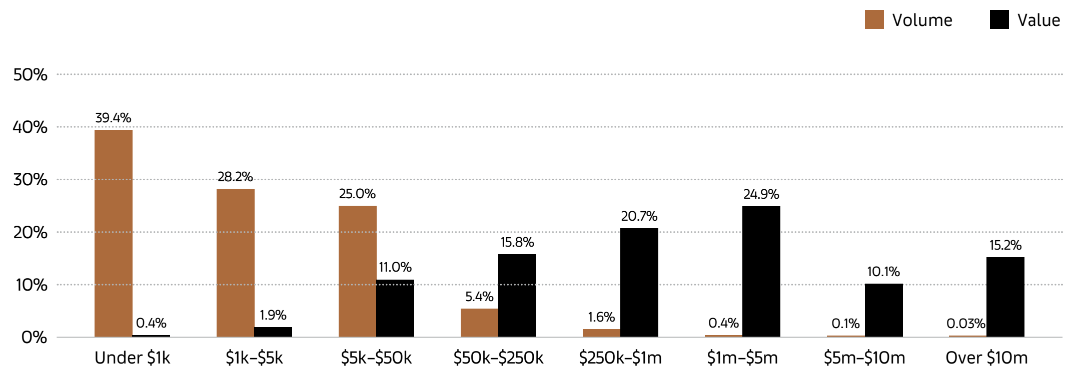
share of sales by living artists in the Post-War and Contemporary sector to 47% in 2018 (up marginally by 1% on 2017). Within this segment, 35% of those sales of living artists' works were those created in the past 20 years (and 29% of their volume), indicating that there is a rapid turnaround for some artists from the primary market to the secondary sector. In terms of the overall Post-War and Contemporary sector, works created in the past 20 years accounted for 15% of the value of sales and 21% by volume.

Figure 4.17 shows that the share of value in the segment of living artists' works varies between countries. As in 2017, China had the highest share of sales by living artists in its contemporary sales at 55%, down 2% on 2017. The UK market also maintained a high share, with the Post-War and Contemporary sector split fairly evenly between living and deceased artists' work, while France had a much lower share of 27%. The David Hockney sale in New York, along with other lots priced in excess of $20 million by

Figure 4.19 | **Sales of Living Artists by Price Bracket in 2018**



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35% of the value of sales of living artists' work were works created in the past 20 years

artists such as Gerhard Richter, Jeff Koons, Jasper Johns, and Kerry James Marshall, pushed the share of living artists in the US market up to 42% (from 32% in 2017).

The distribution of sales by value in this segment of Post-War and Contemporary art is much like in the wider sector, with the US leading with a global share of 37% in 2018. China was the biggest market in 2017, with a share of 37% by value, but fell back to 33% in 2018, and second, slightly ahead of the UK (21%).

Table 4.5 | The 20 Top-Selling Living Artists in 2018

Rank	Artist	Share of Value	Nationality
1	David Hockney	6.4%	English
2	Gerhard Richter	4.3%	German
3	Yayoi Kusama	2.9%	Japanese
4	Christopher Wool	2.4%	American
5	Peter Doig	2.4%	Scottish
6	George Condo	1.9%	American
7	Jasper Johns	1.7%	American
8	Mark Bradford	1.5%	American
9	Rudolf Stingel	1.3%	Italian
10	Georg Baselitz	1.3%	German
11	Pierre Soulages	1.3%	French
12	Kerry James Marshall	1.2%	American
13	Jeff Koons	1.1%	American
14	Frank Stella	1.0%	American
15	Kaws	1.0%	American
16	Fernando Botero	1.0%	Columbian
17	Takashi Murakami	0.9%	Japanese
18	Richard Prince	0.9%	American
19	Cui Ruzhuo	0.9%	Chinese
20	Yoshitomo Nara	0.9%	Japanese
Others		64.0%	

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These three markets also accounted for just over half of the number of lots sold in 2018.

While 2018 highlighted a number of living artists with works selling in excess of $10 million at auction, as in most years, the vast majority of sales in this segment were at much lower prices. 92% of auction transactions in this sector were below $50,000, although these accounted for just 13% of the value of the market. The majority of lots sold (68%) were at prices less than $5,000. This segment of Post-War and Contemporary art is somewhat less skewed to the high end than the wider sector, but in 2018, works priced above $1 million still accounted for half of the value of the sector in less than 1% of lots sold. The largest segment by value was sales between $1 million and $5 million, as it has been for the past two years.

David Hockney was the top-selling artist in this segment of the market, with sales of more than $205 million. Despite a rise of 30% in sales, Gerhard Richter fell back to second place and Yayoi Kusama came in third, one of the few women making the top 20 in any sector. This was a less-concentrated market than the Post-War and Contemporary sector as a whole, with these 20 artists representing 36% of the value of all works sold by living artists.

Table 4.6 | Top Prices for Living Artists in 2018

Artist	Title	Price ($m)	Auction House	Sale Region
David Hockney	*Portrait of an Artist (Pool with Two Figures)*	$90.3	Christie's	US
Gerhard Richter	*Abstraktes Bild (1987)*	$32.0	Sotheby's	US
David Hockney	*Pacific Coast Highway and Santa Monica*	$28.5	Sotheby's	US
Jeff Koons	*Play-Doh*	$22.8	Christie's	US
Cui Ruzhuo	*Snowy Mountains*	$21.5	China Guardian	China
Jasper Johns	*Gray Rectangles*	$21.1	Christie's	US
Kerry James Marshall	*Past Times*	$21.1	Sotheby's	US
Peter Doig	*The Architect's Home in the Ravine*	$20.0	Sotheby's	UK
Gerhard Richter	*Abstraktes Bild (1991)*	$16.6	Sotheby's	US
Christopher Wool	*Untitled*	$15.2	Christie's	US

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While 2018 highlighted a number of living artists with works selling in excess of $10 million at auction, 68% of lots sold were at prices less than $5,000

4.7 | Modern Art

The Modern art sector was the second largest in the fine art market in 2018, with a share of 29% by value and 31% by volume. The value of aggregate sales in this sector has been lower than Post-War and Contemporary art for the past five years, with the margin between them reaching its highest level of 29% in 2016. This reduced to 21% in 2018.

The Modern art sector grew rapidly up to 2007 but, like most other sectors, suffered a substantial contraction in sales in the two years to 2009, losing one-third of its value. The boom in Chinese sales helped the sector to recover strongly and it more than doubled in value to an historical peak of $5.4 billion in 2011.

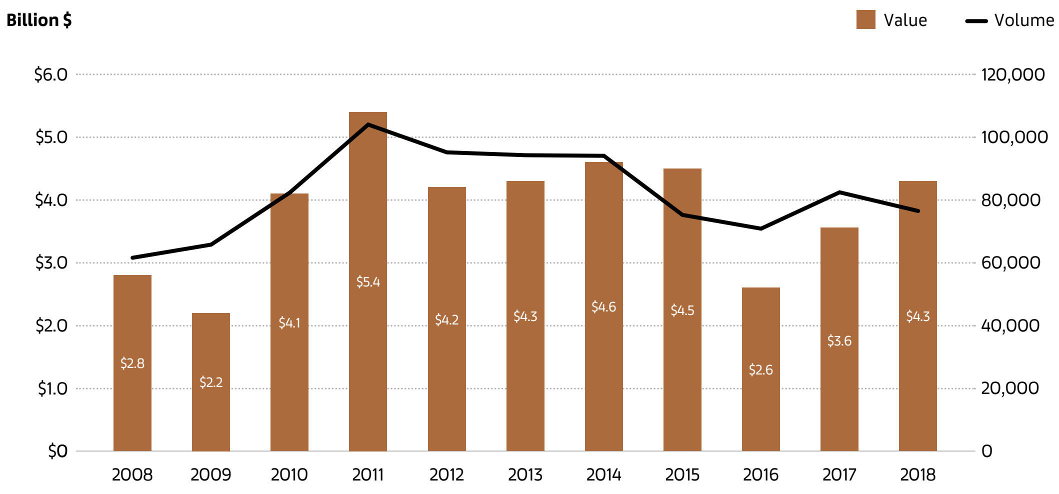
The Chinese downturn caused a drop in sales, but from 2001 through 2015 sales were relatively stable. In 2016, as supply at the very high end of the market contracted, sales fell 43% to $2.6 billion, their lowest level since 2009. Two years of strong growth since that point brought sales to $4.3 billion in 2018, up 19% year-on-year despite a decline of 10% in the volume of transactions. Sales of Modern art increased 53% in value in the 10 years between 2008 and 2018, although the volume of sales only grew by less than half that amount, indicating that rising prices have driven growth in the sector.

The US was the largest auction market for Modern art in 2018, moving up from second place in 2017 and gaining an 8% share by value to reach 41%. Sales peaked in 2015 at a high of just over $2 billion but fell substantially by 67% in 2016. Values rose by 80% in 2017, which, combined with 48% growth in 2018, left the market at $1.8 billion, 70% higher than 10 years earlier.

Despite a rise in sales of 15% to $1.4 billion, China fell back to second place in the global ranks with a 33% share of sales. China had the largest number of lots sold in this sector, with 29% of transactions. The market in China is still just over half the size it was at the peak of sales in 2011, when it was the largest market worldwide in this sector, with $2.7 billion in sales and a share of 50% of global values. However, in the decade since 2008, values have grown significantly, increasing by more than 990%.

The UK market followed the positive trajectory of 2017, growing by 12% year-on-year to $767 million in 2018. Although sales have recovered well from their low point in 2009 (when they fell to $351 million), they remain 22% less than in 2008. Sales elsewhere in Europe did not fare as well, with values in most other markets contracting, including the French market, where sales dropped by 42% to $145 million. The poor performance of these markets kept EU sales stagnant

Figure 4.20 | The Modern Art Sector 2008–2018



at just over $1 billion, while its global share by value fell by 5% year-on-year to 24%.

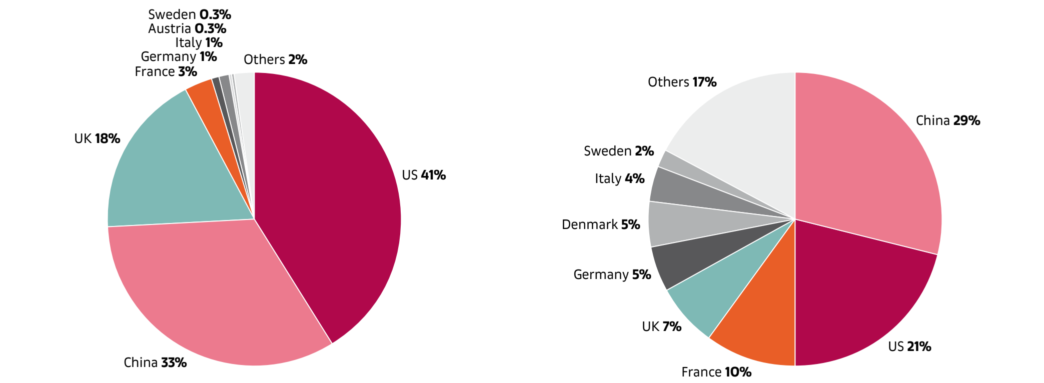
The share of the EU market in this sector has declined dramatically over 10 years, with it accounting for 52% of global sales of Modern art in 2008. Without the UK market, the EU would have accounted for only 6% of global sales in 2018.

Two years of strong growth brought sales of Modern art to $4.3 billion in 2018 up 19% on 2017

Figure 4.21 | **Market Share of the Modern Sector in 2018**

a. Market Share by Value

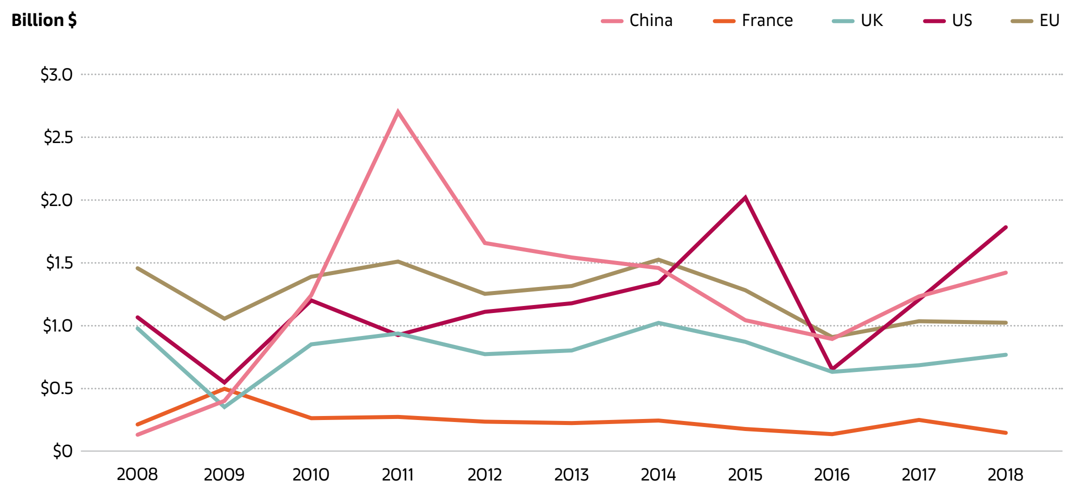
b. Market Share by Volume



While the Modern sector is well known for sales of very high priced lots, in 2018, 92% of the lots sold in the Modern sector were for prices below $50,000, despite these transactions accounting for just 9% of overall sales values. The majority (66%) of lots sold were at prices less than $5,000, although these accounted for a very small share of just 2% of total sales values.

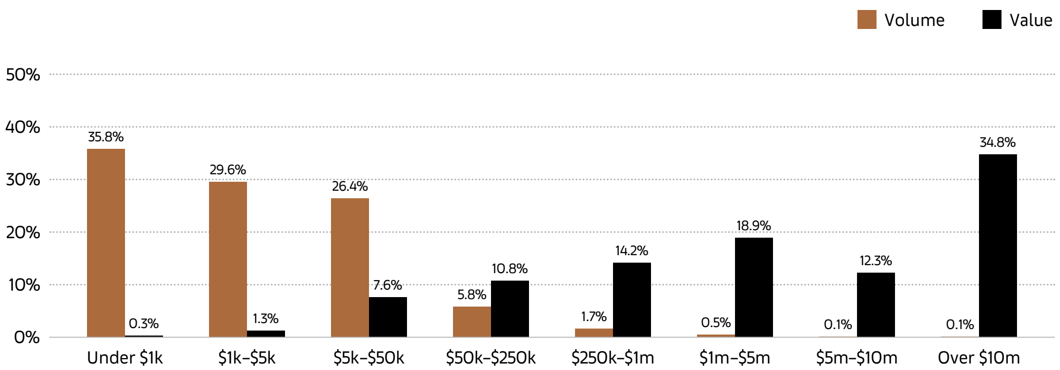
Sales of works priced above $1 million, although representing less than 1% of the number of lots, accounted for 66% of the overall value, and the share of value in the segment above $10 million was 35%, the largest segment by value by a considerable margin, but down 3% on 2017.

Figure 4.22 | **Sales in the Modern Sector 2008–2018: Key Markets**



The US was the largest auction market for Modern art in 2018, gaining an 8% share by value from 2017 to reach 41%

Figure 4.23 | **Sales in the Modern Sector by Price Bracket in 2018**



Works priced above $1 million, although representing less than 1% of the number of lots, accounted for 66% of the value of Modern art sold at auction in 2018

Picasso was the top-selling artist in this sector in 2018, as he was in 2017 and many previous years. Sales of his works reached $717 million, up 75% year-on-year, accounting for 17% of the market's value and five of the top 10 lots sold at auction.

Zhang Daqian was in second place, with $297 million in sales, and Amedeo Modigliani was in third, with sales of $162 million. Most of this came from the one top lot at auction, *Nu couché (sur le côté gauche),* which was offered for sale under a guarantee by a third party, and sold for $157.2 million at Sotheby's in New York. This was the highest price in the Modern sector and also in the fine auction market as a whole in 2018. Sotheby's also reported that it was the highest price ever paid by a bidder at Sotheby's. Sales in the Modern sector were more concentrated around these top 20 artists than in Post-War and Contemporary, accounting for 60% of total values in 2018.

Christie's and Sotheby's together generated 62% of total sales values in this sector in 2018, while Phillips, China Guardian, and Poly Auction made up a further 10%.

Table 4.7 | **The Top-Selling Artists in the Modern Sector in 2018**

Rank	Artist	Share of Value	Nationality
1	Pablo Picasso	16.8%	Spanish
2	Zhang Daqian	7.0%	Chinese
3	Amedeo Modigliani	3.8%	Italian
4	Fu Baoshi	3.2%	Chinese
5	Joan Miró	2.9%	Spanish
6	Edward Hopper	2.8%	American
7	Alberto Giacometti	2.7%	Swiss
8	Xu Beihong	2.6%	Chinese
9	Kazimir Malevich	2.3%	Russian/Ukrainian
10	Li Keran	2.1%	Chinese
11	René Magritte	1.8%	Belgian
12	Constantin Brancusi	1.7%	Romanian
13	Marc Chagall	1.6%	Russian/French
14	Fernand Léger	1.6%	French
15	Georgia O'Keeffe	1.6%	American
16	Pan Tianshou	1.5%	Chinese
17	Lu Yushao	1.2%	Chinese
18	Henry Moore	1.0%	English
19	Maurice de Vlaminck	0.9%	French
20	Egon Schiele	0.9%	Austria
Others		40.0%	

Table 4.8 | Top Prices in the Modern Sector in 2018

Artist	Title	Price ($m)	Auction House	Sale Region
Amedeo Modigliani	*Nu couché (sur le côté gauche)*	$157.2	Sotheby's	US
Pablo Picasso	*Fillette à la corbeille fleurie*	$115.0	Christie's	US
Edward Hopper	*Chop Suey*	$91.9	Christie's	US
Kazimir Malevich	*Suprematist Composition*	$85.8	Christie's	US
Constantin Brancusi	*La jeune fille sophistiquée*	$71.0	Christie's	US
Pablo Picasso	*Femme au béret et à la robe quadrillée*	$68.6	Sotheby's	UK
Pablo Picasso	*La Dormeuse*	$57.8	Phillips	UK
Pan Tianshou	*View from the Peak*	$41.4	China Guardian	China
Pablo Picasso	*Le Repos*	$36.9	Sotheby's	US
Pablo Picasso	*Buste de femme de profil*	$36.0	Sotheby's	UK

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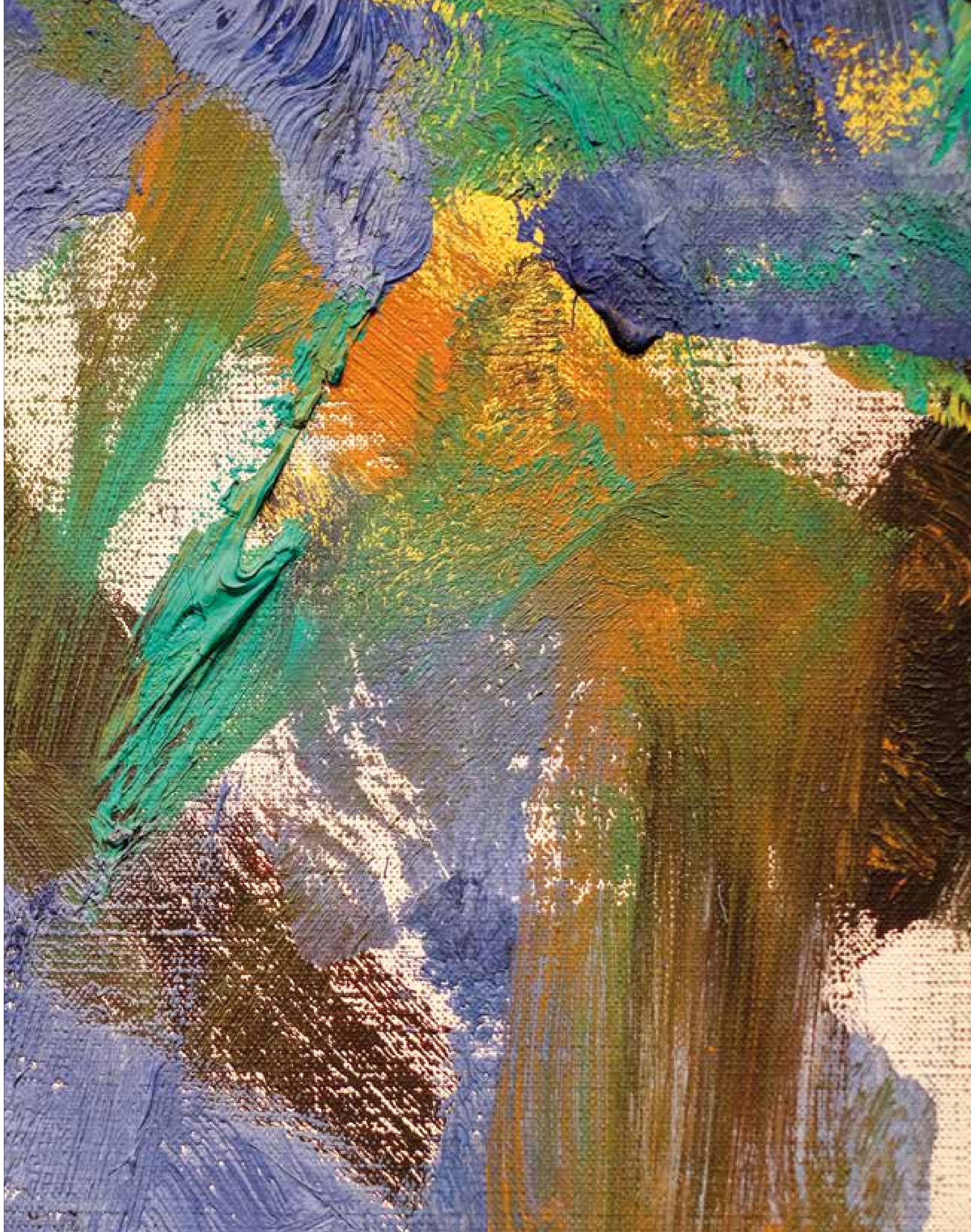
Christie's and Sotheby's together generated 62% of total sales values in this sector in 2018, while Phillips, China Guardian, and Poly Auction made up a further 10%



4.8 | Impressionist and Post-Impressionist

In past decades, the sale of Impressionist and Post-Impressionist works was one of the leading drivers of the art market, and it was instrumental in the market's boom in the late 1980s. Paintings in this sector were a favorite of many Japanese collectors and this supported an escalation in sales. However, after the market collapsed in the early 1990s, these collectors virtually disappeared from the market as the Japanese economy and global art market plunged into recession. The significant market share formerly held by this sector shrank in direct proportion to these events. While it stayed at about 30% during the 1990s, from about 2000, sales of Modern art began to exceed those in the Impressionist and Post-Impressionist sector, with the margin closing even more as Post-War and Contemporary art sales grew. By 2005, sales of Impressionist and Post-Impressionist works combined made up just 20% of the market. In 2018, the sector's share by value was 15% (down from 17% in 2017), with a 14% share in the number of global fine art lots sold at auction.

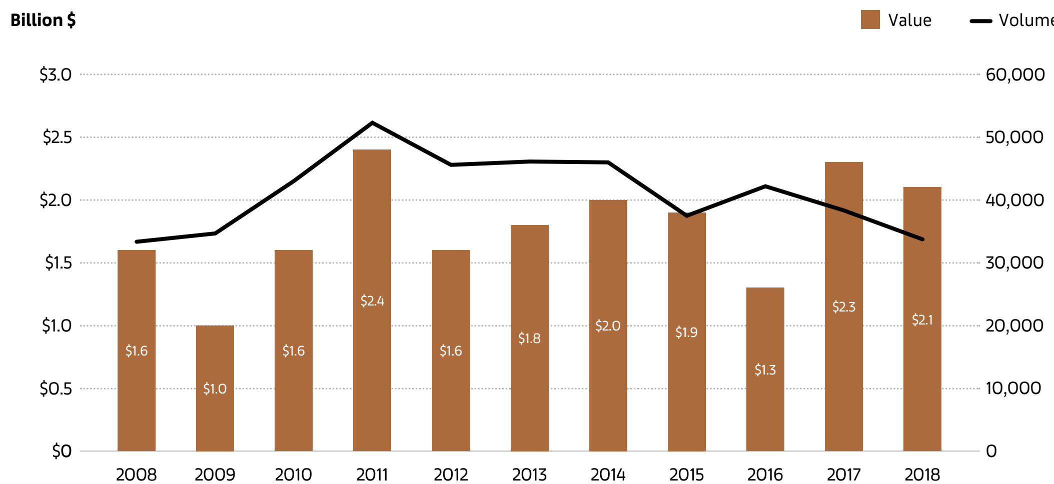
The Impressionist and Post-Impressionist sector has had mixed performance over the past 10 years. Like the other fine art sectors, after a period of growth up to 2007, sales declined in the two years that followed, falling to their lowest point of the decade ($1 billion in 2009). However, buoyed by strong sales in China, values recovered strongly, reaching a peak of $2.4 billion in 2011. China was also instrumental in the 31% decline in the market in 2012, which was followed by a period of poor and unsteady growth up to 2016. Sales improved in 2017 with a massive increase of 71%, bringing the market to $2.3 billion. However, this was not sustained: sales values declined by 8% to $2.1 billion in 2018, while the number of lots sold also contracted by 12%.

There was dramatically different performance by region in this sector in 2018, with the two largest markets, the US and China, on opposite paths of growth. The US regained its position as the leading market, with a share of 51% of sales by value, an increase in share of 16% year-on-year. Sales in the US grew 45% year-on-year to reach $1.1 billion, its second year of double-digit growth, with record prices in excess of $80 million achieved for lots by artists such as Claude Monet and Henri Matisse at Christie's New York.

China was the largest market worldwide in this sector in 2017. However, the market fell by 36% year-on-year to $509 million, with China's share contracting by 11% to 24%. The volume of sales was steadier and China retained a marginally larger share than the US market, with 22% of lots sold.

Sales in the UK lost about a third of their value during 2018, falling to $344 million and 43% below their level in 2008. The share of sales by value in the UK fell 7% year-on-year, while volumes were more stable. Sales in France grew 6% (to $71 million), but several other EU markets declined and the European art market as a whole dropped 25%, to $493 million. In 2018, its share by value, at 23%, was the lowest it had been for 10 years.

Figure 4.24 | Impressionist and Post-Impressionist Auction Sales 2008–2018



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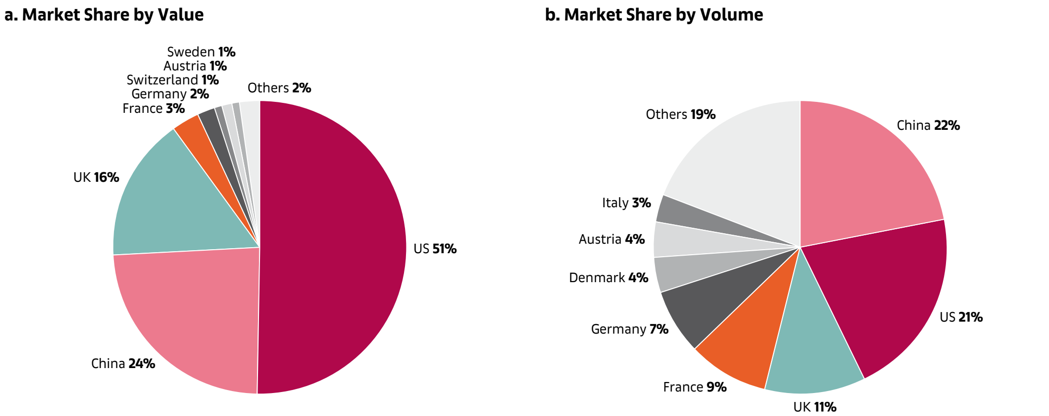
Impressionist and Post-Impressionist auction sales declined by 8% to $2.1 billion

Figure 4.25 | **Market Share of the Impressionist and Post-Impressionist Sector in 2018**



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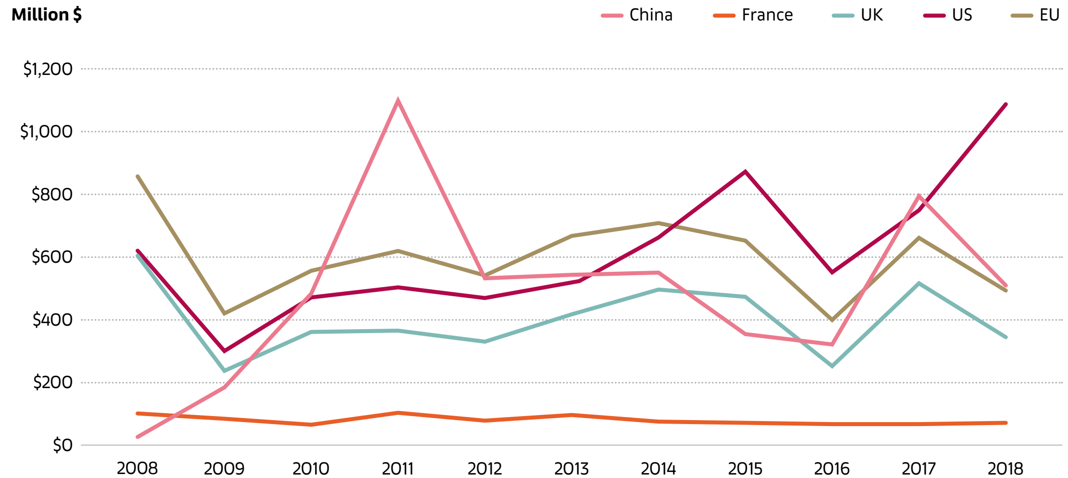
High-value lots continued to dominate sales in the sector in 2018, with works sold for more than $1 million accounting for 66% of the value of sales in less than 1% of transactions. The share of this million-dollar-plus segment declined slightly year-on-year by 5%. However, the largest segment by value was again the $10 million-plus segment, accounting for 36% of the market, down from 40% in 2017. The bulk of the volume of transactions at auction remained in the lower price levels, with 91% of works sold during the year going for prices less than $50,000, although these made up just 8% of the market's value. A majority (65%) were priced below $5,000 and these represented just 1% of the sector's value.

Figure 4.26 | **Sales in the Impressionist and Post-Impressionist Sector 2008–2018: Key Markets**



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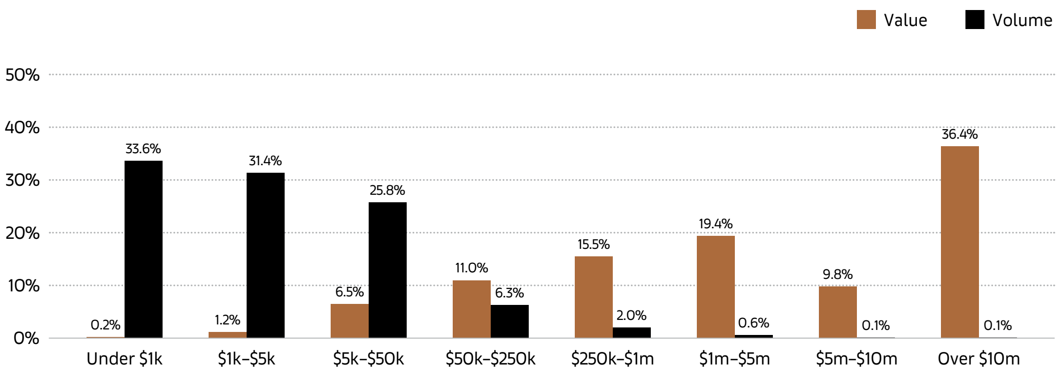
The US regained its position as the leading Impressionist and Post-Impressionist auction market, with a share of 51% of sales by value

Figure 4.27 | **Sales by Price Bracket in the Impressionist and Post-Impressionist Sector 2018**



The largest segment by value was the $10 million-plus segment, accounting for 36% of the market

Claude Monet was the highest-selling artist in the sector in 2018, with a market of $355 million, up 90% in value year-on-year and accounting for 17% of the value of sales. This compares to just 8% in 2017. He also had five of the highest-priced lots. These included *Nymphéas en fleur*, which sold at Christie's in New York for $84.7 million as part of the Rockefeller Collection, a record for the artist. Henri Matisse was the second-highest-selling artist with $154 million in sales, and also one of the top-selling lots as part of the same collection at Christie's. The Chinese artist Qi Baishi moved down from second to third place in 2018 with sales of $153 million. The top 20 artists in the sector accounted for 65% of total sales by value, up from just 49% in 2017, with a much greater concentration at the top end versus other sectors.

The majority of the top-selling lots sold during the year were sold at Christie's, which accounted for nearly half the value of sales in the sector during the year. Combined with Sotheby's, the two top auction houses accounted for 67% of the value of sales in the sector in 2018.

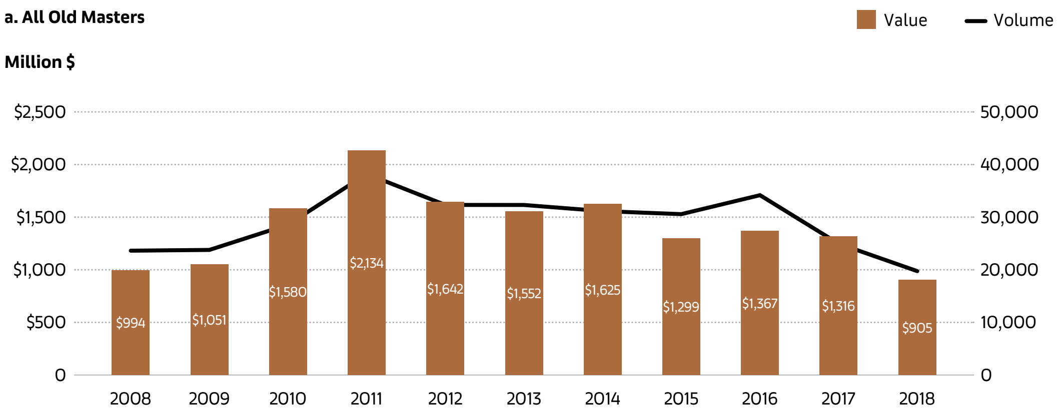
Table 4.9 | **The 20 Top-Selling Impressionist and Post-Impressionist Artists in 2018**

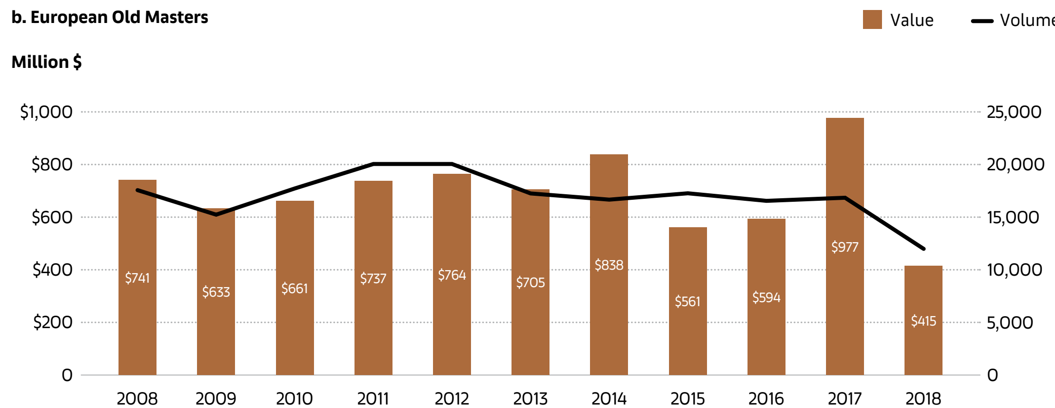
Rank	Artist	Share of Value	Nationality
1	Claude Monet	16.7%	French
2	Henri Matisse	7.3%	French
3	Qi Baishi	7.2%	Chinese
4	Wassily Kandinsky	4.4%	Russian
5	Huang Binhong	4.4%	Chinese
6	Paul Gauguin	3.3%	French
7	Wu Changshuo	2.4%	Chinese
8	Vincent van Gogh	2.1%	Dutch
9	Camille Pissarro	1.9%	Danish/French
10	Auguste Rodin	1.9%	French
11	Edgar Degas	1.9%	French
12	Georges Seurat	1.7%	French
13	Paul Signac	1.7%	French
14	Pierre-Auguste Renoir	1.6%	French
15	Edouard Manet	1.6%	French
16	Pierre Bonnard	1.1%	French
17	Paul Cézanne	1.0%	French
18	Alfred Sisley	09%	French
19	Edouard Vuillard	0.9%	French
20	Alexej von Jawlensky	0.9%	Russian
Others		35.3%	

Table 4.10 | Top Prices in the Impressionist and Post-Impressionist Sector in 2018

Artist	Title	Price ($m)	Auction House	Sale Region
Claude Monet	*Nymphéas en fleur*	$84.7	Christie's	US
Henri Matisse	*Odalisque couchée aux magnolias*	$80.8	Christie's	US
Vincent van Gogh	*Vue de l'asile et de la Chapelle Saint-Paul de Mausole (Saint-Rémy)*	$39.7	Christie's	US
Paul Gauguin	*La Vague*	$35.2	Christie's	US
Georges Seurat	*La rade de Grandcamp (Le port de Grandcamp)*	$34.1	Christie's	US
Claude Monet	*Extérieur de la Gare Saint-Lazare, effet de soleil*	$32.9	Christie's	US
Claude Monet	*La Gare Saint-Lazare, vue extérieure*	$32.9	Christie's	UK
Claude Monet	*Le bassin aux nymphéas*	$31.8	Christie's	US
Wassily Kandinsky	*Improvisation auf Mahagoni*	$24.2	Sotheby's	US
Wassily Kandinsky	*Zum Thema Jüngstes Gericht*	$22.9	Sotheby's	US

Figure 4.28 | **Old Masters Painting Sales 2008–2018**





4.9 | Old Masters and European Old Masters

The Old Masters sector is the smallest of the fine art sectors. It accounted for a 6% share of the value of the fine art auction market in 2018, down 3% year-on-year, and 8% of the number of transactions.

Old Masters paintings cover all works sold by artists born between 1250 and 1820 of all nationalities. However, the term 'Old Masters' is more commonly associated with the works of European artists. Just under half (46%) of the value of Old Masters works sold in 2018 were by European Old Master artists, down from 74% in 2017, when Leonardo da Vinci's top lot boosted values in this segment. However, the share is still higher than in 2016 (43%), mainly due to the decline in Chinese Old Masters sales in this sector during that year.

The Old Masters sector is the smallest of the fine art sectors, and accounted for a 6% share of the value of the fine art auction market in 2018

Table 4.11 | Global Market Share: Old Masters Paintings in 2018

Old Masters			European Old Masters		
Country	Share of Value	Share of Volume	Country	Share of Value	Share of Volume
China	49.7%	33.3%	UK	50.0%	21.3%
UK	23.5%	13.7%	US	31.3%	18.8%
US	18.1%	15.1%	Austria	5.4%	8.2%
Austria	2.5%	5.0%	France	5.1%	10.1%
France	2.4%	6.3%	Germany	4.5%	21.4%
Germany	2.1%	13.2%	Italy	0.9%	5.1%
Italy	0.4%	3.2%	Switzerland	0.9%	4.0%
Switzerland	0.4%	2.5%	Sweden	0.3%	1.7%
Others	0.9%	7.7%	Others	1.7%	9.3%

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Sales of Old Masters works reached a total value of just under $905 million in 2018

Sales of all Old Masters works reached a total value of just under $905 million in 2018, a decline of 31% in value year-on-year. The number of lots sold fell by 21%. In recent years, the market has been heavily influenced by Chinese Old Masters sales, peaking in 2011 at $1.2 billion at the height of the boom in China. Values dropped by 43% in 2012 as the Chinese market receded, and this was followed by a period of relative stability in the sector.

Although the magnitude of the drop in global sales in 2018 was partly due to the outlier lot in 2017, the market's decline over 10 years is also significant, with values at their lowest point, having fallen 9% in the decade from 2008.

Sales in the European Old Masters sector have tended to fare somewhat differently from other, more modern sectors of the fine art market, with annual sales generally less volatile. However, the past two years have proved an exception: 2017 saw a massive increase of 64%, with the market reaching an historical peak of $977 million. However, the size of this uplift was due to the Leonardo da Vinci lot, without which sales would have actually fallen 11%. In 2018, sales decreased by 58% in value and the number of lots also fell by 29%. This left the market at $415 million, its lowest level in 10 years, with a shortage of high-quality works in circulation dampening growth.

While the outlier lot put the US temporarily in the top spot in 2017, in 2018, China was once again the largest center for sales in the wider Old Masters sector, with a share of 50% by value and 33% of the lots sold. Despite the decline in the aggregate auction market in China, sales in this sector increased 53% year-on-year, to $449 million, restoring some of the losses of 2017, when the market declined by 54%. Sales are still significantly below the peak in the market in 2011, but, when considered over the decade, sales have advanced by 357%.

China was the largest center for sales in the wider Old Masters sector, with a share of 50% by value

Sales in the UK – the second-largest market in the wider Old Masters sector with a share of 24% – decreased 21% year-on-year, to $214 million. There were also declines in France and other smaller markets in the EU, where sales as a whole dropped by 22% to $283 million, which was 31% of the global total.

Sales in the US also fell significantly, by 75% to $164 million, its lowest level since 2010. In 2017, sales had advanced 162% year-on-year, to $646 million, by far their highest level in 10 years. However, without the Leonardo da Vinci lot, they would have declined by 21%, showing how important these extraordinarily high lots can be and emphasizing their outsized effects on market trends in a relatively thin market such as this. The US fell to third place in the global ranks, with sales accounting for an 18% global share by value, roughly on par with 2016.

In the European Old Masters sector, sales in all of the major art markets fell year-on-year. While the 79% decline in the US market, to $130 million, was explainable due to the extraordinary Leonardo da Vinci uplift in 2017, sales in other major centers, such as the UK, also dropped 22%.

UK sales of European Old Masters works were $208 million in 2018, their lowest level in 10 years and 39% less than a decade previously. The UK is a key global center for sales of European Old Masters paintings, and has been the leading market in this sector by value for most recent years. Despite its decreasing sales, it maintained the highest share of sales, accounting for half the market's value. (This was up 23% in share year-on-year as a more normal, pre-2017 hierarchy was restored.) The EU accounted for a much larger share of 67% of the value of sales of in this subsector of Old Masters, although without the UK this would be considerably smaller (16%).

The UK maintained the highest share of European Old Master sales, accounting for half the market's value

Figure 4.29 | Sales in the Old Masters Sector 2008–2018: Key Markets

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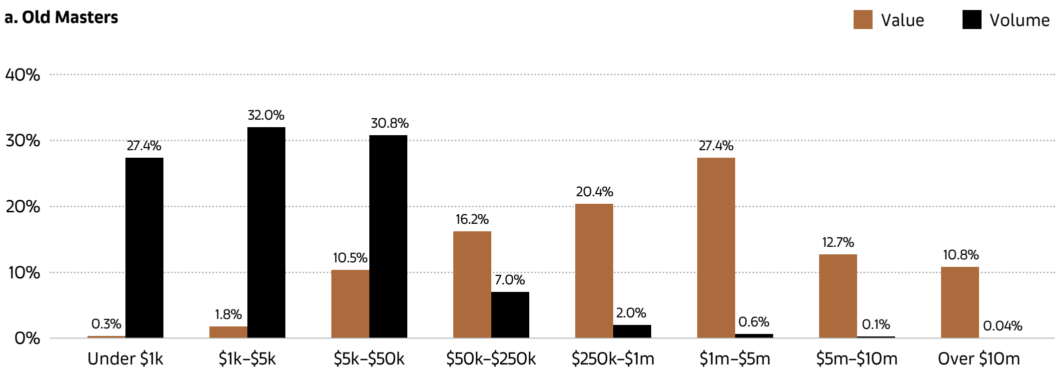
Figure 4.30 | Sales in the Old Masters Sector by Price Bracket in 2018



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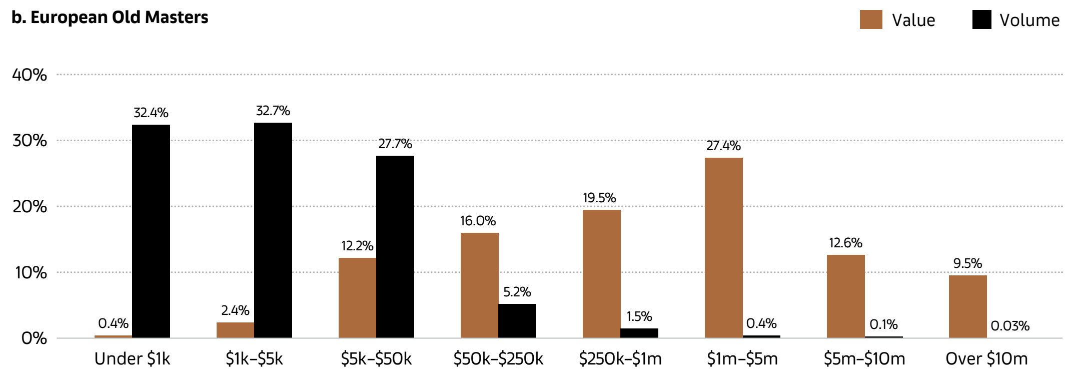

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In 2018, 90% of the lots sold in the Old Masters sector were priced at less than $50,000, with 59% below $5,000

Table 4.12 | The 20 Top-Selling Old Master Artists in 2018

Rank	Old Masters	Value	Nationality	European	Value	Nationality
1	Qian Weicheng	4.5%	Chinese	Rembrandt Harmensz. van Rijn	4.9%	Dutch
2	Bada Shanren	3.9%	Chinese	Anthony van Dyck	4.4%	Flemish
3	Wen Zhengming	2.5%	Chinese	Jean-Baptiste-Camille Corot	3.6%	French
4	Rembrandt Harmensz. van Rijn	2.2%	Dutch	Lucas van Leyden	3.5%	Dutch
5	Anthony van Dyck	2.0%	Flemish	Peter Paul Rubens	3.5%	Flemish
6	Wang Hui	1.8%	Chinese	Frans Hals the Elder	3.2%	Dutch
7	Jean-Baptiste-Camille Corot	1.6%	French	Eugène Delacroix	2.8%	French
8	Lucas van Leyden	1.6%	Dutch	Joseph Mallord William Turner	2.6%	English
9	Peter Paul Rubens	1.6%	Flemish	Lucas Cranach the Elder	2.1%	German
10	Frans Hals the Elder	1.5%	Dutch	Lodovico Carracci	1.6%	Italian
11	Zhang Zongcang	1.4%	Chinese	Gerard David	1.6%	Dutch
12	Gilbert Stuart	1.3%	American	Caspar David Friedrich	1.5%	German
13	Eugène Delacroix	1.3%	French	Jan Brueghel the Elder	1.3%	Flemish
14	Zheng Banqiao	1.3%	Chinese	Emanuel Gottlieb Leutze	1.2%	German/American
15	Joseph Mallord William Turner	1.2%	English	Canaletto	1.1%	Italian
16	Wang Yuanqi	1.1%	Chinese	Sir Thomas Lawrence	0.9%	English
17	Lucas Cranach the Elder	1.0%	German	Hans Baldung Grien	0.9%	German
18	Lodovico Carracci	0.7%	Italian	Albrecht Dürer	0.9%	German
19	Fu Shan	0.9%	Chinese	Balthasar van der Ast	0.8%	Dutch
20	Wang Meng	0.8%	Chinese	Jan Gossaert	0.8%	French
Others		65.7%			56.8%	

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In 2018, most (90%) of the lots sold in the Old Masters sector were priced at less than $50,000, with 59% below $5,000, down 3% year-on-year. These works accounted for just 13% of the market's value versus 87% for those priced over $50,000. The share of value accounted for by works selling more than $1 million was smaller than some other sectors at 51%, and this fell significantly by 20% year-on-year, but was close to the same share achieved in 2016. The largest segment by value in 2018 was works priced between $1 million and $5 million, whereas the $10 million-plus segment had dominated in 2017.

There was a very similar distribution of sales in the European Old Masters subsector, with a slightly higher 93% of the lots sold priced at less than $50,000. These accounted for 15% of the sector's total sales values, double the share of 2017. Lots sold for more than $1 million accounted for 50% of the sector's sales values (on par with 2016) in less than 1% of the transactions in 2018.

Values in the Old Masters sector are less concentrated on the top artists than in other parts of the market. In 2018, the top 20 artists selling in the wider sector accounted for 34% of the value of sales (versus 49% in 2017). The top artists were slightly more dominant in the European Old Masters sector, with a share of 43% of the value of sales.

While Leonardo da Vinci dominated the top-selling artists in 2017, three Chinese artists led the market in 2018, although these accounted for a combined share of only 11%. The renowned Imperial Court painter Qian Weicheng had the highest-value sales and highest-selling lot with his hand scroll *Ten Auspicious Landscapes of Taishan*, which sold for $18.7 million at Sotheby's in Hong Kong.[57] Rembrandt was the highest-selling European Old Masters artist, and also had one of the top three lots, *Study of the Head and Clasped Hands of a Young Man as Christ in Prayer*, which sold at Sotheby's London for $12.1 million.

Christie's and Sotheby's were the largest auction houses in both the wider segment and European Old Masters. In the wider segment, they accounted for almost 50% of the market, with Chinese houses such as Poly Auction, Beijing Council, and China Guardian also accounting for significant sales. However, in European Old Masters, their share was 81% of the market.

In 2018, the top 20 Old Master artists accounted for 34% of the value of sales

57 It is interesting to note that one of the highest-value lots of Chinese art sold in 2018 actually predated the Old Masters sector, with *Wood and Rock*, a painting from the Song dynasty by the artist Su Shi (1037-1101), selling for $59.2 million at Christie's Hong Kong.

Table 4.13 | **Top Prices in the Old Masters Sector in 2018**

a. All Old Masters

Artist	Lot Title	Price ($m)	Auction House	Sale Region
Qian Weicheng	*Ten Auspicious Landscapes of Taishan*	$18.7	Sotheby's	China
Lucas van Leyden	*A young man standing*	$14.6	Christie's	UK
Frans Hals the Elder	*Portrait of a gentleman, aged 37; and Portrait of a lady, aged 36*	$12.8	Christie's	UK
Wen Zhengming	*Landscape*	$12.8	Poly Auction	China
Zhang Zongcang	*Temple Among Cloud*	$12.5	Poly Auction	China
Rembrandt Harmensz. van Rijn	*Study of the Head and Clasped Hands of a Young Man as Christ in Prayer*	$12.1	Sotheby's	UK
Gilbert Stuart	*George Washington*	$11.6	Christie's	US
Eugène Delacroix	*Tigre jouant avec une tortue*	$9.9	Christie's	US
Jean-Baptiste-Camille Corot	*Venise, vue du Quai des Esclavons*	$9.0	Christie's	US
Qian Weicheng	*Floral book*	$8.5	China Guardian	China

b. European Old Masters

Artist	Lot Title	Price ($m)	Auction House	Sale Region
Lucas van Leyden	*A young man standing*	$14.6	Christie's	UK
Frans Hals the Elder	*Portrait of a gentleman, aged 37; and Portrait of a lady, aged 36*	$12.8	Christie's	UK
Rembrandt Harmensz. van Rijn	*Study of the Head and Clasped Hands of a Young Man as Christ in Prayer*	$12.1	Sotheby's	UK
Eugène Delacroix	*Tigre jouant avec une tortue*	$9.9	Christie's	US
Jean-Baptiste-Camille Corot	*Venise, vue du Quai des Esclavons*	$9.0	Christie's	US
Anthony van Dyck	*Portrait of Princess Mary*	$7.5	Christie's	UK
Peter Paul Rubens	*Portrait of a Venetian Nobleman*	$7.2	Sotheby's	UK
Lodovico Carracci	*Portrait of Carlo Alberto Rati Opizzoni*	$6.7	Christie's	UK
Gerard David	*The Holy Family*	$6.4	Christie's	UK
Peter Paul Rubens	*A Satyr Holding a Basket of Grapes and Quinces with a Nymph*	$5.7	Christie's	US
Emanuel Gottlieb Leutze	*Western Emigrant Train Bound for California Across The Plains, Alarmed by Approach of Hostile Indians*	$4.8	Sotheby's	US

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5
Art Fairs

Key Findings

Art Fairs

1. Art fair sales were estimated to have reached $16.5 billion in 2018, a rise of 6% year-on-year.

2. The share of the total value of global dealer sales made at art fairs has grown from less than 30% in 2010 to 46% in 2018. The share of sales at international events in 2018 was 31% versus 15% at local or domestic fairs.

3. In 2018, dealers reported spending an estimated $4.8 billion attending and exhibiting at fairs, a rise of 5% year-on-year.

4. On average, dealers took part in four fairs in 2018, down from five fairs reported in the surveys of 2016 and 2017. However, attendance ranged between sectors and segments, with more than 25% of the sample having exhibited at 10 or more fairs.

5. The data from exhibitors at major fairs shows a high rate of exhibitor turnover, with a majority of 56% of the galleries at fairs in the period from 2008 to 2018 exhibiting for the first time at a given fair, and 74% exhibiting for the first time or having only exhibited once before.

6. From a sample of 82 fairs and 27,000 artists in 2018, only 24% of the artists exhibited were female.

5.1 | Art Fairs in 2018

Art fairs continued to be an important component of global art sales in 2018 and remain a central part of the livelihoods of many dealers. Along with the major auctions, these events provide the structure and geographical layout of the annual calendar for collectors and those working in the art market.

The evolution of the event-driven market and art fairs has been the most significant trend for dealers in the past two decades. In 2000, there were about 55 established international art fairs. This number has increased rapidly since then, and in 2018, there were close to 300 fairs with an international element, covering fine and decorative art, with more than 50 being added in the past 10 years. In addition, there are hundreds of smaller regional and local fairs that cover broad areas of the art and collectibles markets.

2018 and early 2019 saw about 20 new events added to the art fair schedule, including 1-54, the Contemporary African art fair, launching a new edition in Marrakech, JINGART in Beijing, the Discovery Art Fair in Frankfurt, Taipei Dangdai, Art Chengdu in China, S.E.A. Focus in Singapore, and Frieze's new fair in Los Angeles in 2019. However, several others closed, including Art Stage Singapore and the fair's Jakarta edition. The New Art Dealers Alliance (NADA) announced the cancellation of its 2019 New York fair, and MCH, the parent company of the Art Basel fairs, also reported it would be divesting its shares of smaller regional fairs, such as India Art Fair and Art Düsseldorf. Many believe that these are signs that the growth in the number of events has peaked and that the next few years will see a continued consolidation of fairs into a smaller number of major events, alongside a more static volume of smaller, niche, and regional fairs.

Art fair sales were estimated to have reached $16.5 billion in 2018, or a rise of 6% year-on-year

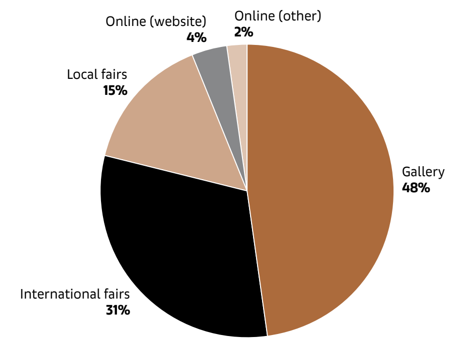
5.2 | Art Fair Sales

In general, art fairs do not report detailed or aggregated information on their sales. However, all of the data that can be gathered points to the fact that these events have become increasingly important to dealers, yielding an ever-increasing share of sales. Using estimates based on the data reported by dealers on the share of their sales made through different channels weighted by turnover, art fair sales were estimated to have reached $16.5 billion in 2018, or a rise of 6% year-on-year.

The share of the total value of global dealer sales made at art fairs has grown from less than 30% in 2010 to 46% in 2018, and the proportion of value generated at international events has also rapidly expanded. This share was just 2% less than the sales made through galleries in 2018, which continued to resonate with the anecdotal evidence from many dealers, who compared the magnitude of both their expenses and revenues from fairs as equivalent to running a gallery.

Gallery exhibitions remain a core component of most dealers' business models, providing the key interface between the public and the artist, and a means of introducing and exchanging art, information, and ideas with new and established collectors. In 2018, gallery sales accounted for 48% of dealer sales,

Figure 5.1 | Share of Dealer Sales by Channel in 2018



unchanged in share from 2017, although reflecting a steady decline in gallery sales in favor of those made at art fairs during the past 20 years.

The overall share of sales at fairs (based on a turnover weighted average from the dealer surveys) was stable on 2017. However, the value dealers attributed to international events increased slightly to 31% (from 30% in 2017). Overseas or international fairs have consistently dominated the value of sales by galleries at fairs for the past three years.

Figure 5.2 | **Share of Reported Dealer Sales at Local Versus International Art Fairs 2010–2018**

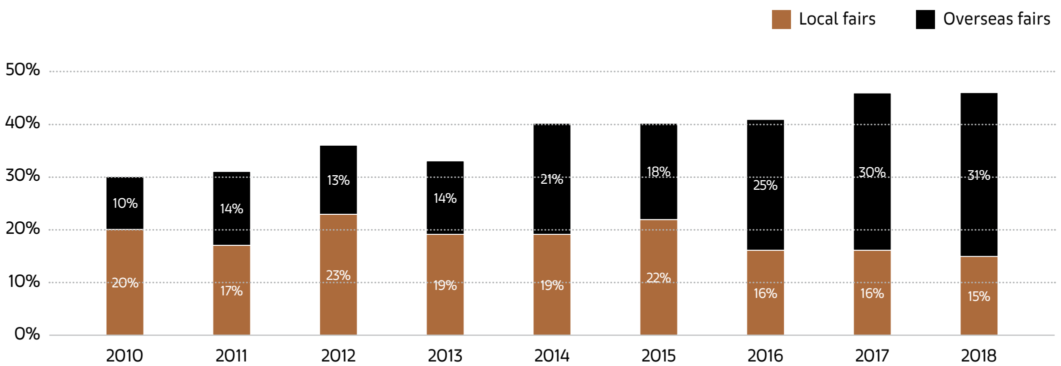
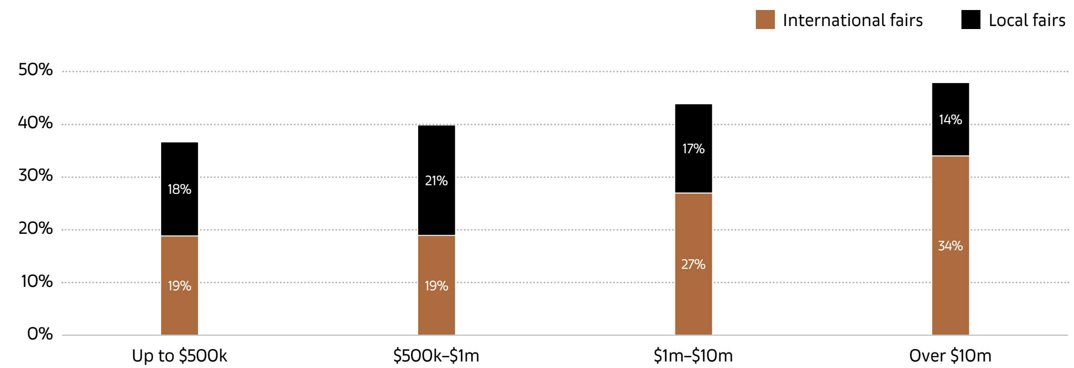


Figure 5.3 | **Reported Sales at Local Versus International Art Fairs in 2018 by Turnover Level**



These results were influenced by the relatively smaller number of dealers at the very high end of the market reporting a large share of sales at international fairs. For dealers with turnover up to $1 million, local or domestic fairs accounted for a roughly equal or greater share of sales compared to international events. However, for those with annual sales in excess of $1 million, international fairs had a larger share, including more than doubling the share of local events for dealers with turnover greater than $10 million.

Many high-end galleries increasingly operate from a number of locations around the world, the opening of the H Queen's building in Hong Kong providing a good example in 2018, with David Zwirner and Hauser & Wirth opening galleries there. The concept of a local versus international fair is, in many respects, becoming less relevant for these businesses. However, a key trend highlighted in Figure 5.3 is the advancing importance of the value of sales through art fairs for dealers as turnover increases. While fairs accounted for 37% of sales for dealers with turnover of less than $500,000, this rose to 48% at the higher end for dealers with more than $10 million in annual sales.

On average, dealers attended four fairs in 2018, down from five fairs reported in the surveys of 2016 and 2017. However, attendance ranged between sectors and segments, with more than 25% of the sample having exhibited at 10 or more fairs. Attendance at local versus international events was divided evenly (two local and two international fairs on average). Although there are likely to be considerable differences between individual businesses and specific fairs, this implies that dealers, on average, generated 31% of the value of their total sales from just two international events during the year.

On average, dealers attended four fairs in 2018 down from five in 2017

5.3 | Art Fair Costs

Although fairs are generating higher sales than ever before, a continuing complaint from dealers concerns the rising costs of exhibiting at such events, both in terms of financial outlay and the opportunity costs of being away from their galleries. As always, this rise in sales needs therefore to be considered in the context of the costs for dealers to attend art fairs.

In 2018, dealers reported spending an estimated $4.8 billion attending and exhibiting at fairs, a rise of 5% year-on-year. With costs rising since 2015, albeit at a slightly slower pace than sales, returns to fairs on aggregate have been relatively stagnant for the past two years. The returns for individual businesses are likely to have varied considerably, and the data indicates that those dealers with higher turnovers account for a larger share of sales values, while the costs are more evenly spread.

One of the major costs when exhibiting at fairs is the price of the exhibition stands. These vary widely between fairs, as well as within fairs, based on the booths' size, placement and other features. A survey of major fairs by Arts Economics in 2018 revealed a range of prices within and between nations.

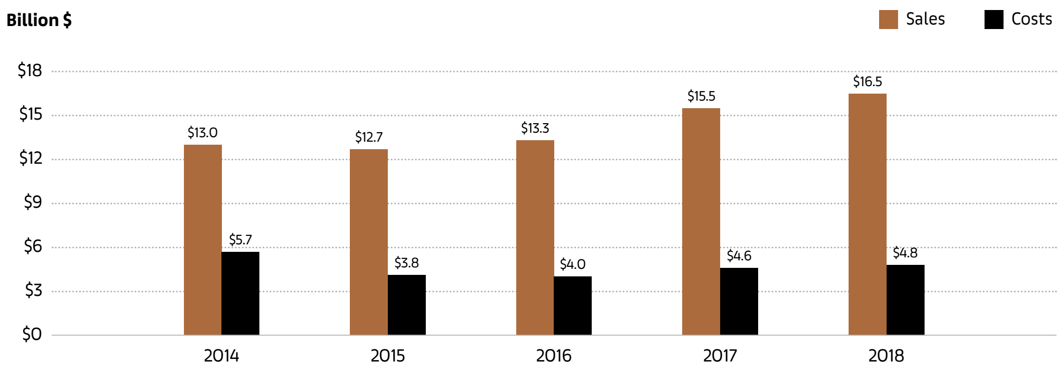
The highest average prices for booths (based on full responses from just over 50 fairs) were in the US at close to $955 per m^2. However, these responses also showed the greatest range of charges, from $560 to more than $1,500 per m^2, reflecting the larger sample of fairs from the US.

Switzerland and France were the highest-priced locations in Europe, with averages of $725 per m^2 and $710 per m^2 respectively, followed by China, with fairs in Hong Kong averaging about $100 more per m^2 than in Mainland China. While South America had the lowest regional price, the lowest national averages were found in countries such as the Philippines, Portugal, Italy, and Spain, which all averaged under $300 per m^2.

There was a broad range of booth prices between fairs, with the top 10 most expensive fairs in 2018 averaging about $1,085 per m^2, more than four times that of the 10 lowest priced. Only 10% of fairs charged more than $1,000 per m^2 and most charged between $250 and $750.

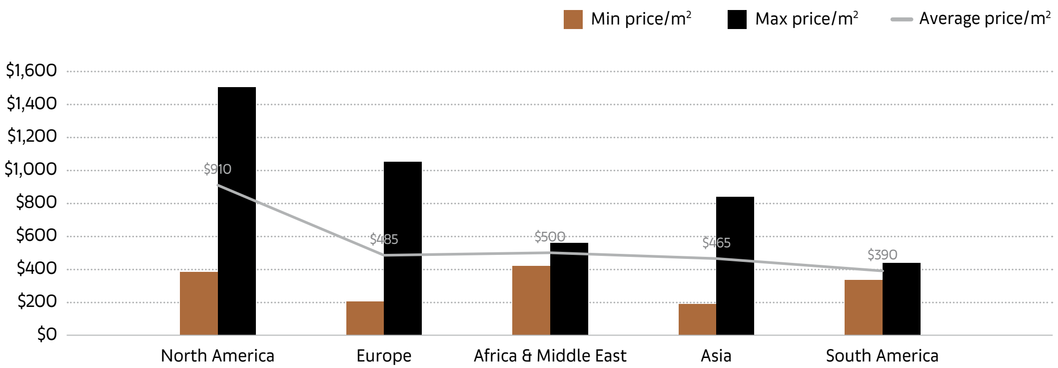
It is interesting to note also that the most expensive fairs were not all the biggest. While TEFAF, The Armory Show, and Art Basel were in the top 10, others included were the ADAA Art Show and La Biennale des Antiquaires, both with fewer than 100 exhibitors in 2018. ARCOmadrid, on the other hand, with more than 200 exhibitors and consistently among the highest visitor numbers, also had one of the cheapest average booth prices. In comparing costs, however, it is important to note that booth packages vary substantially (even for standard booths), making like-for-like comparisons difficult.

Figure 5.4 | Estimated Total Art Fair Sales 2014–2018



In 2018, dealers reported spending an estimated $4.8 billion attending and exhibiting at fairs, a rise of 5% year-on-year

Figure 5.5 | Prices per Square Meter: 50 Fairs in 2018



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Fairs themselves have also shown some signs of making efforts to try to redress some of the big issues in the market, particularly its top-heavy nature and the pressures on smaller and mid-sized galleries meeting the escalating cost of exhibiting. In 2018, several fairs changed their pricing systems to account for some of these issues. Art Basel announced a new sliding-scale pricing model (commencing at Art Basel in Basel in 2019), which is intended to provide some relief to smaller galleries, while not overburdening galleries that have larger stands. The new model represents an 8% price decrease for the smallest galleries in the fair versus 2018 and a 9% increase for the largest galleries within the fair.[58]

In previous years, the fair had applied a general 5% increase to the square-meter price to account for rising costs of business and further developing the fair and services. By eliminating that increase in 2019, and applying the new sliding-scale pricing model, the cost of booths for smaller galleries is expected to decrease by 13% in 2019, while larger galleries will still only see a rise of 4% versus previous years.

58 For example, versus a flat-rate booth price of CHF 830 (about $850 per m^2) in Basel 2018, a booth of 25 m^2 will cost CHF 760 ($768) per m^2 and a booth of 124 m^2 will cost CHF 905 ($915) per m^2.

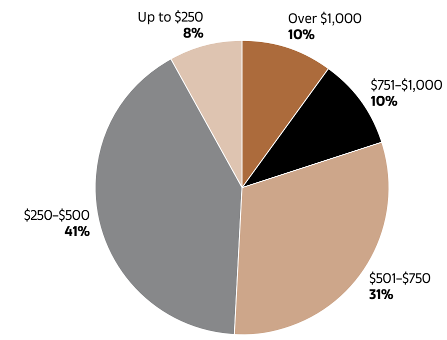
Art Basel also announced a 17% drop in the stand price for the Statements sector of the fair, a 20% drop in the Feature sector stand price, and a 20% reduction on the square-meter price for any galleries entering the main section for their first year, and 10% off in the second. It estimated that, under the new system, two-thirds of their exhibitors would pay less than they had the previous year.

In 2018, Frieze also announced a tiered price structure to mark the debut of its 2019 Los Angeles fair, with plans to extend it to its London and New York fairs as well. While exhibitors formerly paid a flat rate per m^2, under the new system the smallest galleries pay less than half the rate per m2 for their booths than the larger galleries.[59]

Similarly, FIAC's 2018 edition introduced changes to its structure, with prices for small booths in the main section dropping 5%, while charges rose for bigger booths (by an average of just over 2%). Many other fairs have also reported that they will follow with similar adjustments.

The introduction of tiered pricing instead of flat rates is a good example of an effort to provide greater balance in the gallery infrastructure, with some of the most-established galleries taking on added costs in order to directly support their smaller and mid-size colleagues. Although it is unlikely that this will solve all of the problems of the market, it is a step in the right direction and will save some galleries 10-20% of their booth costs, which is significant when margins are so tightly squeezed.

Figure 5.6 | Price per Square Meter Distribution: 50 Fairs in 2018



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59 In Frieze LA in 2019, a small booth of 20 m^2 will cost about $414 per m^2, while the largest (70-80 m^2) will cost $952 per m^2.

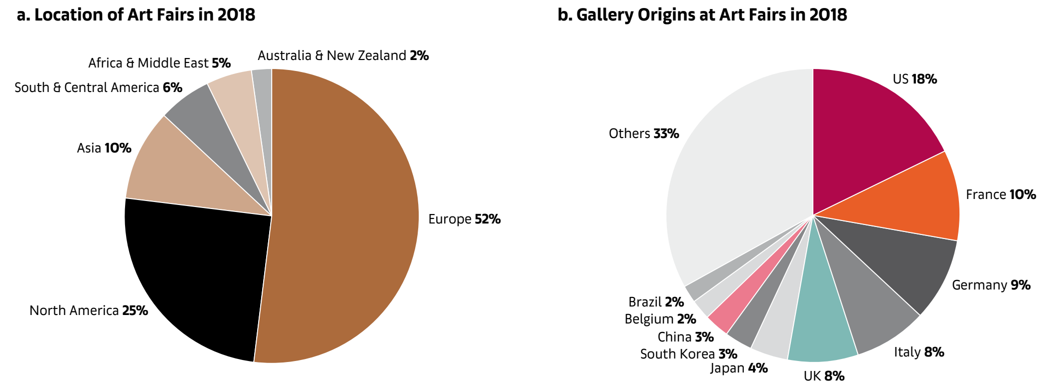
5.4 | Art Fair Locations

While the first art fairs more than 50 years ago were centered on Europe, the geographical distribution of fairs is now very wide. However, of the 295 major fairs tracked annually by Artfacts.net, many of the bigger events are still based in mature markets, with just over half of these in Europe and 25% in North America.

The US had the largest national share of art fairs, at 24%, stable on 2017, with the UK in second place, marginally ahead of France and Germany. These larger mature North American and European markets also dominated in terms of the origins of the galleries exhibiting at fairs. Despite fairs actively seeking regional diversification, US galleries still accounted for the largest share, as they did in 2017 (at 18%), while galleries from four of the largest art markets in Europe (the UK, France, Germany, and Italy) made up a further 35%.

Focusing only on larger art fairs tracked by Artfacts.net, with a minimum of 20 exhibiting galleries, the number of events reached 183 in 2018, up 11% year-on-year and 23% over the decade to 2018. The number of galleries exhibiting at these major events has also grown significantly and increased by 5% year-on-year in 2018. The number of galleries exhibiting at major fairs rose up to 2008, but then declined to their lowest point in 10 years in 2010, in the aftermath of the global financial crisis. Since then, exhibitor numbers have seen some volatility from year to year but have advanced 17% over the decade from 2008. With two strong years of growth since 2016, the total number of galleries exhibiting across all fairs reached 12,614 in 2018, an historical peak.

Figure 5.7 | Art Fair Geography in 2018



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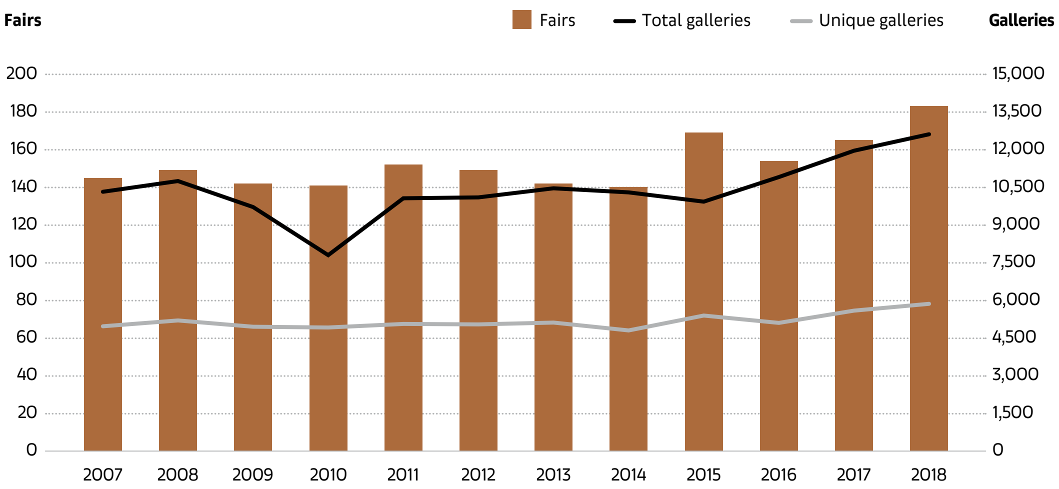
Despite fairs actively seeking regional diversification, US galleries still accounted for the largest share of exhibitors at 18%

Figure 5.8 | **Number of Major Fairs[*] and Number of Exhibiting Galleries**



© Arts Economics (2019) with data from Artfacts.net [*]195 major fairs with more than 20 exhibitors

The total number of galleries exhibiting at art fairs rose 5%, with the number of unique individual galleries increasing by 2%

Figure 5.8 analyzes the total number of galleries exhibiting at 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 (5,865 in 2018) is less than half the number of total galleries. The number of unique exhibitors has also grown at a slower pace over 10 years (by 13%), but also showed a rise of 2% year-on-year from 2017. As the pace of growth in the total number of galleries slightly outpaced the growth in the number of unique galleries, the 5% increase in the total number of galleries exhibiting at art fairs was made up of:

- more galleries exhibiting (42% of the 5% rise in the number of galleries); plus
- the same galleries exhibiting at more fairs (58% of the 5% rise).

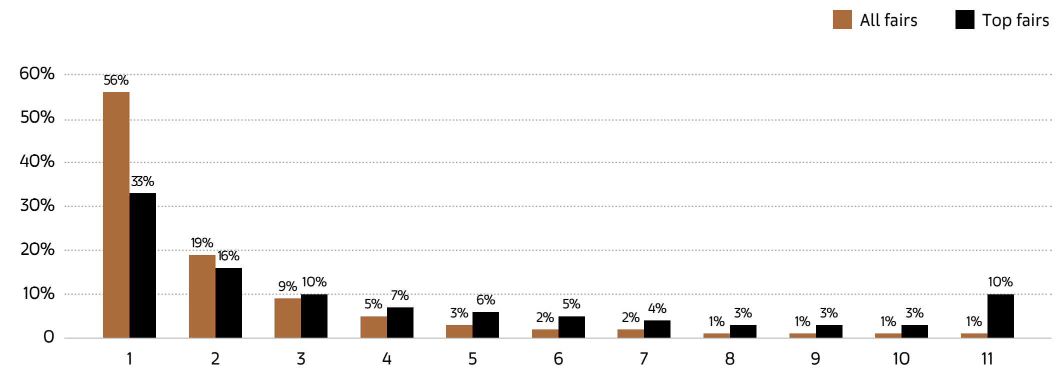
Art Fair Retention Rates

Like any other exhibition businesses, art fairs require a level of continuity in their revenues, the majority of which are made up of the fees charged to exhibitors. A low attrition rate of exhibitors is an indicator of the success of the fair for galleries, particularly in the face of increasing competitive options in the sector. However, while some smaller fairs struggle to ensure they have enough galleries of sufficient quality, many top events are oversubscribed and highly vetted, with organizers also having specific goals related, for example, to the regional diversity of galleries and artists, among other criteria.

While the galleries change their exhibition programs for different fairs, collectors increasingly hope and expect to discover new galleries at fairs, as well as nurturing relationships with dealers they already know or do business with.

While some smaller fairs struggle to ensure they have enough galleries of sufficient quality, many top events are oversubscribed and highly vetted

Figure 5.9 | **Share of Number of Returns by Exhibitors to Art Fairs 2008–2018**



To analyze the turnover rate of new galleries at fairs, Figure 5.9 shows the return rates to fairs in the period from 2008 to 2018. The data from exhibitors at all major fairs shows a high rate of exhibitor turnover, with a majority of 56% of the galleries at fairs during this period exhibiting for the first time, and 74% exhibiting for the first time or having only exhibited once before. These shares were nearly identical to those reported in 2017 (for the decade from 2007 to 2017). However, if the selection is narrowed to seven of the most established fairs in existence for the duration of this period,[60] this share becomes much lower, with only 33% first-time exhibitors, and 49% either exhibiting for the first time or having only exhibited once before. While this shows that top fairs do have higher retention rates or less variation in galleries, the view that top fairs 'show the same galleries all the time' is not evident in the data: in reality, they offer a mix of new and returning galleries each year.

60 These were Art Basel, Art Basel Miami Beach, FIAC, Frieze London, The Armory Show, ARCOmadrid, and TEFAF.

There were some changes evident year-on-year at these top events. The share of first-time exhibitors was stable at 33%, while those exhibiting for the second to fifth time grew only marginally. However, the share of long-term exhibitors declined. Those who had exhibited six times or more before dropped eight percentage points to 28%, while those very-long-term exhibitors, who had exhibited 10 times or more at a given fair, fell from 19% in 2017 to 13% in 2018. This indicates that, despite a common complaint from collectors that they always see the same galleries at fairs, the fairs themselves are changing their content significantly, even at this top level. It could also be the case that some long-term galleries are adjusting their fair participations, perhaps embarking on a new strategic direction or sampling new options and alternatives.

As noted in Chapter 2, some dealers felt increasingly that demand from their well-established collectors in more mature markets had started to slow over the past year, after what some described as a buying spree of high-end works over several years. For them to maintain their businesses, many were looking toward securing new buyers, including those from more globally diverse regions in Asia Pacific and other areas, and this included testing fairs in those regions, while at the same time consolidating their efforts on local fairs that ensured them access to new clients.

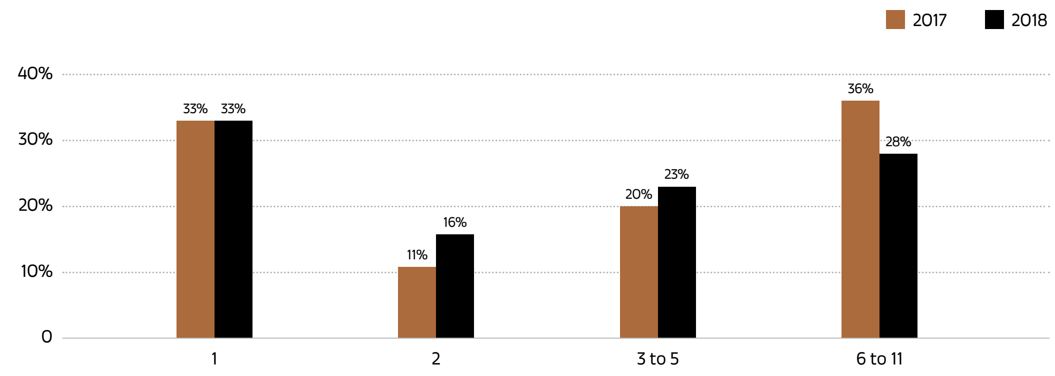
As explained by one dealer working at the high end of the market:

"We are only interested in fairs where we are genuinely meeting new people. Our core client group is suffering from exhaustion, so we are looking for new buyers. For the next few years we will be using fairs only as a platform for new connections and a trigger for future business, rather than our previous strategies that concentrated on maximizing current sales."

With smaller galleries as well, many are focusing once again on trying new regional fairs, particularly those that are relatively low-cost, concentrating on the buyer groups that have shown the most interest for their programs in the larger fairs. The larger global fairs are therefore used as a testing ground for finding new areas of regional interest.

All major fairs show a high rate of exhibitor turnover, with a majority of 56% of the galleries exhibiting for the first time

Figure 5.10 | **Share of Number of Returns by Exhibitors to Top Art Fairs 2017 Versus 2018**



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The share of long-term exhibitors at top fairs declined: those exhibiting 10 times or more at a given fair fell from 19% in 2017 to 13% in 2018

5.5 | Art Fair Visitors and Exhibitors

Art fairs not only support galleries but can also make an important economic contribution to the cities that host them. These events bring large volumes of affluent visitors with considerable spending power, providing a positive financial injection not just into the fair and its exhibitors, but also across a range of other businesses, such as hotels, travel, restaurants, and other services.

Despite media reports of ‘fair fatigue’ from collectors due to the rapid expansion of such events, the number of visitors attending major art fairs has increased over the past five years. Table 5.1 shows the attendance numbers at some of the major events in 2018, which reached in excess of 1.1 million people. Although on aggregate, numbers for this selection of 20 top fairs increased only marginally year-on-year (by 3%), they have expanded by 9% over five years.

While some have seen their numbers decline in recent years, many of the larger fairs, such as Art Basel Hong Kong and the Frieze fairs in London, have experienced substantial increases. ARCOmadrid was again the largest fair in terms of visitor numbers, and while these were reported as stable year-on-year, they have fallen one-third over five years. The numbers attending in 2018 were still four times larger than when it started in the early 1980s and these figures do not include a further 11,000 visitors to their newer fair, launched in Lisbon in 2016.

Changing visitor numbers for some of these major fairs are also driven by their expansion into other cities and events. Visitor numbers at TEFAF Maastricht declined by 4% year-on-year. However, the fair opened two new fairs in 2017, TEFAF New York Spring and TEFAF New York Fall, and although they have not published visitor numbers for these two events, it is likely that some US visitors to Maastricht may now attend the fairs that are closer to home.

Table 5.1 | Visitor Numbers at 20 Major Fairs in 2018

Fair	1st Edition	Visitors 2018	Visitors 2017	Change 2017–2018	Visitors 2013	Change 2013–2018
ADAA: The Art Show	1989	Not published	15,000	n/a	20,000	–25%*
ARCOmadrid	1982	100,000	100,000	0%	150,000	–33%
Armory Show	1994	65,000	65,000	0%	60,000	8%
Art Basel	1970	95,000	95,000	0%	86,000	10%
Art Basel Hong Kong	2013	80,100	80,000	0%	60,000	34%
Art Basel Miami Beach	2002	83,000	82,000	1%	75,000	11%
Art Berlin	2008	35,000	32,000	9%	28,000	25%
Art Brussels	1968	24,000	25,500	–6%	30,432	–21%
Art Cologne	1967	55,000	52,000	6%	60,000	–8%
Artissima	1994	54,800	52,000	5%	50,000	10%
BRAFA Art Fair	1956	64,000	61,250	4%	48,000	33%
EXPO Chicago	2012	38,000	40,000	–5%	30,000	27%
FIAC	1974	75,000	73,910	1%	74,567	1%
Frieze London	2003	67,800	62,780	8%	40,000	70%
Frieze Masters	2011	42,400	40,565	5%	26,000	63%
Frieze New York	2012	41,800	34,200	22%	45,000	–7%
Masterpiece	2010	51,000	44,000	16%	34,000	50%
Paris Photo	1997	68,876	64,542	7%	55,239	25%
TEFAF Maastricht	1988	68,271	71,066	–4%	70,517	–3%
viennacontemporary	2012	30,863	29,767	4%	22,963	34%

© Arts Economics (2019) * from 2017

Table 5.2 shows visitor numbers for a selection of smaller and regional art fairs. These additionally accounted for more than 900,000 visitors. Again, most fairs have seen a considerable increase in visitor numbers from their earliest editions, although many were stable year-on-year. There were large advances in the past five years in Taiwan, with Art Taipei doubling its visitor numbers in five years, and the new fair Taipei Dangdai also reported 28,200 visitors in its first edition in 2019.

While growth in visitor numbers is a measure of a fair's popularity, they show the increasing engagement of the public in these events, rather than necessarily the strength of or increase in the number of buyers.

Anecdotally, organizers at very large fairs report that often only about 5% of the visitors attending are 'serious buyers', while this share is often much greater at smaller, niche fairs with lower visitor numbers.

Exhibitor numbers also vary between fairs, and in 2018 ranged from fewer than 20 to 292 at Art Basel in Basel, which also had the largest number of exhibitors in 2017. Most fairs kept the number of exhibitors stable year-on-year, but others saw slight declines. While, for some fairs, this could indicate falling demand, in others that are oversubscribed and constrained by space, this reduction may be deliberate to ensure the quality of the exhibition space.

Organizers at very large fairs report that often only about 5% of the visitors attending are 'serious buyers', while this share is often much greater at smaller, niche fairs with lower visitor numbers

Table 5.2 | Visitor Numbers at a Selection of Regional Fairs in 2018

Fair	1st Edition	Visitors 2018	Visitors 2017	Change 2017–2018	Visitors 2013	Change 2013–2018
AIPAD	1980	15,000	15,000	0%	11,500	30%
Art Beijing	2006	120,000	100,000	20%	60,000	100%
Art Central Hong Kong	2015	39,000	35,000	11%	n/a	n/a
Art Dubai	2007	28,000	28,000	0%	25,000	12%
Art Taipei	1992	70,000	65,000	8%	35,000	100%
Art Toronto	1999	23,000	23,500	–2%	19,000	21%
ARTBO	2004	35,122	32,970	7%	25,000	40%
Arte Fiera Bologna	1987	48,000	48,000	0%	42,000	14%
arteBA	1991	80,000	80,000	0%	100,000	–20%
ART021 Shanghai	2012	70,000	70,000	0%	15,000	367%
Beirut Art Fair	2010	34,000	28,250	20%	18,000	89%
Contemporary Istanbul	2006	74,000	80,000	–8%	72,000	3%
Investec Cape Town	2013	16,000	14,852	8%	5,000	220%
KIAF	2002	63,000	54,000	17%	85,000	–26%
LOOP	2004	4,200	4,120	2%	5,500	–24%
Miart	1995	45,000	45,000	0%	36,736	22%
Olympia (Summer Edition)	1972	26,000	25,000	4%	30,000	–13%
Olympia (Winter Edition)	1990	15,294	19,603	–22%	19,800	–23%
SP-Arte	2005	34,000	30,000	13%	22,000	55%
ZONAMACO	2002	62,000	60,000	3%	60,000	3%

Table 5.3 | Exhibitor Numbers at 20 Major Fairs in 2018

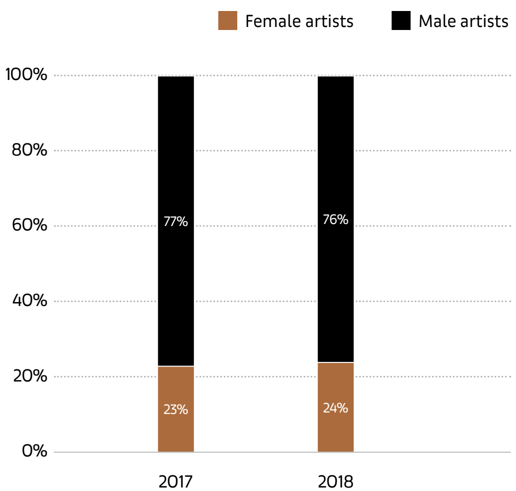
Fair	1st Edition	Exhibitors 2018	Exhibitors 2017	Change 2017–2018	Exhibitors 2013	Change 2013–2018
ADAA: The Art Show	1989	72	72	0%	72	0%
ARCOmadrid	1982	208	200	4%	201	3%
Armory Show	1994	198	210	–6%	210	–6%
Art Basel	1970	292	291	0%	304	–4%
Art Basel Hong Kong	2013	248	247	0%	245	1%
Art Basel Miami Beach	2002	268	268	0%	258	4%
Art Berlin	2008	121	112	8%	130	–7%
Art Brussels	1968	145	145	0%	189	–23%
Art Cologne	1967	210	204	3%	200	5%
Artissima	1994	196	206	–5%	190	3%
BRAFA Art Fair	1956	134	132	2%	130	3%
EXPO Chicago	2012	135	135	0%	125	8%
FIAC	1974	195	193	1%	191	2%
Frieze London	2003	160	160	0%	152	5%
Frieze Masters	2011	130	130	0%	130	0%
Frieze New York	2012	190	200	–5%	188	1%
Masterpiece	2010	160	150	7%	163	–2%
Paris Photo	1997	199	189	5%	136	46%
TEFAF Maastricht	1988	278	270	3%	250	11%
viennacontemporary	2012	110	113	–3%	127	–13%

Table 5.4 | Exhibitor Numbers at a Selection of Regional Fairs in 2018

Fair	1st Edition	Exhibitors 2018	Exhibitors 2017	Change 2017–2018	Exhibitors 2013	Change 2013–2018
Abu Dhabi Art	2009	43	47	–9%	50	–14%
AIPAD	1980	96	115	–17%	82	17%
Art Beijing	2006	160	160	0%	176	–9%
Art Central Hong Kong	2015	102	104	–2%	n/a	n/a
Art Dubai	2007	105	94	12%	75	40%
Art Taipei	1992	135	123	10%	147	–8%
Art Toronto	1999	122	100	22%	122	0%
ARTBO	2004	70	72	–3%	65	8%
Arte Fiera Bologna	1987	182	153	19%	173	5%
arteBA	1991	84	90	–7%	82	2%
ARTO21 Shanghai	2012	103	104	–1%	29	255%
Beirut Art Fair	2010	53	51	4%	46	15
Contemporary Istanbul	2006	83	73	14%	95	–13%
Investec Cape Town	2013	98	81	21%	35	180%
KIAF	2002	174	167	4%	183	–5%
LOOP	2004	42	45	–7%	44	–5%
Miart	1995	184	174	6%	140	31%
Olympia (Summer Edition)	1972	145	160	–9%	170	–15%
Olympia (Winter Edition)	1990	70	100	–30%	108	–35%
SP-Arte	2005	199	134	49%	122	63%
ZONAMACO	2002	170	163	4%	123	38%


TAKE
5
TAKE
5
INSTANT
NEW!
7s
RACING TEAM
Dutch
Dutch
WIN UPTO $$$

Figure 5.11 | Gender Breakdown of Artists with Works Exhibited at Art Fairs in 2017 and 2018



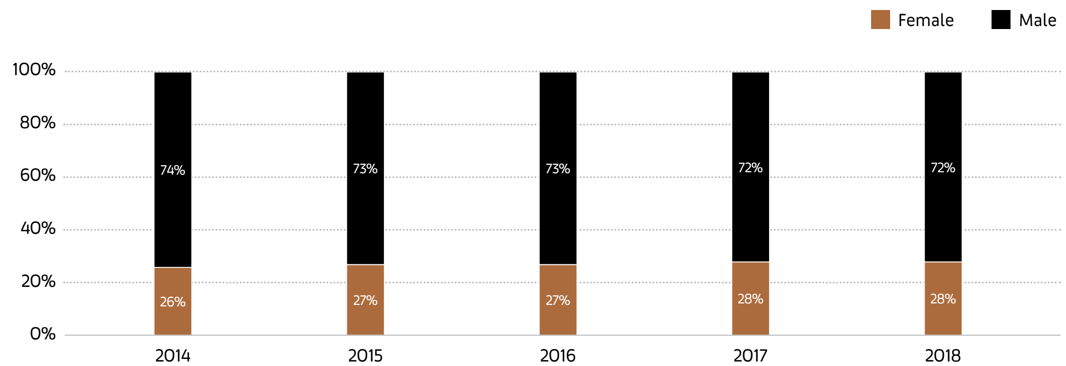
© Arts Economics (2019) with data from Artfacts.net

5.6 | Gender Disparity at Art Fairs

While the focus of this analysis is in measuring the impact of art fairs on the market, it is important to remember that fairs do not only serve a purely commercial function. They are an opportunity for the exchange of ideas between dealers, collectors, and many other related professionals. There is also some evidence of galleries bringing more socially conscious and politically active works to fairs, with artists and galleries seeing them as active presentations that can be used for more reflective rather than purely commercial work.

In light of some of the focus on the gender divisions in the art market in previous chapters, it is interesting to analyze if these also hold at art fairs. A sample of 82 of the top global fairs from Artfacts.net in 2018 showed that of the approximately 27,000 artists who had work exhibited, just 24% were female versus 76% male. This was virtually unchanged from 2017, and did not vary in any substantial way when considering the aggregate sample or just the top five fairs.

Figure 5.12 | Gender Breakdown of Artists Who Exhibited at Art Fairs Listed on Artsy 2014–2018



© Arts Economics (2019) with data from Artsy

As discussed in Chapter 3, while some of the disparity can be explained by an historical shortage of female artists, with women only allowed to study at some of the main art academies at the end of the 1800s, the Artfacts.net data reveals that just over 80% of the artists in the sample were living artists and hence representing the current generation.

This gender bias was confirmed also with data from Artsy, covering about 30,000 artists from the 80 fairs listed on their platform. The gender breakdown in this sample for 2018 was 28% and it remained relatively unchanged over five years, increasing just two percentage points from 2014.

5.7 | Conclusions

The future of art fairs was a highly debated topic in 2018, with discussions on the changing cost structures introduced by fairs, their entry criteria, and other issues. While dealers and collectors have noted their increasing exhaustion with the number of events on the art fair calendar, fairs remain one of the key channels for sales and the exchange of information in the gallery sector.

Some dealers also noted that the frenetic pace of events and sales was not confined to art fairs but had become a theme in the art market generally. They said that the days when the market was characterized by distinct seasons have passed, with sales, auctions, and other events now occurring on a year-round basis.

While some dealers felt that the future might bring new and alternative approaches to collaborative exhibitions and selling, with more alternatives to larger fairs, such as Condo, gallery weekends, and other hybrid models developing, the era of the art fair appears to be showing no signs of decline. Nevertheless, there were some indications of less optimism about art fair sales over the coming years than there had been in 2017.

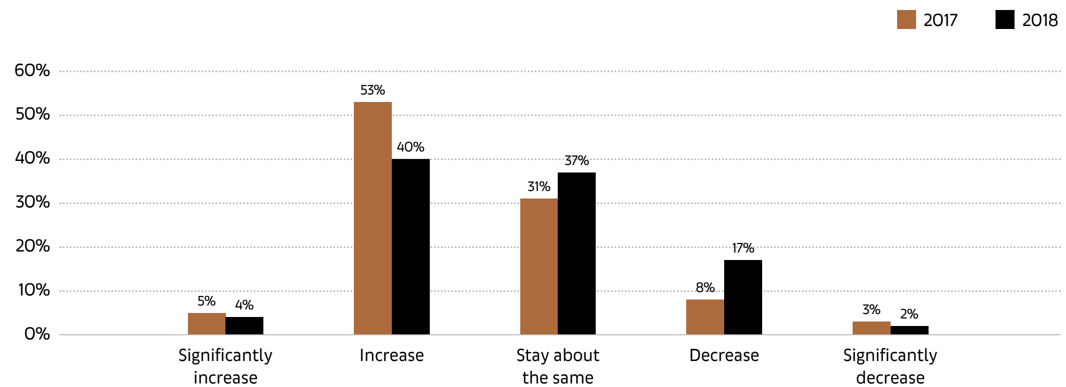
Most dealers (81%) felt that sales at art fairs would be stable or increase over the next five years. However, there was a lower share expecting a rise in sales (44% versus 58% in 2017, and 19% expecting a decline versus 11% in 2017).

Fairs were introduced to aggregate dealers' efforts and attempt to generate the same urgency as auctions, with limited time to compete for the best works. To this end, many have noted that previews circulated by dealers in advance of fairs have reduced the impact of the event. However, anecdotally, dealers have noted that some collectors were buying from an online preview or pdf without even attending the fair – and thus that the presale nature of the preview still drove a greater sense of urgency than the gallery show.

Not all galleries are interested in forcing the speed of sales, with some noting the resurgence of a 'slow movement' in the sector where galleries are actively encouraging more thoughtful and less rapid engagement with the exhibition.

While art fair sales may not be displaced in the medium term, the development of projects and hybrid collaborative models in the dealer sector, such as Condo, continued to thrive and to attract galleries through both a reduction in costs and less restrictive scheduling. Condo London entered its fourth year at the start of 2019, with 18 spaces in the city hosting 52 international galleries from the US, Germany, China, South Africa, Egypt and Chile. Condo events

Figure 5.13 | Dealers' Views on Fair Sales Over the Next Five Years



Most dealers – 81% – felt that sales at art fairs would be stable or increase over the next five years, however there was a lower share expecting a rise – 44% versus 58% in 2017 also took place in an expanded range of cities over the course of 2018, including Shanghai, Mexico City, Sao Paolo, New York and Athens. Whether events like this will challenge the traditional fair model, particularly with regard to generating the same sense of urgency around sales, as well as their level of organizational efficiency, remains to be seen.

The experience of viewing artworks in person is still regarded by many collectors as a critical part of their interaction with the market. The social and intellectual aspects of exchanging ideas in person is also seen as a highly important part of building relationships between dealers and collectors. A sample of more than 600 high net worth (HNW) collectors from five different countries surveyed by Arts Economics in 2018 showed that art fairs were the third most often used channel for purchasing art and antiques (next to galleries and auctions). They were also the third most preferred, ahead of the online channel.

The rise in art fairs has coincided with a declining share of sales in galleries, which is a worrying trend for the market. However, while fairs are often blamed in this regard, the root causes of the decline in gallery sales are in fact part of a much wider trend generally in retail industries connected to falling foot traffic. These include rising costs to run retail premises and the escalation in e-commerce as the preferred mode of purchase for time-deprived consumers. All these factors work against sales within galleries, while fairs actually help maintain some share of their sales and presence offline.

Although there may be several disrupting factors that will challenge the art fair model in the future, at present they remain a critical part of most dealers, businesses. Although dealers are attending fewer fairs, their sales are increasing, and, on aggregate, they make twice as much at international events as they do in local fairs. Art fair sales reached their highest-ever-recorded level in 2018, based on reported sales from dealers. As noted above, however, the increase in sales at art fairs is very likely not to have been spread evenly across galleries, while costs continue to drive upwards. So, while returns from fairs for individual businesses are likely to have varied a lot, the biggest rewards are likely to have accrued to those at the top end, who can leverage their relatively deeper inventory and higher price points to their advantage. But while fairs remain critical to top galleries, it is important not to underestimate their importance for smaller and mid-sized galleries that exist outside the major market hubs. For new and emerging galleries, fairs provide an exhibition platform that offers international exposure and a chance to contextualize their artists, as well as new buyers, contacts, and a wide network of professional relationships that is helping them to survive.

6

Online Sales

Key Findings

Online Sales

1. In 2018, global sales in the online art and antiques market reached an estimated $6 billion, up 11% year-on-year.

2. Aggregated online sales accounted for 9% of the value of global sales, slightly lower than the global online retail sector, where e-commerce represented 12% of total retail sales in 2018.

3. A survey of just over 70 companies engaged in e-commerce in 2018 showed that most online-only companies still sell the majority of their works in the segment of $5,000 and below, with less than 10% of transactions reported at price points above above $250,000.

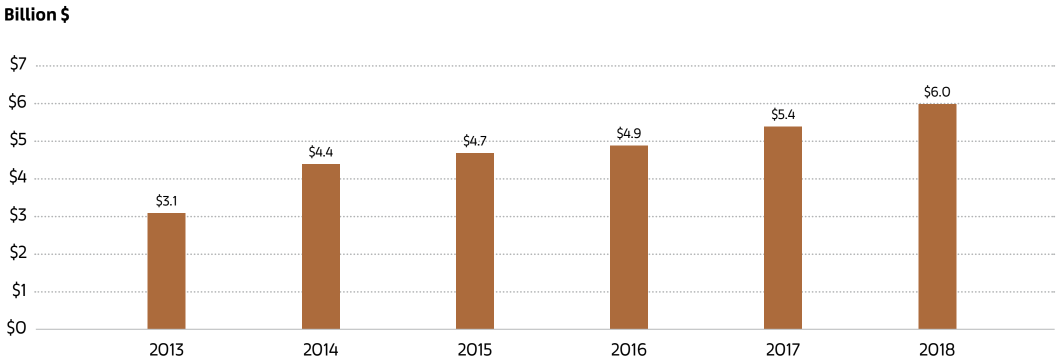
4. A survey of more than 600 HNW showed that the majority (72%) had not bought an artwork or object for more than $50,000 online. However, 17% of the sample had bought a work of art or object for $100,000 or more and 4% had spent $1 million.

5. 93% of millennial HNW collectors reported that they had bought from an online platform, compared to a majority of baby boomers who had not bought art online before.

6. Online sales gathered pace at the major auction houses in 2018, including double-digit growth at Christie's and Sotheby's, while second-tier houses reported making 19% of their annual sales online, with 74% through third-party platforms.

7. Dealers reported that they made 6% of their total sales online in 2018, a stable share on 2017. More than half (52%) of them were to new buyers who had never been to their gallery or met them in person, up 7% on 2018.

Figure 6.1 | **The Online Art and Antiques Market 2013–2018**



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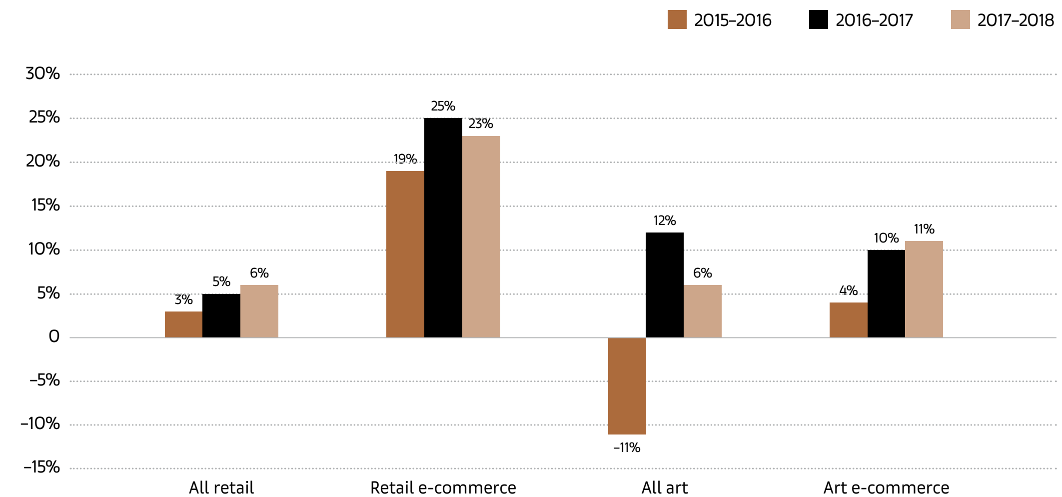
6.1 | The Online Art Market

In 2018, global sales in the online art and antiques market continued to grow, reaching an estimated total of $6 billion. Sales grew 11% year-on-year from $5.4 billion in 2017. Online sales include the online sales by traditional offline dealers and auction houses, either through sales via their own websites or third-party platforms, plus reported values and estimates from online-only retail and auction companies selling on their own account. These aggregated online sales accounted for 9% of the value of global sales of art and antiques. This share is slightly lower than the global online retail sector, where e-commerce represented 12% of total retail sales in 2018 and is expected to reach 18% by 2021.[61]

While maintaining a steady and positive rate of growth in most years, the pace of sales of art online has grown at a slower rate than general retail e-commerce, which advanced 23% year-on-year, to a high of $2.8 trillion in 2018, and is expected to reach close to $4.9 trillion in the next three years.

61 Statistics from eMarketer (2019).

Figure 6.2 | **Year-on-Year Growth in Sales: Art and Antiques Versus General Retail**



© Arts Economics (2019) with data from eMarketer.com

In 2018, global sales in the online art and antiques market continued to grow, reaching an estimated total of $6 billion

The share of general e-retail out of total retail varies widely by country. In the US it was only about 10% at the end of 2018,[62] while in China, e-commerce is forecast to reach 35% of total retail sales by 2019. While total retail sales in 2019 in China are expected to grow at just under 8%, retail e-commerce is expected to rise 30%, driven by consumers' willingness to spend on higher-priced items or better products.

Although starting at much lower levels, some of the fastest-growing e-commerce markets besides China in the next five years are expected to be India, Indonesia, Mexico, and South Africa. In countries such as the UK, consumers are also spending more online (21% of total retail), and sales grew 15% year-on-year in 2018 versus just 2% for offline. The UK represents the largest online market in Europe, although other major markets, such as France and Germany, where e-commerce is about 10% of total retail, are also steadily expanding.

This growth in online retail sales is seeing a parallel decline in brick-and-mortar stores in many industries. Coined the 'retail apocalypse', more than 12,000 retail stores have shut in the US since the global financial crisis, and 2018 saw one of the highest rates of closures during this period. The trends noted in Chapter 2 of closures in the sector in recent years therefore largely reflect some of the wider trends across all industries.

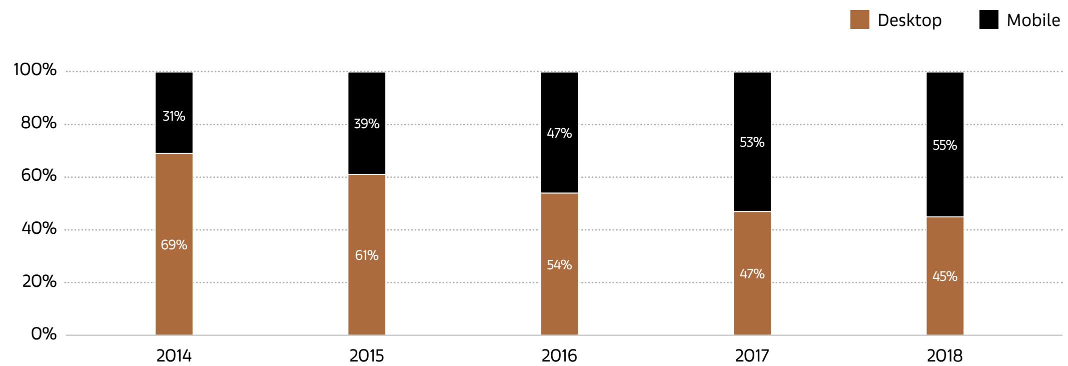
If, as such trends indicate, e-commerce is going to capture a larger share of consumer spending, it seems inevitable that consumers will demand to transact in the art market the same way they do in all other aspects of their lives, which is online. On the one hand, niche retailers such as galleries are, in many ways, better positioned to thrive in this environment than small businesses in many other industries. On the other hand, brick-and-mortar businesses of all kinds are in the middle of major change as they struggle to remain relevant offline. This means adapting from being inventory-led stores to functioning in an experience-based retail environment, with growing consumer expectations of creative, innovative, and sometimes technology-aided shopping experiences – a phenomenon with interesting potential ramifications for the future of the art market.

Equally, some digital-only retailers are adding a physical offline store dimension to their businesses, with a major example being Amazon's expanding physical presence in the US market. These hybrid business models are likely to characterize the future of many art market businesses because art buyers like the convenience of online but still, ultimately, value the physical experience of viewing art in person.

> Online sales accounted for 9% of the value of global sales of art and antiques

62 US statistics from US Commerce Department statistics (2018) and other countries from eMarketer Statistical Reports (2018).

Figure 6.3 | Share of Artwork Inquiries on Artsy 2014–2018: Desktop Versus Mobile



© Arts Economics (2019) with data from Artsy

How people access the online art market is also changing rapidly and, again, like the wider retail market, the growth of engagement via mobile devices (such as phones and tablets) is increasing. The share of global mobile e-commerce in 2014 was 40%, but this rose to 59% in 2018 and is expected to reach 73% by 2021.[63]

As technologies and the sophistication of devices improve, art buyers are increasingly using phones and tablets to search for, research, and purchase art. Figure 6.3 shows the share of inquiries in one of the art market's largest multi-service platforms, Artsy, over the past four years. At the start of 2014, inquiries made to galleries concerning artworks for sale on the platform via mobile devices were 31% of the total number. However, this share has steadily edged up, and by 2018, had reached 55%.

63 Statistics from eMarketer (2018) and Ystats.com (2018).

Analysis of shoppers who use mobile devices has shown them to be much more susceptible to the user experience, so the trend toward increasing mobile sales and traffic has brought greater challenges to improve that and to provide mobile-friendly content, information, and marketing that is readily accessible to consumers on a more instant basis. However, there is no evidence of a discount for using mobile devices. The Artsy data showed comparable median sales prices across devices, including several instances in the period from 2014 to 2018, when average monthly median prices were actually higher on a mobile device than a desktop.

Prices generally for sales online, however, remain predominantly in the low-to-middle price brackets. A survey of just over 70 companies engaged in e-commerce by Arts Economics in 2018 showed that most online-only companies still sell the majority of their works in the segment of $5,000 and below, with less than 10% of transactions reported at price points over $250,000.

While the lower-priced end of sales dominates the volume of sales in the online art market,[64] there is evidence that some collectors are increasingly willing to pay high prices online, particularly from established sellers and in specific sectors. A survey undertaken of more than 600 HNW collectors across five regional markets by Arts Economics and UBS in 2018 showed that, in some markets, there is a significant share of collectors who have purchased online at higher levels, including amounts greater than $1 million.[65]

Across all of the respondents from the five markets surveyed in 2018, the majority of collectors (72%) had not exceed a price of $50,000 online, and 41% of those had not transacted above $10,000. However, 17% of the sample had bought a work of art or object for $100,000 or more, and 4% had spent $1 million or more on a work of art online. These buyers were more likely to be high spenders, as each had to have personal net worth, excluding property and business assets, of more than $1 million for inclusion in the survey, as well as being active in the art and collectibles market in the previous two years. However, the results indicate that, despite not being the densest part of the market, there is activity at the higher levels also, even if it is not at a high volume.

Younger collectors are often characterized as having greater comfort levels when buying art and antiques online, however maximum prices rose with age up to a point. Gen X collectors reported by far the highest average maximum price paid online, at close to $500,000.[66] After the age of about 55, however, the average dropped significantly again, with the mean for baby boomers about 75% of the value of millennial collectors.

64 A survey of online buyers by ArtTactic in 2018 also showed that the share of online art buyers paying an average price in excess of $5,000 per fine art object was 25% (although this had risen from a reported 21% in 2017). ArtTactic (2018) *Hiscox Online Trading Report 2018*.

65 The full results of this survey are presented in Chapter 6.

66 For this survey the generations are defined as: Gen Z (aged 18-21 years), millennial (aged 22-37 years), Gen X (aged 38-53 years), baby boomers (aged 54-72 years) and silent (aged 73 years and over).

Figure 6.4 | Highest Price Paid for Works Online in 2018 by HNW Collectors

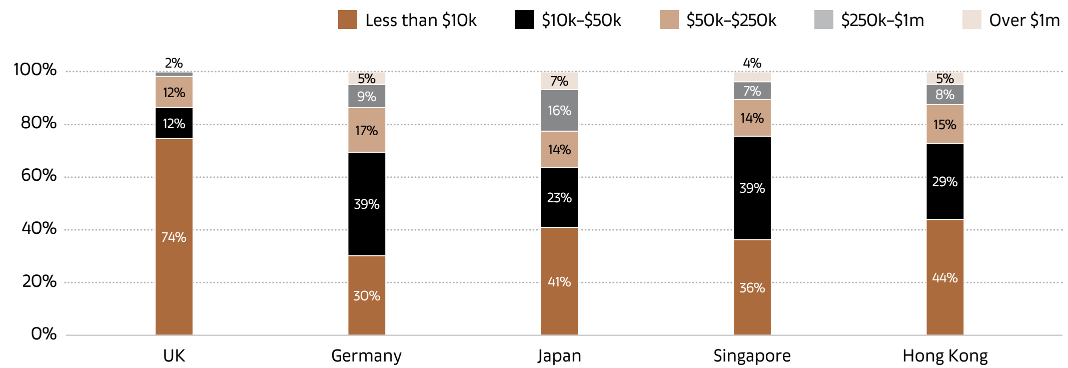
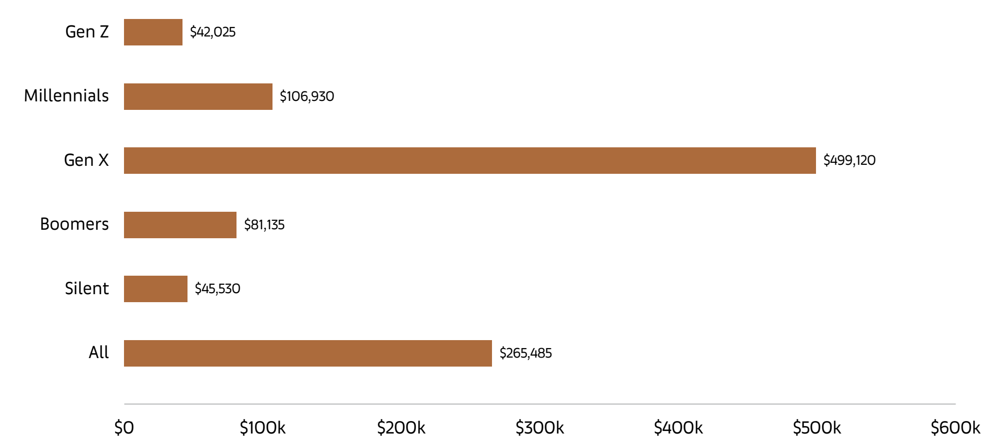


Table 6.1 | Average and Absolute Maximum Price Paid Online by HNW Collectors[67]

	UK	Germany	Japan	Singapore	Hong Kong
Average maximum	$26,490	$470,040	$529,640	$104,955	$183,790
Maximum	$333,700	$30m	$9.1m	$1.5m	$6.4m

67 Figures exclude a small number of outlier variables in Germany (with a sale reported in excess of $100 million) and any prices less than $10.

Figure 6.5 | Average Maximum Price Paid Online by Regional HNW Collectors in 2018



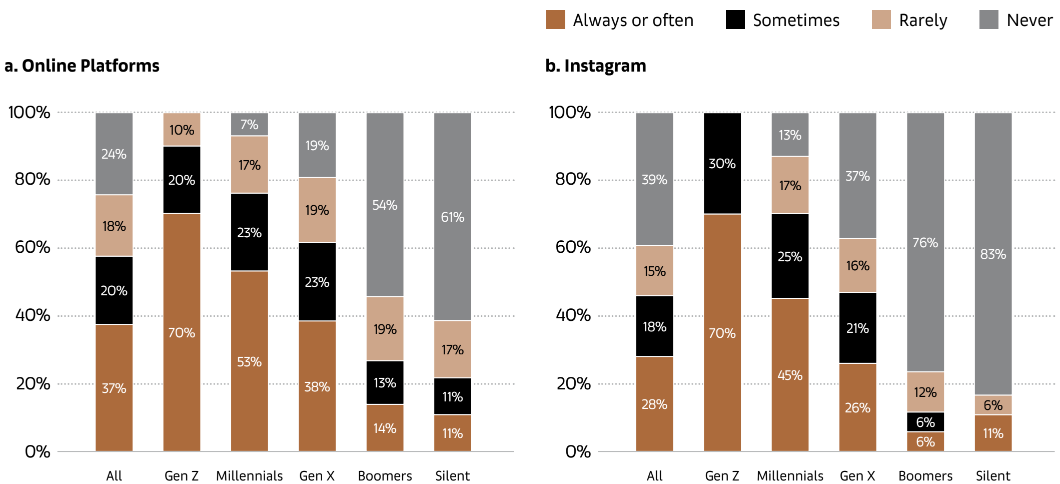
93% of millennial HNW collectors had bought from an online platform, compared to a majority of baby boomers who had never bought online

However, in terms of the frequency of shopping online, evidence still points to both greater use of, as well as stronger preferences for, this channel by younger art buyers. When asked how often they used different channels for purchasing art and antiques, most collectors surveyed used multiple channels, but the offline gallery and auction channels were rated highest by all age groups. Online platforms were used to buy art often or always by 37% of the sample, while just one-quarter reported never using them. The share of use fell proportionally with age. 93% of millennial HNW collectors had bought from an online platform, compared to a majority of baby boomers and those from the silent generation who had never bought art and antiques online.

While it is not possible to purchase art directly on Instagram, many artists use the platform to receive sales requests through private direct messages, allowing them to transact without an intermediary. Instagram's shopping feature is also available for galleries and other online sellers, which allows tagging of items available for sale in Instagram feeds, which then link directly to an external website where the purchase can be completed. Buying art using Instagram was less common, with just over half of the sample (54%) having rarely or never used the platform to do so. But again, there was a strong correlation between age and frequency of use: younger collectors were much more likely to have used Instagram than older generations, with a majority of those in the millennial and Gen Z generations having used the platform.

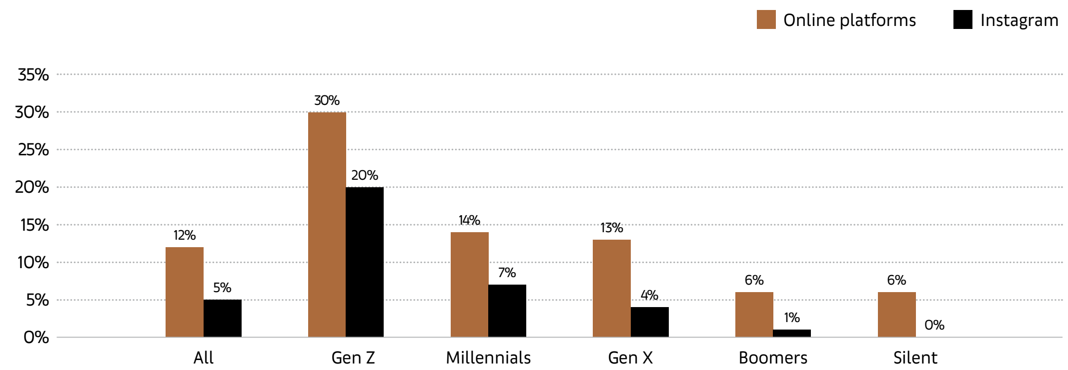
It is interesting to note the relatively low proportion of those in both the millennial and Gen X generations who have never purchased art from Instagram (13% and 37% respectively), indicating that it has been relatively well adopted as a form of sourcing and purchasing art.

Figure 6.6 | **Frequency of Use of Online Platforms and Instagram by HNW Collectors (Selected Regions)**



Across all countries and age groups, only 12% of the HNW collector sample most preferred to use online platforms for purchasing

Figure 6.7 | **Share of Collectors Preferring to Buy Online**



Collectors were also asked which channels they preferred to buy art from and, again, dealers and auction houses were rated the highest. Across all countries and age groups, only 12% of the sample most preferred to use online platforms, with Instagram being a favorite channel for with only 5% of respondents. Most countries were aligned with this result, with the exception of Germany, where 22% of the sample indicated that they preferred online channels, and a slightly higher rate in the UK than the aggregate group for Instagram use, at 8%.

A considerably higher share of younger collectors preferred online channels for sourcing and purchasing art than older generations. For the youngest Gen Z collectors, the share favoring online channels was more than twice the average, at 30%, for online platforms, and 20% for sales facilitated through Instagram. Similarly, the share of millennials and Gen X was more than twice that of the two older generations, reinforcing again that preferences for buying online tended to be inversely proportional to age.

6.2 | E-Commerce in 2018

Auctions

Brick-and-mortar auction companies continued a strong trajectory of online sales in 2018, making up one of the largest segments of the online art market by value. The top-tier houses continued their push online, using the channel to secure new buyers and an increasing value of sales.

At Christie's, total online sales (including online-only sales and online bidding) reached $250 million, compared to $214 million in 2017. Christie's hosted 88 online-only sales during 2018, three more than in 2017, covering a range of sectors including fine art, decorative art, and collectibles. Sales values rose 16% year-on-year, the second year of advancing sales, reaching $86.4 million. While still low relative to offline, this has advanced rapidly from less than $5 million in 2012.

The average lot value in online sales also increased 13% year-on-year to $8,357, up 14% year-on-year. While the price points for online are generally still lower, Christie's (and other large auction houses) has also used the internet to sell parts of large collections when the major objects in those collections are sold in traditional blockbuster auctions. This way, the two platforms are used for the same clients and inventory, enabling them to sell both very expensive

Brick-and-mortar auction companies continued a strong trajectory of online sales in 2018, making up one of the largest segments of the online art market by value

works and those below their normal cut-off point for live auctions.

The online platform continued to be the largest entry point for new buyers to Christie's: 53% of all sale registrations in 2018 were done digitally, either via online sales or Christie's LIVE. New buyers via online sales were up 20% on 2017, and these remained the main source for new buyers to Christie's, accounting for 41% of all new buyers in 2018 (up from 36% in 2017).

In 2018, Christie's also engaged in an important pilot collaboration with the blockchain title registry Artory. The auction house used Artory's newly launched Registry and encrypted, decentralized database to input the provenance and all other information for the sale of the works in the Barney A. Ebsworth collection. This represented the first major collaboration of its kind and marked the entry of blockchain technology into the mainstream market. This sale totaled $323 million over the evening and day sales, with a 98% sales rate by lot, and included 13 artists' auction records.

At Sotheby's, online sales (including online-only sales and successful online bidding in live sales) reached $220.4 million in 2018, a 24% increase year-on-year and accounting for 37% of the number of total lots sold. Sales included Joan Mitchell's *Untitled* (1964) for $2.5 million, the highest-priced lot sold during the year, to an online buyer at a live auction, indicating increasing comfort levels regarding purchasing online at the higher end from these very established businesses. The auction house's e-commerce platform achieved $72.1 million in online-only sales, versus just under $19 million in 2017.[68] The top lot sold in these online-only sales was a collection of poems by John Donne (1630), which sold for $604,340.

In 2017, Sotheby's trialed a 0% buyers' premium for its online-only sales, seeing these as an integral part of its strategy to acquire new clients. This was partially reversed in 2018, with fees reintroduced for certain sales, such as those sold online as part of estate sales. There was a record number of new bidders to the auction house in 2018 (reported as 10,000-plus), with 60% of these coming via online channels.

To try to improve the experience for its online users, Sotheby's also acquired Thread Genius during the year, an artificial intelligence (AI) start-up that had built a set of algorithms based on image recognition that can both identify objects and recommend images of similar objects to the viewer. The auction house is using the technology to try to expand its buyer base by improving recommendations for purchase, particularly those away from the high end of the market. It is also exploring ways of increasing the supply of works for sale, encouraging more vendors to put items up for sale through efficiencies in valuation and other areas, as well as the possibility of transacting outside the traditional auction calendar. (AI and other new technologies are discussed in Section 6.5.)

Including fine art, decorative art, and collectibles, Heritage Auctions was the market leader by value in the online sector, with sales of $488 million, up 11% year-on-year from 2017. Online sales also accounted for a greater share of its turnover than offline, at 59% of its total sales of $826 million. The share of online sales grew 5% year-on-year and 18% over two years. Unlike many other online companies that have focused on fine art, its key sector driving online growth was collectibles, including comics and political

68 Online only sales include online-only auctions and sales via Sotheby's two online only retail platforms, Sotheby's Wine and Sotheby's Home.

memorabilia. In 2018, sales of vintage comic art and comics reached a record level of $58.5 million, with a world record for the most expensive piece of comic art set by the sale of Frank Frazetta's *Death Dealer 6* (1990), for $1.8 million.

Online sales continued to be very significant for second-tier houses in 2018, allowing many to have reached much greater and geographically dispersed global audiences over the past few years. A survey of second-tier auction houses in 2018 indicated that, on average, 19% of their sales were online, down 1% on 2017 in share. Of those online sales, the majority (74%) were made via third-party platforms such as Invaluable, the-saleroom.com, LiveAuctioneers and Artsy.[69]

Although online channels remained important for accessing new buyers, the share of new buyers declined significantly on average for this tier of auction houses in 2018. For those selling online, 25% of their online buyers in 2018 were new to the business, down 16% on 2017.

While many individual houses reported new buyers in excess of 90%, this lower average may indicate that some have plateaued in terms of accessing new buyers and are now relying more on those regular buyers they have won during the past few years for their sales. The share of regular online buyers (those with whom they had no other direct contact but now buy regularly online) increased by 15% in share to 41%. The remaining group of regular buyers who had also bought offline in the past and/or had contact with the business previously remained relatively stable at 34%, up 1% on 2017.

The internet and online sales were identified as among the top five challenges over the next five years by second-tier auction houses. They were cited by 38% of the sample as one of their top three challenges.

Most of the auction houses surveyed were optimistic that their online sales would increase in the near future: 85% thought they would increase over the next five years (versus only 62% in 2017), and 20% of those thought they would increase significantly. Only 5% expected a decline. While, for some respondents, this was part of a general forecast regarding increasing future sales, for the majority, the online component was viewed with considerably more optimism than sales in their auction house generally and their main country of business.

The sales estimates for e-commerce in the art market above do not include the revenues and commissions of third-party platforms that conduct or facilitate sales and e-commerce or offer other intermediation services for offline businesses. In the auction sector, some of these platforms have been among the biggest

69 This also means that, in some cases, a physical offline sale may also take place whereas the reported share by the top-tier included online-only sales.

Table 6.2 | Views of Mid-Tier Auction Houses on Sales Over the Next Five Years

	Sales by your auction house	Sales in your main country of business	Online sales
Decrease	9%	10%	5%
Stable	41%	55%	10%
Increase	50%	35%	85%

© Arts Economics (2019)

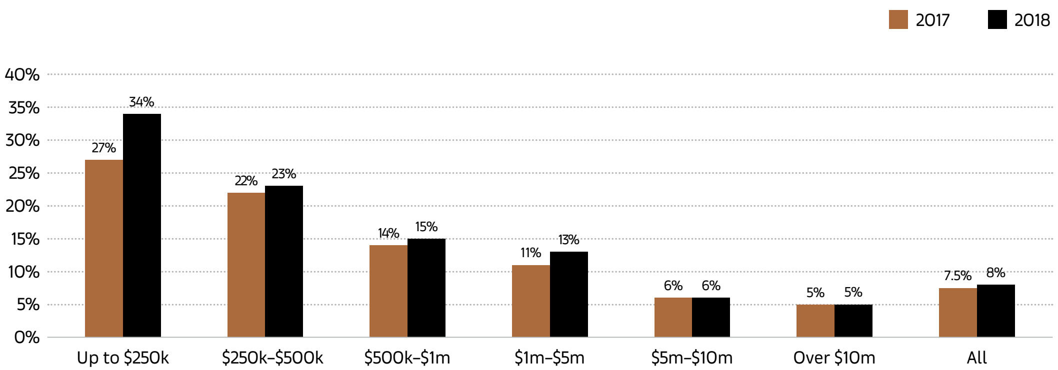
successes in the sector so far, and have become important brands in their own right. Many of these businesses continued to expand in 2018, with most traditional brick-and-mortar houses outsourcing at least some of their online sales to these platforms.

Aggregators such as Invaluable, the-saleroom.com, LiveAuctioneers and Artsy have all continued to grow and develop, both in the volume of their sales and their auction house membership. They have also made significant advances in the technologies they offer to help improve the buying and selling experience online.

Invaluable, one of the largest global platforms for online auctions, had a record year in 2018, conducting 500,000 sales via the platform, up 20% on 2017 and nearly 130% over the past five years. The platform hosted more than 16,300 auctions in 2018, with sales of $365 million.

The hammer price of works sold online via the platform also increased 18% year-on-year. In 2018, Invaluable changed its pricing policy, eliminating the 5% fee often passed on to buyers at auction houses (in addition to their buyers' premium and any other charges). It now uses a tiered system of pricing, from 5% on works below $5,000 down to 1% on those more than $20,000, which can be more easily absorbed by the auction houses, enabling them to charge the same rates for all sales (online or offline). Invaluable migrated more than 100 auction houses to this new pricing system and reported that those absorbing the additional online fees experienced online hammer prices per sale that were 75% higher on average than those where fees were not equalized with live sales, indicating price and cost sensitivity among buyers.

Figure 6.8 | Share of Online Sales (via Invaluable) by Auction House Turnover Level



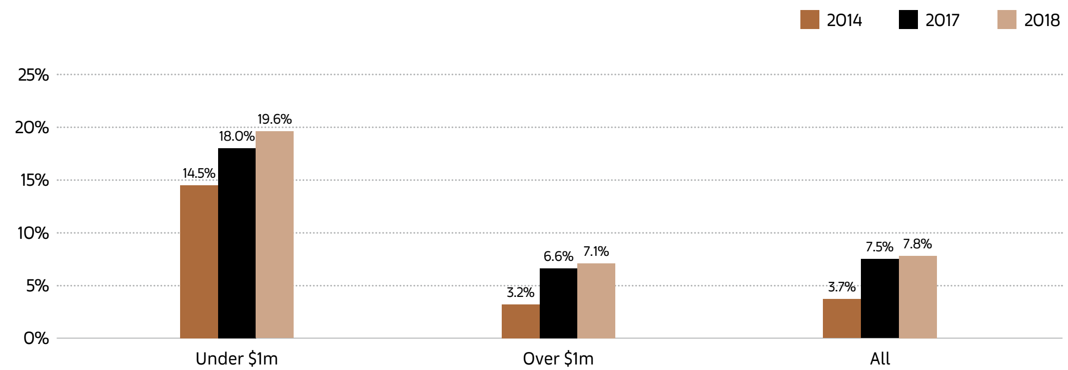
© Arts Economics (2019) with data from Invaluable

The importance of online sales, especially for mid- and lower-tier auction houses is clear from an analysis of sales made through platforms such as Invaluable. A sample of about 800 of Invaluable's member auction houses from around the world showed that 8% of the total turnover of these businesses by value (including online, phone bidding, and live sales) was conducted online via Invaluable.

Although they have established links with major top-tier houses over the past few years, these platforms have been critically important for smaller auction houses, enabling them to access an online audience without having to invest large amounts of capital developing their own e-commerce tools and facilities.

Figure 6.8 shows that, for auction houses with turnover of less than $250,000, the share of sales via Invaluable was more than four times the average (at 34%), and this share grew 7% year-on-year. The share of online sales gradually declined as turnover levels rose, to just 5% for those with turnover in excess of $10 million, which represent a minority of the platform's members. The biggest advances year-on-year were for businesses with turnover

Figure 6.9 | Share of Online Sales (via Invaluable) by Turnover Level 2014, 2017, and 2018



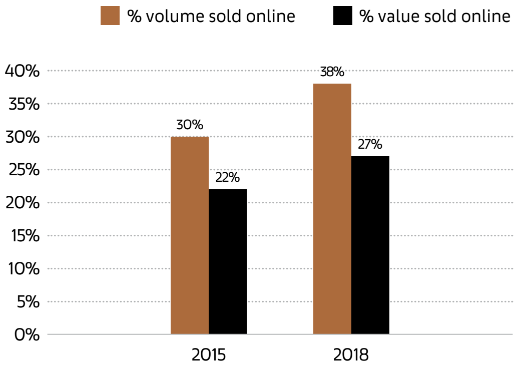
© Arts Economics (2019) with data from Invaluable

For auction houses with turnover of less than $250,000, the share of online sales was more than four times the average at 34%

under $1 million, but all segments have grown over the past four years.

LiveAuctioneers, which started offering live auctions with eBay in 2002, is another of the largest third-party auction platforms in the sector. It sold a reported 633,833 items through its platform in 2018, up 15% year-on-year, with sales of $278 million in 2018, an increase of 12% year-on-year. The platform hosted about 5,000 auction houses and added 586 auctioneers in 2018, including new and former clients, up 55% on the number added in 2017.

Figure 6.10 | Share of Online Sales (via the-saleroom.com)



© Arts Economics (2019) with data from the-saleroom.com

The platform also saw an increase of nearly 756,000 new bidders in 2018, reporting 162% growth in the US, 110% in Asia, 172% in Europe, and 161% across the rest of the world.

Regional aggregators, such as the-saleroom.com (part of the ATG group of platforms), also expanded in 2018. Apart from increasing sales, ATG acquired lot-tissimo.com, a leading portal for fine art and antiques auctioneers in Germany, Austria, and Switzerland, increasing its coverage beyond the UK to Continental Europe. ATG also partnered with auction.fr in 2016, an independent French art and antiques marketplace. The group now lists more than 8.9 million lots every year, sells a reported 12,000 lots per day, and facilitated 14,189 auctions in 2018.[70]

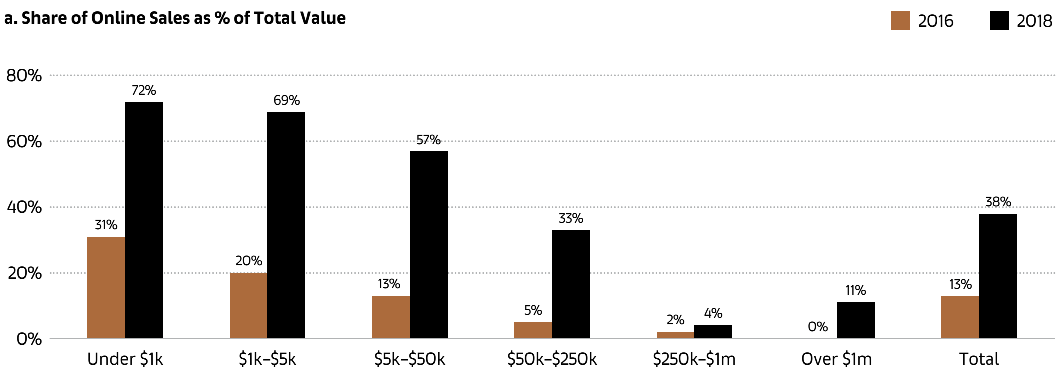
Using data from its members' sales, Figure 6.10 shows that the share of online sales through the-saleroom.com from UK auction houses grew steadily in terms of both value and volume over three years. In 2018, 38% of the lots sold by UK member auction houses were transacted online via the-saleroom.com (up 2% year-on-year), and these lots accounted for 27% of its total value of sales, stable on 2017.

Not all auction companies use third-party platforms to intermediate sales, with some choosing to sell from their own websites or via white-label bidding platforms through an external provider. Auction Mobility partners with auction houses to provide them with their own branded auction platforms, facilitating sales via a web platform or app alongside their live sales. Auction Mobility data from a sample of 200 auction houses that use the technology also show the growth of online sales over the past two years. In 2016, its members sold, on average, 28% of their lots online, and these accounted for just 12% of the value of their sales. By 2018 this online share had grown to 69% of lot volumes and more than 38% of total values. The expansion has been at all price levels, not just the lower end, and includes sales priced over $1 million. While, in 2016, none of its members recorded online sales at this level, in 2018, on average, for works sold for a hammer price of more than $1 million, 8% of the lots were sold online, and these accounted for 11% of values in this price segment.

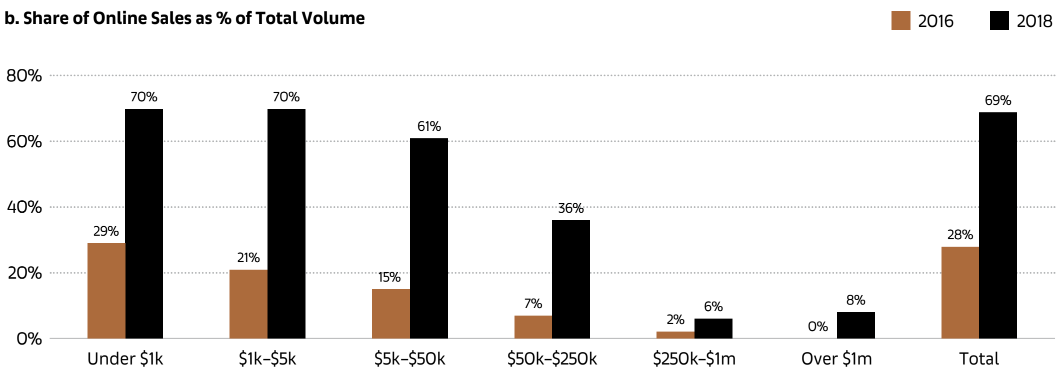
From a sample of 200 auction houses, for works with a hammer price of over $1 million, 8% of the lots sold online, and these accounted for 11% of values in this segment

70 Including lots sold on the-saleroom.com and lot-tissimo.com, plus the non-art platforms i-bidder.com and bid-spotter.com.

Figure 6.11 | Share of Works Sold Online from Total Works Sold at Different Price Levels via Auction Mobility Platforms in 2016 and 2018



© Arts Economics (2019) with data from Auction Mobility

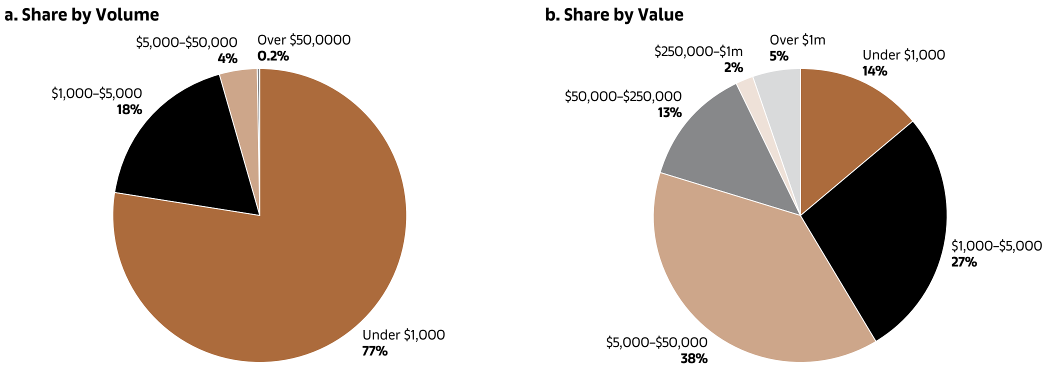


© Arts Economics (2019) with data from Auction Mobility

Although the bulk of works by volume sold online were at low prices, with 77% selling for less than $1,000, there is a significant share of value at higher levels

The data from this sample of auction houses from Auction Mobility also shows that, although the bulk of works by volume sold online were at low prices, with 77% selling for less than $1,000, there is a significant share of value at higher levels. The largest segment by value in 2018 was works sold for between $5,000 and $50,000, while 20% of sales by value were from works sold for prices in excess of $50,000, up from 14% in 2016. Although the share of lots sold for more than $250,000 was a tiny proportion of the total (less than 0.1% of all lots), these accounted for 7% of works sold by value online, with those sold for more than $1 million accounting for 5%.

Figure 6.12 | Share of Works Sold Online by Price Segment in 2018 (Auction Mobility)



© Arts Economics (2019) with data from Auction Mobility

Artsy continued to dominate the online landscape in 2018 with a global network of galleries, auction houses, art fairs, and institutions. In 2018, its platform hosted more than 1 million artworks by more than 100,000 artists, of which about 70% were for sale. This represented more than $10 billion in commercial inventories from galleries, fairs, and auctions.

In 2018, Artsy had a partner network of more than 3,000 galleries, with reported growth in paying subscribers of 35% year-on-year, as well as over 80 art fairs and 800 museums and institutions. Artsy also partnered with both top-tier global auction houses and an expanding network of regional auction houses.

The platform hosted more than 400 auctions, which included a combination of live and online-only sales, with partners such as Sotheby's, Christie's, and Phillips. This was more than double the 190 auctions

in 2017. The price ceiling of works sold via the platform also increased in 2018, with the highest-winning bid being $590,000, for George Condo's *Marc Jacobs* in a sale with Phillips. In the gallery sector, a record was also set on the platform, with a European buyer reportedly paying $2 million for a work sight unseen.

The company had more than 1.3 million registered users in 2018, up 40% on 2017, and experienced a 58% increase in sales volumes.

The online-only auction market also continued to evolve in 2018. Paddle 8 continued to focus on benefit auctions, completing 177 with 161 different organizations in 2018, selling more than 4,300 artworks.

In early 2018, Paddle 8 announced it was taking investment from The Native, a Swiss technology company. The two companies had launched The Lab in late 2017 as a joint partnership, with the aim of designing and deploying blockchain technologies for the art market and other luxury collectibles. They launched P8Pass, a blockchain-authentication service where a digital certificate is offered for each work transacted online with the information encoded into the blockchain. The product was developed in partnership with Verisart, in which The Native holds a minority investment.

Artnet's results from the third quarter of 2018 show that its online auctions, which make up just less than 20% of the company's revenues, decreased by 11%, to $2.8 million, in the first nine months of 2018 when compared to 2017, due to lower transaction volumes.[71] It attributed the fall in revenue to its focus on raising the quality of works offered to increase the average lot price, 'including turning down consignments if necessary'. It hoped doing this would lead to higher sell-through rates and claims that the strategy had increased the average price of lots sold by 13% to $13,200 in the first nine months of 2018 compared to 2017.

71 The company had not released its 2018 revenue figures at the time of publication, but in 2017, online auctions accounted for $4 million of its total $20.8 million revenues for the year.

While the data reported from all of the larger third-party platforms is overwhelmingly positive year-on-year, not all companies in the sector have been successful, with some businesses, such as Artebys.com, appearing to have ceased trading. As the online auction sector increasingly converges around these few global platforms, it may become harder for new or smaller firms to compete. It is also likely that the already-fierce competition between the incumbents will escalate, with important differentiators, such as technological advantages, administrative efficiencies, supply-chain and logistical solutions, and fees all being used to gain market share and secure auction houses members. Maintaining customer loyalty on the buying side will also be a major challenge, with many buyers using several platforms to source and purchase works online.

There are also some alternative and niche auction-related sites being developed to serve specific needs of the expanding base of consumers. These are focusing only on certain mediums or sectors, as well as consumers looking for opportunities away from the traditional auction model. Auctionaftersale.com, which was originally launched in 2014, specializes in the sale of unsold works, which are displayed for 10 days after auction sales on its site from 2,500 auction houses. Buyers can make an offer on unsold works, with a 15% deposit paid to the platform if the auction house accepts the (net) offer. The platform also launched a beta of a new site, thirdman.com, at the start of 2019, which adds a search-and-offer service for buyers in current, past, and forthcoming auctions for works they specify in advance for a 5% commission.

The already-fierce competition between the third-party platform incumbents is likely to escalate

6.3 | Website Traffic and Social Media

Attracting the attention of buyers is one of the most important challenges faced by all online companies and platforms. While companies are heavily investing in helping potential buyers tailor searches and find works of art when they visit their sites, directing traffic to the sites in the first place is an even greater challenge for many.

Table 6.3 shows the global ranking based on website traffic of a selection of companies involved in e-commerce in the art and antiques market in 2018.[72]

The highest ranked sites for website traffic were the large global marketplaces, such as Amazon and eBay, both with more than 1 billion visitors a month. However, these rankings were based on their visitors across all products, including art and antiques alongside many other products. The highest global rankings for art-specific sites were achieved by Artnet and Artsy, both with close to 4 million visitors per month,[73] driven also by editorial and news content.

In terms of those focusing on e-commerce only, as in 2017, some of the third-party retail and auction aggregators ranked the highest, including Live-Auctioneers, 1stdibs, the-saleroom.com and Invaluable. All of these aggregators had between 2 and 3 million visitors per month, which was more than the major auction houses, showing their continuing importance as a first point of contact for many buyers and sellers.

It is important to note that some platforms also operate in multiple markets, with dedicated platforms in each. For example, Barnebys.com (as quoted in Table 6.b. iii) has multiple platforms across eight markets, each with dedicated websites, including Barnebys.se and Barnebys.co.uk and six others.[74] All of these websites combined have monthly traffic in excess of 2.5 million, which gives them the same ranking as the rest of the leading platforms when considered on aggregate.

In the traditional auction house sector, Heritage Auctions led in terms of the global rank for the year, with an average of 1.7 million visitors per month in late 2018. More than 59% of these came from mobile applications. It was followed by Sotheby's (at 1.6 million) and Christie's (2 million), with both just less than 50% mobile.

The highest-ranking first-party or 1P retailers[75] were unchanged on 2017: saatchiart.com and art.com (which includes posters and non-original prints), both with about 2 million visitors per month. While traffic rankings give an indication of changing metrics year-to-year for companies and an indication of popularity, some businesses are built on a more exclusive business model, targeting specific visitors rather than high traffic volumes.

72 Traffic statistics are 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. The ones used here were extracted in December 2017. It is important to note that some of these indicators change rapidly. The social-media statistics used in Table 6:1 are taken directly from the source on social media and not from these databases.

73 Visits per month are measured from October to December 2018. Artsy had 4 million visitors per month in this period versus 3.5 million for Artnet.

74 Barnebys expanded further in 2018, changing its name to Barnebys Group after acquiring ValueMyStuff, Collectors Weekly and SAS/Blue Dog.

75 A 1P retailer is a company or platform selling on its own account, including platforms for artists.

Visitor traffic also gives an indication of the level of interest or popularity of a company, but not of their success in making sales, with a key challenge remaining in how to convert more visitors into active buyers.

In 2018, social media remained an important tool for building brand awareness, as well as making sales, with Instagram now well established as the key platform for the market. Despite the rise in reported sales facilitated via Instagram, anecdotal evidence suggests that its most effective use in the sector remains as a marketing tool, to spark the interest in offline experiences and sales or to generate confidence in works or artists through their endorsement by key influencers in the sector.

Other leading social-media channels did less well during the year. Changes in Facebook's news-feed algorithms at the start of 2018 to prioritize sharing of material by friends reduced the amount of content users see from brands and publishers, dramatically diminishing the organic reach of their Facebook posts and requiring companies to spend more on paid ads in order to generate the same amount of views. This increase in costs, along with Facebook's massive data-privacy issues, have significantly reduced the platform's popularity and impact for many businesses.

Although faring better, Twitter also reported a decline in active users of 9 million in the fourth quarter of 2018 from the previous quarter, and a 4 million reduction year-on-year, despite an increase in annual revenues of 25%.[76]

Although easy to manipulate, metrics on social media can offer some insights. Sotheby's had the highest number of Instagram followers of the art-specific websites, while Artsy and Sotheby's had among the highest number of Facebook likes and Artsy also had the largest number on Twitter.

The highest global rankings for art-specific sites were achieved by Artnet and Artsy, both with close to 4 million visitors per month

76 Figures refer to monthly active users. Twitter Press Releases, February 2019.

Table 6.3 | **Website Metrics: Selected E-Commerce Companies in 2018**[77]

a. Galleries, Artists, and Retail

i. 1P Retail	Global Rank 2018	Twitter Followers	Instagram Followers	Facebook Likes
saatchiart.com	24,776	228,000	455,000	434,904
art.com	26,024	29,700	43,900	445,732
yellowkorner.com	113,066	3,557	21,719	221,395
theartstack.com	139,059	3,501	5,603	16,371
bluethumb.com.au	255,048	1,447	24,600	43,149
artgallery.co.uk	350,693	3,566	1,026	12,708
lumas.com	420,369	9,054	31,800	187,229
myartbroker.com	424,637	1,021	1,397	1,736
riseart.com	512,255	68,900	30,800	45,363
ugallery.com	564,486	3,922	24,000	21,277
20x200.com	627,099	23,800	8,066	29,309
ideelart.com	685,095	1,787	34,300	6,459
indiewalls.com	1,201,641	1,426	2,959	2,259
seditionart.com	1,231,347	3,875	12,600	456,226
artstar.com	1,730,315	1,688	8,524	3,168
artlead.net	1,766,855	265	4,327	3,771
eyestorm.com	2,548,318	1,802	2,663	3,470
artplode.com	2,893,168	40,600	1,870	2,346
artuner.com	3,261,956	7,015	7,985	5,001
blindspot.com	4,255,908	6,329	2,116	8,520
wydr.co	4,529,523	1,118	4,711	2,808
exhibitiona.com	4,695,773	5,156	74,800	4,835
lavacow.com	4,741,493	–	727	2,416
twyla.com	4,878,080	1,434	14,700	40,585
gazelliarthouse.com	5,117,264	3,372	36,300	6,324
wengcontemporary.com	5,169,000	202	13,200	1,650
i. 1P Retail (continued)				
collectionair.com	11,876,804	457	9,321	2,118
artandonly.com	12,926,733	773	3,929	3,471
riotart.co	13,956,629	119	1,901	653
artfuly.com	17,544,092	109	2,341	2,298

ii. Third-Party Retail Marketplaces	Global Rank 2018	Twitter Followers	Instagram Followers	Facebook Likes
amazon.com	14	2,900,000	1,500,000	29,282,212
ebay.com	34	695,000	501,000	11,096,447
etsy.com	172	2,520,000	1,800,000	3,354,423
1stdibs.com	19,544	19,600	457,000	98,417
rubylane.com	35,329	11,000	12,300	184,733
artfinder.com	67,211	101,000	43,700	263,974
artsper.com	137,163	9,587	44,800	372,393
artspace.com	157,872	212,000	333,000	96,691
ocula.com	491,010	4,323	64,800	55,986
artweb.com	719,790	31,000	–	25,642
goantiques.com	746,625	173	20,500	7,496
masterart.com	1,661,296	1,189	752	7,367
newbloodart.com	3,444,640	1,768	1,578	2,583
artsation.com	4,164,405	1,171	–	26,178
artviatic.com	14,801,559	14,700	235	4,778

77 Note that many companies offer a range of services, including combining auction and retail sales, which makes them difficult to classify. Companies were classified based on their most relevant link to art sales or where their focus was primarily in 2018. Measurements were taken in November and December 2018.

Table 6.3 | **Website Metrics: Selected Companies in 2018 (continued)**

b. Auctions

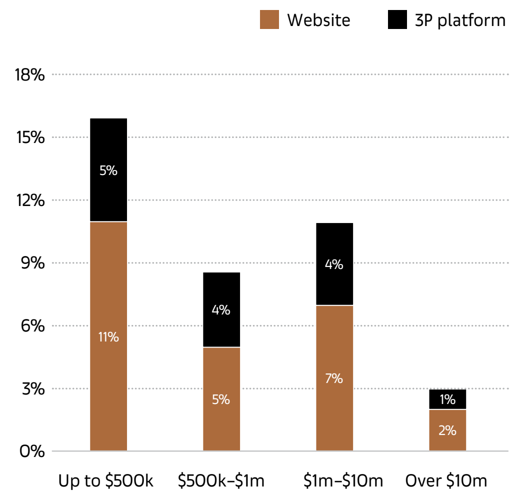
i. Bricks and Clicks	Global Rank 2018	Twitter Followers	Instagram Followers	Facebook Likes
ha.com	28,512	54,800	5,239	84,719
christies.com	29,875	113,000	559,000	263,423
sothebys.com	30,144	106,000	789,000	594,351
dorotheum.com	35,273	1,579	12,300	20,608
lauritz.com	39,066	–	12,300	32,751
bukowskis.com	49,653	1,077	35,700	14,305
bonhams.com	80,697	41,700	44,000	30,887
phillips.com	119,972	40,300	147,000	32,132
heffel.com	919,498	1,551	1,930	–
saffronart.com	1,067,082	2,489	12,100	30,283
dreweatts.com	1,128,286	2,689	1,711	974

ii. Online Only	Global Rank 2018	Twitter Followers	Instagram Followers	Facebook Likes
artnet.com	19,882	1,930	741,000	286,696
catawiki.com	20,203	3,031	11,300	805,882
ebth.com	26,387	3,315	86,500	179,975
artprice.com	46,284	30,000	–	3,366,600
paddle8.com	193,706	37,800	73,000	38,111
expertissim.com	355,734	2,114	1,243	4,770
valuemystuff.com	506,463	24,400	308	15,951
astaguru.com	858,896	777	3,651	178,894
hihey.com	3,544,751	21	–	155
auctionaftersale.com	3,716,494	892	501	3,130

iii. Third-party Platforms	Global Rank 2018	Twitter Followers	Instagram Followers	Facebook Likes
auctionzip.com	10,377	4,615	–	39,602
artsy.net	15,735	1,770,000	723,000	807,602
liveauctioneers.com	16,290	2,609	–	18,155
the-saleroom.com	18,091	6,121	1,165	6,377
invaluable.com	23,337	5,363	4,288	61,705
auctionet.com	45,753	16	2,721	25,488
lot-tissimo.com	74,420	41	–	830
auction.fr	76,946	619	1,132	5,026
bidspotter.com	84,270	1,140	–	4,134
interencheres-live.com	101,819	2,636	2,058	23,212
barnebys.com	290,051	2,531	14,900	25,264
lotprive.com	439,034	372	123	4,683
epailive.com	748,572	984	882	79
lofty.com	909,670	1,430	509	16,440
igavelauctions.com	1,286,062	877	1,462	1,541
theauctionroom.com	2,281,674	2,185	3,986	676
drouotlive.com	5,147,657	9,088	27,100	100,612

© Arts Economics (2019) with data from SimilarWeb, Facebook, Twitter, and Instagram. Data measured in November and December 2018

Figure 6.13 | Share of Online Sales by Turnover Level



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6.4 | The Online Dealer Sector

The surveys of the dealer sector in 2018 indicated that the online channel represented 6% of total sales, a stable share on 2017. Once again, the majority of these sales (4%) were made through the dealers' own internal online channels (such as their website or via email), with the remaining 2% of sales through third-party platforms, the most commonly cited being Artsy, 1stdibs, and Artnet, just as in 2017.

Figure 6.13 shows the average share of online sales by galleries by turnover level. It is clear that in the dealer sector, businesses with lower turnovers, less than $500,000, have a much higher share of online sales at 16%. Online sales were also relatively more important for those dealers with turnover between $1 million and $10 million. However, the proportion declined significantly for those at the highest end of the market. At all levels in this sector, deals made directly through their own websites dominated third-party retail platforms.

These figures on the average share of sales include many galleries that did very few or no online sales in 2018. Looking only at galleries that had at least some online sales, the overall average is a higher 15%. Within this segment of galleries, about 45% made 20% or more of the value of their sales online and 10% made half or more.

Despite accounting for a smaller share of their sales, some major galleries also became much more actively involved in the online sector in 2018. David Zwirner launched its online viewing room, in 2017, where clients can view high-resolution images of works of art, with details on their prices and availability. While works cannot be purchased directly from the site, the company claimed that, in 2018, at least 30% of tits clients were now buying works sight unseen and that the transparency of its viewing room was helping to engage new clients.

Gagosian also launched an online digital store with many similar features, including images, prices, and availability details, accessible online for a very limited inventory of items. A critical difference is the time-limited nature of sales via this viewing room, with its inaugural sale of just 10 works offered for 10 days during Art Basel in June. In this first sale, a reported five works were sold for a combined total of more than $2 million, and a second sale was held during Frieze London in October.[78] Again, the store does not offer direct purchase but assisted transactions with 24- hour online assistance.

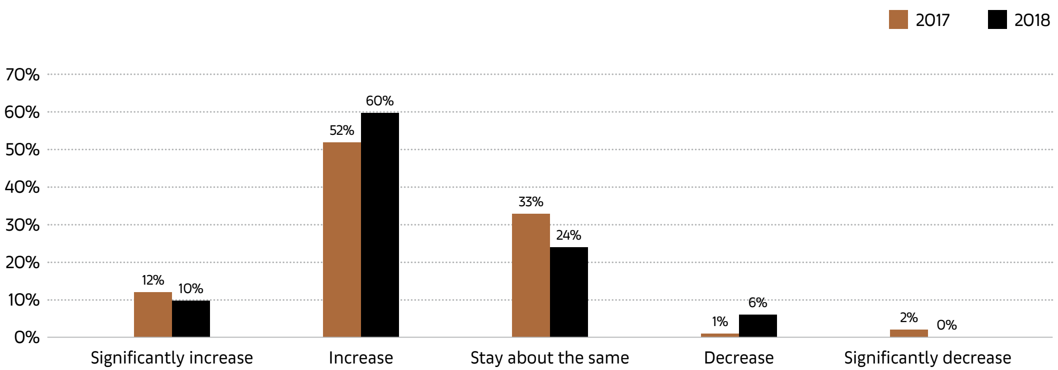
For dealers of all sizes, as in the auction sector, online sales remain an important means of accessing new customers, who continued to dominate online sales in 2018 with an increasing share. In 2018, for those dealers making sales online, more than half (52%) of them were to new buyers who had never been to their gallery or met them in person, up 7% on 2018. 32% were to established buyers who had already had personal contact with the gallery but who bought through its website or through sending an image – down 7% year-on-year. The remaining 16% of established online buyers who had never been to the gallery or met the dealer in person was stable on the previous year.

Apart from offline galleries conducting sales online, there are also a number of online-only retailers selling on their own account. These businesses continue to be primarily focused on lower-value works of art, and some are targeting new buyers with smaller budgets, offering an accessible and less-intimidating entry point to collecting.

As online buying in the art market becomes more mainstream, others are looking toward what they believe is a widening group of potential buyers, including segments of high-spending, time-poor millennials who, due to the pressures of current wealth creation, are unable to participate in offline events such as art fairs or exhibitions on a regular basis. Many of these collectors value transparency, free-flowing access to information, and speed in transactions, rather than the social hierarchies and exclusivity that some physical events involve. They are digitally enabled and comfortable transacting online in all other aspects of their lives.

78 See Kazakina, K. (2018) "Hidden Room, Secret Prices Give Way As Gagosian Embraces the Web" (Bloomberg.com, July 13, 2018).

Figure 6.14 | **Dealers' Views on Online Sales Over the Next Five Years**



A survey conducted by Arts Economics in 2018 of about 70 businesses active in the online sector revealed that just over 75% of the volume of works and objects sold online in 2018 were for prices less than $5,000, 94% were for less than $50,000, and only 2% were for more than $250,000, generating about 10% of the value of sales. The large share of the volume of sales 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.

The expectations of the majority of the traditional offline dealers surveyed in 2018 were that online sales would increase over the next five years. There were higher expectations for growth than in 2017, with the majority (70%) expecting e-commerce to increase or increase significantly (versus 64% in 2017), while a further 24% predicted that online sales would remain at about the same level.

6.5 | Blockchain and the Art Market

Blockchain and its potential applications in the art market dominated many public forums and media reports in 2018. Although many applications were discussed, the main debates centered around its uses for title registries, the use of cryptocurrencies in the trading of artworks, the facilitation of fractionalized ownership of works of art, and the use of smart contracts for artists.

The use of cryptocurrencies was highlighted during the year, with a number of galleries selling paintings, digital art and collectibles using them, along with the use of blockchain technology by artists in their practices. The auction platform LiveAuctioneers sold crypto-art and had a winning bidder pay in crypto-currency. The platform also facilitated payments using Biddable (from Codex), which lets bidders buy and pay with cryptocurrencies using a deposit system that avoids registration and pre-clearance procedures with the auction houses.

Discussions continued regarding the so-called 'tokenization' of works of art in order to offer fractional or shared investments in one work to multiple investors, which can then be traded. Maecenas, a blockchain platform launched at the end of 2017, offered shares in an Andy Warhol work in July 2018, issuing more than 6 million ART tokens, with the auction achieving a reported value of $6.5 million for a 49% share, while the owners of the work retained 51%. Although this was cited as a move toward the 'democratization of access to fine art', it is not an innovation per se and has been done without blockchain in both the private and public domains in the past.

The ability of blockchain to reduce transaction costs by cutting out the middlemen in such transactions has generated renewed interest. However, in practice, there has been little progress on this front, with platforms such as these still charging fees of between 2% and 6%. A key issue in the tokenization of art, on- or offline, remains the lack of demand for the concept, which alongside management and other fees, will likely stall any mainstream interest for the time being.

A key issue in the tokenization of art on- or offline, remains a lack of demand for the concept

Some more solid progress was made in applying blockchain technology to major art market sales. Christie's became the first major auction house to apply blockchain technology to its consignments, partnering with Artory to encrypt the provenance and sales records of the Barney A. Ebsworth collection (which sold for $323 million, as previously noted).

Artory, founded in 2016, launched the Artory Registry in November 2018, with the works from this sale as its first entries. The Registry provides a secure, object-centric database that contains vetted data about artworks and collectibles, creating digital records of transactions via cryptography and blockchain technology to record significant events throughout a work's lifecycle.

The aim of the Registry is to improve confidence in the provenance and title of works, recording events such as sales, appraisals, and conservation and exhibition histories. A key issue in a registry like this is that the data in the blockchain is only as good as the data inputted. Artory's main priority in the past two years has been to expand its records while distinguishing trusted from non-trusted data through working with vetted partners, such as specialized dealers, auction houses, and other art-data providers to reduce the risk of permanently recording poor-quality information onto the blockchain.

With the increasing impact of money-laundering regulations in the art trade and other 'Know Your Customer' initiatives, Artory is also developing a risk-screening service. Its record holders can have a third party carry out a thorough crime-risk assessment so that the collector and their works are preapproved for transactions, using a similar method to that used by large auction houses when prescreening for potential bidders. The added advantage with this system is that the record holders on the Registry will always remain unknown to Artory, adding security without encroaching on their privacy. All buyers using the Registry also remain anonymous to Artory while still having access to information about their work of art throughout its lifetime, and receive an anonymous, encrypted certificate as proof of purchase.

Verisart, founded in 2015, is also using blockchain to build a global ledger of art and collectibles, including those sold on- and offline. Verisart helps to attach authenticity to online images, which can aid both artists and owners in claiming the rights and commercial value of their digital media. It issues certificates of authenticity for works of art, initially for those created by living artists, but in a second phase for older works, too.

While the benefits of information registries like these are obvious, there are still many concerns about blockchain technology, with worries that it could lead to inconsistencies and hard-to-erase inaccuracies in the data being stored. Artory has a vetted list of specialists who verify the information that goes into the blockchain, whereas Codex and Verisart do not have that restriction. While it is relatively easy to track and record the provenance of contemporary works, in older sectors of the market, provenance and attribution are not only much more difficult to aggregate but are also sometimes altered over time as works and their transaction histories are reassessed in art-historical research. The unalterable nature of the blockchain does not easily allow for amendments and modifications at a later stage, which could actually lead to less-accurate transaction histories.

Unless registration can guarantee the attribution of a work of art – as opposed, for example, to not simply showing that it is not a deliberate forgery – certifying an attribution can be a highly risky activity. This is particularly true in sectors such as Old Masters, where attributions can and do change with scholarship.

A remaining challenge for registries is also finding ways to link the real work of art to its blockchain record. Without a secure way to link the physical item to the digital ledger or a blockchain, it is still possible to replace it with a fake or to misreport its condition. Several companies are working with the registries to address this issue. Veracity Protocol, which works with various physical assets, including cars, art, luxury goods, and security papers, uses AI-based tools and computer vision to fingerprint objects and issue them with a unique digital passport. Dust Identity uses DUST (Diamond Unclonable Security Tag), a technology that uses nanodiamonds to create unclonable and durable identity tags. Tagsmart, which works specifically with art, also creates DNA tags, which are stamped onto a work of art, giving it a unique reference number that links it to a certificate of authenticity and digital record of provenance. The prices for the latter's one-off self-service tags are generally less than $100, making them a more affordable way for an artist to tag their work. However, all of these procedures risk damaging or altering the condition of a work, particularly in older sectors of the market.

With more companies entering the space, it will be a challenge in the future to see which will survive financially, as all of these issues and technologies add layers of costs to art transactions that will have to prove beneficial before they are absorbed by buyers and sellers in the broader art market. 2018 marked an inflection point in the dialogue around this area and in the number of companies issuing product offerings in the space. However, it continues to be the case that, as with e-commerce trends, rather than massively disrupting the market, there will be a longer and slower adaption to the technological improvements these latest innovations provide, with the real benefits probably only becoming apparent in the longer term.

6.6 | Data and Other Technology

Besides Blockchain, there are a number of other new and promising technologies that are being used to try to enhance the online buying and selling experience in the art market.

Virtual reality (VR) technology has been part of the art market since as far back as the 1970s, with renewed interest in recent years in VR art as more works are created purely digitally, to be viewed specifically within this realm.[79] However, as the technology has developed, there are more businesses exploring its use for both digital and non-digital art sales online. VR technology offers a 360-degree view of art that could enhance e-commerce by reaching buyers who are unable to visit galleries and exhibitions but remain reluctant to buy from a flat image. Although this is promising, given the falling foot traffic to galleries, there are several obstacles to its development in the art market. One is the costs of the equipment required for viewing and the technology itself. VR also does little to parallel the actual experience of attending an event or an exhibition, which is not solely about visualizing art, but also about the context, connections, and other communal aspects of the experience.

Augmented reality (AR) apps have also gained some traction, combining physical elements with the digital world. Platforms such as Saatchi Art and Artsy offer AR features where users can preview works of art at home or in other contexts through digitally hanging them on their walls. These apps have the advantage of using preexisting technology (such as phones) to scan images of surroundings, hence saving significantly on investment costs.

While they are still being refined, the technologies have been welcomed by some galleries, especially as they reduce the need to lend out works on approval. Many collectors have also shown interest, particularly as they may help to reduce expensive return processes for works that turn out to be unsuited to the scale or context of their exhibition space.

AI has also begun to transform both the online experience and the marketing strategies of those engaged in e-commerce in the art market. In the current context, AI describes the processes whereby computers use learning (through the acquisition of information and rules for using data for specific purposes), reasoning (using these rules to reach conclusions), and self-correction. Machine learning is a core part of AI, with computers being able to identify patterns in streams of data via algorithms and statistical models. This enables them to progressively improve their performance of a specific task.

79 For discussion of early artists using VR technology, see Shwartz, G. (2019) "Where next for virtual reality art?" *Apollo Magazine*, January 4, 2019.

These tools rely on large amounts of repetition and, therefore, require big data sets, which up until recently, did not exist in the art market. However, the emergence of large third-party platforms and online transacting has increasingly enabled the use of big data in the art market.

Although big data is poorly defined, there has been increasing recognition of the potential offered by the huge volumes of structured and unstructured data that is being produced online that can help with the understanding of collectors' preferences and better target sales.

There are several companies in the art market making significant use of big data and the analytics it enables. Artsy is one of the largest sources and processors of such analytics. The platform's Art Genome Project has been at the core of many of their analytical tools. This maps the characteristics or 'genes' that connect artists, works of art, architecture, and design objects over time. There are currently more than 1,000 characteristics in The Art Genome Project, including art-historical movements, subject matter, and formal qualities. Based on the behavior of the users interacting with the platform, including galleries, collectors, auction houses, and others, significant research and experimentation can be carried out using the genes to test hypotheses and predict behaviors. Artsy acquired the art-data start-up ArtAdvisor in 2017 to use its expertise in data sciences to build tools to provide users with information about artists and help improve their product searches.

As noted earlier, Sotheby's acquired Thread Genius, which combines image recognition with a recommendation algorithm to suggest similar works coming up for sale and assist with the attribution of works.

Invaluable builds has more than 300 machine-learning programs that match purchasers to other lots that would interest them and segments them into relevant price brackets. In 2018, the platform made personalized web and email recommendations for more than 2.5 million bidders driven by machine learning, and their data demonstrated that the average winning-lot value for buyers selecting a personalized lot was 27% higher than the average lot value site-wide.

These machine-learning recommendation programs are common in other industries, with the most well-known example being Netflix, which has radically altered the movie and TV industry. Netflix uses technologies to look at what was viewed, when, on what device, and even whether the content was fast-forwarded, rewound, or paused. It also examines user activities such as internet searches, and browsing and scrolling within a webpage, to make recommendations that can be tailored for millions of customers in real time. It is estimated that about 80% of all watched content is currently based on algorithmic recommendations.[80]

However, despite their appeal and widespread use in other industries, there are limits to the applicability of recommendation algorithms when it comes to highly unique and valuable items such as art. Recommendation-based marketing tends to be good where buyers are sensitive to costs, or there is a high price elasticity of demand. If price changes, buyers will substitute easily and purchase something else. When there is substitutability between goods, buyers might switch between brands easily. Products can even be unique but buyers may not have a huge emotional tie or loyalty to their first choice.

Despite their widespread use in other industries, there are limits to the applicability of recommendation algorithms for highly unique and valuable items such as art

Such criteria does not generally hold in most instances for art, particularly at higher levels of the value chain. While there might be some substitutability between works by the same artist or even between some artists, generating a substitute that simply looks the same or is the same size, materials, or content is often not going to be satisfactory. This thereby reduces the efficacy of using technologies such as image recognition to suggest alternative purchases. However, since some art is purchased for purely decorative reasons, these recommendation tools may still have an important place at the middle and lower ends of the market.

There are many benefits to these and other types of big-data analyses, the most obvious being that huge stores of unused data can be put to use, with estimates that up to 80% of the data produced by organizations is unstructured and therefore cannot be used for traditional processing and analysis. However, in the art market, it is mainly large platforms such as Artsy, Invaluable and others that gather data in large enough quantities to be able to run tests and experiments, with smaller galleries and auction houses having much less data to work with.

Some technologies are allowing the use of big data sets at lower costs. Alongside this, however, is an increasing realization that more is not always better and, in fact, more data can lead to an increased number of data-quality issues, confusion, and lack of consistency in decision-making, especially when conflicting information is present, as has been shown in medicine, the financial markets, and other industries in both real and theoretical examples.

The focus of big-data tools has primarily been on forecasting and predictive modeling, to show what can be inferred based on past patterns, gleaned from repeated, automated simulations. It has also been used to create prescriptive tools, examining which is the best course of action or which gives the best results under a set of assumptions. Despite how advanced the technology becomes, a key challenge that remains is knowing the right questions to ask. The models used in these analyses are still only as good as the assumptions under which they are built and the parameters of the interpretations permitted.

A recurring problem in all empirical studies is replicability, called the 'crisis of replicability' in science, where researchers generate highly interesting findings but are unable to replicate the results consistently. This may be due to changes in the data, poor scientific methods or the fact that some problems have complex and multiple solutions. As such, findings of research generated by machine learning and AI cannot be assumed as facts until they are replicable. It is also possible to keep on validating things repeatedly, for example on motivations and preferences of segments of collectors, when they are in fact spurious or biased, or the questions being asked are incorrect.

Another key issue in this area is that even if these programs can accurately predict taste, the question remains as to how it might be influenced. There are also a number of future risks around the use of data, particularly personal data, with growing regulatory compliance issues and data-protection legislation, which makes it much more difficult for companies to use or share clients' data, with big penalties for those not acting appropriately. The importance placed on the privacy of personal data has been highlighted in many sectors throughout the year, and this is magnified in the art market, where discretion is even more highly valued.

80 Statistics from 7ParkData.com.

6.7 | 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.

Although the highest-spending collectors of art may not need any alternatives to the major global auction houses and galleries, for art buyers below this level, the online art space will continue to make art more accessible, with companies using online sales to reach and incubate new buyers.

There are still many factors that will limit e-commerce, which are difficult to overcome. Some progress has been made in attempting to deal with one of the big issues relating to buying from an image, sight unseen, including the use of VR and AI technologies. Yet despite these advances, the experience of seeing a work in person in a particular context that reveals its scale and as part of an experience with others is still highly important for many collectors, particularly in certain media and at higher price levels. While the same can be said for other high-end industries, such as apparel, the ease of returns has made these

> Although the online market has maintained a steady increase in sales, its most critical function continues to be accessing new buyers

much more accessible. For buyers (and sellers), much of the development of relationships and contacts required for accessing top works and knowledge concerning them is also based on offline networking, which can be difficult to facilitate online.

Practical roadblocks relating to the logistics of transporting, insuring, and returning art also remain largely unsolved. The right to return goods purchased online is covered clearly in most national or regional regulations, such as the *Distance Selling Directive 97/7/EC*, which offers a right of return for any reason within a specified period. However, the cost of shipping to return art limits the appeal of buying online for many consumers. This is especially true because a variety of policies in place put the onus on the customer to cover the cost of making returns. This has limited the purchases of some collectors to objects that are not unique, such as prints and multiples, or those that lend themselves to unambiguous descriptions. It also works against the purchase of large and fragile works in the decorative art and antiques sectors.

The key challenge for all companies in the online sector remains gaining the attention of new buyers and sellers in the first place, and those companies that can use traditional and social media in innovative and meaningful ways are likely to have the most success. However, while social media has been evolving in increasingly commercial ways over the past several years, there are many businesses in the artworld already considering the longevity of some aspects of its commercial reach. These channels were seen as having an essential role in enabling the web to evolve from its original form (or web 1.0) to 'the social web' (web 2.0), where blogs, forums, and social-media content has dominated, with content created, curated, and judged by its users.

Despite the scandals over the past two years concerning breaches of privacy, most online participants were prepared to forgo their privacy for the sake of convenience and have continued to use various digital platforms. However, there is a developing movement toward creating the third iteration of web technologies, or web 3.0, which is focused on a much more decentralized web, where users own and control their own data and smaller agents take more power back from mega-companies such as Amazon and Google. Although these ideas are still evolving, this transition could represent an important progression for digital culture, with a return to the values of the original World Wide Web, where independence, information, and creative expression are decoupled from purely commercial interests. To the extent that this takes hold and then reduces the need for intermediation, it may also affect businesses in the art market that are currently filling the gap between buyers and sellers.

Outside the e-commerce realm, there are some interesting companies capitalizing on other developments and the application of new technologies to recording, archiving, and selling works, with blockchain offering a good example, as well as significant advances in cyber security. AI and machine learning have also advanced the marketing of many companies.

Christie's became the first auction house to sell an AI work of art in 2018. The work, *Portrait of Edmond Belamy*, sold for $432,500, almost 45 times its estimate. Despite the amount of media attention it generated as a work created by AI, this work was in fact created by a French collective called Obvious, who made the algorithm – the set of rules used by the computer to reach the calculations upon which the work is based. Hence *Portrait of Edmond Bellamy* is much less

Table 6.4 | Top Challenges Faced by Online Companies Over the Next Five Years

Rank	Challenges Over the Next Five Years
1	Increased competition from other online sellers
2	Technological changes and developments
3	Finding new clients
4	Transport, shipping, and logistics
5	The economy and how it affects the demand for art and antiques

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innovative than it appears and the sale mainly interesting only from the point of view of publicity and marketing.

Next to increased competition in the sector, the top challenge faced by companies engaging in e-commerce in the art market in 2018 was adapting to and keeping up with technological changes and developments. According to the surveys of the sector, new technologies are also likely to continue to affect the way we experience and transact in the market. Rather than producing immediate changes or radically changing buying behavior in the short term, it is likely that the market will slowly adapt to these technological improvements, ultimately absorbing many of the benefits and simplifications into its existing systems.

7

Global Wealth and the Art Buyers

Key Findings

Global Wealth and the Art Buyers

1. Surveys of HNW collectors conducted in collaboration with Arts Economics and UBS in five markets (the UK, Germany, Singapore, Hong Kong, and Japan) showed that the breakdown of collectors by gender was 67% male and 33% female.

2. In previous surveys of US collectors, the majority of respondents were aged 50 years and over. However, surveys of HNW collectors conducted in collaboration with Arts Economics and UBS in 2018 revealed a very different age profile in newer markets in Asia. 46% of the collectors surveyed in Singapore were millennial collectors, and millennials represented a share of 39% of the total in Hong Kong.

3. Design objects were the most popular purchase for HNW collectors between 2016 and 2018, with 75% of the sample having purchased them, and 53% having purchased fine art.

4. Collectors from the millennial generation were considerably more active art buyers than others, with 69% having purchased fine art and 77% having purchased decorative art in the period from 2016 to 2018. Even in the antiques sector, which may have traditionally catered to older tastes, millennial purchasing at 54% was more than double the share of older segments such as baby boomers (23%).

5. 16% of HNW collectors had spent more than $1 million on works of art or objects from 2016 to 2018. Millennial collectors made up just under half (45%) of these high-end spenders, underlining the importance of the spending power of this demographic.

6. The majority of collectors (66%) reported that they had some kind of organized collecting strategy for their collections. This strategy included a long-term plan for the collection for 21%, but only about 11% of collectors had a plan based primarily on investment or financial criteria.

7. In Singapore and Hong Kong, most collectors followed an organized plan (82% and 78% respectively), and 16% of collectors in Singapore had an investment-oriented strategy for their collections, versus just 4% in the UK.

8. While galleries and auction houses were the most commonly used channels for purchasing, art fairs were highly important in Asia, with between 92% and 97% of collectors from Hong Kong and Singapore having purchased from an art fair.

7.1 | Regional Performance in 2018

On aggregate, the size and distribution of sales in the art market has been correlated with key economic variables over the long term, particularly the growth of the world economy and wealth. In particular, since 2000, art sales by value have shown a correlation with high net worth (HNW) wealth of more than 80%.

While the business of the art trade may often seem insulated from day-to-day economics and politics, sellers' plans are often heavily influenced by their views of the strength and stability in the economy and whether it is perceived as a good time to sell. Buying behavior is also influenced by optimism regarding aggregate and personal wealth and financial confidence. At the high end of the market, art can be perceived as a safe haven for capital when stocks and other markets are volatile, as seen at the end of 2018, but equally, in other segments of the market, discretionary spending on luxuries can be reined in when the outlook is uncertain.

Now, 10 years on from the start of the 2008 financial crisis, the global economy has generally enjoyed a period of relatively strong growth, with more stable and even favorable conditions in many regions. However, while 2018 began relatively positively, virtually every major asset class experienced a decline by the end of year, with economies in many regions bracing for a new, more uncertain phase of growth ahead.

At the start of 2019, there are many continued risks in both the economic and political spheres, and uncertainty remained palpable in financial markets and other areas of many economies. The fear of an imminent financial crisis had abated following some projections during 2018, and this had fed positively into consumer confidence. However, changes in the context that led to a benign view are fast moving and create tension between forecasts and outlooks. With consumer debt back at pre-crisis levels in many countries, corporate borrowing soaring, and many governments maintaining soaring budgetary deficits, some fear that a new financial crisis may be imminent, and may erupt as soon as 2020 onto a global economy even less prepared to handle its impact than it was in 2008.

> While the art trade may often seem insulated from economics and politics, sellers' plans are often heavily influenced by their views of the strength and stability in the economy and whether it is perceived as a good time to sell

The economic expansion experienced since 2016 has undoubtedly helped to boost current art sales. However, many dealers and auction houses were anxious about the prospects for the market in the short to medium term. Dealers surveyed in 2018 reported that, looking forward over the next five years, the economy and its effect on the demand for art and antiques was one of the biggest challenges they faced, with 70% listing it in their top three concerns. On aggregate, they rated the economic outlook as the biggest challenge next to finding new buyers. Surveys also indicated that auction houses rated it the second-biggest challenge in future. Top of their concerns was accessing supply, which in turn is often affected by the economic context.

Any number of economic and political risks, including asset-price bubbles, tightening monetary policy, unstable politics, geopolitical tensions, and the rise in protectionism, could alter the path of world growth in the coming years. So, while the current picture is one of broad-based momentum toward growth in global GDP, the prospects over the longer term are less certain, dampening forecasts for the coming years.

In 2018, the stock market had an extremely volatile year amid fears over political dysfunction and economic slowdowns. Despite some major indices such as the S&P 500 and Dow hitting record peaks earlier in the year, the last two months of 2018 erased nearly all of those gains and all of the major indices were down over the full year, with stocks generally seeing their worst performance since 2008.

The one-year returns of the S&P 500 and Nasdaq were down 5% over the course of the year, while other indices such as the FTSE 100 (down 11%) and Hang Seng (down 20%) fared even worse. While some of these trends were already reversing at the start of 2019, volatility and poorer general growth forecasts have made the outlook for these markets more difficult to read.

Despite these headwinds, economic growth in the US was at a higher level in 2018 than it had been over the past four years (at 2.9%). US consumer confidence also peaked at its highest level since 2000. But while the rate of growth returned to pre-crisis levels, this boost is not expected to last, especially as the effects of fiscal stimuli used to stimulate the economy during the slowdown start to unwind. A slower growth rate is expected in 2019, with a significant reduction in pace by 2023. The trade war between the US and China was one of the biggest problems facing the global economy in 2018, with growing fears of deglobalization and a retreat into protectionist national markets.

In Europe, although growth rates have improved over the decade, 2018 saw marginal declines in all of the major EU economies. Projections for growth in the euro area have been downgraded for 2019 to an estimated 2.9%.

In the UK, the political chaos surrounding Brexit and the prospects of a withdrawal from the EU contributed to the sub-average growth rate of 1.4% in 2018. Most economic forecasts predict that growth will remain relatively stagnant for the next five years. The European Commission's forecasts for the UK are more pessimistic than those of the IMF, shown in Table 7.1, which predicts that, with Italy and Denmark, the UK will become one of the three slowest-growing economies in Europe in 2019.[81]

In China, both growth and confidence have plateaued. Economic growth fell to 6.6% in 2018, three times the average of the G7 economies, but its lowest rate since 1981. The country's burgeoning debt, at more than $34 trillion, including public and private debt, is a byproduct of its booming economy over several years and has been seen as a severe threat to the global economy if not properly controlled. China and a number of Asian economies are also forecast to experience weaker growth in 2019 as trade measures announced in 2018 feed into declining exports.

Despite these current trends, the share of Asia's GDP in the world economy and its aggregate wealth have shown the largest growth over the past 20 years. Japan is an exception in Asia, with weak consumer spending in 2018, an economy growing just 1.1% a year, and further stagnation expected in the coming years.

Among developing and emerging markets, the growth prospects of many energy exporters remained strong, driven by higher oil prices. However, tighter financial conditions, specific national and political tensions, and higher oil-import bills have meant a much poorer outlook for Argentina, Brazil, and others.

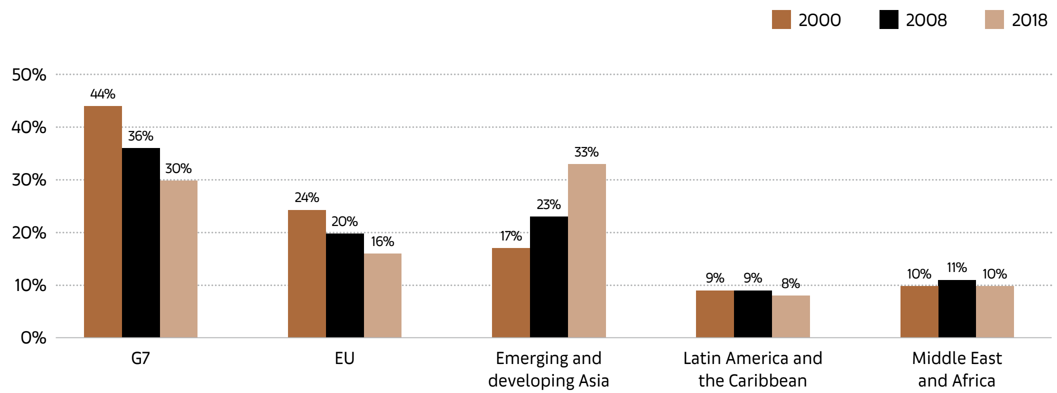
Economies in many regions are bracing for a new, more uncertain phase of growth ahead

81 Despite alignment on their predictions for the EU as a whole (at 2%), the European Commission's Autumn Economic Forecast of 2018 predicted growth of 1.2% in the UK in 2019 versus the IMF's 1.5%. Both forecasts are speculative, based on forecasting at the end of 2018, when it remained unclear how Brexit will pan out.

Table 7.1 | Annual Growth in GDP, Constant Prices

Country	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019f	2023f	Change 2008–2018
India	3.9%	8.5%	10.3%	6.6%	5.5%	6.4%	7.4%	8.2%	7.1%	6.7%	7.3%	7.4%	7.7%	3.4%
China	9.6%	9.2%	10.6%	9.5%	7.9%	7.8%	7.3%	6.9%	6.7%	6.9%	6.6%	6.2%	5.6%	–3.0%
Indonesia	7.4%	4.7%	6.4%	6.2%	6.0%	5.6%	5.0%	4.9%	5.0%	5.1%	5.1%	5.1%	5.4%	–2.3%
Hong Kong	2.1%	–2.5%	6.8%	4.8%	1.7%	3.1%	2.8%	2.4%	2.2%	3.8%	3.8%	2.9%	3.1%	1.6%
Australia	2.7%	1.9%	2.4%	2.7%	3.9%	2.2%	2.6%	2.5%	2.6%	2.2%	3.2%	2.8%	2.6%	0.6%
Switzerland	2.1%	–2.2%	2.9%	1.8%	1.0%	1.9%	2.5%	1.3%	1.6%	1.7%	3.0%	1.8%	1.7%	0.9%
Singapore	1.8%	–0.6%	15.2%	6.4%	4.1%	5.1%	3.9%	2.2%	2.4%	3.6%	2.9%	2.5%	2.6%	1.1%
UAE	3.2%	–5.2%	1.6%	6.9%	4.5%	5.1%	4.4%	5.1%	3.0%	0.8%	2.9%	3.7%	2.9%	–0.3%
US	–0.1%	–2.5%	2.6%	1.6%	2.2%	1.8%	2.5%	2.9%	1.6%	2.2%	2.9%	2.5%	1.4%	3.0%
Austria	1.5%	–3.8%	1.8%	2.9%	0.7%	0.0%	0.8%	1.1%	1.5%	3.0%	2.8%	2.2%	1.5%	1.4%
Netherlands	2.2%	–3.7%	1.3%	1.6%	–1.0%	–0.1%	1.4%	2.0%	2.2%	2.9%	2.8%	2.6%	1.8%	0.6%
Korea	2.8%	0.7%	6.5%	3.7%	2.3%	2.9%	3.3%	2.8%	2.9%	3.1%	2.8%	2.6%	2.6%	–0.1%
Taiwan	0.7%	–1.6%	10.6%	3.8%	2.1%	2.2%	4.0%	0.8%	1.4%	2.9%	2.7%	2.4%	1.9%	2.0%
Qatar	17.7%	12.0%	18.1%	13.4%	4.7%	4.4%	4.0%	3.7%	2.1%	1.6%	2.7%	2.8%	2.7%	–15.0%
Spain	1.1%	–3.6%	0.0%	–1.0%	–2.9%	–1.7%	1.4%	3.6%	3.2%	3.0%	2.7%	2.2%	1.7%	1.5%
Sweden	–0.6%	–5.2%	6.0%	2.7%	–0.3%	1.2%	2.6%	4.5%	2.7%	2.1%	2.4%	2.2%	1.9%	3.0%
Saudi Arabia	6.3%	–2.1%	5.0%	10.0%	5.4%	2.7%	3.7%	4.1%	1.7%	–0.9%	2.2%	2.4%	2.3%	–4.0%
Mexico	1.1%	–5.3%	5.1%	3.7%	3.6%	1.4%	2.8%	3.3%	2.9%	2.0%	2.2%	2.5%	3.0%	1.0%
Canada	1.0%	–3.0%	3.1%	3.1%	1.7%	2.5%	2.9%	1.0%	1.4%	3.0%	2.1%	2.0%	1.6%	1.1%
Germany	0.8%	–5.6%	3.9%	3.7%	0.7%	0.6%	2.2%	1.5%	2.2%	2.5%	1.9%	1.9%	1.2%	1.1%
Russia	5.2%	–7.8%	4.5%	5.1%	3.7%	1.8%	0.7%	–2.5%	–0.2%	1.5%	1.7%	1.8%	1.2%	–3.5%
France	0.3%	–2.9%	1.9%	2.2%	0.3%	0.6%	1.0%	1.0%	1.1%	2.3%	1.6%	1.6%	1.6%	1.3%
Belgium	0.8%	–2.3%	2.7%	1.8%	0.2%	0.2%	1.3%	1.4%	1.4%	1.7%	1.5%	1.5%	1.5%	0.7%
Brazil	5.1%	–0.1%	7.5%	4.0%	1.9%	3.0%	0.5%	–3.5%	–3.5%	1.0%	1.4%	2.4%	2.2%	–3.7%
UK	–0.3%	–4.2%	1.7%	1.6%	1.4%	2.0%	2.9%	2.3%	1.8%	1.7%	1.4%	1.5%	1.6%	1.7%
Italy	–1.1%	–5.5%	1.7%	0.6%	–2.8%	–1.7%	0.1%	1.0%	0.9%	1.5%	1.2%	1.0%	0.7%	2.2%
Japan	–1.1%	–5.4%	4.2%	–0.1%	1.5%	2.0%	0.4%	1.4%	1.0%	1.7%	1.1%	0.9%	0.5%	2.2%
South Africa	3.2%	–1.5%	3.0%	3.3%	2.2%	2.5%	1.8%	1.3%	0.6%	1.3%	0.8%	1.4%	1.8%	–2.4%
Argentina	4.1%	–5.9%	10.1%	6.0%	–1.0%	2.4%	–2.5%	2.7%	–1.8%	2.9%	–2.6%	–1.6%	3.2%	–6.7%
EU	**0.7%**	**–4.2%**	**2.0%**	**1.8%**	**–0.3%**	**0.3%**	**1.9%**	**2.4%**	**2.0%**	**2.7%**	**2.2%**	**2.0%**	**1.6%**	**1.5%**
World	**3.0%**	**–0.1%**	**5.4%**	**4.3%**	**3.5%**	**3.5%**	**3.6%**	**3.5%**	**3.3%**	**3.7%**	**3.7%**	**3.7%**	**3.6%**	**0.7%**

Figure 7.1 | **GDP (Based on PPP) Share of World Total**



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Singapore, Hong Kong, and Taiwan already have among the highest average incomes in the world as well as a high proportion of HNWIs, making them a key focus of marketing efforts for many businesses in the art market

While average incomes in China and other newer art markets are still significantly lower than in established centers, the catch-up in average incomes continued in 2018. China's GDP per capita advanced 6% year-on-year versus growth of less than 2% on average in the G7 economies, and has increased by more than 100% in the past decade as opposed to just 9% for the advanced G7 group.

Using purchasing power parity, or PPP dollars, China's GDP per capita in 2000 was just 8% of the US and about 12% of that in the EU.[82] However, this gap has continued to narrow significantly, and in 2018 that share had risen to 29% and 42% respectively. Growth over the next five years is also expected to expand at a significantly faster rate: more than five times the rate of the US and four times the growth rate in the EU. If so, China will continue to reduce the gap, improving the potential for the development of greater depth in Chinese art sales, which continue to be driven by a very small segment of the nation's vast population at present.

Other Asia-Pacific economies, such as India and Indonesia, are also expected to have strong double-digit growth in average incomes over the next five years, reducing the income differential with more-established markets and potentially increasing art sales in these regions. However, with current GDP per capita in India at just under $7,000, which is less than 20% of the EU's or G7 countries', these are likely to be slow-moving trends, with buying still coming from a relatively narrow segment of high net worth individuals (HNWIs) in these countries. Elsewhere in Asia, however, countries such as Singapore, Hong Kong, and Taiwan already have among the highest average incomes in the world, as well as a high proportion of HNWIs. This is making them a key focus of marketing efforts for many businesses in the art market in 2018, as well as spawning new events and art fairs over the past year, such as Taipei Dangdai in Taiwan and S.E.A. Focus in Singapore.

82 In order to compare how much GDP is really worth to individuals within a country, purchasing power parity (PPP) dollars are often a better indicator than using current US dollar amounts. The purchasing power of a currency is the quantity of money 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 amount of goods and services in the domestic market as a US dollar would buy in the US, so it factors in the affordability and cost of living differences between countries. In calculating GDP per capita, amounts in local-currency units are converted into international dollars using this PPP exchange rate. If we were to use nominal US dollars, China's GDP in 2018 would be approximately $9,635 versus $62,515 in the US, making it just 15% of the US figure.

Table 7.2 | GDP per Capita (Ranked Highest to Lowest in PPP dollars)

Country	2018	Change from 2017–2018	Change from 2008–2018	Change from 2000–2018	Forecast change 2018–2023
Qatar	$114,136	1.2%	5.3%	4.3%	11.9%
Singapore	$87,281	2.0%	32.2%	68.8%	9.3%
UAE	$62,415	0.0%	2.5%	–42.3%	1.0%
Switzerland	$57,729	2.2%	4.2%	16.9%	2.5%
Hong Kong	$57,557	2.9%	23.5%	70.4%	12.3%
US	$55,535	2.2%	10.5%	21.7%	5.9%
Netherlands	$50,252	2.5%	4.8%	19.0%	9.6%
Saudi Arabia	$49,680	0.2%	5.8%	13.7%	0.9%
Taiwan	$47,045	2.6%	29.4%	72.7%	10.1%
Germany	$46,988	1.8%	11.3%	24.8%	7.7%
Sweden	$46,830	0.7%	7.7%	26.7%	5.3%
Australia	$46,514	1.6%	10.5%	27.6%	5.0%
Austria	$46,391	2.0%	4.2%	19.2%	4.9%
Canada	$44,358	0.9%	6.7%	18.3%	4.2%
Belgium	$42,798	1.0%	3.3%	15.9%	5.0%
UK	$40,545	0.7%	5.3%	20.9%	5.6%
France	$40,508	1.1%	4.5%	13.2%	5.9%
Japan	$39,574	1.4%	8.8%	16.8%	4.9%
Korea	$36,790	2.3%	28.7%	77.2%	11.9%
Spain	$35,862	2.8%	3.8%	18.2%	10.2%
Italy	$35,064	0.9%	–6.1%	–2.8%	4.3%
Russia	$25,789	1.7%	7.5%	83.0%	8.5%
Mexico	$18,339	1.2%	10.2%	16.0%	9.8%
Argentina	$18,308	–3.7%	–2.3%	22.0%	3.8%
China	$16,096	6.1%	103.9%	337.2%	31.3%
Brazil	$14,312	0.7%	2.9%	24.5%	8.3%
South Africa	$12,236	–0.8%	0.2%	26.0%	0.6%
Indonesia	$11,705	3.8%	47.2%	99.7%	21.2%
India	$6,925	5.9%	78.3%	172.0%	35.6%

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7.2 | World Wealth

2018 saw a continuation of the positive trajectory for world wealth, which grew 4.6% to $317 trillion.[83] Although this was lower than the 6.5% achieved in 2017, it exceeded average growth rates in the years since the global financial crisis. It also significantly outpaced the growth in the world's population, meaning that average wealth per adult rose by 3.2%, reaching a level more than double that of 2000.

Despite these positive aggregate results, inequality also edged up, meaning median wealth dropped worldwide (by 3%) and declined in several regions, including the Asia-Pacific region (excluding China), Africa, and Latin America.

The strongest gains during the year in terms of wealth were in North America (up 6% year-on-year), with the US still accounting for 31% of world wealth. Europe also gained in wealth by 5% in 2018. However, its global share of wealth has fallen the most of all regions in the past decade, dropping 10 percentage points over the 10 years to 2018 (to 27%), versus a near-doubling in share in China in the same period (to 16%, or 17% including Hong Kong). North America, on the other hand, retained a 34% share in 2018, its share having grown 6% over 10 years, despite the growth in Asia. This solid base of wealth, including wealth at different levels, has helped to support a strong market for art and antiques in the US, which is fueled by both local and international buyers.

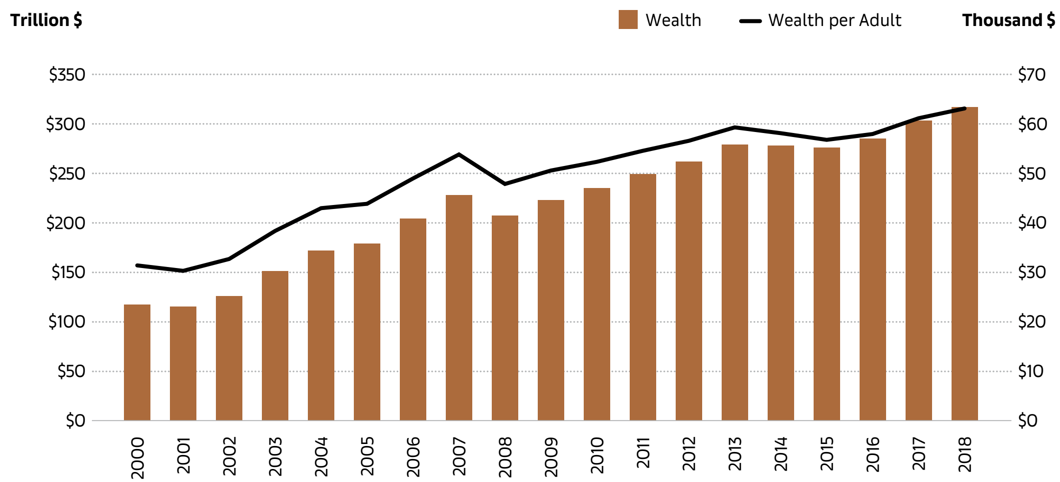
The Asia-Pacific region saw a modest increase in wealth of 2% year-on-year but, like Europe, has lost share over 10 years. While smaller regions such as Hong Kong and Singapore have doubled in wealth, the decline in Japan's wealth, the largest center by far, dominated aggregate figures. However, combining Asia-Pacific, China, and India, the aggregated Asian region now has a 36% share of world wealth, higher than North America and Europe.

Asia, although often complex to define, is also now one of the largest importers of art and antiques. Trade data for 2017 showed that at least 16% of the recorded imports of art and antiques by value around the world were into Asian countries. While this share was relatively low and stable between 2000 and 2008 (averaging 7%), in the past decade it has advanced rapidly, with China overtaking Japan as the region's dominant importer of art. China accounted for 45% of all art imports into Asia (versus 17% in 2000) and most of these (95%) were imports into Hong Kong, where much more liberal trade policies have made it a hub for art entering Asia. Although the region's share of world imports of art and antiques is still considerably less than the US (46%) and EU and Switzerland (35%), the trajectory in recent years is much like that of regional wealth growth: Asia advancing, the US maintaining share, and Europe declining.

The US still accounts for 31% of world wealth

83 World wealth is defined here, using estimates from Credit Suisse, as the aggregated value of financial assets plus real assets (principally housing) owned by households, minus their debts.

Figure 7.2 | Growth in Global Wealth and Wealth per Adult



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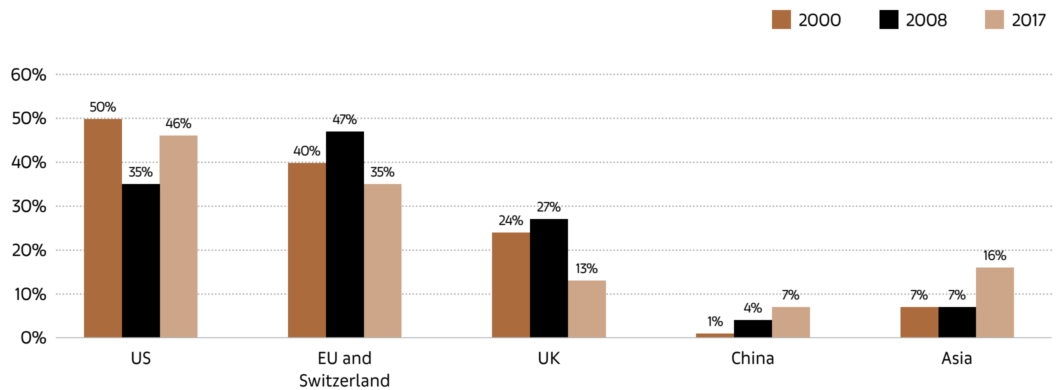
China accounted for 45% of all art imports into Asia and 95% of these were imports into Hong Kong

Figure 7.3 | Share of the Value of Global Imports of Art and Antiques[84]



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The worst-performing region in terms of aggregate wealth over 2018 was Latin America, with total wealth falling by 5% year-on-year and wealth per adult declining by 7%, with Brazil, Argentina, and Venezuela all posting declines.

Europe and North America together accounted for 61% of the world's wealth in 2018, despite only being home to 17% of its population. The reverse is still true in Asia, which, including China, India, and the Asia-Pacific region, accounted for 62% of the world's adults but 36% of its wealth. Some of the greatest imbalances remain in Africa and India, where populations were more than 10 times the share of wealth. While these regions have vibrant local markets, they are still relatively small and supported by a tiny fragment of their local populations, who also buy internationally.

Continuing the focus on gender, it is interesting to note that women were estimated to account for between 35% and 40% of world wealth in 2018 despite being 50% of the population. This share of wealth grew significantly in the 20th century, however since 2000, while absolute wealth has grown alongside the increase in general wealth, there is less evidence of growth in the share of women's wealth compared to men's.[85] The scale of this imbalance in the gender-wealth ratio is mixed geographically. China has been the most progressive in this area, having seen a significant increase in women's wealth, with that wealth being more equally distributed between genders than in the rest of Asia as a whole or worldwide.

Female participation in luxury markets in Asia in particular has been flagged as a key area of growth, and women are already reported to account for at least half of the luxury spending in China. There are also signs that at the top end of the wealth spectrum, in countries such as the US, there are more women entering the top-league wealth tables, including more self-made women rather than those who have gained wealth through inheritance. However, as discussed later, they are still a minority share and the structural issues affecting the wealth infrastructure, most notably the control of wealth by a majority of men, has real effects on the art market – not only in terms of art sales but also through the way that control over funding for artists and institutions also controls cultural content.

Table 7.3 | Share of World Wealth and World Population

	2008		2018		2008–2018
Share of world	**Wealth**	**Population**	**Wealth**	**Population**	**Change in wealth**
Africa	1%	11%	1%	12%	0%
Asia-Pacific	21%	23%	18%	23%	–3%
China	9%	23%	16%	22%	7%
Europe	37%	13%	27%	12%	–10%
India	1%	16%	2%	17%	1%
Latin America	3%	8%	3%	9%	0%
North America	28%	6%	34%	5%	6%

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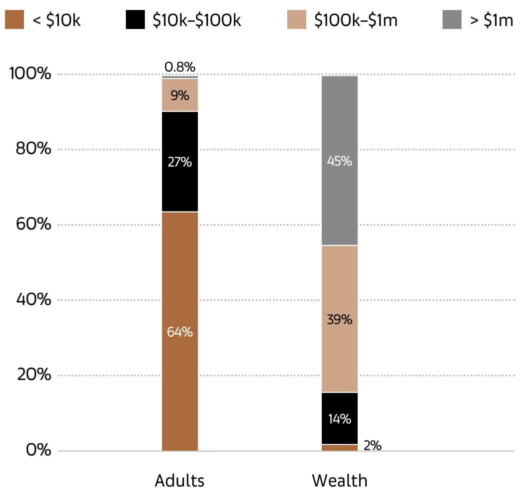
84 Asia is defined here as 15 key Asian countries, with imports of works of art reported in 2017 including China, Hong Kong, Japan, Singapore, Korea, India, Indonesia, and Malaysia.

85 It is interesting to note that this more equal wealth division has not filtered down in any way to a more gender-balanced art market, with the share of female artists in China and Asia among the lowest of all regions globally. However, the research on collectors discussed later in this chapter also shows no indication that female HNW collectors are likely to collect more female artists than male collectors. Female collectors from Asia in this sample (Hong Kong and Singapore) showed little significant difference from the rest of the sample, having an average of 42% female artists in their collections versus 40% in the aggregate sample (whether they were male or female collectors).

Figure 7.4 | **The Distribution of World Wealth in 2018**



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7.3 | Wealth Distribution

Increases in wealth worldwide in recent years have occurred alongside rising inequality, with the gap between the rich and the poor increasing to its widest point in history. This has had ramifications for the art market, where a similar gap has developed between the high end (which dominates value) and the lower end of the market, where the majority of businesses are, dominating volume.

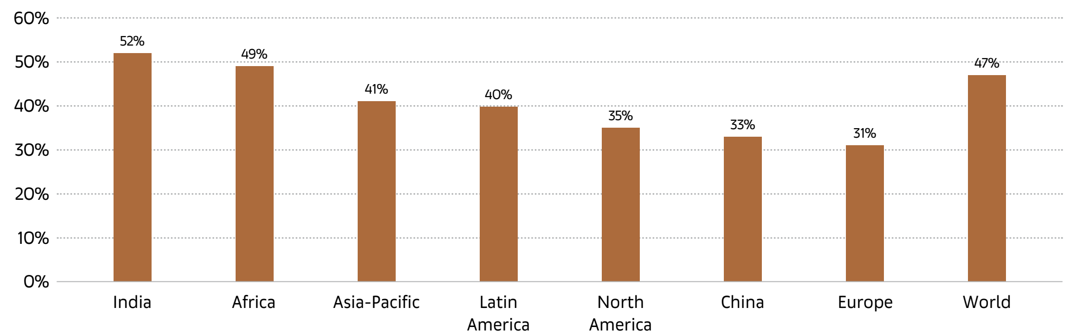
While the concentration of wealth at the high end has helped to boost high-end sales, increasing pressures elsewhere have narrowed the market especially within the middle market for art and antiques.

In 2018, the top 1% of wealth holders in the world owned nearly half (47%) of the world's wealth, while the top 10% controlled 85%. At the other end of the spectrum, the bottom half of the world's population owned just 1% of its wealth.

The share of wealth accounted for by the top 1% fell in the years from 2000 to 2008, from 47% to 43%. However, this was reversed in the aftermath of the global financial crisis, rising back to 2000 levels as increasing holdings of financial assets reinstated the dominance of the world's most wealthy.

The biggest share of wealth accounted for by the top 1% in 2018 was in countries such as Russia (57%), India (52%), and among the African nations (which averaged 49%). But the inequality of wealth continued to be a pervasive global trend, with the top 10% of wealth holders accounting for 70% or more in all regions except China (at 62% in 2018).

Figure 7.5 | **Share of Regional Wealth Holdings of the Regions' Top 1% in 2018**



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On a global level, the US dominates the top 1% wealth holders with a share of 39% of the global population of this top segment, up 1% year-on-year. China overtook Japan in 2018, accounting for 9% (including Mainland China and Hong Kong) versus 5%. The UK accounted for 6%, with France and Germany both at 5%. It is interesting to note again that these markets are also where the majority of art sales by value took place in 2018, with the exception of Japan, which has a very high proportion of wealth but a relatively small art market.

Given that art has many of the features of luxury or discretionary consumer goods, the pool of art collectors tends to lie in the wealth brackets above $100,000. In 2018, this segment increased to 479 million people worldwide, or just under 10% of the world's adults. That is more than double the number of people in this wealth range in 2000. The number of people in this segment is expected to grow by about 88 million over the next five years, which is potentially positive for the art market, should these individuals engage with the market.

7.4 | Global Millionaires and Billionaires

The number of millionaires and the wealth that they own continued its rapid expansion in 2018. The global millionaire population reached a total of 42.2 million, while their wealth expanded by more than 10% to $142 trillion.[86] In 2000, there were just 12.9 million millionaires, almost exclusively from high-income economies. However, of the 29.3 million new millionaires that have emerged since then, some of the most rapid growth has come from emerging regions, adding close to 4.5 million during the period. The biggest increase was in China.

The US is still home to the largest number of millionaires, with 17.3 million, or 41% of the world total in 2018. China overtook Japan in terms of millionaire population in 2014, and now has 3.4 million (8% of the world total, including Mainland China and Hong Kong) compared to 2.8 million (7%) in Japan. While the numbers in Japan have hardly risen since the turn of the century, in 2000, China had just 41,000, indicating growth of a factor of more than 80 to their current level. China not only outpaced its old peers such as India (which expanded from 39,000 to 343,000 in the same period) but also older art markets such as the UK, Germany, and France, which have expanded to about four times their size in the period.

About 38% of the increase in the population of millionaires in 2018 came from those living in the US, but there was also a substantial 958,000 added from some of the key EU states – France, Germany, the UK, and Italy. Including Hong Kong, China added 200,000, and other key growth markets in Asia included Singapore, which saw a rise of 11%, or 18,000 new millionaires.

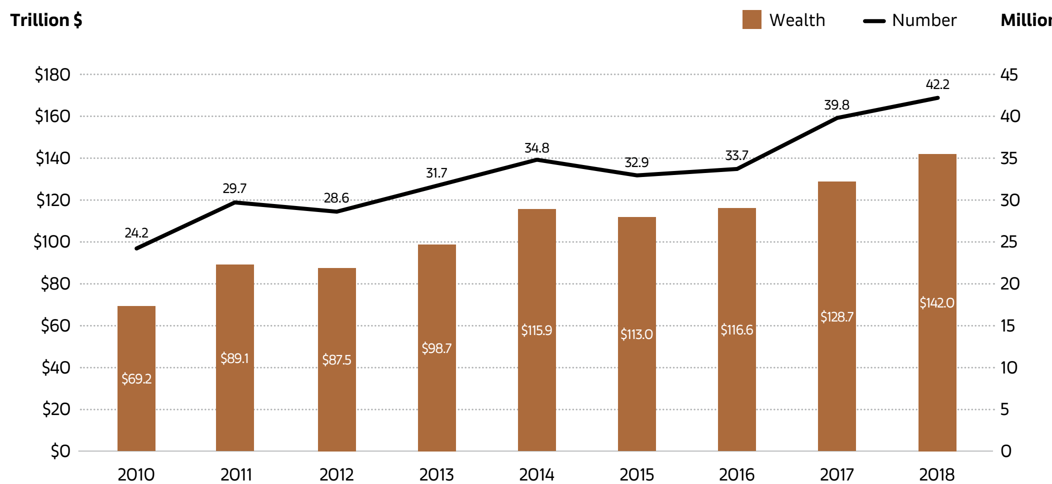
Credit Suisse estimates that, by 2023, the number of millionaires worldwide will have reached 55.2 million, a further increase of more than 30%.[87] Although they do not offer an estimate of their projected wealth, if it is assumed that their wealth stays at about the same share of total world wealth as it is currently, this would imply that millionaire wealth could reach over $180 trillion.

The biggest increases are expected to continue to be in the US, with an addition of 3,128 millionaires expected over five years, followed by China (adding 2,167 in Mainland China and 108 in Hong Kong and Taiwan). Asia as a whole is expected to add 3,845, while Europe should grow by 3,643, excluding the post-Brexit UK's contribution of an estimated 718.

For those at the highest end of the millionaire wealth spectrum, growth has been even more marked over time. Emerging economies accounted for 6% of the $50 million-plus millionaire population in 2000, but that share reached 18% in 2018.

86 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 2018, 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.
87 Credit Suisse (2018) *Global Wealth Report 2018*.

Figure 7.6 | Number and Wealth of Dollar Millionaires 2010–2018



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The US is still home to the largest number of millionaires, with 41% of the world total in 2018

88 Data are published here as they are cited in each year of the most recent publication of the *Global Wealth Databooks*. Credit Suisse revised the number of millionaires for 2017 in their current edition from 36.1 to 39.8.

Figure 7.7 | Global Share of Dollar Millionaires in 2018

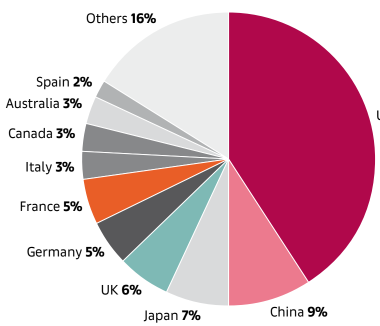

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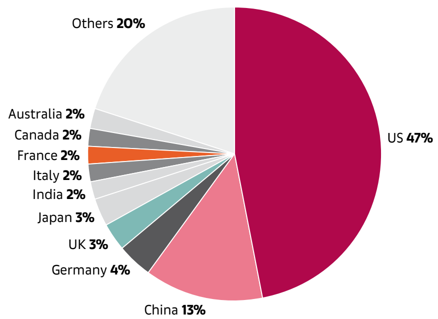
Figure 7.8 | Global Share of Millionaires with Wealth in Excess of $50 Million in 2018



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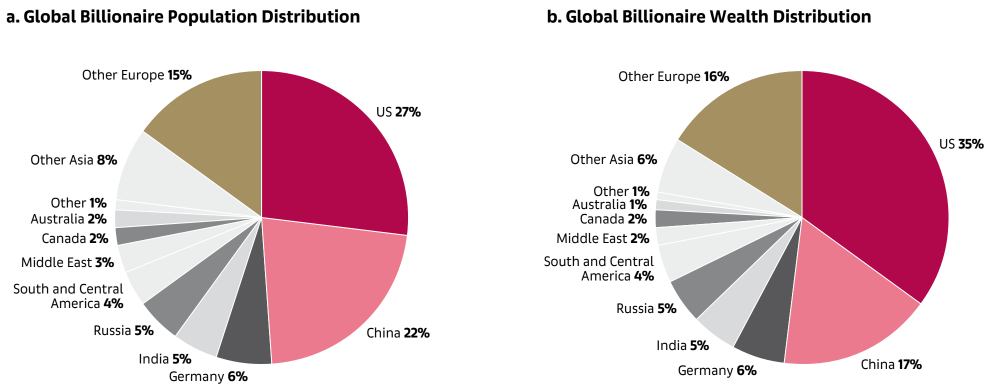
Since 2000, emerging economies have accounted for 22% of the growth in ultra high net worth individuals (UHNWIs). There are now 24,830 of these from emerging markets, with China alone adding 16,430 adults, or 15% of additions, to this century's new UHNWIs. China's share of the $50 million-plus segment now stands at 13%, although a wide margin remains from the dominant US. It is interesting to note also that, while Europe and North America had a similar number of HNWIs in the period from 2007 to 2009, since the recovery from the global financial crisis in 2009, North America has pulled away, and significantly widened the gap in the past five years, accounting for 44% of all millionaires and 47% of those with wealth over $50 million versus 30% and 20% respectively for Europe.

By 2023, estimates are that HNWIs with wealth over $50 million will have expanded from the current 149,325 to 204,536 (or an increase of 37%), with most of the additions coming from the US (22,635) and China (10,947).[89]

89 Estimates based on raw data published by Credit Suisse, and released at the end of December 2018.

Figure 7.9 | Global Share of Billionaires in 2018



© Arts Economics (2019) with data from *Forbes*

Looking at the very top end of HNW wealth to the wealthiest segment – billionaires – the US has lost share as the margin with China has become considerably narrower.

Although estimates vary between sources, *Forbes* has published a list of billionaires annually since 1987. The *Forbes* list of billionaires started out with just 139 entries worldwide, with 35% of these being in the US. However, as wealth has expanded and the nominal goalposts for entry remained static, this number has increased substantially. In 2018, the billionaire population reached its highest-ever total: 2,208, up 13% year-on-year, with 259 new additions since 2017.

These billionaires came from 72 countries with a combined net worth estimated at $9.1 trillion, also up 18% on 2017. Their net worth ranged up to 12-figure sums, with the highest-recorded average net worth for the group of $4.1 billion. Americans led with a record 585 billionaires and just over one-third (35%) of billionaire wealth, while China (including Mainland China, Hong Kong, Macau, and Taiwan) had 476, a 22% share. Asia as a whole accounted for 35%

of the billionaire population and 23% of their wealth, and it is interesting to note the dramatic shift in the wealth dynamics in this region over 30 years. In 1987, Asia accounted for 30% of the world's billionaire population, but Japanese billionaires were dominant at 17%, with the remainder mainly coming from Taiwan, India, and Korea. In 2018, Mainland Chinese billionaires had by far the largest share in Asia, accounting for 75% of their wealth and 48% of the population, a majority of 56% if Hong Kong is included.

Europe, including the EU, Norway, and Switzerland, had a share of 20%. Germany had both the largest population of billionaires in Europe and the greatest share of billionaire wealth in Europe. This was also the case in 1987, when the list started, when Germany had a 9% share of the European billionaires.

Assuming there is no significant change in wealth inequality, it is expected that the number of billionaires will surpass 3,000 within five years, with most of the additions continuing to be from China and North America.

Research by UBS on billionaires in 2018 found China was creating two new billionaires a week, and Asia as a whole creating more than three billionaires per week. This shows a phenomenal trajectory over the past decade or so, as in 2006 there were only 16 Chinese billionaires listed.[90]

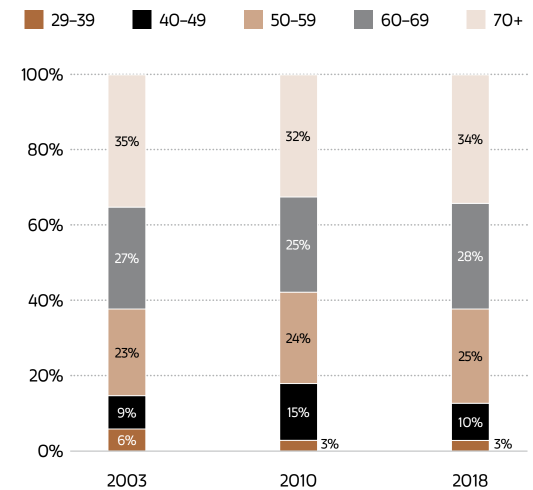
While there are now more billionaires in Asia as a region than in the US, it is unlikely that the US will lose its position as the leading national center for billionaire wealth in the very near future. Its premier position as the leading art market also seems relatively secure. Along with its well-developed cultural infrastructure, established expertise and institutions, and business-friendly fiscal and trading environment, this massive base of wealth – including the highest net worth UHNWIs alongside a substantial upper middle class – has given depth and resilience to its art market.

However, over the longer term, as wealth in China permeates to the upper middle-income segments, China's development as an art center will also further develop. Previous estimates from McKinsey suggested that by 2021, China could have among the most affluent households in the world, and these consumers have already shown strong luxury-purchasing tendencies, both domestically and abroad. However, this, and China's future as an international art-market center are not certain and much will depend on the Chinese government striking the right balance between intervention and market forces.

Many studies have found that the further up the wealth pyramid, the more wealthy individuals tend to be concentrated in particular regions and the more they adopt similar lifestyles and purchasing habits, with those at the highest end participating in the same global markets for art and other luxury goods as other UHNWIs living in very different regions. Many billionaires in the 2018 list are art collectors of varying degrees, with 78 of the *ARTnews's* Top 200 Collectors discussed in the next section on both lists.

Despite the reported rising importance of millennials in luxury markets, they are still a minority on the billionaire lists. While that may not be surprising, they have also decreased in share over time, despite the rises in general wealth. As noted in previous reports, as more income has shifted to the wealthiest in society, income mobility has fallen, while the importance of inherited wealth has continued to rise in many regions. Combined with pressures from the global financial crisis on property and capital markets, many young professionals are doing less well than their parents, despite often considerably higher education levels. This has very important implications for the future of the art market, if parts of it become out of reach for these new generations of collectors.

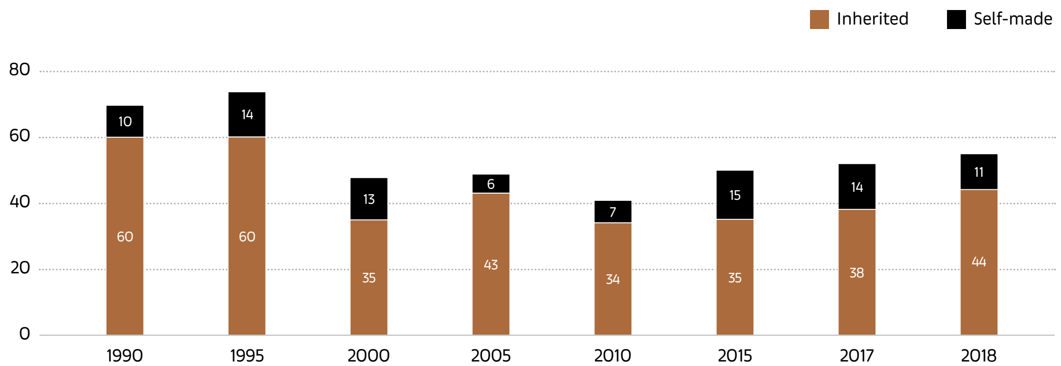
Figure 7.10 | Age of Global Billionaires



© Arts Economics (2019) with data from *Forbes*

90 UBS and PWC (2018) *New Visionaries and the Chinese Century: Billionaire Insights 2018.*

Figure 7.11 | Number of Women on the *Forbes* 400 List



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In 2018, there were 256 women billionaires with aggregate wealth of $1 trillion, about 11% of total billionaire wealth

Women are also a minority. In 2018, there were 256 women billionaires with aggregate wealth of $1 trillion, about 11% of the total wealth on the list of billionaires. This was, however, up 20% since 2017, a greater advance than the aggregate. The number of self-made women reached 72 (up from 56 in 2017) versus 184 with inherited wealth. The majority of women billionaires were from the US (76%). This was also reflected in the *Forbes* 400, the list of the 400 wealthiest Americans, with the number of women listed here rising by three year-on-year to 55. Considering self-made women only, these represented just 2% of the list (or 11 women billionaires). It is also evident from Figure 7.11 that the numbers on this list have declined significantly from the 1990s (with a peak in 1995 of 74). There have been various reasons suggested for this trend, from the entrenched gender biases at high and board levels in companies to the perceived cultural barriers to women entering fields such as technology and engineering, where much of the billionaire wealth is currently generated. A reduction in the share of inherited wealth over the longer term, along with increasing deregulation, entrepreneurship, and technological change, have also added to the trend, with the majority of women billionaires still having inherited rather than self-made wealth.

Despite these current figures, female millennials have been singled out as one of the most important future segments for growth in luxury spending. UBS Evidence Lab's research on luxury expenditure in China revealed that millennials are more confident than older consumers, with women being the 'most resilient spenders',with the potential risks relating to the economy and asset markets doing little to change their spending plans or budgets for luxury. Its research found that millennial luxury consumers, who have high disposable incomes, property, and little experience of economic recession, have the highest current average transaction values and were considerably more confident about the future compared to more cautious older consumers.

7.5 | Top 200 Collectors

Research on the spending habits of billionaires has shown that many own art, and the published lists of these individuals include a number of well-known collectors. As noted in previous reports, estimates are that billionaires' holdings of art average 0.5% of their net worth, although this extends to 10% or more with some large collectors.

ARTnews, a US-based publication, has published a list of the Top 200 Collectors annually since 1990, which enables some comparisons of their changing backgrounds and geographies over time. The list showed that in 1995 there were some 28 billionaires on the list, or just 14% of the top 200 collectors.

In 2018, cross-referencing the *Forbes* billionaire list with the *ARTnews* Top 200 showed that at least 78 of the collectors mentioned on the list were billionaires.

Unlike the wider billionaire listings, women have a strong representation on the Top 200 collectors list: 49 were mentioned alone, 59 as part of a couple, and five with references to collecting families. This implied a majority of 56% of the list entries, up from just 30% female representation in 1990.

Table 7.4 shows the breakdown by country and region from the 1990s to 2018. The US has consistently been the largest base for top collectors, with North America accounting for half or more in most years and 51% in 2018 – stable on 2017. This share has fallen 6% since 2007, mainly due to the growing number of collectors emerging from China and other parts of Asia. However, despite the rapid globalization and shifting wealth infrastructures, the share of collectors from North America on the list has only fallen 7% since 1990 and it remains a key base for high-end collectors.

European collectors accounted for 29% of the Top 200 Collectors in 2018, unchanged for the past two years, but down 5% since 2007. The UK, Switzerland, and Germany remained the largest bases for collectors in 2018.

Collectors from Asia increased substantially in share over the past decade, from five in 2007 to 30 in 2018. In the 1990s, Japan dominated. However, following the art-market recession and exodus of many Japanese buyers from the market in the early 1990s, the trend reversed and China began to attain a more dominant position.

While the representation from Latin American was on a par with Asia in the 1990s, it has not experienced similar growth, with a share of just 5% in 2018, stable on 2017. Mexico took over from Brazil in 2018 as the center with the highest number of entries in the region.

Table 7.4 | Location of Top 200 Collectors (Based on Primary Place of Residence)

	1990	1995	2007	2017	2018
US	114	94	110	101	99
Canada	1	7	4	3	3
North America	**58%**	**51%**	**57%**	**52%**	**51%**
Brazil	1	1	2	4	2
Argentina	2	4	2	2	2
Mexico	3	4	3	2	4
Other Latin America	2	3	4	2	2
Latin America	**4%**	**6%**	**6%**	**5%**	**5%**
China	0	0	2	9	7
Hong Kong	6	4	0	3	4
Japan	12	8	2	4	4
Other Asia	0	1	1	4	15
Asia	**9%**	**7%**	**3%**	**10%**	**11%**
UK	12	11	13	13	12
France	10	17	11	7	8
Germany	10	17	12	10	11
Italy	5	9	4	3	3
Switzerland	9	4	10	11	12
Other Europe	5	14	18	14	15
Europe	**26%**	**36%**	**34%**	**29%**	**29%**
Russia	0	0	0	2	2
Middle East	0	1	0	5	4
Other	8	1	2	1	3
Other	**4%**	**1%**	**1%**	**4%**	**4%**

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7.6 | Art Collector Survey[91]

Art collectors come from a variety of backgrounds and geographies, with a range of motivations and behaviors. The term collector is also difficult to define with a range of buying practices evident in the market, differing in terms of the frequency of purchase as well as whether they follow a distinct plan or set of goals. These features make them a difficult group to survey in any comprehensive way. However, it is possible to tap into some of the preferences and behaviors of segments of collectors and art buyers and, for the past two years, Arts Economics has worked with UBS Investor Watch in surveying samples of HNWIs to try to gain insights into how and why they interact with the art market. In 2016 and 2017, the focus of the research was US HNW collectors. In 2018, to investigate if some of the findings from these surveys hold in other regions, the research was extended significantly to cover HNWIs in a much wider range of geographical locations, namely:

- United Kingdom
- Germany
- Japan
- Singapore
- Hong Kong

The UK and Germany represent two of the most important bases of HNW wealth in Europe and among its largest and most-established art markets. As noted in Chapter 1, the UK has a very large margin in terms of market share when compared to any other market in Europe, with the second largest being France. However, Germany has many important buyers, active both locally and in the UK and other hubs outside the EU.

Japan has been one of the biggest centers in Asia for HNW wealth and, until 2018, the second-largest center of the world's millionaire population next to the US. Japanese collectors have been important historically in the art market, driving the boom in art sales in the late 1980s, and although their importance waned over the next 20 years, their private and institutional buying has been noted in some sectors of the market in recent years, according to anecdotal evidence from leading dealers and auction houses.

Singapore and Hong Kong are two of the key centers of wealth in Asia, with rapidly growing millionaire populations. These two regions have been the focus of attention for many galleries and auction houses looking for new buyers as their reach in older centers has plateaued. Singapore is ninth in the world in terms of household wealth per adult, the highest rank in Asia. However, Hong Kong still has a much higher number of millionaires and billionaires than Singapore.

Each center provides an interesting contrast by which to compare collectors' behavior across distinctly different cultural contexts. With six different markets (includng previous results for the US), it is also possible to see if there are distinct differences between regions, or whether these differences are defined more by features, such as age, gender, or wealth.

For inclusion in the survey, respondents were screened according to their level of wealth and activity in the art and collectibles markets. To be included, respondents were required to have a current net worth, excluding real estate and private business assets, of in excess of $1 million. To assess if they were active in the art and collectibles markets, respondents were asked if they had purchased a range of assets including art, antiques, and other collectible items in the previous two years. The screening process continued until there was a minimum of between 120 and 150 completed responses from suitably qualified respondents for each country.[92]

In terms of demographics, across all countries, the breakdown of collectors by gender was 67% male and 33% female – similar to the breakdown of gender in the previous US surveys.

The breakdown of collectors by gender was 67% male and 33% female, with the largest female representation in Hong Kong, at 39%

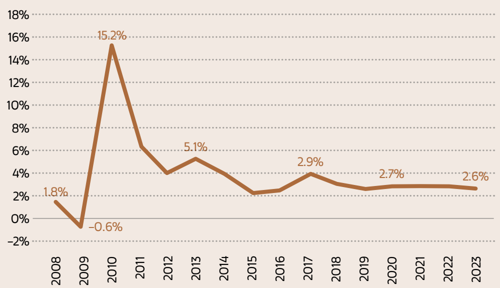
91 Many thanks to Professor Olav Velthuis for his comments on the survey questionnaire.

92 The previous surveys of the US market were carried out using a slightly different method and in a different period. Therefore, results are for general comparisons only. Of the 2,245 surveyed, 35% were active in the market and included in the analysis.

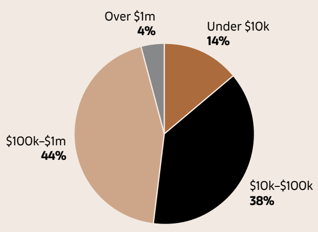
Figure 7.12 | Survey Country Wealth Context

I. Singapore
- Aggregate wealth (2018): $1,289 billion
- Number of adults with >$50m (2018): 999
- *Forbes* billionaires (2018): 22 / $65 billion
- Share of global top 1% (2018): 0.4%

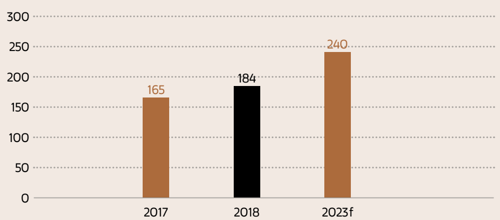
GDP growth and forecast



Wealth distribution (% adult population)



Millionaires (thousand)



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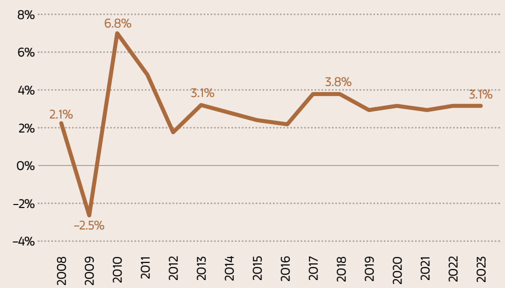
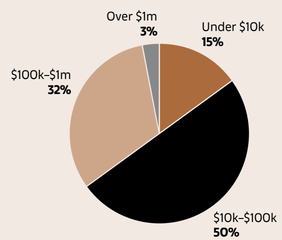
II. Hong Kong
- Aggregate wealth (2018): $1,523 billion
- Number of adults with >$50m (2018): 1,907
- *Forbes* billionaires (2018): 67 / $335 billion
- Share of global top 1% (2018): 0.4%

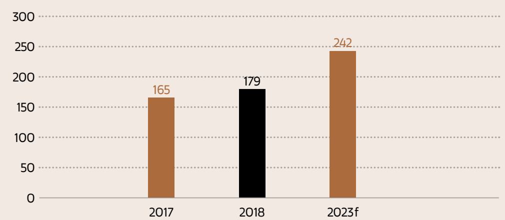
GDP growth and forecast



Wealth distribution (% adult population)



Millionaires (thousand)



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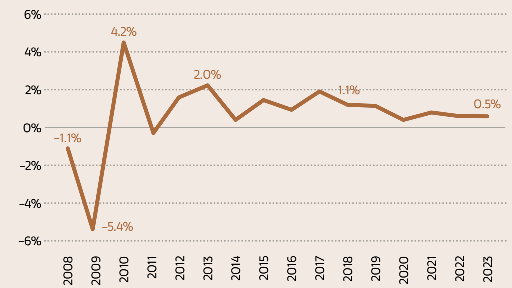
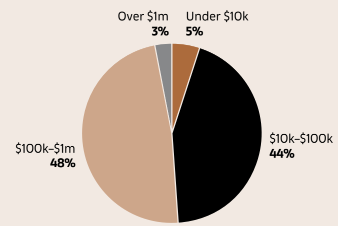
III. Japan
- Aggregate wealth (2018): $23,884 billion
- Number of adults with >$50m (2018): 3,576
- *Forbes* billionaires (2018): 35 / $138 billion
- Share of global top 1% (2018): 7.1%

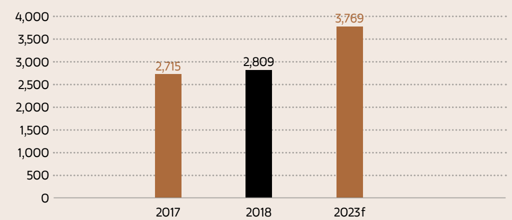
GDP growth and forecast



Wealth distribution (% adult population)



Millionaires (thousand)



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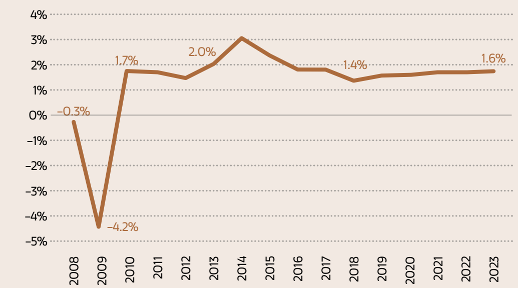
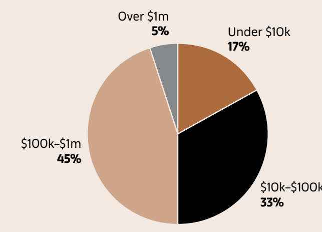
IV. United Kingdom
- Aggregate wealth (2018): $14,209 billion
- Number of adults with >$50m (2018): 4,665
- *Forbes* billionaires (2018): 54 / $203 billion
- Share of global top 1% (2018): 6%

GDP growth and forecast



Wealth distribution (% adult population)



Millionaires (thousand)

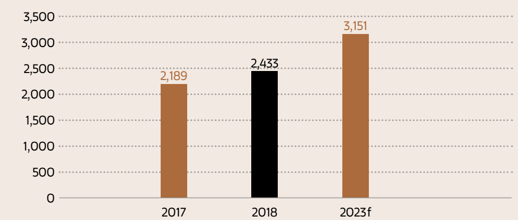


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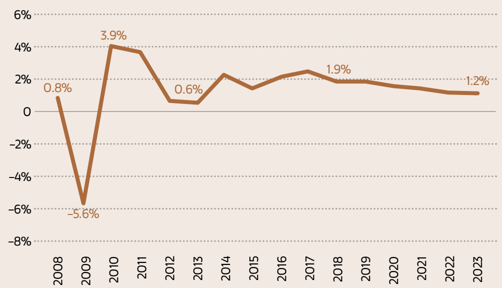
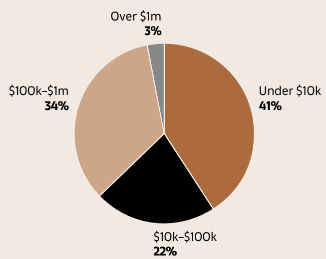
Figure 7.12 | Survey Country Wealth Context (continued)

V. Germany
- Aggregate wealth (2018): $14,499 billion
- Number of adults with >$50m (2018): 6,323
- *Forbes* billionaires (2018): 123 / $579 billion
- Share of global top 1% (2018): 5.3%

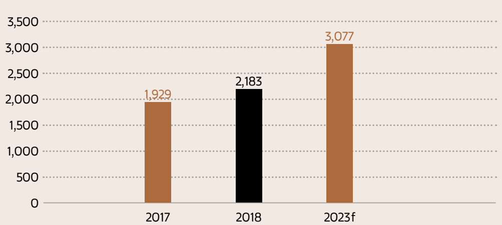
GDP growth and forecast



Wealth distribution (% adult population)

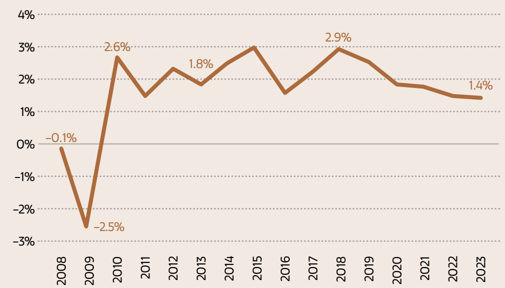


Millionaires (thousand)

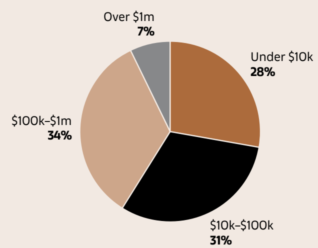


VI. US
- Aggregate wealth (2018): $98,154 billion
- Number of adults with >$50m (2018): 70,540
- *Forbes* billionaires (2018): 585 / $3,097 billion
- Share of global top 1% (2018): 39.3%

GDP growth and forecast



Wealth distribution (% adult population)



Millionaires (thousand)

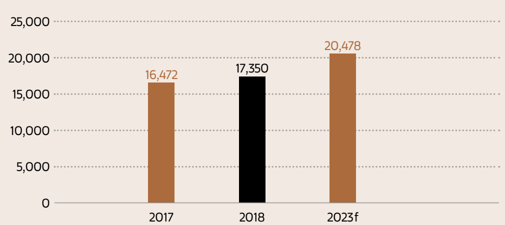


Figure 7.13 | Gender Breakdown of HNW Collectors by Country in 2018

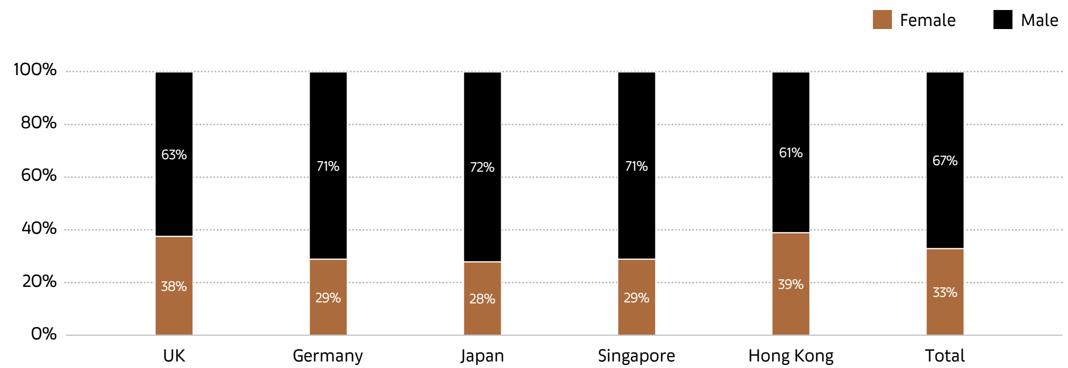


Figure 7.13 shows that, while women represent a minority in all countries, the largest female representation was in Hong Kong, at 39%. Aggregating across all countries, women represented 41% of those respondents in the highest wealth bracket (wealth in excess of $10 million). This varied considerably between countries, with a share of women in the top wealth bracket ranging between 27% and 35% in Japan, Germany, and Singapore, and a notably higher proportion in Hong Kong (at 62%) and the UK (75%).[93]

The power of Chinese women in luxury markets has been documented by many recent studies. While luxury markets were dominated by male gift-giving up to 2012, the anti-graft campaign alongside rising incomes and senior positions for women in many industries have meant that this trend has been reversed. Women are estimated to account for about 50% of luxury spending in China – up from just 10% in 1995.[94]

93 As noted later in the chapter, the wealth bracket in excess of $10 million represented the smallest share of respondents, at 11% on aggregate. While 14% of respondents from Hong Kong were in this wealth bracket, only 4% of respondents from the UK had wealth in excess of $10 million, making the results based on a very small sample and therefore more difficult to draw general conclusions on.

94 Julius Baer (2018) *Wealth Report Asia*.

Studies have also shown that women in Asia have significantly greater financial confidence than those in the US and other markets, and are much more likely to be the main financial decision-makers in their households.[95]

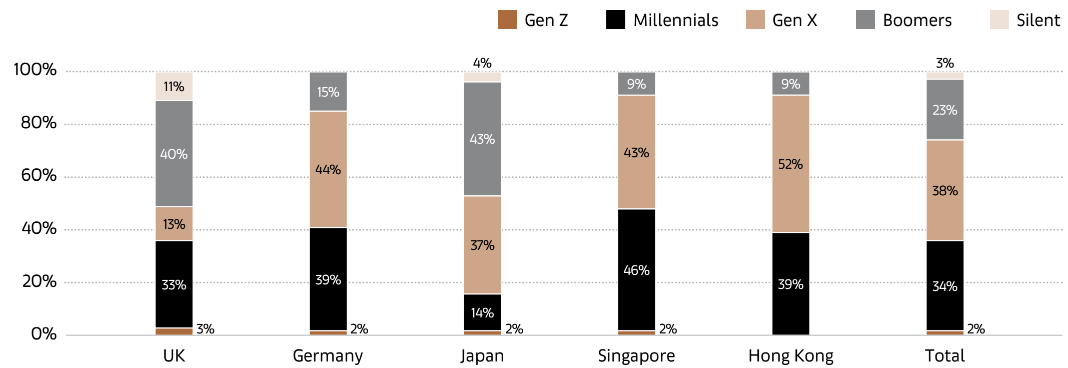
At work also, women are better represented in finance: wealth-management teams in Asia tend to feature higher proportions of female advisors than their counterparts in the US and the UK. In China, women outnumber men on financial advisory teams by three to two, while about 75% of wealth advisors in Singapore are women. The share of women in similar roles in the US is much lower, with women accounting for a third of financial advisors.

In previous surveys of US collectors, the majority of respondents were aged 50 years and over, with only 16% under 50 in 2017. However, in the newer markets in Asia in particular, a very different age profile emerged in this survey. In Singapore, just under half of collectors were millennials, and combined with Gen X and Gen Z, these made up 91% of collectors. Similarly, in Hong Kong, millennials made up a high share of the respondents, but Gen X collectors (aged 38-53 years) represented the highest share and just over half of the respondent population. The largest share of older collectors was in the UK, where baby boomers (54-72 years) and the silent generation (over 72 years) made up just over half of those surveyed.

All those surveyed had personal assets in excess of $1 million (excluding property and private business assets), with 75% falling into the bracket between $1 million and $5 million, 14% with wealth between $5 million and $10 million, and 11% having wealth in excess of $10 million. The share of those in the top $10 million-plus wealth bracket was highest in Germany (17%) and Japan (15%). As in the US surveys, there was a high level of education in the sample, with 81% having third-level university qualifications, ranging from 72% in Japan to 87% in Singapore.

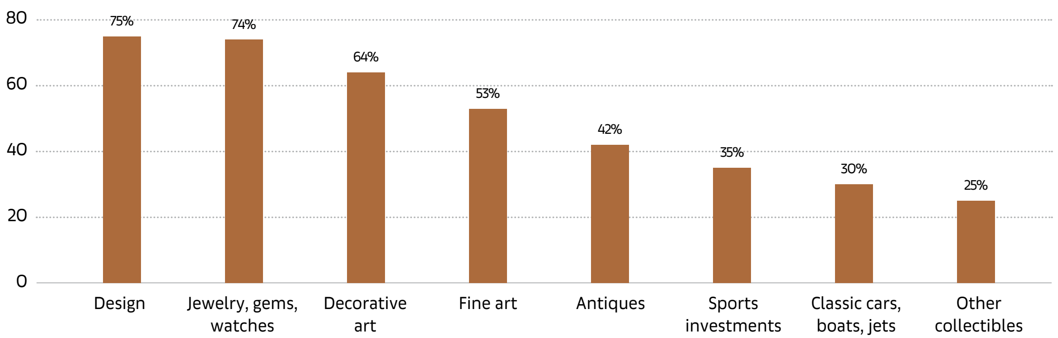
95 Hewlett, S. and Moffit, A. (2015) "Women in Asia Are More Financially Savvy than Women in the U.S." *Harvard Business Review*.

Figure 7.14 | Age Breakdown of HNW Collectors by Country



46% of the collectors surveyed in Singapore were millennial collectors, and millennials represented a share of 39% of the total in Hong Kong

Figure 7.15 | Share of Respondents Purchasing Collectibles 2016–2018



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From a range of eight different segments of art and collectibles,[96] design objects were the most popular purchase of the past two years, with 75% of the sample having purchased design works between 2016 and 2018. This ranged from 68% in the UK to 83% in Singapore, and was also the second-highest-ranked category in the previous US surveys.

Jewelry, gems, and watches had the second-highest ranking overall, at 74% over all countries. This ranged from 62% in Japan to 83% in Singapore. These two categories were rated highest overall in most countries, which had also been the case in the previous US surveys. The exceptions were the UK, where decorative art ranked next to design, and Germany, where decorative art ranked second to jewelry. Decorative art was the third most popular overall, and the highest share of artworks purchased, with 64% of the sample overall having purchased a decorative artwork or artworks during the period. This was considerably higher than reported in the previous US surveys (32% for decorative art and 27% for fine art in 2017).

96 The categories were: design (furniture, objects); jewelry, gems, watches; decorative art (ceramics, glass, silver, and textiles); fine art (paintings, prints, sculptures, works on paper); antiques; sports investments (e.g. horses, football teams); classic cars, boats, jets; and other collectibles (e.g. coins, wine, memorabilia).

More than half (53%) of the respondents across all countries had purchased a piece of fine art in the past two years, with the highest share in Germany (62%) and Singapore (60%), and the lowest in the largest fine art market, the UK (at 49%). It is interesting to note that there was a considerable difference between genders in the UK, with the share of women who had purchased fine art at 69%, versus just 37% of men. The opposite gender divide occurred in Germany, with men more likely to have purchased fine art, whereas in other regions there were fewer notable differences between the genders.

Millennial collectors were the most likely overall to have purchased fine art (69% across all countries), with a higher-than-average share in all countries.

Antiques were purchased by 42% of those surveyed, with the highest shares in Singapore (at 53%), and the share across all countries again considerably higher than the 19% reported in the US in 2017.

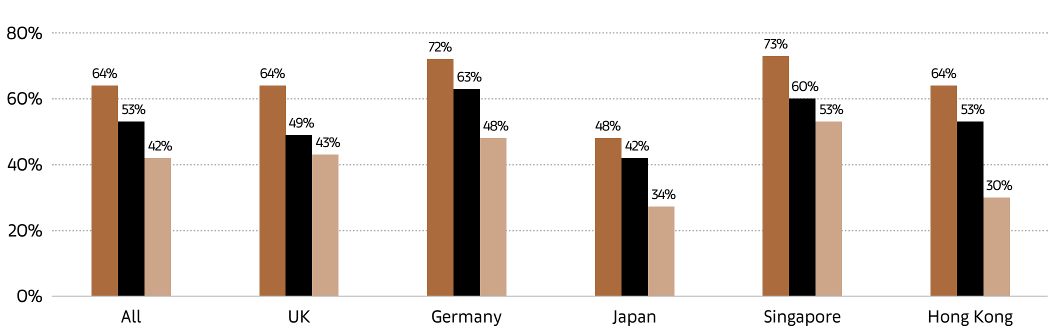
On aggregate, differences in wealth levels did not have a pronounced effect on purchasing in the main art segments, apart from a tendency of those at higher levels to purchase antiques. However, there were notable differences by age. The millennial generation had considerably more active buyers than others in all segments, with a majority having been active in the fine art, decorative art and antiques markets over the past two years. Even in the antiques sector, which may have traditionally catered to older tastes, millennial purchasing at 54% was more than double the share of older segments, such as boomers (23%).

The results across all countries indicate millennial collectors' activity levels in different segments of art and collectibles have more in common with each other across regions than they do with collectors within their own region from a different generation. They also tend to be more active in multiple segments than other generations, but especially when it came to buying in the fine art market.

The millennial generation had considerably more active buyers than others in all segments, with a majority having purchased in all art markets over the past two years

Figure 7.16 | **Share of Respondents Purchasing Art and Antiques 2016–2018**

a. By Region



a. By Generation

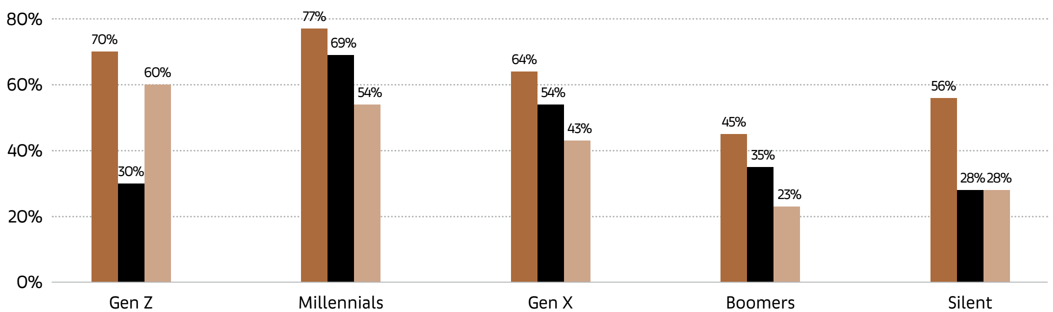
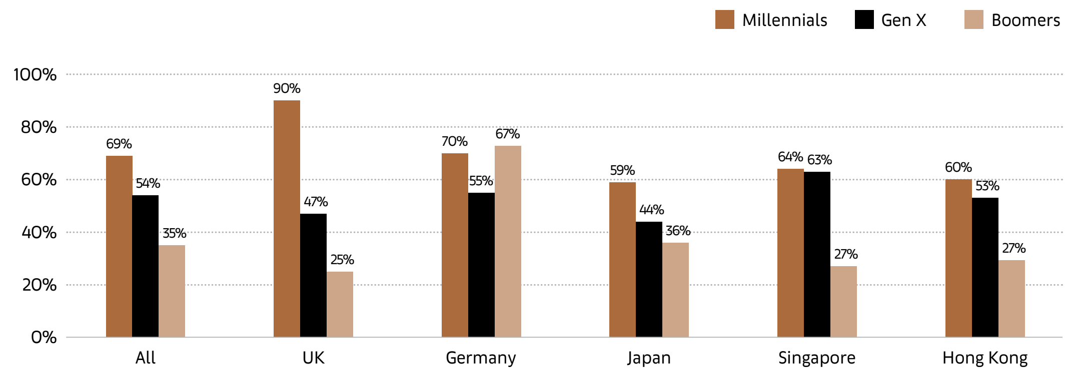


Figure 7.17 | **Share of Respondents Purchasing Fine Art by Generation and Country**



The average number of works purchased in the past two years was nine across all countries, with the highest number being in the UK (16) and the lowest in Germany, Singapore, and Hong Kong (at six each).[97] This is more than twice the average in the previous survey of the US in 2017.

In terms of their expenditure, 46% of the aggregate sample had spent up to $50,000 on works of art or objects in the past two years, while 16% had spent more than $1 million, with 4% spending more than $10 million. While there was a majority in the lower spending bracket of $50,000 or less in the UK and Japan, these collectors only accounted for one-third of the total in the two Asian markets, where a considerably higher share of collectors spent larger amounts. Singapore and Hong Kong had more than twice the share of those spending more than $1 million (at 19% and 23% respectively) than the UK and Japan. At the very highest end, Hong Kong had the largest share of spenders exceeding $10 million (7%), next to Germany (5%).

97 One outlier variable was removed when estimating the overall average (a report of more than 4,000 items purchased).

Figure 7.18 | **Expenditure on Collecting 2016–2018**

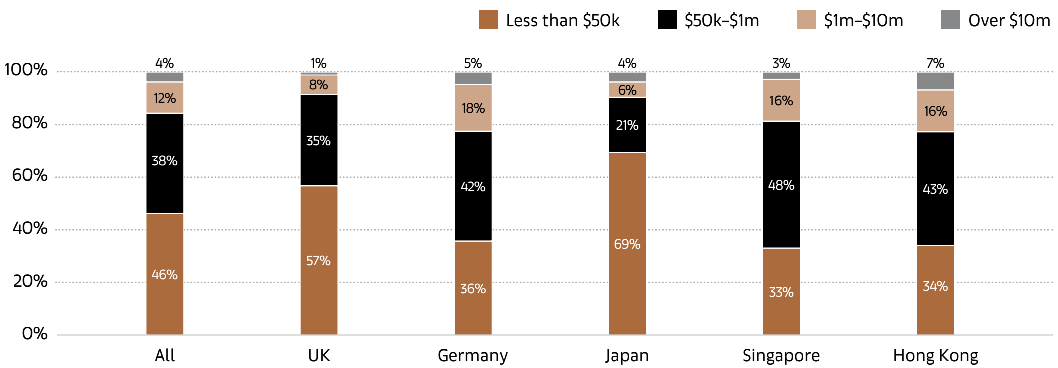


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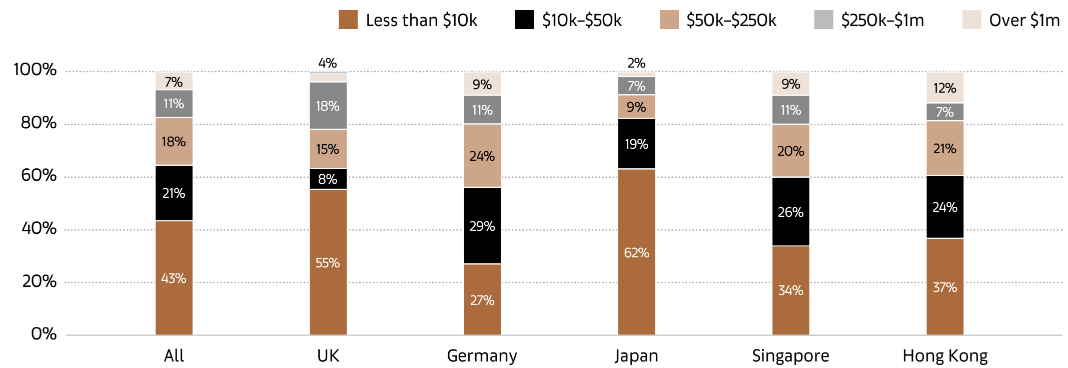
Figure 7.19 | **Most Common Price Range for Purchase of Works of Art and Objects**



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Aggregating across all of the countries surveyed, millennials made up just under half (45%) of the high-end spenders ($1 million-plus), underlining the importance of the spending power of this demographic. They were least represented in this segment in Japan (33%) and Hong Kong (37%), where the majority of $1 million-plus spenders were Gen X. The highest share of millennial spending at the top level was in the UK (70%).

Across all countries, 42% of those spending more than $1 million were women, and women accounted for half of the spenders at this level in the UK and Japan, with the smallest share being in Singapore (32%).

The most common price range for buying works of art was for less than $10,000, with 43% of the aggregate sample reporting this as their most frequent price point. This rose to a majority of respondents in the UK and Japan, where only a very small share of respondents commonly spent more than $1 million.

In the newer Asian art markets, there were considerably higher price points for spending on average: 12% of collectors in Hong Kong reported that the most common price for purchases of works of art or objects was more than $1 million. The proportion was 9% in Singapore. These are all considerably higher than the results of the US surveys, which showed that less than 1% of the collectors surveyed regularly bought at prices in excess of $1 million. It is important to note, however, that this also reflects the wealth inequality in the US, where that 1% of collectors, despite being a low proportion, has a huge amount of spending power, and can often affect trends in aggregate sales more than the much larger share of collectors spending less than $1 million.

Unsurprisingly, reports of commonly spending at higher price levels rose with the level of respondents' wealth, although the results by age were less correlated. Gen X collectors dominated at price points above $ 1 million, and especially above $10 million. Of those most commonly spending more than $1 million, 48% were Gen X, although a substantial 41% of millennial collectors reported this as their most common price level. This varied somewhat between countries and some of the highest-level millennial spending was in Singapore, where 64% of those most regularly spending in prices ranges exceeding $1 million were collectors from this generation, compared to 27% in Germany, 33% in Japan, and 60% in the UK.

Art Collections

The average collection size across all countries was 43 works, with the highest average in the UK (56) and smaller-than-average collections in Hong Kong and Japan, at 34. Across all of the countries, collectors with higher levels of wealth tended to have built up more extensive collections: for example, across all countries, those with wealth in excess of $10 million had collections more than twice the size on average as those with wealth from $1 million to $5 million.

Aggregating all of the countries, the majority of collectors (66%) reported that they had some kind of organized collecting strategy for their collections. 21% reported that this included a long-term plan for the collection, but only about 11% of collectors had a collecting strategy based primarily on investment or financial criteria.

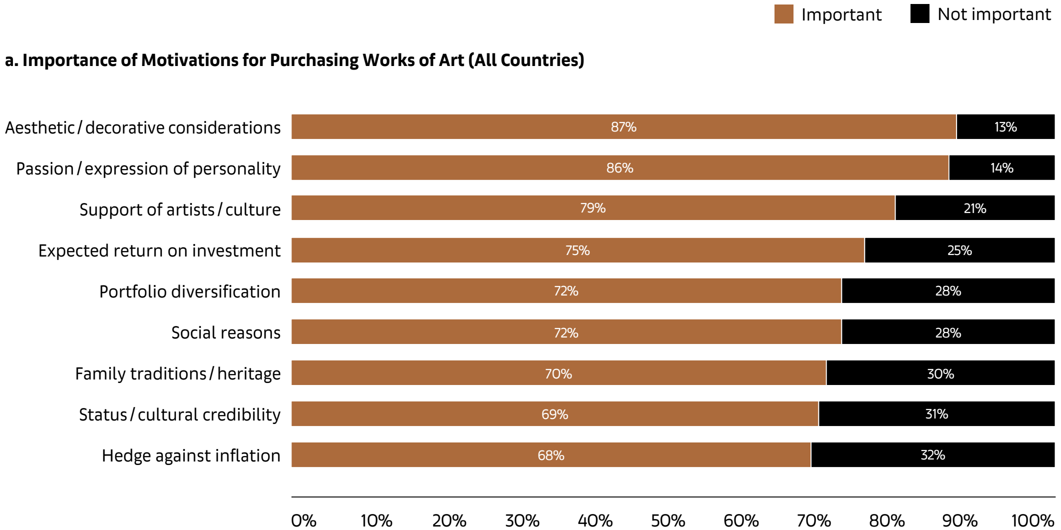
There were significant differences between regions, with more than half of the respondents in the UK and Japan not following any organized framework and preferring to collect in an ad hoc way based on opportunities or how they felt about a work, or some other method. In Singapore and Hong Kong, on the other hand, most collectors had an organized plan in place (82% and 78% respectively), and these countries also had the highest share of collectors following a strategy based primarily on investment or financial criteria. In Singapore, 16% of collectors had investment-led plans for their collections versus just 4% in the UK.

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. As in the previous US surveys, the most highly ranked factors were aesthetic and decorative considerations, with 87% of the aggregate sample considering them important, including 59% very or extremely important. Those driven by art collecting as a passion or expression of their personalities represented 86% of the aggregate sample, again with just over half of that figure rating them very or extremely important. These two considerations were ranked the highest in each country apart from Hong Kong, where passion was still the number-one driver, but expected return on investment outranked aesthetic and decorative considerations.

Financial motivations for collecting were more important for collectors in Singapore and Hong Kong than in the UK and Japan, and expected return on investment ranked higher than using art to diversify risk or hedge against inflation. Of the three suggested financial motivations, expected return on investment was also rated most highly overall (75% of the aggregate sample, with 57% viewing this as very or extremely important). While there were no significant differences between genders, millennial and Gen X collectors rated this consideration much more highly than the older age groups.

Figure 7.20 | **Motivations for Purchasing Art**

a. Importance of Motivations for Purchasing Works of Art (All Countries)



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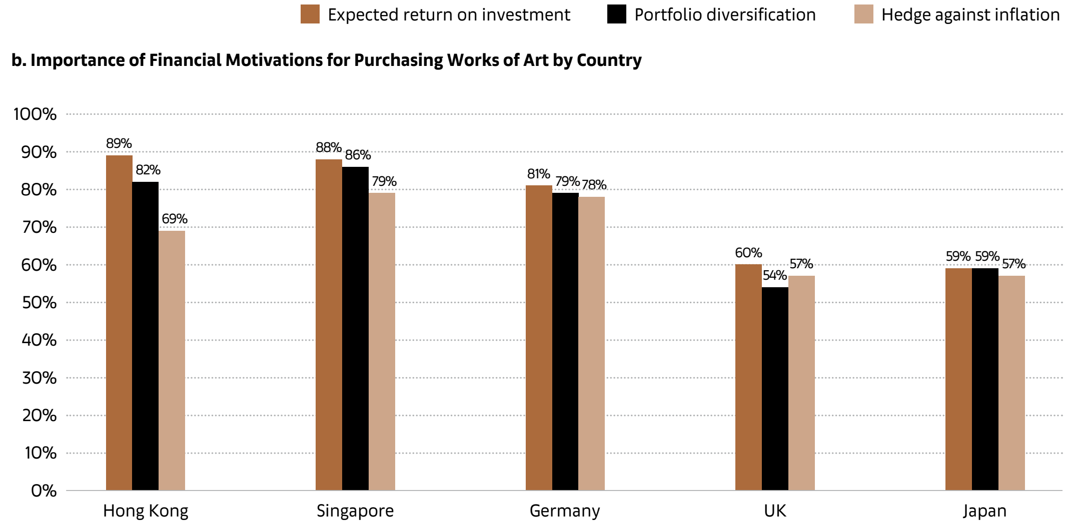
b. Importance of Financial Motivations for Purchasing Works of Art by Country



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Financial motivations for collecting were more important in Singapore and Hong Kong than they were in the UK and Japan

Social reasons for collecting, including talking about art, spending leisure time, and making friendships via the artworld, were important for 72% of the aggregate collector sample, but their importance tended to decline with age: 62% of millennial collectors felt these reasons were extremely or very important versus 47% of Gen X collectors, 18% boomers and 11% silent generation. A similar trend held for status, cultural credibility, and collecting art as a sign of personal wealth and success, which was rated one of the least important overall but ranked more highly by millennial collectors than any other age groups.

In previous surveys of collectors, one of the reasons that investment-related criteria may have scored lower than others is that collectors are often reluctant to sell works of art, making their consideration as a fungible (interchangeable) investment more difficult.

Previous surveys of US collectors showed that 86% of those surveyed had never sold a work from their collection. In this group of collectors, across all countries, the share was considerably lower, with half of the sample having resold works. However, there were significant differences between countries, demographics, and wealth levels.

In line with their more investment-driven motives for collecting, HNW collectors in Hong Kong and Singapore were much more likely to have resold works than in other countries. Also, millennial collectors were much more likely in all regions to have resold than their older counterparts, showing a higher-than-average range of 60% to 80% of collectors between different countries. Another consistent finding across nearly all countries was that the likelihood of having resold a work of art was higher for those collectors with wealth in excess of $10 million than those with lower net worth.

For those who had resold works from their collections, the average period between original purchase and subsequent resale was about three years. Table 7.5 shows that a relatively high share (30% of these respondents) resold works within a year, with a majority having sold them within three years in all countries. Although this indicates a significant share of collectors willing to resell works in a short period, it was considerably lower than in the previous US surveys (at 47% in 2017).

This high rate, along with an above-average share of 38% in the UK, could be evidence that there tends to be more speculative activity among collectors in larger art markets, which may also present much greater opportunities to resell works in shorter periods. In reality, however, the motives for resale are likely to be varied and could relate to personal changes, decorative needs, or other factors as much as financial ones.

Figure 7.21 | Share of Collectors Having Resold Works from Their Collections

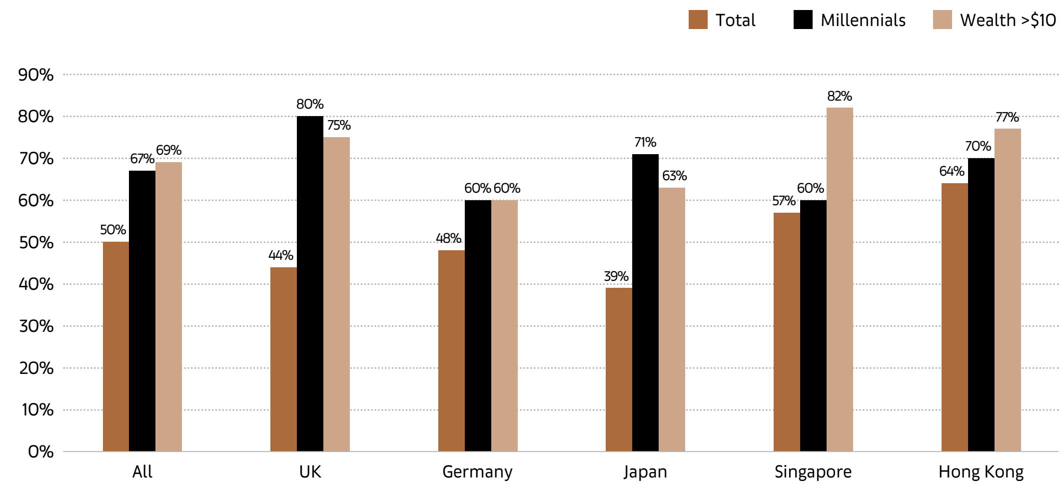
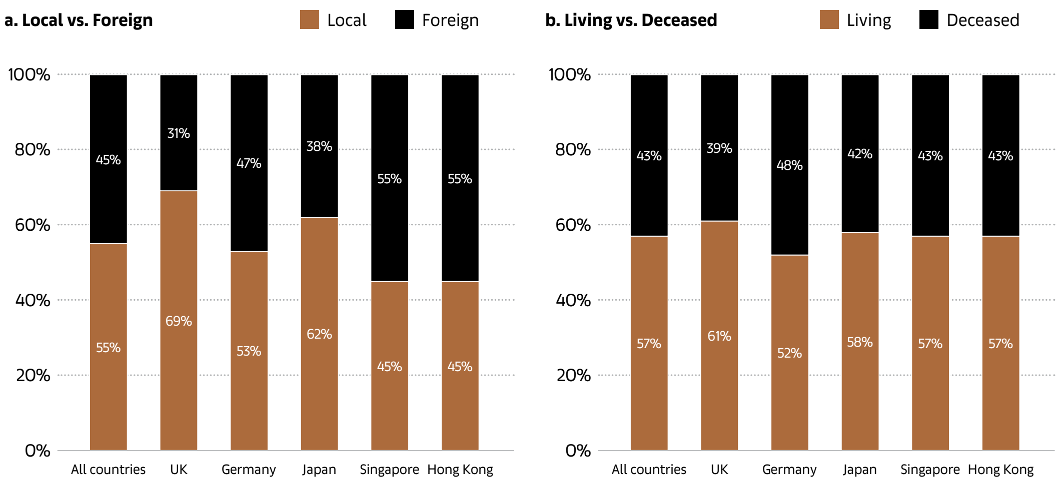


Table 7.5 | Average Length of Resale Period

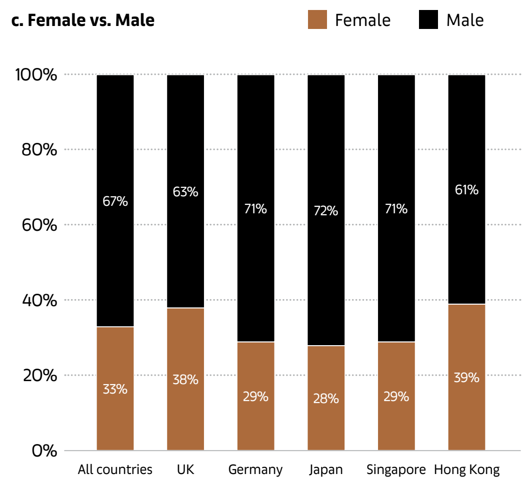
	All countries	UK	Germany	Japan	Hong Kong	Singapore
Less than 1 year	30%	38%	33%	13%	32%	30%
1–3 years	29%	30%	23%	23%	31%	34%
3–5 years	25%	11%	32%	28%	26%	26%
5–10 years	9%	4%	9%	21%	7%	6%
More than 10 years	8%	17%	4%	15%	3%	4%

Figure 7.22 | Collection Content: Share of Works Purchased by Artists' Characteristics



In terms of the content of their collections, collectors had a mix of artists from different regions in their collection, but tended to support local artists slightly more, with an average share of 55% versus 45% foreign artists. The exception to this was in Singapore and Hong Kong, where works by foreign artists had a larger share on average – 55% in each.

While there were few significant or consistent differences in terms of the gender or wealth of collectors, millennials in most markets tended to buy less locally than older collectors. For example, across all countries, the share of works by local artists purchased by millennial collectors was 48%, versus 69% for boomers.

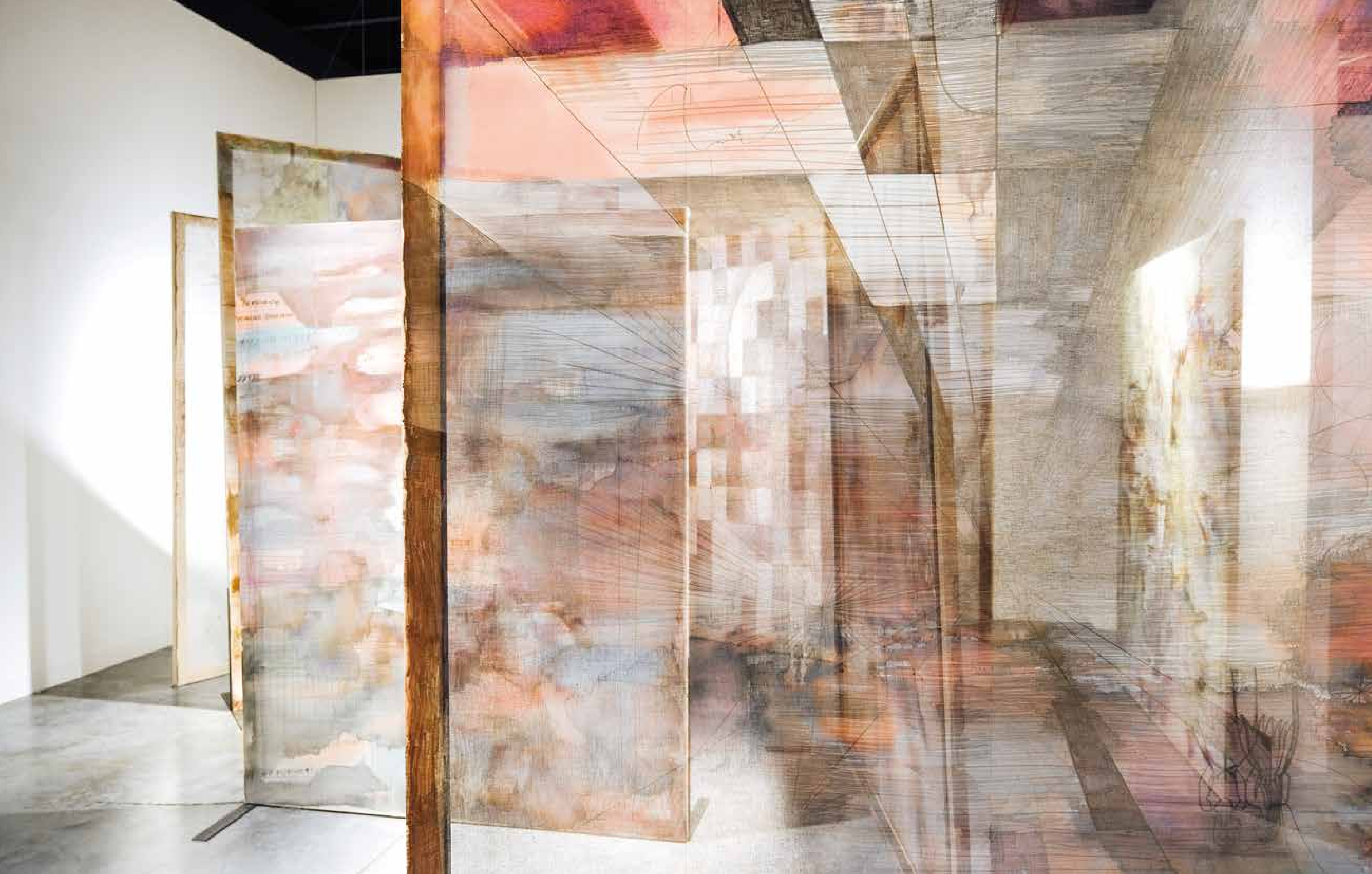


Collectors also tended to buy works by living contemporary artists, with living artists making up a majority of 57% of the works in their collections across all countries, with the UK having the highest average (61%). Again, while there were few differences by gender or wealth, millennials had a lower share, although still a majority at 55%, than other age groups – for example, boomers at 62%.

Collectors tended to buy works by living contemporary artists, which made up 57% of the works in their collections

Finally, aligned with the trends discussed so far in other chapters, the collections of HNWIs tended to be dominated by works by male artists, with a share of 33% of those by female artists in the collections of HNWIs across all countries, and a minority share in each – regardless of the gender of the collector. However, millennial collectors deviated from the average trend to some degree, with a greater share of female artists in their collections across all countries (at 47%), as well as in each country. In the UK, the gender bias was in fact in favor of female artists in millennial collections, at 56%.

This result may be connected to a tendency for younger collectors to collect more Contemporary works, where the divide between genders is less marked than in more historical sectors.



Purchasing Channels

Collectors used a variety of channels to make their purchases, with most choosing several different channels to buy art and objects from at different times. Overall, and consistent with the findings in the US, the most frequently used channel for purchases was a gallery or dealer, with 78% of the sample using them to purchase art.[98] This included 48% using them often or always. Auctions were the second-most-common channel, at 72%. This was also true in all countries except Hong Kong, where auctions were equally ranked with dealers and galleries.

Dealers and galleries were also the most preferred channel to make purchases, with auctions again ranked second in the aggregate sample.

The Asian markets showed the highest share of use overall, with buyers from Hong Kong and Singapore more willing to use multiple channels. Art fairs were also highly important in these markets, with between 92% and 97% of collectors from Hong Kong and Singapore having purchased from an art fair before, compared to 68% in Japan and 72% in the UK. Art fairs also ranked second most commonly used channel for purchases, next to galleries, for millennials across all countries and they were the most preferred channel in Singapore and Hong Kong, whereas the Gen X collectors had a slightly higher preference for auctions than either gallery route.

Just over half of the sample bought with an advisor, although only 31% did so always or often. Advisors were more commonly used by millennial collectors and those using an advisor every time they made a purchase tended to fall with increasing age. One-third of the collectors overall had never used an advisor, although this ranged between countries, from 15% in Singapore to 51% in the UK.

The low use of art advisors is partially due to the fact that many collectors use the dealers and galleries they buy from as primary sources for advice. When asked if they took external advice when managing their collection, across all countries, of those who did take advice, 28% used a dealer or gallery, with a further 22% taking advice from auction experts.

The most frequently used channel was a gallery or dealer, which was also the most preferred channel for purchases

28% used a dealer or gallery for external advice on managing their collection, with a further 22% taking advice from auction experts

Family and friends were the next most popular source, marginally ahead of art advisors (both about 12%). 21% of the sample did not use any external advice.

The data showed regional differences also: in Hong Kong and Singapore, collectors were much more likely to take external advice (almost 90% of the sample in each case), and auction houses were more important sources than galleries. In the other three regions, galleries led (as they had in the previous surveys in the US).

It is interesting to note that in the largest art market, the UK, collectors were least likely to take any advice, with 45% relying on their own personal judgment for what to buy and sell. However, even in the UK, millennials were more open to advice than all of their older counterparts, with only 2% not using external sources.

As noted in Chapter 6, buying art online was significantly more popular for this aggregate group of collectors than the previous surveys of US HNWIs. 58% of the sample bought from online platforms, with one-third reporting it as often or always their most common way to buy art. Instagram had been used by a relatively high share of 46%, but it was used regularly by just less than one-quarter of the respondents across the aggregate sample.[99]

Buying directly from an artist's studio was also relatively popular, with 64% of respondents having bought art in this way, which was on par with previous surveys in the US. However, few collectors chose this as their most preferred channel of purchase.

98 Use is interpreted as the sum of those who used the channel sometimes, often, or always, and excludes respondents who stated that they never used them as well as those who used them 'rarely' (with the latter an additional 9%).

99 In the previous surveys of the US market, 68% had never bought art online and 87% had never purchased on Instagram.

Table 7.6 | Choice of Sales Channels

a. Frequency of Use of Sales Channels[100]

	All countries	UK	Germany	Japan	Singapore	Hong Kong
Dealers	78%	72%	88%	65%	92%	75%
Auctions	72%	61%	85%	54%	87%	75%
Collectors / privately	68%	61%	85%	54%	87%	75%
Art fairs	68%	58%	71%	54%	85%	73%
Artist studios	64%	57%	65%	49%	77%	71%
Online platforms	58%	46%	76%	40%	70%	58%
Advisor	56%	61%	85%	54%	87%	75%
Instagram	46%	39%	51%	35%	54%	53%
Other	20%	61%	85%	54%	87%	75%

b. Most Preferred

	All countries	UK	Germany	Japan	Singapore	Hong Kong
Dealers / galleries	27%	33%	18%	34%	26%	23%
Auctions	21%	18%	28%	20%	21%	19%
Art fairs	16%	10%	13%	12%	27%	16%
Online platforms	12%	9%	23%	5%	9%	13%
Artist studios	9%	8%	7%	7%	11%	10%
Collectors / privately	6%	3%	5%	5%	3%	13%
Instagram	5%	8%	5%	6%	2%	3%
Other	3%	9%	0%	7%	1%	1%
Through an advisor	2%	1%	2%	3%	2%	2%

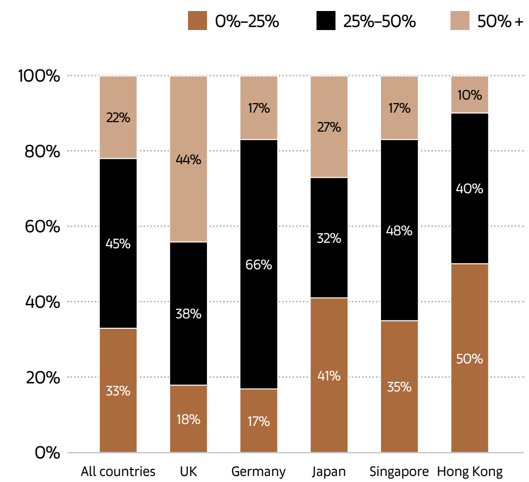
100 The share of those used always, often, or sometimes, i.e. excluding rarely or never.

Financing Purchases of Art

While art and collectibles are often purchased from discretionary income, bonuses, and current income, studies have shown that HNWIs do also occasionally use credit and loaned funds, with research showing that nearly 10% of HNWIs had used some kind of credit to finance purchases of investments of passion.[101] Across all countries, one-third of respondents had used credit or borrowed funds to purchase works of art or objects for their collection. Although a minority, this was significantly higher than in the previous surveys of US HNW collectors, where just 11% of the collectors surveyed had used credit for purchases. This trend was fairly consistent across all countries, from a low of 29% in Germany and Japan to 40% in Singapore.

In Hong Kong, 35% of collectors used credit to finance purchasing art, but when they did, it tended to be for a smaller share of their collections. In the UK, on the other hand (where 32% of collectors used credit), collections were the most leveraged, with 44% of those having used credit, to finance 50% or more of their collections. Millennials and Gen Z collectors were the most likely to use credit: 48% of millennial collectors had used credit to finance purchases for their collections, which was higher than any older generation across all countries, with the exception of Hong Kong, where Gen X collectors were slightly more likely to have used borrowed funds.

Figure 7.23 | Share of Collection Financed Through Credit or Loaned Funds



101 Capgemini and RBC Wealth Management (2016) *Capgemini and RBC Wealth Management Global HNW Insights Survey, 2015.*

Outlook of Collectors

2018 proved to be a very mixed year in terms of investor and consumer confidence. While there was a lot of optimism around the world at the start of the year, particularly regarding the buoyancy of HNW wealth, lingering questions over trade policies, divisive politics, and many other issues fed into a shaky end to the year. The reality at the start of 2019 is that most nations are facing a period of slower economic growth. Politics are affecting stock markets more than before, and markets are reacting quickly to the changing realities, causing volatility in many areas.

While the art market has sometimes managed to insulate itself from the vagaries of financial markets, the prevailing political mood and investor sentiment can do much to promote or deter spending plans. Future financial confidence and optimism – how wealthy people believe they will become in the short and longer term – can often have a more significant effect on spending than current income and wealth.

At the end of 2018, despite continuing uncertainties, the sample of HNW collectors polled remained relatively optimistic. Across the aggregate group, just over half were optimistic about the prospects for the art market over the next 12 months, with the most optimism being in Germany and the least in Japan. This was not due to overriding pessimism, but to a large share of those who were unsure of the future or neither optimistic or pessimistic. Despite this high level of uncertainty, the majority of collectors (62%) felt that the art market was transparent in terms of the information they needed to manage their collections, and this confidence was highest among millennial collectors (74%).[102]

62% of collectors felt that the art market was transparent in terms of the information they needed to manage their collections

102 In each case, this excluded respondents who were not sure if the art market was transparent enough (could not answer yes or no): 21% of the aggregate group and 10% of millennial collectors.

At the end of 2018, despite continuing uncertainties, just over half of the HNW collectors polled were optimistic about the prospects for the art market over the next 12 months

The share of those expecting a negative outcome in the short term for the art market was less than half of those expecting a poor outcome for the equity markets, with pessimism considerably higher for equities in all markets. The most negative outlook came from UK collectors. It is interesting to note also that collectors had significantly more optimism than dealers, with Chapter 2 showing 29% expecting declining sales in 2019 (and 41% stable or stagnant).

Stock-market volatility can have dual effects on the art market and collectors' plans: an income effect, where those who are heavily invested in equities may withdraw or change plans until there is more stability; or a substitution effect, where more investment – oriented or risk-averse collectors spend more on art as a tangible asset, providing a safe haven for capital. For those collectors in the Asian markets surveyed, the latter effect may dominate due to their more investment-oriented approach to collecting and willingness to liquidate their collections.

The outlook of collectors on the economy and its future can have significant effects on the art market. Conspicuous consumption often cycles between peaks and troughs: when there is uncertainty and a general atmosphere against extreme wealth and inequality, those with abundant wealth may hold back and are much more restrained in their spending. This was the case in 2009 in the art market, where vendors viewed it was a bad time to sell, causing a significant drop in supply, despite some works in the auction and dealer markets still achieving relatively high prices. At the start of 2019, many of those working in the art trade felt that this was the prevailing mood again, fearing a much more bearish market for the next 12 months.

Table 7.7 | Collectors' Views on the Art Market's Future: Short Term and Long Term

a. Short term (12 months)

	All countries	UK	Germany	Japan	Singapore	Hong Kong
Optimistic	52%	44%	68%	37%	59%	50%
Neither or not sure	37%	41%	26%	54%	28%	38%
Pessimistic	11%	15%	6%	9%	13%	12%

b. Long term (10 years)

	All countries	UK	Germany	Japan	Singapore	Hong Kong
Optimistic	56%	50%	68%	39%	67%	55%
Neither or not sure	35%	40%	23%	55%	23%	37%
Pessimistic	9%	10%	9%	7%	11%	8%

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The financial volatility and uncertainty regarding many major economies may make high-end consumers more conscious of their spending. This could have a negative effect, particularly on the auction sector, as those who have money may spend it more discreetly in the dealer and private market.

As consumers become less optimistic about the prospects for sales and valuations, they may also hold back from putting works up for sale, which again could have a knock-on effect on aggregate values. While this could lead to poorer performance in the short to medium term, there was generally more confidence in longer-term prospects.

For HNW collectors, optimism also rose over the long term for the art market and was roughly on par with their views on equities. For those who had an opinion either way, most were optimistic.

8

Economic Impact and Conclusions

Key Findings

Economic Impact and Conclusions

1. It is estimated that, in 2018, there were 310,700 businesses operating in the global art and antiques market, employing close to 3 million people, which was relatively stable on 2017.

2. In 2018, 2.7 million people were employed worldwide in the gallery and dealer sector, in about 296,550 businesses. 61% of those working in the sector were women.

3. The auction sector employed an estimated 281,325 people worldwide in 2018, in about 14,150 businesses, a drop of about 2% in employment year-on-year.

4. The gender breakdown of employment in the top-tier auction houses was 65% female, up 3% year-on-year, while second-tier businesses were more gender-balanced, with an average of 52% female employees (up 2% on 2017). 61% of those working in the dealer sector were women.

5. It is estimated that, in 2018, the global art trade spent $20.2 billion on a range of external support services directly linked to their businesses, an increase of 3% year-on-year, supporting 375,030 further jobs.

6. The largest area of expenditure was on art fairs, which reached $4.8 billion, an advance of 5% year-on-year and representing 24% of total ancillary spending. The second, largest area was advertising and marketing, which totaled $3.2 billion, an annual increase of 12% after two years of decline.

8.1 | Employment in the Art Market in 2018

It is estimated that, in 2018, there were roughly 310,700 businesses operating in the global art and antiques market. With a small number of exceptions, most of these were small businesses in terms of their turnover and employees,[103] yet together they provide employment for an estimated 3 million people, relatively stable on 2017.

Jobs in the art market have been shown, time and again, to be, for the most part, very knowledge-based, gender-balanced jobs that nurture highly specialized skills. Despite the volatility in sales, employment in the art market has remained relatively stable, and has increased significantly over 10 years as the market has become increasingly global.

Despite its substantial growth over the past 20 years, the $67 billion in turnover in the art market is relatively small compared to other industries, even taking into account the highly conservative methodologies and estimates used in this report. For example, some estimates quote the value of sales in the luxury car industry as having surpassed $500 billion, with the art market's sales in 2018 smaller than some of the car market's component companies.[104]

There were roughly 310,700 businesses operating in the global art and antiques market in 2018

However, the economic impact of the art market is substantially larger in proportion to its revenues. Any time money changes hands in a sale within the art market, there is a much wider and measurable economic impact. What makes the economic impact of the art trade and the organizations that function within it unique is that, unlike most other industries, it also induces large amounts of related spending and benefits. The market is supported by a range of support services and ancillary industries, and these also generate revenues, employment, and fiscal receipts for governments. Most of these are highly specialized and niche industries in their own right that would not exist without the art market. Each supports a range of knowledge-intensive and highly skilled jobs.

The art market also has a significant positive impact on the wider economy through enhancing a nation's cultural identity and attractiveness and promoting cities as high-value centers for cultural tourism, investment, and consumer spending. Art fairs, cultural programs, and the art market in general not only have a direct impact on their audiences and participants, but also play a crucial role in the development of a region through their impact on political, social, and community resources and structures. They also have a wider socioeconomic effect, helping regions attract investment, creative talents, and tourism through boosting local and regional attractiveness.

Knowledge, skills, and creativity have been identified for several years as essential elements that have given economies a competitive edge, and cultural industries continue to play a leading role in the move toward a knowledge economy.[105] A strong artistic infrastructure attracts skilled workers to an economy, creating a 'brain gain' effect and making regions more attractive to businesses.

The art market provided employment for an estimated 3 million people, relatively stable on 2017

103 A small business is defined differently in different regions, but in Europe, small businesses are those with a turnover less than €10 million ($11.8 million in 2018) and staff headcount lower than 50 (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). Definitions vary by industry in China, but in the retail industry, for example, a small enterprise is one with fewer than 50 employees and less than RMB 5 million turnover (close to $750,000 in 2018).

104 According to the company's financial statements, BMW's revenues in 2017 were €79.2 million ($90 million). Estimates quoted for the car industry are based on reported sales published in 2018 from Euromonitor reports and press releases.

105 There is an extensive literature on the knowledge economy, including numerous reports and studies on industry and national and regional programs. For a broad overview of the concepts, see, for example, World Bank (2003) *Lifelong Learning in the Global Knowledge Economy: Challenges for Developing Countries*. Directions in Development: Washington; and Hadad, S (2017) "Knowledge Economy: Characteristics and Dimensions." *Management Dynamics in the Knowledge Economy*. Vol. 5 No. 2.

8.2 | Dealer-Sector Employment

It is estimated that there were 2.7 million people employed worldwide in the gallery and dealer sector in 2018, stable on 2017, in about 296,550 businesses. The dealer sector is made up of a majority of small businesses, but there is also a top tier of global galleries operating from multiple premises with high employee numbers.

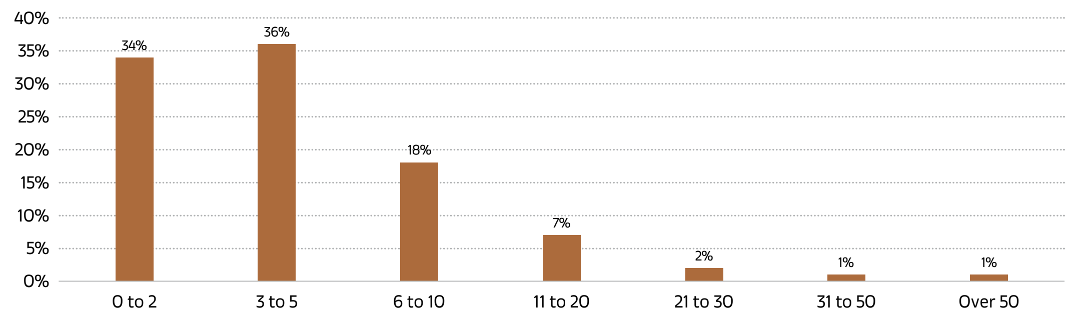
The surveys of the sector in 2018 showed that the average number of employees was stable at seven, with a median of four – down from five in 2017. The companies surveyed ranged from sole traders to those with just over 100 employees. Around 34% of the total businesses surveyed were sole traders or in partnerships of just two people, while just 12% employed more than 10 people, down from 16% in 2017.

Although the results indicated that the share of businesses with up to two employees had increased year-on-year by 9%, this may reflect the changing composition and global reach of the sample rather than a decline in aggregate numbers employed. When asked if they had altered the employment structure of their businesses, the majority (73%) reported that they had maintained stable employment numbers year-on-year, while 20% increased the numbers employed – down from 26% in 2017 but by a similar average of two people – while 7% experienced a decline in numbers (but on average by just one person, versus three in 2017).

As in previous years, the survey suggested that employment varied by sector. Fine art dealers tended to employ larger numbers, with an average of eight for Contemporary dealers, six for Modern, and four for Old Masters dealers. The average for those working in antiques and decorative arts was just three. The numbers employed within sectors varied widely, however, and a more constant trend was that there were larger numbers employed for those galleries with higher turnover in any sector, with an average of three employees for businesses turning over less than $1 million in sales, versus 10 for those with more than $1 million in turnover.

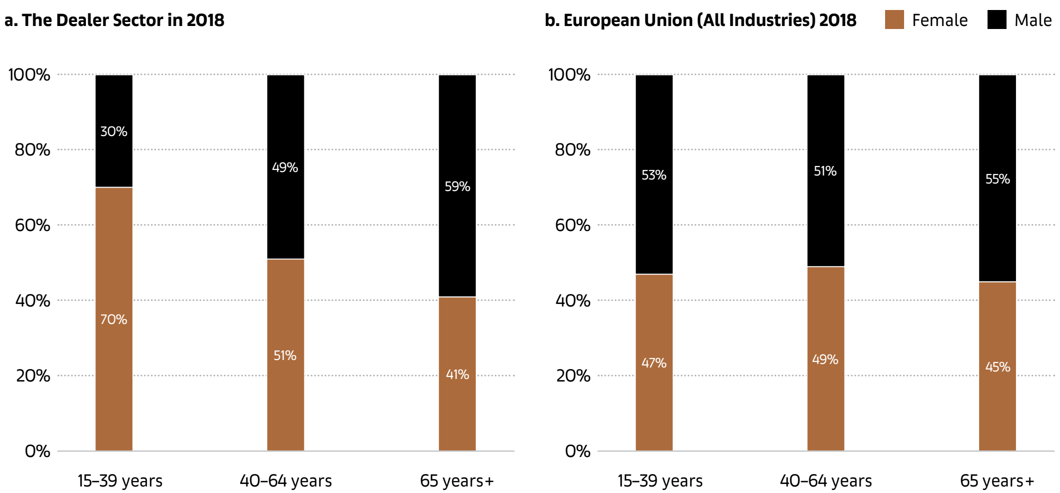
There were also some differences in employment between countries. The average numbers employed in galleries in China was stable at seven, while the US was once again higher than average, at 12 – up from 10 in 2017. In Europe, numbers varied, with the UK average dropping slightly from seven in 2017 to six.

Figure 8.1 | Numbers Employed in the Dealer Sector in 2018



It is estimated that there were 2.7 million people employed worldwide in the gallery and dealer sector in 2018, stable on 2017, in about 296,550 businesses

Figure 8.2 | **Gender and Age Profile in Employment**



In 2018, 61% of those employed in the dealer sector were women

Unlike many other industries, the gender balance in the dealer sector was predominantly female: women made up 61% of those working in the sector, stable on 2017.[106] 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, 44% in China, 47% in the US in 2018, and 46% in the EU).[107]

In 2018, the majority (61%) of those employed in the dealer sector were aged between 15 and 39 years, 33% were 40 to 64 years old, and 6% were over 65. This demographic breakdown shows that a higher proportion of younger people is employed in the dealer sector than in the general labor force. For example, in the US in 2018, 56% of the general labor force was under 44 years (but with a similar 6% aged 65 or over), while in the EU, the share of workers under 40 years was 44% at the end of 2018, with only 2% aged 65 and over.

As in previous years, the survey showed that the rate of female participation declines with age. Considering male versus female employment, the highest proportion of female employment (at 70%) was in the 15- to 39-year age segment, while the middle segment (40 to 64 years) was roughly gender-balanced. For those 65 years and over, the share of women is a minority, at 41% (down 5% year-on-year). Figure 8.2 shows the same gender and age profile for the labor force in the EU as a point of comparison. This shows that the participation of women in the dealer sector fluctuates more by age than in the general labor force. The share of women in younger age groups is notably higher in the dealer sector, and slightly lower in the highest age group of 65 years and over.

The majority of those working in the dealer sector in 2018 were employed in full-time positions (77%, down 3% year-on-year), with an increase to 23% in part-time or temporary positions. This was higher than the averages in the US (17%) and EU as a whole (19%) but on par with countries such as the UK. It was also in line with culturally based occupations, which often have a higher rate of part-time employment – for example, 25% in EU cultural industries in 2017.

Surveys of the dealer sector have consistently shown a very high rate of higher-level or university education. In 2018, 83% of those employed in the sector possessed a university or graduate degree, up 6% from 2017. These education levels are much higher than the general labor force in most countries. For example, the EU average for third-level university qualifications for those aged between 20 and 64 years in 2018 was 36%, and 60% for those in cultural industries in 2017. In the US, 39% of the general labor force had a bachelor's or higher degree, while in the UK, the share was 45%.

106 For comparison with previous surveys, this share reflects the division of male versus female employees only. The survey indicated 56% female, 35% male and 9% other.
107 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 2018. Data for the EU is from the Eurostat Labor Force Survey for 2017, and estimates for China and global labor force participation in 2018 are from the World Bank and related to 2018.

8.3 | Auction-Sector Employment

The auction sector employed an estimated 281,325 people worldwide in 2018, in about 14,150 businesses, a drop of about 2% in employment year-on-year.

As discussed in Chapter 4, the auction sector is multilayered, with the top-tier segment consisting of a small number of national auction houses, such as Poly Auction and China Guardian, as well as multinational 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 2018, the largest multinational top-tier auction houses employed between about 400 and 2,000 people worldwide. While changes in employment varied between individual businesses, aggregate employment in this tier decreased by 1%, its second year of declining employment numbers, as some of the larger houses reduced staff numbers and consolidated their operations around key centers. In the multi-national auction houses, employment in the US once again dominated, accounting for 46% of those employed, up 2% year-on-year. The UK accounted for a further 32% (down 2%). China and other parts of Asia accounted for 10% of the total number in 2018, stable on 2017.

The average number of those employed in second-tier auction houses in 2018 was 19 (down from 20 in 2017), with a median of 11. The majority (58%) of auction houses reported that they had kept their numbers relatively stable on 2017, while 32% reported a rise (by two people on average) and just 10% noted declines (of three people on average).

Considering the share of male versus female employees, the gender breakdown of employment in the top-tier houses was 65% female, up 3% year-on-year. As in previous years, the second-tier businesses were more gender-balanced, with an overall average of 52% female employees (up 2% on 2017).

The auction sector employed an estimated 281,325 people worldwide in 2018, in about 14,150 businesses

The second-tier auction sector showed a drop in the share of younger employees year-on-year, and more in the 65 and over segment:

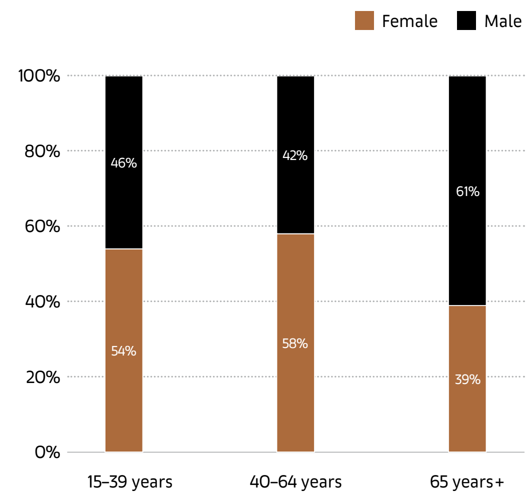
- 42% of those employed in 2018 were aged 15 to 39 years, down 9% year-on-year;
- 42% were aged 40 to 64 years, stable on 2017;
- 12% were aged 65 years or over, up 5% on 2017.

The share of female employment was highest in the middle age group of 40 to 64 years in 2018, and women dominated in all ages apart from 65 years and over, where they fell back to a 39% share.

In the top-tier auction houses, the majority of employment was full-time, with an average of just 15% part-time employees (stable on 2017). In the second-tier auction sector, however, part-time employment was higher at 25%, up 3% year-on-year.

As in the dealer sector, auction-house employees have a high level of educational qualifications. The average of those employed with a third-level university or graduate degree in the second-tier houses in 2018 was 71% (up 14% year-on-year), while in the top tier the average was 75%. Both are considerably higher-than-average levels of third level attainment compared to the general labor force, showing again the very high education levels predominant in the industry.

Figure 8.3 | Gender and Age Profile in the Second-Tier Auction Sector in 2018



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8.4 | Ancillary Economic Impact

Besides its direct economic impact through the businesses working in the art trade, the art market also generates an important economic impact through its expenditure on a wide range of ancillary goods and services. As noted earlier, these services that support the trade are often highly specialized, niche industries that were created from and specifically serve the art market and, in many cases, would not exist without it.

In 2018, it is estimated that the global art trade spent $20.2 billion on a range of external support services directly linked to their businesses, an increase of 3% year-on-year. Once again, the largest area of expenditure, although only incurred by dealers, was on art fairs. Spending on art fairs in 2018 reached $4.8 billion, an advance of 5% year-on-year and representing 24% of total ancillary spending. As noted in Chapter 5, this continued increase in spending shows that the advancing sales at art fairs have not come for free, but with rising costs. However, it also reinforces the very significant impact that fairs have on their host economies. These effects are also both short term (by attracting an influx of high-spending visitors in a very short period of time) and long term, through the effects they have on the city's general cultural attractiveness to visitors over time.

In 2018, it is estimated that the global art trade spent $20.2 billion on a range of external support services, an increase of 3% year-on-year

Inbound visitors attracted by cultural events and tourism have also been shown to spend up to 10 times as much as visitors for sporting events, reflecting a higher-impact visitor rather than just a greater quantity.

The second-largest area of spending was on advertising and marketing, which totaled $3.2 billion, an annual increase of 12% after two years of decline, and represented 16% of the total expenditure in 2018. As in previous years, auction houses accounted for the majority (62%), and this was their largest area of external spending. Expenditure by auction houses increased by 5% year-on-year, while dealers reported a much greater increase of 25%.

Expenditure on IT and third-party online costs was the third highest, at 13%, of total ancillary spending, and also showed an annual increase of 6% to $2.6 billion. For second-tier auction houses, their IT spending on third-party fees and commissions exceeded their own internal IT spending on websites, hardware, and software, showing the increasing importance of this channel of sales for businesses in this part of the auction market.

Next to IT, professional fees were also an area of significant expenditure and showed one of the highest annual increases year-on-year, advancing 17% to $2.4 billion. Although auction houses accounted for nearly 60% of this total spending, dealers saw the greatest advance in their spending on fees year-on-year.

Many dealers have mentioned for the past few years that they hoped to cut back on their expenditure on hospitality and travel in order to try to tighten up on costs. In 2018, some achieved this goal, with spending in this area declining by 10% for dealers (versus a rise of 13% for auction houses).

Spending on advertising and marketing totaled $3.2 billion, an annual increase of 12%

Figure 8.4 | Share of Expenditure by the Global Art Trade on Ancillary Services in 2018

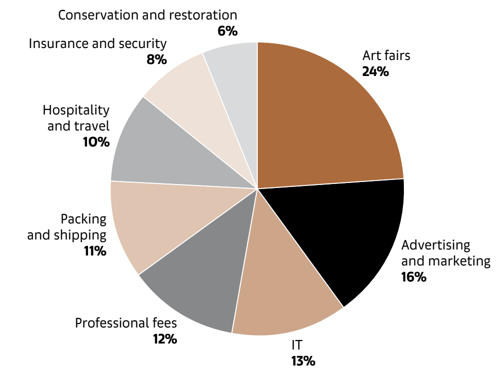

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Table 8.1 | Ancillary Expenditure and Employment Generated in 2018

Services	Expenditure ($m)	Change year-on-year	Estimated Employment Generated
Art fairs	$4,784	5%	88,760
Advertising and marketing	$3,185	12%	59,085
IT	$2,640	6%	48,980
Professional fees	$2,379	17%	44,140
Packing and shipping	$2,312	–3%	42,890
Hospitality and travel	$2,015	–3%	37,380
Insurance and security	$1,744	3%	32,365
Conservation and restoration	$1,155	–24%	21,430
Total	**$20,214**	**3%**	**375,030**

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Table 8.1 shows the ancillary expenditure in the global art market as a whole and sets out estimates of the associated employment generated by this expenditure. In 2018, 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 375,030 jobs.

The revenue directly generated by the art trade in ancillary industries supported an estimated 375,030 jobs

8.5 | Conclusions

One of the defining features of our present-day market is the top-heavy nature of the art trade, with a small number of business and artists at the very high end dominating values, despite the fact that most of the transactions and the majority of businesses are at the middle and lower end. The high end has always dominated, but the gap between the top and everything else has become much wider in recent years. The expansion of this divide continued in 2018 and seems likely to do so, at least in the medium term.

This could have a number of effects on the market. There has been massive growth in global sales over the past 20 years. From a low point of $10 billion in 1991 to the peak in 2014 of $68 billion, the market grew by more than 600%. However, the combination of a high-performing top end with more sluggish growth in other segments has meant that the annual changes are becoming more subdued than they could be. From a macro perspective, as long as auction houses and dealers can feed the market with adequate high-end supply, it is likely that positive growth will continue. But the new reality of an extremely thin market at the top puts obvious restraints on the size of that growth from year to year.

Over the past few years, we have seen very clearly that sales are not only tied to supply but also to the wider political and economic context, and that this

> As more sales move online, the traditional divide between auction versus dealer in everything but the top tier of the resale market will conceivably become less relevant

can have a significant influence on both sellers' plans and discretionary spending. Although many of the banking systems worldwide are in better shape than they were 10 years ago when the last financial crisis struck, many businesses in the art trade have concerns about the effects of the economy and politics in the future, with many of the risks they will face over the next few years possibly being exacerbated by toxic politics, trade wars, potentially reduced cross-border cooperation, and constrained central-bank policies.

Because the buoyancy in the market has been supported by a very small fragment of ultra-wealthy buyers in recent years, the risks of exogenous events affecting their plans is much higher than if the base of buyers was broader. While the expanding middle classes in developing regions could help broaden and diversify the base of art buyers, this depends heavily on their increasing engagement with the market, with positive effects so far feeding in very slowly to most businesses.

The challenges of continuing to operate in a fundamentally changing market and a highly unpredictable macroeconomic environment have meant that many businesses in the art market have had to review their business models. Many are therefore keenly looking for innovative ways to cut costs and enhance revenues, focusing on improving what is within their control and learning to accept a less predictable future.

As more sales move online, the traditional divide between auction versus dealer in everything but the top tier of the resale market will conceivably become less relevant. The neat historical divide between auctions acting as agents and dealers as principles is already non existent, as dealers now often no longer act as principles, while auctions are increasingly engaged in private sales. But we could see a future where most businesses – auction houses or dealers – who deal in anything but the high end carry out most of their sales online. With margins under increasing pressure and the costs of premises and staffing so high, traditional auctioneering and dealing in the middle to lower ends of the market may become less feasible.

Where the divide is likely to continue and competition possibly escalate is at the very top end of the market. In this top tier, the auction sector has the advantage of providing more transparency as well as the potential for unexpected upside for vendors. While this is a great attraction in buoyant markets, that transparency poses significant risks in market downturns or when there is a generally pessimistic climate for sales.

Another attraction of the auction sector has been the ability to entice vendors through providing different kinds offinancial assistance. However, these practices have, in some cases, significantly eroded margins, and may be another reason why it is likely that some larger houses may abandon lower-end sales in future – either sending them to online subsidiaries of their companies or simply only focusing on high-end sales and exiting the middle and lower markets entirely in order to try to cut the substantial costs of premises and staffing. This would have a significant negative side effect for the market, in that it would obscure prices in these segments, because the auction sector remains the only publicly available barometer of individual transaction prices due to the fact that many online auction companies persist in the opaque and regressive practice of obscuring sales results.

At high end, if they can continue to access stock and artists, mega-dealers will still achieve great markups, capturing and maintaining those clients who value the discretion this sector provides. The significantly lower risk and much more reflective and less-pressured sales environment that they provide will continue to attract many vendors, providing significant downside risk cover in declining markets.

The competition for supply at the high end of the secondary market is likely, therefore, to be especially intense between auction houses and dealers in future. We will also be likely to see shifts in the share of sales between the two sides of the market driven by underlying economic conditions, wealth dynamics, political stability, and consumer confidence.

While the past few years have seen the expansion of buying power in different regions, especially the growing dominance of Asia, the three market hubs (the US, the UK, and China) retained the bulk of values in 2018, accounting for an increasing share of sales at 84%. While the volume of sales remains more diversified, supported by healthy and vibrant local art scenes at lower price points, these three international entrepôt markets remain the only centers that can gather a critical mass of important artworks on a year-round basis to engage international buyers at the highest end.

While the distribution of HNW wealth heavily influences where buyer power rests, selling locations will be increasingly influenced by their regulatory contexts, the ease of buying and selling, and fiscal attractiveness. It has become the norm to ship valuable works from country to country to seek the most favorable regulatory conditions for sales, and this will continue the shift of value toward the more liberal and fiscally attractive center, such as New York, London, and Hong Kong.

With the rise of nationalism, the reshoring of industries, and protectionist rhetoric in the wider economy, the role of regulation in the international art trade was at the forefront of concerns for many of those working in the art trade. While regulation has an important part to play in all markets, the role of the state has always been something of a double-edged sword in the art market.

There is a firmly held belief among most economists that if a market is working efficiently, it should be left alone: a fully functioning, competitive economy should be able to satisfy consumer preferences optimally without intervention. The burden of proof if you are going to start interfering in the market is to show where parts of it are not working properly, and that if left to its own devices, the free-market outcome will either be inefficient or socially sub-optimal.

There are several instances of failures in the art market that have required regulation, from failures in competition to the disregard for the many positive externalities the sector creates that warrant public support. There are also morality-based arguments that suggest governments should have a role in ensuring an optimal level of production in the arts and equitable access to culture. However, every government intervention has its own costs and consequences, meaning that state involvement in the art market has been a mixed blessing.

Governments can be great supporters of the market, actively promoting supply through direct funding as well as stimulating private sales and investing through various tax and fiscal incentives. They are also the ultimate protectors of the market, regulating the trade within and across borders to reduce crime and malpractice and ensure that a nation's cultural heritage is kept intact.

On the negative side, regulations and taxes add layers of costs and red tape to the market, causing disincentives to investment and stymieing the healthy flow of transactions and the production of works of art, as well as interfering in important cross-cultural exchanges. These negative effects are not equally distributed between countries, and this has had important distributional consequences, with sales concentrating on those centers around the world that have the most liberal regimes.

Art is a mobile, durable, and portable asset, and this means that both buyers and vendors will use regulatory arbitrage to access the best sales terms, especially when values start to rise. This is yet another reason why global sales have dominated in a few key, market-friendly hubs, such as the US and UK.

The US has retained its leading position as the biggest hub for global sales by a substantial margin in most recent years, accounting for 44% of the value of sales in 2018. However, in the past 10 years, the rise of Asia, most notably China, has changed the global hierarchy, making the whole market larger and protecting it from the downside risk, but also gaining share at the expense of other markets.

Alongside Asia's ascent, an equally interesting phenomenon has been the decline in market share in Europe. In 2003, the EU had a 53% share of sales, but by 2018 this had dropped to a 10-year low of 32%.

Alongside Asia's ascent,an equally interesting phenomenon has been the decline in market share in Europe

While there are many reasons for Europe's decline, the perception that the regulatory structure of the EU makes it a costly and complex place in which to transact is arguably one of the most prominent. Perhaps more worrying, looking forward, is that the main reason for Europe still retaining close to a third of the market's value has been that it can still count the UK's contribution, which has been the key market for driving growth in European art sales. After Brexit, the EU share of the global art market, based on 2018 figures, will drop to just 11%, and its annual rates of growth are likely to be significantly altered by the UK's absence.

Despite many attempts by the EU to level the competitive playing field in the Single Market, the UK has consistently retained a dominant position in Europe, accounting for 66% of sales by value and being the primary center for international sales. This has been a consistent picture for decades, but it was not always the case. As recently as the 1950s, France was the center of the global art market, with trade largely supported by foreign buying. However, within a decade, London and New York gained control of the market, due to the wider economic shifts in the established bases of wealth and economic power.

The most important reasons for this shift away from France were the introduction of a new system of taxes on art sales and the imposition of other regulatory deterrents that drove both buyers and sellers away to more liberal trading regimes. The French auction market had landed itself with a highly complicated and rigid set of fees and taxes on art sales that added nearly 40% to prices. In the UK these averaged 10% to 15% and emerging giants, such as Christie's and Sotheby's, had the flexibility as private companies to alter these in response to changes in the market. The tax on imports into France and the *droit de suite* royalty on sales, neither of which applied in the UK or US at that time, only added to the regulatory quagmire, leading Europeans and Americans to simply bypass Paris and conduct sales in London and New York.

It is interesting to see, more than 50 years on, that the very same factors are driving geographical trends. Two of the major determinants of where global art sales take place are still wealth and a favorable regulatory environment – both internally and with respect to international, cross-border trade. Coupled with robust cultural infrastructures of expertise and institutions, these two elements remain integral to the global flow of sales.

The US remains the key center of HNW wealth worldwide, and its legal and fiscal systems offer a level of protection to buyers and a business-friendly environment for sellers. This provides incentives that boost a healthy inflow and outflow of art. The US is a global entrepôt market and trading center that couples strong domestic alongside foreign buying, with the latter facilitated by one of the most liberal trading regimes in place for the circulation of artworks, comprising low tariffs and few restrictions.

Similarly, the dominance of the UK in Europe has, to a very large extent, been dependent on successfully competing with global rivals to attract the best works of art for sale in the UK. The success of the UK market is therefore highly vulnerable to fiscal and regulatory changes, which could put the market at a disadvantage in an increasingly competitive market.

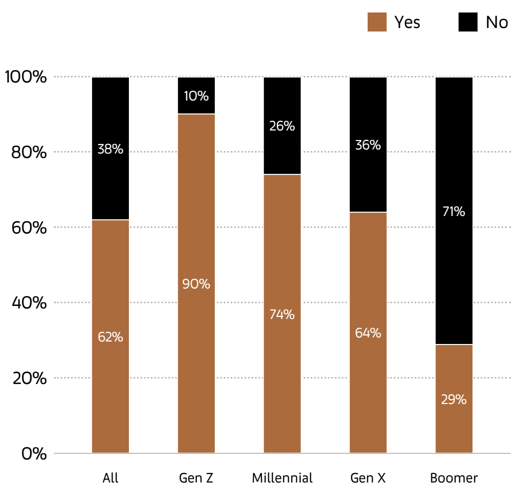
Brexit has provided an impetus for regulatory review and potential change, causing uncertainty within the art trade, particularly with regard to the terms of trade that may emerge between the UK and EU member states. However, given that the UK art market is dominated by non-EU trade, which accounts for between 80% and 85% of both imports and exports of art by value, this may have less effect on the overall value of UK sales. In fact, it has opened up a range of new opportunities for the UK to break out of the EU mold of regulation and decide for itself what laws will govern the art trade. Brexit will provide the UK with the chance to conduct a comprehensive cost-benefit analysis of several European directives applied to the art market, including those centered on imports and exports, as well as artists' resale rights, and assess their implications for the future of the British market, with the freedom to take action on the outcomes.

> Brexit will provide the UK with the chance to conduct a comprehensive cost-benefit analysis of several European directives applied to the art market

For countries such as France, and perhaps others, Brexit provides an ideal time to review their position and lead the European market in a different direction. The French market has a dynamic and vastly knowledgeable network of galleries and is already in the process of overhauling its auction sector. In February 2019, the Conseil National du Marché de l'Art (CNMA) published an open letter to the French president and government, calling for changes to stop France from losing competitiveness to the UK after Brexit and drawing attention to both EU regulations and domestic policies that burden local businesses and weaken the market's competitiveness.

While the EU, and France particularly, has always focused on top-down regulation, the success of both the UK and US in the global art trade seems to indicate that they have much to learn from the Anglo-Saxon model, which relies on a framework of

Figure 8.5 | HNW Collectors' Views on Whether the Art Market Offers Enough Transparency to Manage Their Collections



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laws that protect the interests of participants in the market. Whether the French government will take action to protect its country's interests has yet to be determined.

Transparency is always pegged as another key goal for regulators in this notoriously opaque market. The central focus of calls for transparency is on key areas such as provenance and proof of authenticity. It is interesting to note that, when the question of whether the art market was transparent enough was posed to HNW collectors across five different regions in 2018, the majority felt that it was. Most young collectors especially felt that the art market offered enough of the information they needed to manage their collections. For those collectors of all ages that wanted more transparency, the greatest areas of concern related to provenance and proof of authenticity.

Aside from issues related to fraud, there are also calls more generally for transparency in the actions, pricing, and strategies of those working in the art market. Confidentiality and privacy have been at the core of the art market since its inception, but as cultural industries move more to the center stage and the stakes get ever higher, it is difficult to imagine that the market will manage to remain as private as it has in the past. In the absence of global solutions to regulation and transparency, however, the danger of individual markets overregulating is still acute. The art trade will continue to shift to less constricted environments, as it has in the past.

Aside from regulation, the changing nature and distribution of global wealth will continue to drive many of the trends in the art market. Research on the dynamics of world wealth and the buying behaviors of art collectors continues to indicate the growing power of Asia, including smaller markets outside China with substantial HNW populations. The research on HNW collectors in Chapter 7 showed that there were considerably higher price points on average for spending on art and collectibles in the newer Asian markets versus some of the more mature markets. Collectors from Hong Kong and Singapore had a more strategic and planned approach to collecting, including more investment-oriented motives in building their collections. Millennial collectors also make up a higher-than-average share of collectors in countries such as Hong Kong and Singapore, a demographic segment driving much of the activity in the art market.

Aside from regulation, the changing nature and distribution of global wealth will continue to drive many of the trends in the art market

The research showed that, across all countries, millennials were considerably more active buyers in all sectors of the art market than other generations, including in more traditional sectors such as antiques. They also accounted for nearly half of those collectors regularly spending at the level of $1 million or higher and bought across all channels, with a considerably higher preference for online transactions than older generations.

The research also made clear that, going forward, regional differences may become less important in understanding some of the key trends in the market. The behaviors, activity levels and spending patterns of millennial collectors had more in common with each other across regions than they did with collectors within their own region from different generations. Understanding the buying preferences both in terms of content and delivery of this global demographic segment, and how they are influenced, will likely prove important for many businesses in the art market in the years to come.

Appendix

Appendix – Sources Used in The Art Market 2019

When measuring international sales and other global trends, a key challenge is that the art market is not a single, homogenous entity, but made up of many distinct markets, each developing at their own rates. There are literally hundreds of unique and independently moving submarkets that are defined by artists, genres, price points, and geographical locations, and they often behave in significantly different ways.

Due to these inherent complexities and other features of the market, there is also no single source of data. The information presented in this report therefore 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.

For the purposes of this research, the art and antiques market includes sales of fine and decorative art and antiques. Fine art includes paintings, sculptures, and works on paper (including watercolors, prints, drawings and photographs, and tapestries, as well as film, video, and other new media). Decorative art and antiques covers objects such as furniture and decorations (in glass, wood, stone, ceramic, metal, or other material), couture (costumes and jewelry), ephemera, textiles, and other antiques.

I. Auction Data

The auction sector provides one of the main large-scale, international, 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 auction houses publishing limited, selective, or no results at all. There are also very specific regional issues, with China presenting a good example. The report noted in 2018 (as it has in previous years) the continuing issue of late and non-payment of winning bids at auction. Although this issue is not confined to China (nor to the auction sector), it presents issues in the data that need monitoring.

Looking at reported auction sales, there is no single comprehensive source or database that covers the entire global auction market for fine and decorative art and antiques. Auction data for 2018 used in this report therefore comes from four main sources:

a. Artory

Global fine art auction data is supplied by Artory (artory.com). Artory's database covers 4,000 auction houses, with more than 20 million records and consistent auction results gathered annually for 250 businesses in 40 countries and 500,000 artists. 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. In 2018, it launched the Artory Registry, the industry's first public object-oriented database for the art and collectibles market. Leveraging blockchain technology, it tracks provenance and title, and distinguishes trusted from non-trusted data. By working directly with auction houses, galleries, living artists, museums, and manufacturers to create records, the Registry reduces the risk of permanently recording poor-quality information onto the blockchain.

b. AMMA

Both fine and decorative art 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 Art Artron Group and conducts independent research, monitoring, and analysis of the Chinese art market. It has the most comprehensive and reliable available database on the Chinese art market. The Artron Chinese Artwork Database has recorded 5.6 million results from more than 26,000 sales conducted by more than 1,000 auction houses since the first art auction in China in 1993, and adds 600,000 updates to the database annually. The company supplies data-processing services, art appraisal, and other price-consulting services, as well as holds information on about 35,000 artists, 14,400 art institutions, and more than 4,600 galleries. As noted in the Chapter 4, the Chinese auction sector uses different categories and sectors than other auctions. The main categories of art used by AMMA are:

a. Chinese painting and calligraphy: This sector is traditional Chinese art, which mainly comprises of Chinese ink paintings on different media such as Xuan paper, silk or fans. It can be divided into: "Chinese calligraphy", where subject matter is calligraphy based on poems and 'words with great wishes'; and "Chinese painting", where the subject matter tends to be landscapes, figurative work, Chinese Xieyi and bird and flower paintings.

b. Oil painting and contemporary art: This encompasses works created by Chinese artists who adopted Western techniques and media (such as oil painting, photography, sculpture, installation, pencil sketch, gouache, or watercolor), after oil painting was first introduced to China in 1579.

c. Ceramics and other wares: Ceramics are decorative art works made from cornish stone, kaolin, quartz stone and mullite. The other wares are mainly works made from or based on bamboo, wood, walnut, teeth and horns. They also include works made with writing brushes, ink sticks, ink slabs, paper, Chinese lacquer and embroidery, as well as Buddha figures, gilding and other small decorative works such as hangings, bracelets.

Figure 1 | Share of Respondents to the Dealer Survey by Turnover in 2018

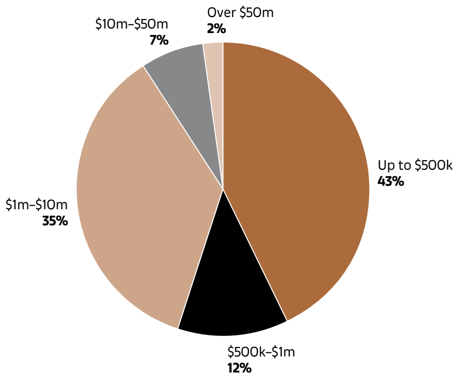

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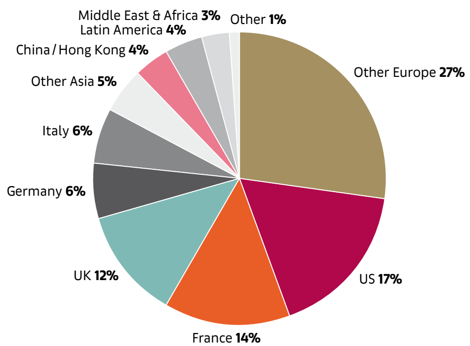
Figure 2 | Geographical Distribution of Respondents to the Dealer Survey in 2018



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c. Auction Houses' Published Results

To supplement and audit the coverage provided by these two databases, Arts Economics has also developed its own internal auction database, collecting data directly on an annual basis from the published auction results and press releases of auction houses around the world.

d. Auction House Survey

Arts Economics distributes two surveys in the auction sector: a comprehensive top-tier survey of the top 10 auction houses worldwide, plus a second-tier survey of just over 500 national second-tier auction houses (with a response rate of just over 20%). 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 2018, Invaluable also distributed the survey to its member auction houses, and supplied data on offline versus online sales on a sample of more than 800 auction houses.

For historical auction data, various sources were used in compiling previous reports, including Auction Club (2017), 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 of the companies in the sector are small- to medium-sized firms in terms of their turnover and number of employees. Only a tiny fraction are publicly listed companies, therefore listings of their financial results in public and private databases are limited.

Various official sources and company reports are used in compiling figures on the sector. These include Eurostat, the US Bureau of Labor Statistics, the Office for National Statistics in the UK, Companies House, Insee, Infogreffe, the National Bureau of Statistics of China, and many others. However, these 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 and 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 2018. 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, CPGA, SNA, ADAA, and other key national associations. It was also distributed by Art Basel directly to more than 500 individual galleries who participated in its shows in Basel, Miami Beach, and Hong Kong in 2018.

Response rates varied between countries and sectors, but on aggregate for the survey overall, the share was about 17.5% (1,138 dealers), up 4% on 2018, which is above the average for external online surveys of 10% to 15%.

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 toward the middle to higher end of the market and does not cover many of the very small businesses, consultants, or other agents in the market who do not belong to associations or exhibit at fairs. In 2018, however, there was a substantial share of 43% represented in the lowest turnover bracket (less than $500,000) given in Figure 1, up 9% on 2017.

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 296,550 dealers worldwide selling fine and decorative art and antiques and collectibles in 2018.

Data on the number of businesses in the art market is built from an extensive search of official and commercial secondary sources and listings in early 2018, with figures supplemented in late 2018 for known openings and closures. The search for the art market as a whole 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. Although some also sell fine and decorative art, businesses that predominantly sell posters or craft-works were excluded where possible, as were antique-restoration companies.

Figures are compiled from official statistics compiled by organizations such as Eurostat and the Bureau of Labor Statistics. These are cross-referenced with art-specific directories as well as general business sources such as national and other online company directories.

Changes year-on-year can therefore reflect changes in listings and classifications as well as businesses openings and closures. The numbers of business are therefore a broad estimate only and are rounded. The figures are highly likely to underestimate the totals in some countries because a number of small businesses will not feature in listings. The figures are also recorded per business outlet rather than by company. Although galleries with multiple premises are not common at the lower end of the market, there are a significant number of companies in the sectors that operate in several different regional locations. In the sample, 9% of those responding reported more than one gallery location for their businesses.

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, in most years, these dealers represent more than 80% of the value of sales in the sector. The survey allows us to estimate the value and changes in this core 80% of the market, while the addition to sales from the remaining small businesses are very conservatively estimated based on official statistics and censuses that report sales by industry, business, or sector.

As some of the highest-selling dealers may not answer surveys, the 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.

In Mainland China, the survey was conducted both through the online survey and through in-person interviews with more than 30 art galleries in Shanghai and Beijing with the assistance of CARI, the Shanghai Culture and Research Institute.

The survey was supplemented by a series of interviews with dealers in different sectors and countries conducted from June 2018 to January 2019 to gain in-depth insights into the art market, which were used to inform the analysis in the report and help interpret the findings.

III. Artsy

Extensive data on galleries, artists, and art fairs was supplied by Artsy in 2018. Artsy.net was launched in 2012 and has a database of more than 1 million works of art produced by more than 100,000 artists represented by more than 3,000 partner galleries, 25 auction houses, 80 fairs, and 800 museums. For the analysis of galleries and their representation, a selection of artists and the galleries that list works by them on Artsy was examined in the report.

As part of its many offerings, Artsy offers comprehensive previews of all of the major art fairs through its online platform. Data on 30,000 artists, taken from a sample of 80 major fairs available on Artsy in 2018, was also supplied and used in the report.

The analysis of gender in Section 3.5 in Chapter 3 by computational sociologist Taylor Whitten Brown is also part of her wider academic and doctoral research, which uses data from the extensive Artsy database and The Art Genome Project.

IV. Artfacts.net

Data on gallery exhibitions and art fairs was sourced from Artfacts.net. The ArtFacts database is the largest of its kind, containing more than 37 million data points that cover exhibitions from 192 countries, from the beginning of the 1860s to the present.

ArtFacts monitors more than 500,000 contemporary artists, providing each with an algorithmically calculated rank, derived from a basket of quantified criteria such as gallery representation, collecting institutions, institution type, and international reach.

Artfacts.net also provided comprehensive art fair data covering close to 300 fairs. The analysis given in the report includeds specific and detailed information for a sample of 183 fairs in 2018 that had at least 20 exhibitors, as well as information on 12,614 exhibiting galleries.

Data on the openings and closures of galleries is also provided by Artfacts.net, which tracks them from a dynamic international base of between 5,000 and 6,000 of the top galleries. The galleries included in the analysis in Chapter 2 are only those that have participated in at least one major fair in the past 11 years, with new branches of headquartered locations also appearing if the primary operation has participated in a fair.

It is important to note that the data on openings is skewed by the criteria for inclusion: a gallery opening in 2018, for example, is unlikely to exhibit at a fair in its first year of operation, which means that the numbers for openings will be lower in recent years than they are historically. This also creates changes in the figures from year to year as galleries are only revealed in the public domain as they appear in fair programs. Updates to previous years' data are therefore necessary, as galleries are only revealed as opening or closing with a lag.

Closures may also appear with a lag, as some galleries may not publicize them, meaning their departures only become apparent through their non-appearance at fairs and through exhibition records in subsequent years. This means that these figures also change over time, as updates are required for the data in each subsequent year.

Galleries are only included in the data where a clear year of commencement or closure is available, and therefore it does not include the large numbers of very small galleries and shops opening and closing in the wider art market year-on-year.

This data volatility poses obvious issues in the interpretation of findings (particularly those in most recent years). For example, as explained in Chapter 2, ArtFact's figures for 2017 initially indicated that the ratio of openings to closures had dropped to 0.9: 1, that is, more galleries had closed during the year than opened. However, during 2018, 46 new galleries (that had opened in 2017) began exhibiting at art fairs, which alongside 12 additional confirmed closures, brought the ratio to 1.6: 1 (that is, net positive openings: 30 more galleries opened than closed in 2017). The preliminary estimates at the start of 2019 for the year 2018 indicate that, while remaining positive for net openings, the gap has narrowed further (to 1.2 openings to 1 closure), although this figure is likely to change according to updates in the next year or those subsequent to it.

Despite these issues, the figures still provide some indications of the broad trends in openings and closures over the past 10 years, which are useful for analysis as long as the assumptions underlying their collection and aggregation are understood and accounted for.

V. Online Data Sources

Research on the online sector was informed in part by a survey of about 70 online businesses selling art and antiques in 2018. This was supplemented by a series of interviews with those working in the online art space, including collectors and other experts. Several companies also provided aggregate results to Arts Economics on an anonymous basis for the purposes of this research.

Data on website traffic was taken from SimilarWeb in the months between October and December 2018. This data is dynamic and changes over time. It should therefore be considered only as a relative view of the companies presented at a point in time. Other data was taken directly from social-media sites, including Facebook, Instagram, and Twitter.

Data provided by Invaluable was used for the online analysis of the share of online versus offline bidding in various years from a sample of about 800 member auction houses.

Data received from Auction Mobility was based on sales from 200 auction houses using its platform, which also informed the analysis in the auction chapter.

Data on the UK online auction sector was also supplied by the-saleroom.com.

VI. UBS Survey

Arts Economics partnered with UBS to conduct a survey of more than 600 HNWIs in five different countries in 2018. The survey used panels provided by Research Now for the survey in the following countries:

- United Kingdom
- Germany
- Japan
- Singapore
- Hong Kong

The individuals in the sample all had household investable assets in excess of $1 million, excluding real estate and business assets. 75% of the total sample had wealth between $1 million and $5 million, 14% between $5 million and $10 million, and the remaining 11% more than $10 million.

To assess if they were active in the art and collectibles markets, respondents were also initially screened by asking if they had purchased a range of assets including art, antiques, and other collectible items in the previous two years. The screening process continued until there was a minimum of between 120 and 150 fully completed survey responses from qualified respondents in each country. The sample was 33% female respondents and 67% male, and 81% of the sample had a bachelors' degree or higher (including 34% with graduate degrees such as a master's, or PhD).

In terms of their age profile, the aggregate sample was broken down as follows:

- 2% aged 18-21 years, or Gen Z
- 34% aged 22-37 years, or millennials
- 38% aged 38-53 years, or Gen X
- 23% aged 54-72 years, or baby boomers
- 3% aged 73+ years, or the silent generation

VII. Secondary Sources

The report uses a large number of secondary sources and these are cited throughout the report. Some key sources used for data in the report on a regular basis include:

- UBS Billionaire Insights report (2018)
- 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 Databook* (various years)
- *ARTnews* Top 200 Collectors
- *Forbes* Billionaire Lists and other publications

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List of artists featured in the Art Market Report

El Anatsui
Rodolfo Arico
Chant Avedissian
Pablo Bronstein
Angela Bulloch
Feliciano Centurion
George Condo
Leandro Erlich
Derek Fordjour
Bernard Frize
Jeffrey Gibson
Sam Gilliam
Josep Grau-Garriga
David Hammons
Keith Haring
Alfredo Jaar
Rashid Johnson
Teppei Kaneuji
Grada Kilomba
Frog King
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