

**TEFAF
Art Market
Report 2016**



TEFAF

Prepared by Dr. Clare McAndrew

TEFAF ART MARKET REPORT 2016

**THE
EUROPEAN
FINE
ART
FOUNDATION**

Prepared by Dr Clare McAndrew
Arts Economics

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FOREWORD

We are delighted to present the latest TEFAF Report on the international art market. This annual study by Arts Economics, which surveys the state of the global market, reveals that sales in the global art market reached \$64 billion in 2015, declining slightly after three years of strong growth.

This year's Report examines the underlying drivers of the growth and declines in the market through an analysis of the performance of some of its key sectors and price segments.

In examining the economic impact of the art market, the Study concludes that not only does the art market directly support some 2.8 million jobs, but it also generates a further 330,353 jobs in ancillary industries, including in art fairs. This underlines the importance of ensuring that a favourable environment is maintained to encourage a prosperous art market.

As before, we are grateful to Anthony Browne for directing this annual research programme for TEFAF.

Willem van Roijen

Acting President TEFAF Board of Trustees
Chairman TEFAF Executive Committee

Patrick van Maris van Dijk

Chief Executive Officer TEFAF

ACKNOWLEDGEMENTS

The information presented in this study is based on data gathered and analysed directly by **Arts Economics** (www.artseconomics.com) from dealers, auction houses, art and antique collectors, art and financial databases, industry experts and others involved in the art trade. (Please see the Appendix for a note on the data sources.)

Currency fluctuations are a real challenge for the art market, impacting on price differentials, purchasing and sales choices, as well as inbound tourist flows and hence visitors to fairs and other events. They also significantly affect how sales and prices are reported. This year, for the first time, the report is presented in US dollars, which is widely regarded as a benchmark currency in the art market. In reviewing historical data, where possible, original currencies were used and converted to dollars, or alternatively historical vales reported in Euro have been converted to dollars using an annual average exchange rate. Changing the reporting currency may in some cases have slightly altered how historical sales values and their growth over time are recorded, however the main trends in the art market are unchanged.

An important part of the research each year involves a global survey of art and antique dealers. I would like to say a special thank Erika Bochereau of CINOA (Confédération Internationale des Négociants en Oeuvres d’Art) for her generous support, along with the presidents of the dealer associations around the

world. Thanks also to Joe Collinson for helping distribute the survey. My sincerest thanks to all of the individual dealers who took the time to support this research by completing the surveys and participating in interviews.

Many thanks also to all of the top and second-tier auction houses who also took part in the auction survey. Thanks especially to Laure Camboulives (Christie’s) and Jack Shaw (Sotheby’s). Thanks also to the online companies for their support of the online survey and other information and to Andrew Klug for his insight into this sector.

The primary art auction data supplier for this report was Artnet, and my sincerest thanks and appreciation especially to Jonathan Yee for his continued diligence, care and patience in helping to put together this highly challenging and complex data set. Auction data on China is supplied by AMMA (Art Market Monitor of AirTran) and my great appreciation to Gloria Guan and Sasha Liu for their continued support of this research on the Chinese auction market.

Finally, my very special thanks to Anthony Browne for his untiring efforts in coordinating the research, as well as for his most valuable insights into the art trade.

Dr. Clare McAndrew
Arts Economics

KEY FINDINGS AND SUMMARY

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- Global sales reached \$63.8 billion in 2015, falling 7% year-on-year from the market's previous highest ever total of \$68.2 billion in 2014.
- The volume of sales (number of transactions) declined by 2% year-on-year to 38.1 million.
- In 2015, the US was the largest art market with a share of 43% of the value of the global market, followed by the UK with 21% and China with 19%.
- Sales in the US were the best performing worldwide, increasing by 4% over 2015 to their highest ever total of \$27.3 billion. The Chinese market experienced a significant decline, with sales dropping 23% to \$11.8 billion, and in the UK sales fell 9% to \$13.5 billion.
- In 2015, private sales by dealers and other agents accounted for 53% of the market by value, with public auctions accounting for 47%.
- In 2015, sales of art online were estimated conservatively to have reached \$4.7 billion, up 7% year-on-year and accounting for 7% of all global art and antiques sales by value.
- In 2015, the largest sector of the fine art auction market was Post War and Contemporary art, accounting for 46% of the market by value and 41% of transactions.
- After two years of double-digit growth, the Post War and Contemporary sector slowed in 2015, with auction sales falling 14% in value to \$6.8 billion, alongside a 20% drop in the number of transactions.
- Modern art remained the second largest sector of the fine art auction market, accounting for 30% the value of sales and 27% by volume.
- Sales of Modern art at auction fell by 1% in 2015 in value to \$4.5 billion and the number of transactions decreased by 20%.

- In contrast to most parts of the fine art market, auction sales of Chinese decorative art and antiques increased by 6% year-on-year to \$2.2 billion, while the number of transactions fell slightly by 3%.
- In 2015, 90% of the works sold at fine art auctions were for prices less than \$50,000, but these accounted for just 12% of total sales values. Works sold for over \$1 million accounted for the majority (57%) of the value of sales in the fine art market in 2015 in just under 1% of all transactions.
- The highest single segment by value was the ultra-high-end segment (prices over \$10 million), accounting for 28% of total sales values, despite representing a tiny fraction (0.1%) of overall transactions in the fine art auction market.
- Growth in sales above \$1 million have far outpaced growth in values in all other segments. The high-end segment (sales over \$1 million) increased by over 400% from 2005-2015 (over four times the increase of the low and medium segments).
- Within the high-end segment, ultra-high end sales (sales above \$10 million) have performed best, with an increase of more than 1,000% over ten years, and a compound annual growth rate (CAGR) of 27% per annum. This CAGR is not only outpacing other segments of the art market (at more than five times the growth of the low-end) but it also more than doubled that of rapidly growing commodities, including gold.
- Just 1% of the number of artists whose work sold at auction in 2015 accounted for 57% of the market's total sales value, and 5% of artists accounted for nearly three quarters (74%).
- Globally, the work of 1% of artists sold for over \$1 million (and only 0.1% for over \$10 million, or just 81 artists).
- In 2015, there were 33.7 million dollar millionaires worldwide, down 3% year-on-year. It is estimated that at least 2% of this millionaire segment (around 675,000) are mid to high-level art and antiques collectors.

- According to estimates, 503,000 high net worth individuals (HNWIs) used credit to finance purchases of art, antiques and collectibles in 2015.
- In 2015 there were just over 310,400 businesses operating in the global art and antiques market with a combined employment of 2.9 million.
- There were over 2.5 million people employed worldwide in the gallery and dealer sector in about 296,270 businesses.
- The auction sector was made up of 14,136 businesses in 2015, employing an estimated 326,228 people.
- The global art trade spent an estimated \$17.8 billion on a range of external support services directly linked to their businesses, with spending increasing 3% year-on-year despite the decline in sales in the art market. This supported a further 330,353 jobs.

CHAPTER 1

THE GLOBAL ART MARKET IN 2015

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Key Findings

- Global sales reached \$63.8 billion in 2015, falling 7% year-on-year from the market's previous highest ever total of \$68.2 billion in 2014.
- The volume of sales (number of transactions) declined by 2% year-on-year to 38.1 million.
- In 2015, the US was the largest art market with a share of 43% of the value of the global market, followed by the UK with 21% and China with 19%.
- Sales in the US were the best performing worldwide, increasing by 4% over 2015 to their highest ever total of \$27.3 billion. The Chinese market experienced a significant decline, with sales dropping 23% to \$11.8 billion and in the UK sales fell 9% to \$13.5 billion.
- In 2015, private sales by dealers and other agents accounted for 53% of the market by value, with public auctions accounting for 47%.
- In 2015, sales of art online were estimated conservatively to have reached \$4.7 billion, up 7% year-on-year and accounting for 7% of all global art and antiques sales by value.
- In 2014, imports of art and antiques reached a total of \$24.7 billion, their highest level in history, coinciding with the peak in art market sales that year. The US and UK accounted for a combined 61% of all world imports of art and antiques.
- World exports of art and antiques also reached by far their highest level in 2014, at \$27.5 billion, with the UK and US together accounting for 65% .

1.1 Art Market Overview

The global art market achieved total sales of \$63.8 billion in 2015, falling 7% year-on-year from its previous highest ever total of \$68.2 billion in 2014. This was the first year of decline since 2011 and came as the sectors of the fine art market which had led the rapid expansion of sales up to 2014 cooled.

The market returned to just below the level seen in 2007, when after several years of booming sales, it reached \$65.9 billion. The art market then suffered two years of decline in the fallout of the global financial crisis, losing 40% of its value in the two years between 2007 and 2009. Strong sales, particularly in China, then led the market to a speedy recovery in 2010 and 2011, but this momentum was temporarily lost when sales in the Chinese market contracted in 2012. Since then, the US has been the major force for growth and the market there has reached unprecedented levels of sales, running counter to the declining trend in 2015, with another strong year of positive growth for auction houses and dealers. China has again been a drag on growth over 2015, and Europe has remained patchy and largely stagnant.

Despite the global decline in 2015, the value of the art market has increased by 78% over the last

decade, and by 61% from its recent low in 2009. While the change to a negative trend in 2015 could indicate a cooling in the global market, particularly in certain sectors, some slowdown was inevitable. As sales reached a much higher level during the last ten years, it has become harder to maintain continued growth, particularly in a supply-limited art market. This has caused an unavoidable slowdown as some sectors struggled to keep up the pace. The sales increase that the market experienced between 2012 to 2015 (of 12%) would have taken an annual increase of nearly twice that percentage back in 2005, or nearly three times the amount in 2002, in order to achieve the same absolute advance in sales. Therefore the bigger the market becomes, the harder it is to keep growing at as fast a rate.

The volume of sales (number of transactions) also declined by 2% year-on-year to 38.1 million. While the volume of fine art auction transactions fell much more dramatically in many sectors, decorative art auctions saw a lower annual decline, and dealers, on average, experienced low but positive growth in the number of transactions (of 5%). The slower decline in the volume of sales than of values indicates that decreasing prices in some sectors also explain the fall in the overall value of the market.

Table 1a The Global Art Market: Value and Volume of Transactions

Year	Value (\$m)	Volume (m)
2005	\$35,903	28.2
2006	\$54,425	32.1
2007	\$65,875	49.8
2008	\$62,020	43.7
2009	\$39,511	31.0
2010	\$57,025	35.1
2011	\$64,550	36.8
2012	\$56,698	35.5
2013	\$63,287	36.5
2014	\$68,237	38.8
2015	\$63,756	38.1

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1.2 Sales and Market Share

Although its leadership was temporarily challenged by China in 2011, the US has been the largest market by value for the last 20 years. In 2015, it cemented its position again with a market share by value of 43% of the global market, and the margin between it and the other leading markets widened. The top three markets (the US, UK and China) maintained a stable majority of 83% of the value of total sales.

Table 1b Growth in Sales in the Global Art and Antiques Market

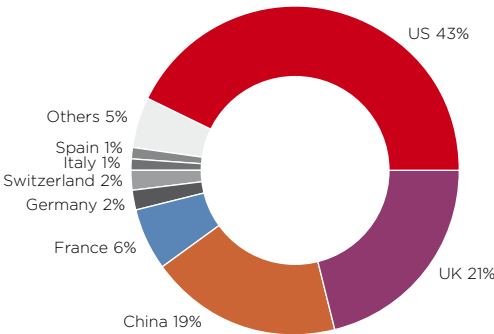
Year	Change in Value	Change in Volume
2005/06	51.6%	13.8%
2006/07	21.0%	55.1%
2007/08	-5.9%	-12.2%
2008/09	-36.3%	-29.1%
2009/10	44.3%	13.2%
2010/11	13.2%	4.8%
2011/12	-12.2%	-3.5%
2012/13	11.6%	2.8%
2013/14	7.8%	6.3%
2014/15	-6.6%	-1.7%
2005 - 2015	77.6%	35.2%
2009 - 2015	61.4%	23.0%

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The US's market share grew 4% year-on-year as sales continued to grow amidst declines in the majority of other markets in Europe and Asia. Sales in the US were the best performing worldwide, increasing by 4% over 2015, their third consecutive year of growth, and reaching a high of \$27.3 billion, the highest ever total to date. Although the US market was badly hit in the global recession in 2009, with sales reduced to half their size in the two years from 2007 to 2009 (to a low of \$12.1

IN 2015, THE US
CEMENTED ITS
LEADING POSITION
WITH A GLOBAL
MARKET SHARE BY
VALUE OF 43%

Figure 1a Global Art Market Share by Value in 2015



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billion), it bounced back strongly and quickly, and has increased 126% in value since that point. Over the decade from 2005 to 2015, the US market has kept pace with the overall market (and has heavily influenced its performance) with a 77% increase in value over ten years.

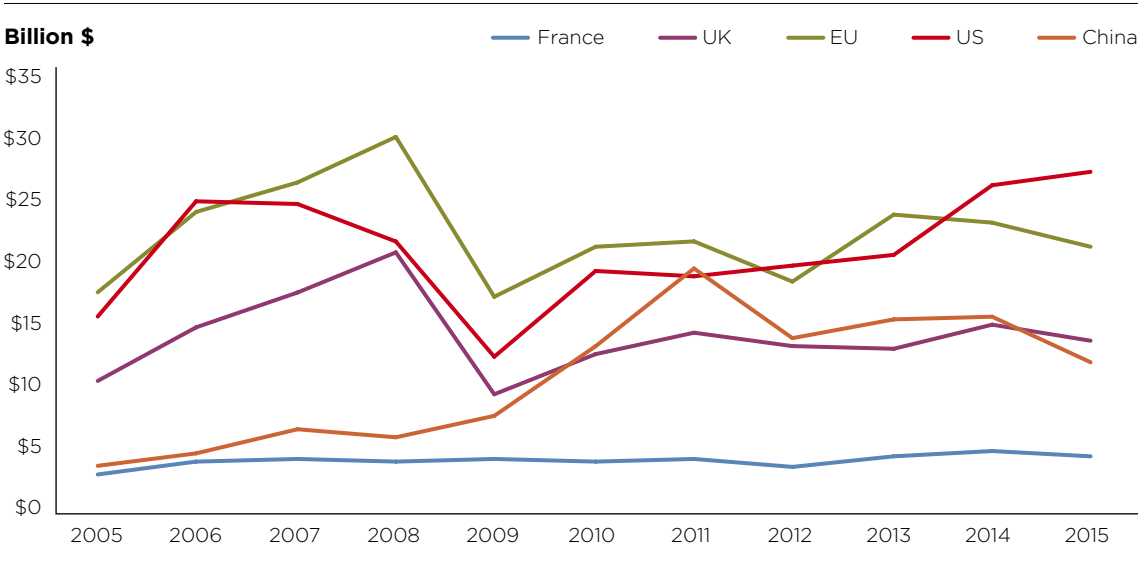
China, on the other hand, lost 3% market share year-on-year, and ceded its position in 2015 as the second largest art market, accounting for 19% of global sales, just behind the UK. As is evident in Figure 1b, the path of growth of China’s art market has differed considerably from other markets. When most Western markets hit their lowest points in 2009, China was taking off on an unprecedented boom, which peaked in 2011 with sales of \$19.5 billion. At this point sales had grown close to five times their size in five years, making China the largest market worldwide by a small margin that year. A sharp decline of 30% in sales in 2012 reinstated the US in premier position, and in the intervening years, growth in the Chinese market has been much more subdued. From 2012 to 2014 China remained significantly smaller than the US but ahead of the UK, which was third in the global ranks. In 2015, against a backdrop of economic contraction and uncertainty and poor sales in many sectors of the auction market, the Chinese market experienced a significant decline, with total sales dropping 23% to \$11.8 billion.

Table 1c Global Market Share of the US, UK and China 2006 to 2015

Share of:	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
US	46%	38%	35%	31%	34%	29%	33%	38%	39%	43%
UK	27%	27%	34%	23%	22%	22%	23%	20%	22%	21%
CHINA	8%	9%	9%	18%	23%	30%	25%	24%	22%	19%
Rest of World	20%	26%	22%	28%	21%	18%	19%	18%	17%	17%

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Figure 1b Sales in Major Markets 2005 to 2015 (Billion US\$)



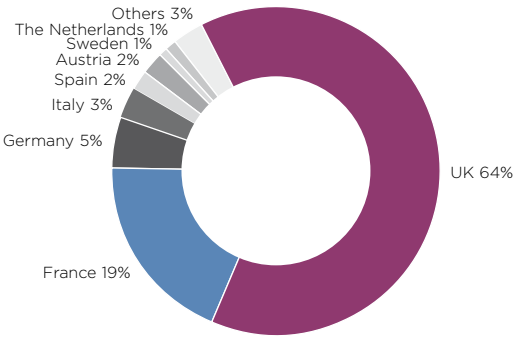
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Despite a fall in global market share of 1%, the UK regained its position as the second largest market worldwide in 2015, with a 21% share of global sales by value. After a strong year of sales in 2014, the trend changed direction in the UK in 2015, and sales fell 9% in value to \$13.5 billion. Although sales have recovered better than in some other European markets from their low point in 2009 (when sales in the UK dropped to \$9.0 billion), the UK's recovery (of 51% from 2009 to 2015) is less than half the rate of growth in the US in the same period (126%). Sales in the UK also remain 35% below their historical peak of \$20.9 billion in 2008.

Elsewhere in Europe, sales were mixed. In France, the fourth largest market worldwide with a stable share of 6%, despite a positive year for some of the major auction houses, aggregate sales fell by 6% to just over \$4 billion, the market's first year of decline in three years. The EU as a whole also saw a decline in sales of 8% (to \$21.3 billion) and its share dropped by one percentage point to 33%.

Within the EU, the hierarchy of sales has remained relatively stable, and the UK was once again the largest market by a considerable margin. The UK accounted for 64% of all sales in the EU, while France remained in second place with 19% share and Germany in third place with 5%.

Figure 1c EU Art Market Share by Value in 2015



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According to estimates in 2015, there were just over 310,400 businesses involved directly in buying and selling fine art, decorative art and antiques worldwide, including auction houses, galleries and dealers. Alongside these distinct businesses there was again an increasing number of consultants, agents and other intermediaries involved in transactions in the market. (The economic impact of these businesses is discussed in Chapter 5.)

The breakdown between public auction sales and private sales varies widely between countries and between the different sectors of the market. In 2015, private sales by dealers and other measureable private agents had a larger share of the market on aggregate at 53% by value, with public auctions accounting for 47%.

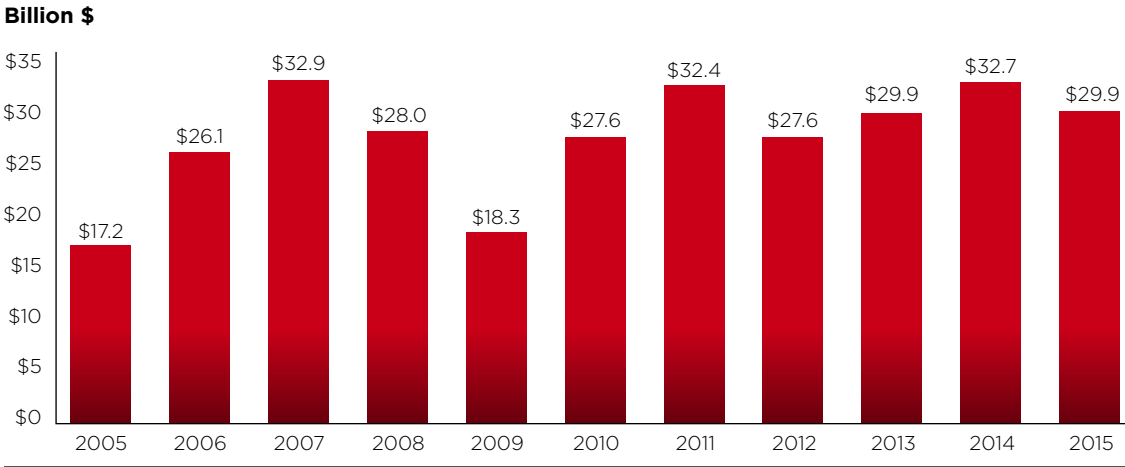
1.3 Auction Sales

Sales at public auction of fine and decorative art and antiques accounted for 47% of the global

market in 2015. In the top-tier auction houses, fine art accounted for an average of 69% of the value of sales, in the second-tier 55% and in the lower-tier houses around 30%. These ratios vary widely between countries and are based on the averages aggregated across all countries in 2015.

Auction sales reached \$29.9 billion in 2015, dropping 9% year-on-year, following two years of growth. Like the market as a whole, global public auction sales boomed up to 2007, with strong

Figure 1d Global Auction Market 2005 to 2015



© Arts Economics (2016) with data from Auction Houses, Artnet and AMMA

increases in the value and volume of sales, but they fell 44% in the two years from 2007 to 2009.

While the Chinese market was instrumental in supporting the recovery during the period from 2009 to 2011, strong fine art sales in the US drove the market from 2012. Despite the fall in total values in 2015, the market has increased in size by 64% in the years since 2009, and over the longer-term has expanded 74% in the decade from 2005.

Christie's and Sotheby's continued to dominate the auction sector, with a combined 42% share of the auction market, stable on 2014 (based on their public auction sales only). The two had a greater share in many art market sectors also, accounting for close to 70% of the value of the Post War and Contemporary market in 2015 and 72% of European Old Master painting sales.

Christie's reported total sales of £4.8 billion (\$7.4 billion), down 12% on 2014 when the company had achieved a record high of \$8.4 billion, but remained the leading house in this sector worldwide. This included \$6.5 billion in public auction sales and \$851 million in privately brokered art sales, representing 12% of their total sales (down 6% on the share of private sales reported in 2015). The remaining sales (less than 1%) were online sales, which they reported

had increased in value by 11% year-on-year, with a 10% increase in buyer numbers. They also reported that 80% of the buyers transacting via this channel in 2015 were new to Christie's, underlining the continuing importance of the online channel in expanding the global customer base of traditional auction houses.

Sotheby's total sales at public auctions reached \$6.0 billion, down marginally on 2014, which was also a record high for the company. They also generated private sales of \$673 million or 10% of the auction and private sales total. Christie's, as a private company, does not release information on its revenue from sales, however Sotheby's reported that their adjusted net income for 2015 was estimated to be between \$138 million and \$142 million, compared to \$142 million in 2014, with some of the decline or lack of growth attributed to losses on guaranteed sales. Many of the highest value lots sold at Christie's and Sotheby's were sold under guarantees in 2015, including the much publicised \$500 million guarantee offered by Sotheby's for the sale of the collection from Alfred Taubman's estate, the former CEO of the company.

China's Poly Auction was the third largest auction company with public auction sales (as reported by AMMA¹) of just under \$1.4 billion in 2015, 76%

¹ AMMA is Art Market Monitor of Artron. Data is reported to Arts Economics in January each year and pertains to all data available and reported to AMMA by December 31st of the previous year.

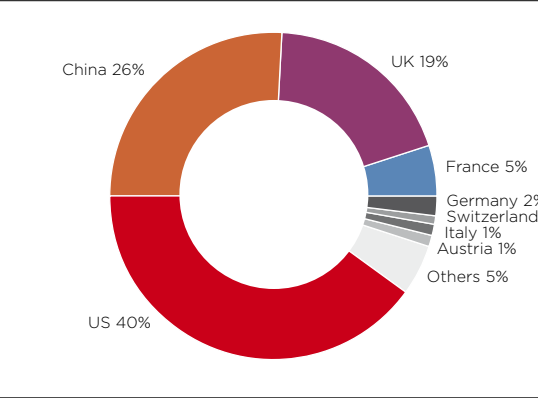
of which were in Beijing and a further 20% in their Hong Kong branch opened in 2012. Poly Auction's total sales increased by 12% (in US dollar terms) year-on-year despite the market slowdown in China.

The next largest houses worldwide included Heritage auctions, with sales of \$875 million, down 10% on the results of 2014 which had been their highest total to date (\$969 million). Bonham's was again among the top-tier houses with sales of close to \$786 million,² and China Guardian reported sales of \$716 million, down 13% in US dollar terms on 2014 levels.

All of the top-tier houses engaged in private sales in 2015. However while these have been generally escalating in previous years, they declined on average, and in some cases significantly, in 2015, with the average among the top-tier auction houses falling from just over 20% to 15% year-on-year. For the smaller and second-tier houses, the level of private sales is generally lower, however the survey of the second-tier houses showed an increase year-on-year from an average of 4% in 2014 to 11% in 2015. (These second-tier houses reported that on average 76% of their sales were made at public auction and the remaining 13% were online.³)

Geographically, the global share of auction sales is even more concentrated in the three major markets of the US, China and the UK, which accounted for a joint share of 85% of total sales in 2015, down 1% in share year-on-year. While the US remained the largest market with a share of 40% by value (up 5% year on year), China's share of 26%, despite falling 5% year-on-year, kept it in second place in the global ranks ahead of the UK. The UK's share fell 1% to 19% (and the share of the EU as a whole was 30%).

Figure 1e Auction Market Global Share by Value in 2015



© Arts Economics (2016) with data from Artnet, AMMA and various auction houses

² Sales in 2015 were extracted in Euros and reached €708.2 million, down less than 0.5% in Euro terms on 2014 (€710 million).
³ Auction houses were asked to report sales made online, not simply including online bidding. However, some of these included sales made via third party platforms, which in some cases, may have meant that there was also an offline sale taking place. This is in contrast to the figures supplied by top-tier houses, where they reported only their online-only sales.

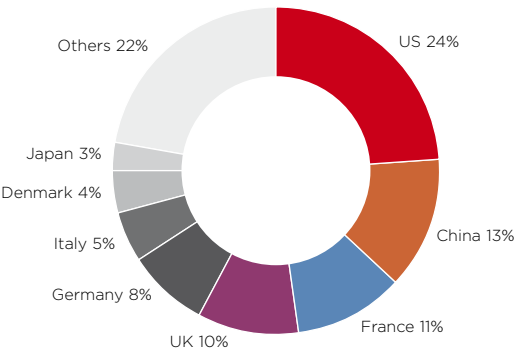
The interpretation of any analysis of the volume of sales in the global fine and decorative art market is somewhat more difficult than the analysis of the value of sales. Many auction houses sell large volumes of decorative art and collectibles that can vary widely over time, between sales and between countries. Therefore to compare market share between countries on a consistent basis, the fine art auction sector can provide a better benchmark for comparison.

After a relatively stagnant period for two years (despite rising values), the number of fine art auction transactions fell 18% in 2015.⁴ The US had the largest share of fine art auction sales with 24% of transactions (up 4% on 2014), followed by China with 13% (down 6% annually).⁵ France, with an 11% share, was slightly higher than the UK, and experienced a slight drop in share (by 1%) year-on-year. Most national markets experienced a decline in the volume of auction sales in 2015, ranging from a 6% drop in the UK to over 20% in France and China. The US was again a notable exception with the number of transactions at fine art auctions rising slightly (by 2%).

A Note on the Chinese Auction Market

After three years of stagnation, the Chinese auction sector witnessed a significant decline in 2015, falling 23% year-on-year (in US dollar terms)

Figure 1f Fine Art Auction Market Global Share by Volume in 2015



© Arts Economics (2016) with data from Artnet

to \$7.8 billion. This was the lowest level of sales since 2009, and returned the market to nearly half its peak in 2011.

After a dramatic boom in sales from 2009 to 2011, which escalated China to the top of the global ranks in the art market, the trend changed in 2012, with a sharp contraction in sales of 35%. While a recovery of sorts began in 2013, sales continued at a much more moderate pace of

⁴ This data is based on the volume of auction sales as reported by Artnet. Artnet's database only cover works with estimates above \$500, therefore excludes a large volume of lower value works. Please see the Appendix for information on the different data sources.
⁵ This market share by volume is based on data from Artnet. Artnet gather fine art auction data from Chinese auction houses in Mainland China and Hong Kong. The transactions are considerably less than the 196,997 reported by AMMA as they exclude decorative art and collectibles and Taiwan, and do not report data from all of the smaller regional houses covered by AMMA. AMAA also have no restriction on inclusion based on estimates as in the Artnet data.

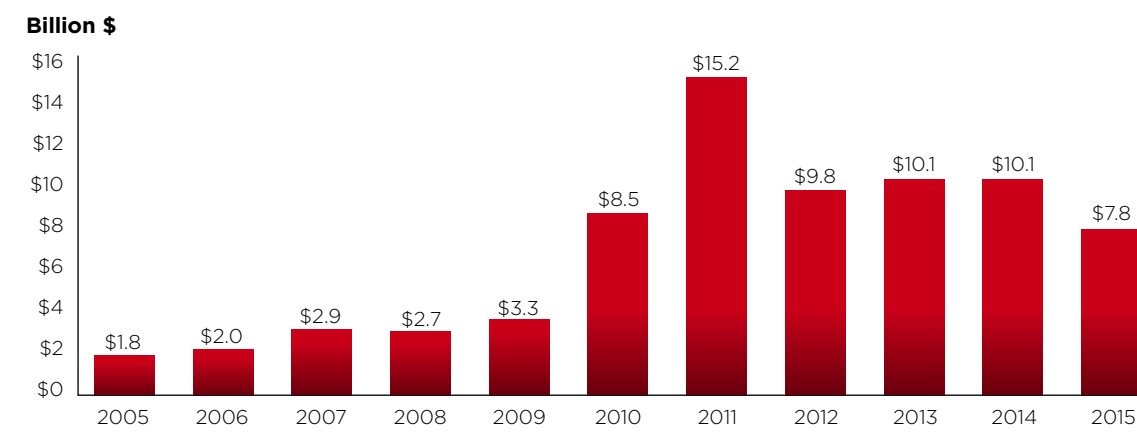
growth, and buying was generally a lot more cautious across all sectors. However, the decline in 2015 was the most substantial since 2012, and was driven by a significant fall in sales values (and volumes) in the fine art auction sectors.

Chinese painting and calligraphy, the largest sector of the Chinese art market with a 47% share of sales, experienced the largest decline, with total sales values falling 31% in 2015, while the number of lots sold also fell by 40%. After two years of growth, the value of sales in the oil painting and contemporary arts sector also fell 17%, with the volume of lots sold also down 24%. Unlike Western markets, this sector is the smallest, only accounting for 11% of the total auction market by value, and significantly smaller than the decorative arts sectors. Ceramics and other wares (which accounted for 35% of sales in 2015) performed the best, albeit with sales rising by just less than 0.5%. This sector has also seen the highest growth over ten years, expanding in value by over 690% (versus less than half that rate for the fine art sectors). Despite these mixed results, all sectors have still seen very significant growth over ten years (expanding by 200% or more), and despite the recent decline, the market as a whole grew in value by over 330% between 2005 and 2015.

THE DECLINE IN CHINA'S AUCTION MARKET IN 2015 WAS THE MOST SIGNIFICANT SINCE 2012, AND WAS DRIVEN BY A SUBSTANTIAL FALL IN FINE ART SALES VALUES



Figure 1g Auction Sales in the Chinese Auction Market 2005-2015



© Arts Economics (2016) with data from AMMA

The volume of transactions in the auction market in China also fell by 31% in 2015, the largest decline recorded in the market to date, and an even steeper drop than in 2012, when transactions decreased by 20%. From 2005 to 2011 the numbers of transactions increased by more than 200%, but in the years since then, growth in volumes has been uneven and generally more restrained.

The large majority of collectors in China still lean towards their traditional culture, with markets for tea and incense hugely popular. Along side

these traditional ceremonies, porcelain, ceramics, Chinese eaglewood (and traditional paintings) have become the focus of the new upper middle classes entering the market. Ceramics and other wares was the only sector of the market where the number of lots sold increased, with an advance of 26% year-on-year, its sixth year of positive growth.

HNWI collectors are also sticking to very well established names, be they old or modern masters, and therefore prices at the top of the market are still strong. In the midst of the uncertain economic

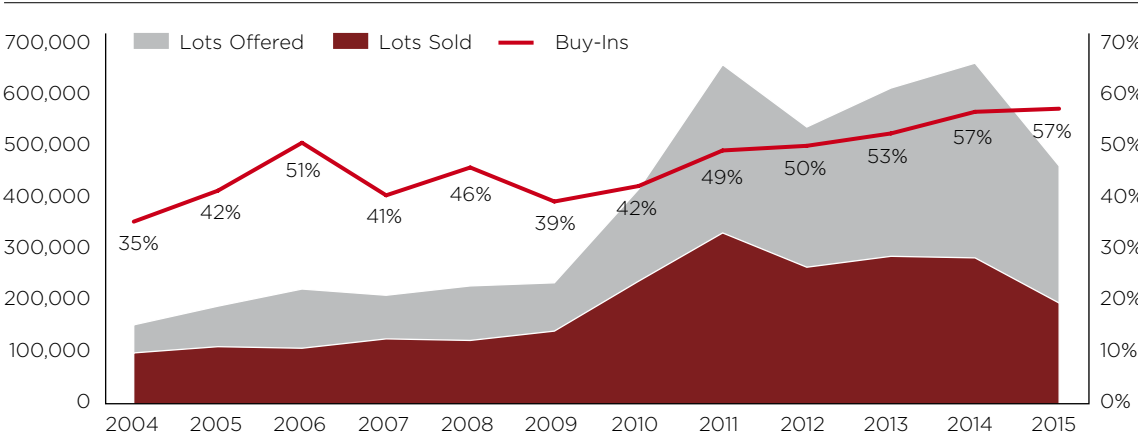
context, most auction houses have found it too risky to promote new sectors and have simply catered for the prevailing public taste, which has caused a shortage of supply of the best quality works, and hence limited volumes for sale.

Since 2012 there has also been a widening gap between the amount of works coming onto the market and those actually being sold. From 2012 to 2015, the number of works offered has dropped 14%, but with a fall of 26% in those actually sold. In the ten year period to 2015, the share of works offered

has increased at nearly twice the rate of those sold (at 143% versus 77%). In 2015, the number of works offered also dropped substantially (by 30%, also the biggest fall in the market to date), which meant that buy-ins remained at a very high 57%, 16 percentage points higher than they were ten years previously.

These high rates are indicative of concerns related to both supply and demand, with many collectors considering that there has been a lack of top quality works with well-established provenance coming onto the market in the last few years.

Figure 1h Lots Offered Versus Sold and Buy-in Rates in the Chinese Auction Market 2005-2015



© Arts Economics (2016) with data from AMMA

Aside from buy-ins, another key issue in the Chinese market is the significant extent of late payment or non-payment by winning bidders at auction. While there has been much discussion of this issue in China, and regulations are in place which state that works must be paid for within six months, the rate of non-payment at the high-end has worsened in the last three years.

According to the Annual Statistical Reports from the Chinese Auctioneers Association, in the year to June 2013, for all licensed auction houses, 30% of the lots sold for works over RMB 10 million (\$1.6 million) were not paid for within six months, an improvement of 10% on 2012. However, in 2014 this reversed, and the non-payment rate rose to 35%, and again to 36% in 2015.

According to the 2015 Report, only 37% of lots above 10 million RMB were fully paid, 27% were partially paid, and 36% were unpaid. China Guardian had the highest clearance rate (with 59% fully paid and only 28% unpaid, or 13 lots). Poly Auction had just 36% fully paid and more than half (56% or 31 lots) unpaid, while at Beijing Council, although there were no completely unpaid lots, only one third of the lots sold in this segment were fully paid for within six months. As noted in previous years, there are several reasons for high rates of late payment in the market, including

issues related to questions of authenticity or provenance, and a different culture of negotiating and transacting. While some of the larger auction houses can absorb the risks and costs that these practices entail in the hopes of maintaining long-term relationships with certain clients, it poses a much greater problem for smaller auction houses, creating severe cash flow problems. Some smaller auction houses were forced to shut over 2015, as operating costs exceeded cash flows and profit.

Although the auction market in China is somewhat less concentrated than some of the larger Western markets, where Sotheby's and Christie's account for a high share of sales, it has become more so in recent years as the top few houses take increasingly more share from the second-tier. In 2015, the top ten auction houses accounted for 63% of sales by value, up 4% in share on 2014. The top five auction houses were Poly International (17%), Christie's (10%), China Guardian (9%) Sotheby's (9%) and Beijing Council (5%). These five houses accounted for a combined 50% of the market's total sales value, up 9% on 2014.

Although many the top houses now have operations in both Hong Kong and Mainland China, sales in Mainland China have dominated by both the value and volume of sales. The margin narrowed in 2015 however: 64% of sales by value

were in Mainland China versus 36% in Hong Kong, a drop of 12% year-on-year for Mainland China and the lowest share in ten years. The Mainland's share in the volume of transactions also dropped 5% to 84%, also the lowest level in the decade to 2015.

The auction sector continued to dominate the Chinese art market, accounting for close to 70% of total sales, in marked contrast to the other major global markets where private and retail sales dominate. The remaining sales are made by galleries (primarily dealing in Contemporary art), private dealers, and sales directly from artists. While there has been great optimism that the gallery sector will expand in China and many galleries had a strong year in 2014, 2015 proved more difficult. While the small core of very large galleries all reported positive results, some small Beijing galleries were forced to close during the year and reports claim that some of those that remain were operating at a loss.⁶ This sector of the market did not uplift aggregate sales and also contracted in value during the year, and consequently remains a relatively weak spot in the market.

Chinese buyers are also having an impact on the auction markets outside China, with the major auction houses reporting increases in Chinese buyers' expenditure of 50% or more. Chinese

collectors were also been behind a number of high profile sales in 2015. One of the largest and most publicised was the sale at Christie's in November of Amedeo Modigliani's *Nu Couché (Reclining Nude)* to Chinese billionaire and owner of the Long Museum Liu Yiqan for \$170 million.

Overall, while the trends in global wealth still indicate strong potential for the long-term growth in the Chinese market and for purchasing by Chinese collectors globally, the short-term remains uncertain, with many experts believing the auction sector will continue to struggle in 2016, against a backdrop of political uncertainties and a struggling and deflationary economy.

While in Western markets a volatile stock market has in some cases led to diversification into art and other assets by risk averse investors, this has not been the case in China in 2015, and the use of art in professional portfolio management is still minimal, with few success stories to encourage new investors. In the last ten years, those hoping to make money from the art market hopped on various bandwagons: art funds from 2001 to 2007, art exchanges from 2012 to 2014 and more recently e-commerce ventures. However the majority of these have been unsuccessful and many of those that remain are currently struggling. Insiders believe that the main impact

⁶ See the Beijing Business Network's article on Chinese galleries reported on Artron.net in January 2016: <http://gallery.artron.net/20160105/n807647.html>

of the decline of the stock market in China in 2015 has been to worsen the financial situation of many of the newer middle class and upper middle class investors, most of which came into the stock market relatively late in 2015 (versus professional investors who entered at the start of the bull run in late 2014 and had time to build up significant gains before the market crashed during the summer) hence leaving them little extra discretionary spending for art and other luxuries.

Also, while the economy and the stock market may have some bearing on the art market, many experts feel that the decline, rather than being solely driven by economic factors on the demand side, is highly influenced by lack of high quality lots entering the market place. Particularly in some of the older sectors of the art market, many high quality works were sold to museums and serious private collectors in the period up to 2011, and are therefore unlikely to reappear on the market in the near future which could further prevent growth.

Finally, another factor influencing the slow down in the market in China has been China's anti-graft campaign, which was launched at the end of 2012 to crack down on corruption, bribery and abuses of power. Although it is impossible to disentangle the extent of the influence of speculative activity and graft on the market's boom up to 2011, most

experts agree it made some impact, the lack of which is now keeping growth more subdued.

The campaign has already had far-reaching effects with several investigations and arrests over the last three years, many related to the acceptance of bribes by officials and other corruption allegations. Alongside these, there has been an escalation of measures to reduce government-related indulgence, from gift-giving to entertainment. These measures had an obvious and immediate effect on some high-end luxury markets in China.

Initially the art market was not the focus of the campaign, with entertaining and other high profile gifts such as houses and cars more easily targeted. However over the last year, the art market and "yahui" or elegant bribery was also directly targeted, having been referred to as a "blind spot" of the anti-graft campaign.

The giving of gifts to government was not regulated, creating a sort of grey area in the law. However in 2014 and 2015, the government expressly stated that these types of actions could amount to bribery and would not be tolerated and the Central Commission for Discipline Inspection (CCDI) put regulations in place to forbid officials from accepting antiques, calligraphy, and paintings as gifts.

DESPITE THE SHORT-TERM SLOWDOWN, CHINA'S ANTI-GRAFT CAMPAIGN SEEMS HIGHLY LIKELY TO HAVE A POSITIVE EFFECT ON THE MARKET IN THE LONG-RUN

The results of the anti-corruption measures have been both direct and indirect. Some incumbent collectors in the art market have been investigated, while the crack down on the market generally has tarnished its reputation, potentially deterring both vendors and new buyers, all of which have had a dampening effect on the market over the last few years.

Just as the presence of illegal and black market activity may have inflated prices in some sectors and for some artists up to 2011, the crack down on corruption and the movement away from gifting has undoubtedly limited some activity and influenced growth in the market. However despite the short-term slowdown, the campaign seems highly likely to have a positive effect on the market in the long-run. A number of economic studies have shown that, rather than encouraging development, corruption tends to deter private investment, misallocate resources and create a host of other social and political issues that can threaten growth and generate poverty and income inequality.⁷

Fakes, forgeries, manipulation of prices and illegal practices in the auction market are likely to have crowded out genuine artists and collectors, and therefore the development of a

⁷ Research by Yiping Wu and Jiangnan Zhu showed that government anti-corruption measures in China had direct and positive effects on income levels within regions in China and that corruption undermined economic growth and promoted poverty. See Yiping Wu and Jiangnan Zhu (2011) "Corruption, Anti-Corruption, and Inter-County Income Disparity in China." *Social Science Journal*, Volume 48, Issue 3, September 2011.

regulatory framework, and most importantly its enforcement, will likely promote more stable growth in future through encouraging more entrants into the market, despite any short-term negative effects.

1.4 Dealer Sales

In 2015 Arts Economics conducted its annual global survey of over 6,000 dealers from the US, Europe, Asia, Australia, Africa and Latin America both directly and through dealers' associations.

Dealer sales (which in this analysis include dealer and gallery sales and also private sales within the art trade) reached \$33.6 million, down 4% on 2014, and accounting for 53% of total sales by value (with share up 1% on 2014). As always, this share varied widely between countries. In the larger mature markets, the share was generally over 55%, while in China it remained at close to 30%.

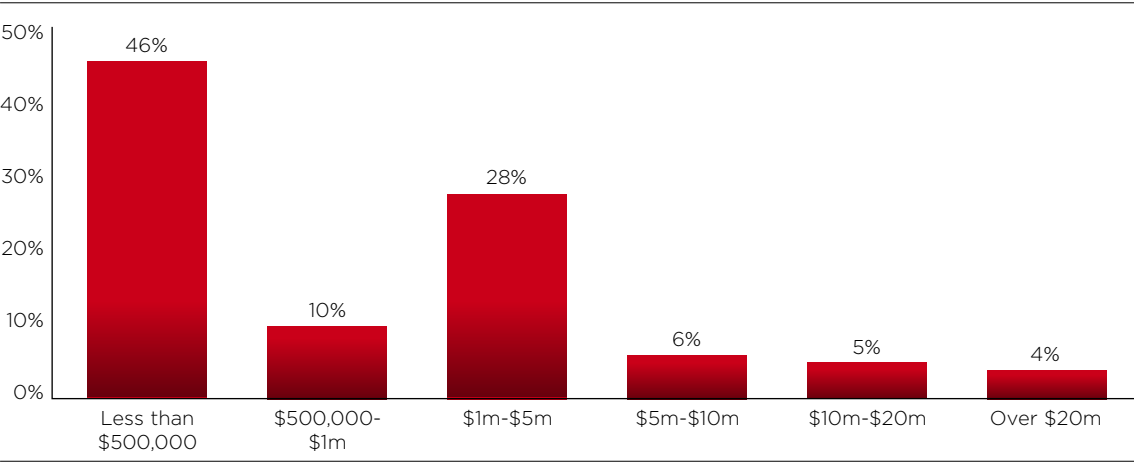
Based on the survey data (which includes only galleries and dealers, and not private sales), the median turnover for dealers in 2015 was stable on 2014 at \$625,0000. Based on the changes reported for individual businesses year-to-year, the survey indicated that some of the biggest uplifts were at the highest end of the market:

- Dealers with sales under \$500,000 reported that on average their turnover had increased 6% year-on-year.
- Dealers with sales of between \$500,000 and \$1 million reported increased sales of 10%.
- Dealers with sales between \$1 million and \$10 million reported a loss of 10%.
- Dealers with sales of over \$10 million reported an increase of 16%.

These figures indicate that the best performing sector was again the highest end of the market, and those most under pressure were in the upper-middle market with annual turnovers between \$1 million and \$10 million.

Although these results carry a significant margin of error when applied to the wider population of dealers, the positive results at the lower end are encouraging for the sector as the majority (56%) of dealers' businesses are small enterprises with annual sales of less than \$1 million. In the sample, only 4% of businesses reported sales in excess of \$20 million, although the segment between \$1 million and \$5 million was quite concentrated, accounting for 28%.

Figure 1i Share of Dealers by Total Sales in 2015



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Looking ahead to 2016, most dealers felt that their sales would either be stable (42% of respondents) or increase (35%, with 11% of those predicting significantly higher sales). The remaining 23% thought sales would decline, but only 1% thought that decrease would be significant.

There was slightly higher optimism regarding sales in the segment of dealers with turnovers of less than \$1 million (with only 22% predicting a decline in 2016), versus those with sales in excess

of \$1 million (with 45% forecasting a drop in sales ahead). Dealers in the US were also slightly more optimistic than those in Europe, with only 10% predicting a decline (versus 25% in Europe), and all of the dealers in China predicted a stable or better year ahead.

The average number of works sold by dealers in the sample was relatively stable year-on-year, dropping just 1% from 255 in 2014 to 252 in 2015, its second year of decline (from 269 in 2013).

Just like the auction sector, average volumes are often skewed by some decorative art and antique dealers, who tend to sell a high volume of smaller items. 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 2015 was more representative at 70, which increased 4% year-on-year (and has increased 17% from 60 in 2013).

Inventory Cycles

Dealers were asked how long it took on average to sell a work from their inventory. As in 2014, the period between six and 12 months garnered the most responses (31%), followed by between 12 and 18 months (20%). The annual inventory cycle did not change significantly year-on-year around these middle segments,⁸ but there was an increase in the share of dealers that had a shorter inventory cycles of less than six months (up eight percentage points to 33%) and a reduction of those with a more lengthy cycle of 18 months or more (down 12 percentage points to 16%).

When broken down by broad market sectors, fine art and decorative art and antique dealers were similar in the share of those with a short cycle of less than six months (at 30% and 32% respectively). However within fine art, just over

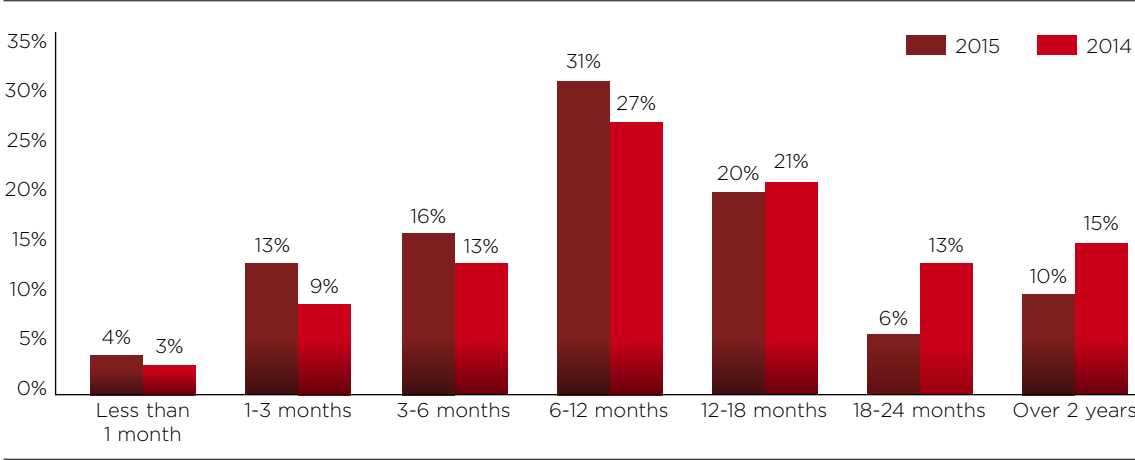
half of the Contemporary dealers had this short cycle, and 26% of those averaged just one to three months.

Fine art dealers also had the highest share in the longer cycle of over 18 months, which was the average for 24% of non-Contemporary fine art dealers and 13% of Contemporary fine art dealers, versus just 9% of decorative art and antiques dealers. This slow moving cycle of inventory could put dealers in older fine art sectors, particularly, under considerable financial pressure, resulting in cash flow problems, exacerbated by limited access to financing. Dealing with the banking sector continued to be a key issue raised by dealers, particularly in areas such as inventory financing, facilitating international transactions, and general lending. Some reported that many banks lacked any understanding of the nature and processes involved in dealing in art and antiques, and some felt that there was an increasing unwillingness to work with the profession generally.

There were no major differences in inventory cycles between dealers with turnover of above and below \$1 million. However it is interesting to note that those with turnovers of over \$10 million had a higher share (40%) with a cycle of less than six months, indicating a more active market at this level.

⁸ Note these annual comparisons are between the dealers surveyed in 2014 and those surveyed in 2015 (and not the two year responses of the same set of dealers in 2015).

Figure 1j Average Time Taken to Sell Works from Dealers' Inventory



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Table 1d Average Time Taken to Sell Works from Inventory by Sector in 2015

	All Fine Art	Contemporary	All Decorative Art
Less than 1 month	2%	3%	9%
1-3 months	14%	26%	6%
3-6 months	15%	22%	15%
6-12 months	27%	22%	36%
12-18 months	18%	14%	26%
18-24 months	8%	4%	2%
Over 2 years	15%	9%	6%

© Arts Economics (2016)

Sales Channels

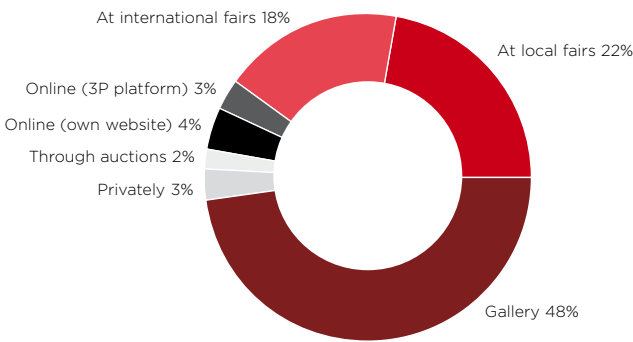
The gallery remained the most important sales channel in 2015, with an average share of dealer sales of 48%, up 2% year-on-year. While the share of sales made through this channel has undoubtedly fallen over the last ten to 20 years as the importance of fairs and online sales has risen, it has fluctuated both up and down over the last five years within a relatively narrow band (from 43% in 2011 to 50% in 2013).

Looking ahead over the next five years, 41% of the dealers surveyed thought sales through their gallery would remain about the same, 44%

thought they would increase and 15% forecasted a decrease in gallery sales.

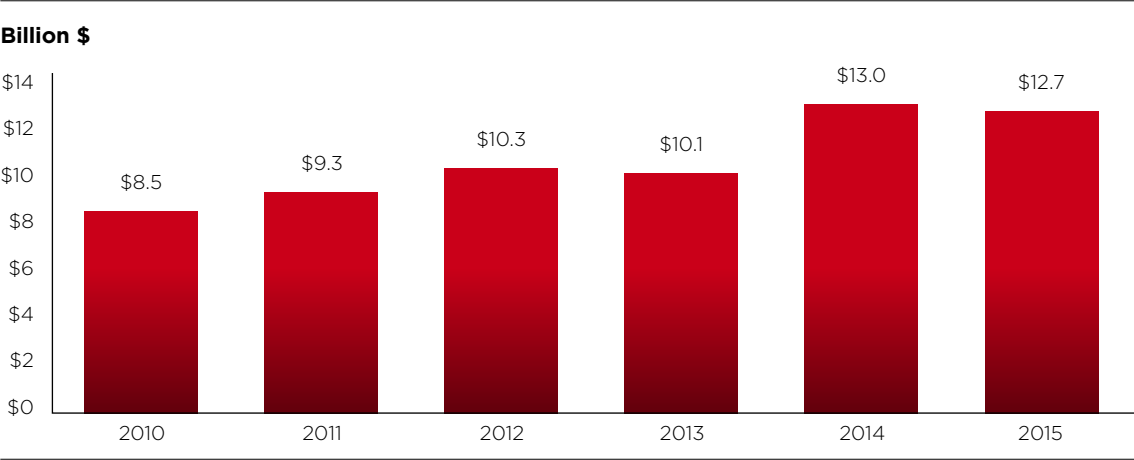
Art fairs continued to be a major part of dealers' business in 2015, representing a stable share of 40% of their sales. The share of international fairs dropped slightly (by 3%), with a concurrent rise in the share of sales made at local fairs. Although few art fairs report consistent information on their aggregate sales, based on the data reported by dealers on their share of sales made at fairs, sales at art fairs reached an estimated \$12.7 billion in 2015, down slightly (by 3%) on 2015. However, estimated art fair sales have risen by 49% since 2010.

Figure 1k Share of Dealer Sales by Channel in 2015



© Arts Economics (2016)

Figure 1l Estimated Total Art Fair Sales 2010 to 2015 (Billion \$)



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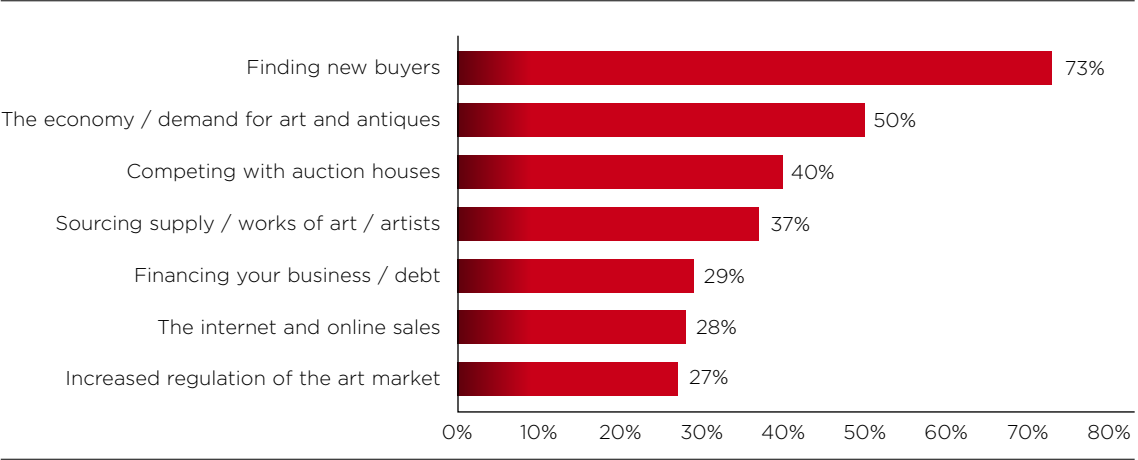
The importance of fairs varies between dealers. In 2015, 38% of the dealers surveyed made half or more of their annual sales at art fairs, while around a quarter of respondents made 20% or less. Besides sales, art fairs are also considered to be a crucial business development platform for galleries to nurture future sales and connect with networks of collectors, dealers, curators and others for business and cultural exchanges.

Looking ahead, the majority (52%) of dealers surveyed felt that sales at, or connected to, art

fairs would increase over the next five years, 33% felt they would stay about the same, and a minority of 15% predicted that they would decrease.

Finally, dealers were asked to report the three biggest challenges they faced over the next five years. The most frequently cited challenge was finding new buyers (73% of respondents), while half the sample also reported that the economic outlook and its effects on the demand for art and antiques would be one of the biggest issues they faced.

Figure 1m Top Challenges Facing Dealers in 2015



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Other challenges mentioned included dealing with terrorism and political conflicts and their effects on travel and cross-cultural exchanges, looting and restitution, forgeries, changing tastes and the move to minimalist décor in recent years, adjusting to new art forms and gallery models, and dealing with the obstacles in place in the banking sector and its attitudes towards galleries.

1.5 The Online Art Market

The online sector continues to be a focus of attention in the art market and a relative bright

spot. As technology has advanced and e-commerce has become an everyday part of nearly all retail industries, interest in buying art online has escalated, and dealers, auction houses and other agents have met this demand through various different business models and access points.

In 2015, sales of art online were estimated conservatively to have reached \$4.7 billion, or around 7% of global art and antiques sales by value. These are made up of online sales by traditional offline dealers and auction houses,



plus estimates for companies selling on their own account (but they do not include revenues or commissions of third party platforms). Estimates for online sales growth in the luxury market as a whole have been set as high as 23% per annum⁹. The annual growth in this sector was just 7% year-on-year, which although less than forecast, still represents a relatively strong result, set against the backdrop of declining aggregate art sales.

In the traditional auction and dealer sectors, online sales have grown to account for an increasing share of the sales. As noted in Figure 1k, in 2015 dealers reported making 7% of their sales online, 4% of which were via their own websites and the remaining 3% were via third party (or 3P) platforms. The most popular online platforms used by dealers responding to the survey in 2015 were Artnet, 1stDibbs, Artsy and eBay. The share of online sales by dealers was up 1% year-on-year, its second year of modest increase in share, however it has fluctuated in the last few years, peaking at 13% in 2010. The share of 7% reported in 2015 does however include those dealers who made no sales at all online. Looking only at those dealers who reported making sales online, the average share of online sales in their annual sales totals was 12% (ranging from 1% to 55%).

Of those dealers making sales online, the majority of their sales (52%) were to completely new buyers (up 6% on 2014), while 19% were to regular buyers (that had not been to the gallery or met the dealer in person, also up 3% year-on-year). The remaining 29% were to existing buyers who had already had offline contact with the dealer or the gallery, down from 38% in 2014, and indicating an increased use of the internet to access galleries by buyers. Most dealers were optimistic about online sales: 58% thought they would increase over the next five years, 38% felt that they would stay the same and 4% anticipated a decrease. Similarly 53% expected their sales via third party platforms would increase, 44% felt they would stay the same and 3% thought they would decrease.

In the auction sector, transactions solely via the online channel remained low for most top-tier houses, averaging less than 1%, with the exception of some houses such as Heritage that engage much more deeply in this sector with a share of around 30% of their total sales in 2015. While sales for some of the larger houses remain low, the online channel remains an important access point in the search for new buyers.

Auction houses have pursued slightly different approaches to the online sector, with many entering a range of partnerships and

⁹ Estimates from McKinsey for the online luxury market from 2013 to 2018.

collaborations. Announced in 2014, Sotheby's and eBay began their first live streaming auctions in 2015. Sotheby's also collaborated with Artsy for the online *Input/Output* auction sale, which represented Artsy's first major auction house partnership. Christie's collaborated with newly launched platform DePury for the sale of the Lambert Art Collection in October, which totalled close to \$23 million, with five lots selling for over \$1 million.

For many second-tier auction houses, online sales are more significant. According to the survey of this sector, online sales accounted for 13% of total sales on average, down 2% on 2014, but still more than double the share in 2013. For some respondents however, these sales include sales via third party platforms, which can mean that (in some instances) a physical offline sale may also take place (versus the reported share by the top-tier which includes only online only sales). Respondents reported that over half of these sales (8%) were made through third-party platforms, and the remaining 5% through their own websites. Online 3P platforms or auction consolidators often host online auctions with inventory from third party houses, while some provide access to online bidding for the offline auctions of third party auction houses or simply direct traffic to members sites. These platforms have been crucial

in enabling access to online selling for smaller auction houses that may not have had sufficient budgets to develop their own e-commerce facilities. They include Invaluable, iGavel, ATG's thesaleroom.com and others, many of which have experienced very rapid growth in recent years. Invaluable, which signed a partnership with eBay for access to their member site in 2014, has seen sales hosted through their site more than double in 2015, with over 4,000 auction house members. These companies have become brands in their own right and are increasingly the first point of contact for those searching for items online, rather than simply being the technology behind the traditional auction houses as in the past.

Similarly in the dealer sector, platforms partnering with galleries have become the key focal point for buyers and collectors to communicate and purchase. One of the most successful gallery platforms in the sector is Artsy, which saw the number of hosted galleries and institutions working on its platform roughly double in 2015. The platform now has material from over 4,200 galleries, 600 museums and 60 art fairs, and more recently a small number of auction houses including Sotheby's. These gallery and auction platforms, apart from generating revenues through commissions, subscriptions and various other channels are gathering huge, extremely

valuable banks of information and insights into collector demographics and interests which they can use. While some have covered all aspects of the art market, others have successfully focused on niche areas, such as Ocula for Asian art, or become leaders in broad sectors such as 1st Dibbs for decorative art and design.

Apart from the traditional businesses selling online, there are also a number of online retailers (1P retailers) and auction platforms selling on their own account. Some of these businesses, although still coming from a relatively low base, are growing at very rapid rates. In the online auction sector, Auctionata saw its sales more than double in 2015 (to \$80 million) while Paddle 8 also saw an increase of 100% in its revenues from auction and private sales.

According to a survey of a sample of about 50 online companies in 2015, 1P retailers had a positive year, with an average rise in sales of 47% by value. However nearly one third of respondents had flat or negative sales, and the relatively high aggregate increase is the result of exceptional increases from the remaining respondents, implying that success has not been across the board.

The survey also indicated that there was a relatively high and increasing turnover of items in

the online sector. The average volume of works sold by online companies increased 39% in 2015. The inventory cycle also tended to be much shorter than the traditional offline sector, with 88% of respondents reporting that the average length of time works remained in their online inventory was six months or less, while 50% stated that it was around one month or less.

Although there were many individual higher priced works sold during the year, most sales in the online market remain at a relatively lower price level. According to those companies surveyed in 2015, 44% of their transactions were at prices below \$1,000, and 97% were for less than \$50,000. In terms of value, the largest single segment was between \$10,000 to \$50,000 and sales below \$50,000 dominated (accounting for 83% of total values).

However, some companies did note an increase in their maximum sales price in the last two years. Around half of the respondents reported that their price ceiling had increased in 2015, with a further third reporting that it had remained relatively stable.

About 50% reported that sales between \$1,000 and \$5,000 had been the most profitable for them in 2015, with the remainder fairly evenly

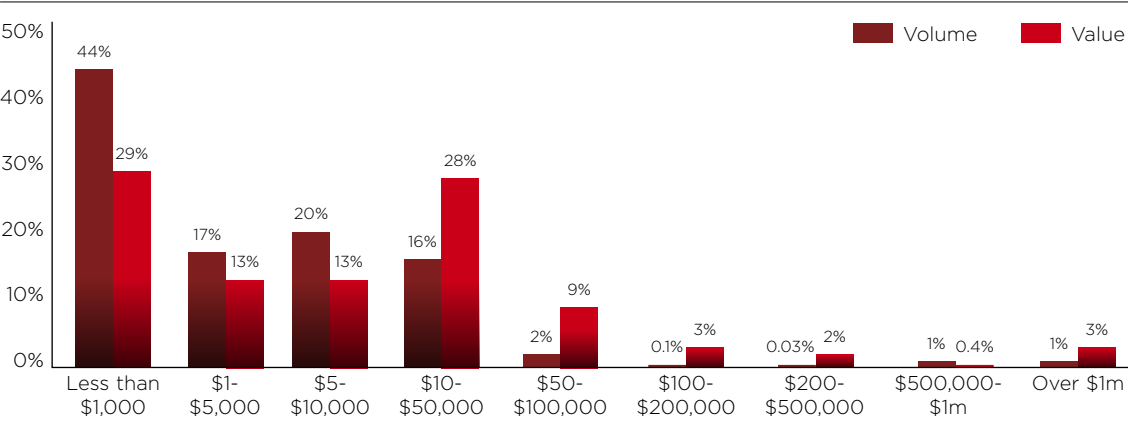
split between the segments between \$10,000 and \$50,000 and less than \$1,000. Most companies (80%) felt that their sales would be higher in 2016, with 70% predicting a significant increase.

Some of the main challenges cited by these online companies centred on securing new clients and finding ways to develop repeat business in the face of increasing competition and consolidation in the market. Many were focusing on ways to improve the user experience, lower acquisition

costs, develop infrastructure that has been lacking in the sector, improve knowledge and understanding of online marketing and developing their mobile business.

One of the main challenges for all of the companies in the online space is securing more website traffic, whether it is for e-commerce or other models of business. Table 1e shows some of the key indicators for a selection of the main sites involved in e-commerce in the art and antiques market in 2015.¹⁰

Figure 1n Share of Sales of Online Companies by Price Level



© Arts Economics (2016)

¹⁰ These statistics are derived from the two main web analytics databases, Alexa and Similar Web which both provide a large sample of data from current websites. Each database has a number of measurement and accuracy issues and only shows snapshot at a point in time only (extracted in early 2016), and it is important to note that some of these indicators change rapidly. Social media statistics are taken directly from the companies and not from these databases.

In terms of art-specific sites, the highest global rankings were art.com (which includes posters and non-original prints) and 3P platform 1stDibbs, as well as auction consolidators liveauctioneers.com and artnet.com.¹¹ Excluding the general platforms, Artnet had the highest overall traffic per month (in January 2016) with an estimated 2.5 million visitors, followed by auctionzip.com, the-saleroom.com and 1stDibbs. It is important to note that some sites with relatively low visitor numbers are not necessarily less successful, as they are built on a more focused area of the market or an exclusive business model, targeted at attracting only specific visitors rather than higher volumes.

Christie's led the bricks-and-clicks in terms of monthly website traffic (measured in January 2016), followed by Heritage Auctions. The importance of auction consolidators for generating web traffic is clear in these tables, with sites such as the-saleroom.com, LiveAuctioneers

and Invaluable commanding greater visitor numbers than the major auction houses such as Christie's and Sotheby's.

In terms of user engagement metrics, companies such as 1P retailer artuner.com and 3P artfinder.com were successful in engaging users for longer. Lauritz also scored the highest among the bricks-and-clicks, with visitors spending about twice as long on the site on average than on Christies.com.

Social media is an important part of brand and reputation building for new companies in the sector. The most liked sites on Facebook of the art-specific sites was the relatively small company, s[edition], while the larger traditional auction houses such as Christie's and Sotheby's were the most successful in terms of Twitter followers. Philips, Paddle 8 and Artspace.com on the other hand were the most popular on Instagram, which many regard as the key social media outlet in the art market.¹²

ONLINE COMPANIES REPORTED THAT 97% OF THEIR SALES IN 2015 WERE FOR LESS THAN \$50,000

¹¹ By far the highest ranked sites on most of the metrics in 2015 were Amazon, eBay and Etsy, explaining their appeal to the auction sector for partnerships. However, the statistics represent the general site statistics across all products, including art and antiques alongside other verticals, and are therefore not strictly comparable, but included to provide some context.

¹² It is important to note that social media scores can be significantly manipulated, including buying likes and followers, plus companies can legitimately buy likes via purchasing targeted Facebook advertising, which could make a new company appear to have more popularity than it would otherwise have. They are also subject to significant changes over short periods of time and are designed only to show a cross-section of values at a given point in time.

Table 1e Website Metrics: Selected Companies in 2015

a. 1P Retail								
	Global rank	Monthly Traffic January 2016 (thousand)	Page views per user	Bounce Rate	Time on site (minutes)	Twitter followers	Instagram followers	Facebook likes
20x200.com	241,008	54	5.9	36%	03:51	24.8k	4,605	28,780
art.com	10,157	2,022	7.77	35%	07:30	26.2k	5,291	349,826
artists.de	788,397	39	2.5	65%	01:21			3,546
artspace.com	122,387	215	2.39	61%	02:20	149.8k	41.6k	67,419
artstar.com	702,531	29	2.8	42%	03:17	1,664	3,446	2,767
artuner.com	1,264,218	14	4.4	32%	07:53	8,772	3,265	4,237
blindspot.com	2,035,840	533	3	43%	02:53	6,735	1,288	8,497
exhibitiona.com	1,163,372	na	2.1	59%	01:21	4,586	31.9k	4,194
eyestorm.com	1,001,306	na	2.2	45%	02:22	1,745	1,268	3,150
gagosian.com	170,755	149	3.3	36%	02:57	223.8k	340k	116,892
lumas.com	171,820	90	6.1	29%	05:45	9,403	15.7k	94,161
seditionart.com	689,337	14	3.8	49%	04:32	3,110	655	483,801
thegreyarea.com	2,537,894	na	2.3	39%	01:23	1,508	5,034	3,188

b. 3P Retail Marketplace								
1stdibs.com	12,423	2,101	4.08	46%	05:14	13.1k	175k	43,020
amazon.com	6	2,187,715	14.6	20%	14:04	2.2m	438k	26,536,430
artfinder.com	56,750	546	7	33%	08:36	24.9k	12.1k	229,820
artsation.com	7,699,238	4	1.5	na	00:33	1,786	45	26,778
artsper.com	155,395	99	5.4	43%	05:05	832	5,227	86,259
artsy.net	23,602	1,378	3.71	49%	03:38	185k	203k	89,080
artviatic.com	8,541,546	na	2	na	na	15k	na	4,551
ebay.com	20	168,111	13.29	21%	12:59	560k	157k	8,022,571
etsy.com	134	1,071,388	9.48	26%	10:02	2.6m	628k	2,351,387
lofty.com	390,321	168,111	2.3	56%	02:46	1,445	464	16,692
ocula.com	401,499	31	1.4	64%	01:18	2,115	11.9k	53,912
saatchiart.com	17,820	1,434	8.9	39%	06:27	136.8k	84.8	378,119

c. Auctions

i. Bricks and Clicks								
	Global rank	Monthly Traffic January 2016 (thousand)	Page views per user	Bounce Rate	Time on site (minutes)	Twitter followers	Instagram followers	Facebook likes
bonhams.com	44,947	533	3.82	51%	04:20	28.7k	11.7k	7,896
christies.com	20,327	1,078	5.28	46%	03:57	82.8k	138k	138,385
ha.com	29,829	962	7.4	32%	06:25	57.3k	1,252	52,486
lauritz.com	25,040	771	13.6	26%	08:10	265	3,260	30,453
phillips.com	141,336	124	4	45%	03:28	31.3k	47.6k	22,053
sothebys.com	22,519	849	5.1	39%	06:51	67.7K	189K	146,329

ii. Online Only								
artnet.com	15,711	2,500	2.4	55%	02:53	1.1m	214k	150,540
artprice.com	36,325	616	6.8	29%	04:34	17.6k		272,835
auctionata.com	105,037	158	3.6	46%	03:34	5700	1,882	34,337
paddle8.com	107,149	168	3.2	45%	03:14	39k	37.4k	35,430

iii. Consolidators								
auctionzip.com	14,641	2,180	15.6	19%	09:11	4,002		30,038
barnebys.co.uk	241,492	169	5	58%	01:20	1,156	8,725	24,112
bidspotter.com	113,994	357	9.2	30%	10:13	949	14	543
drouotlive.com	444,324	55	1.4	49%	01:33	5,072	2,075	59,959
igavelauctions.com	456,387	42	6.5	42%	05:57	691	208	1,156
invaluable.com	18,945	1,220	7.9	36%	08:37	1,782	840	40,825
liveauctioneers.com	15,180	1,742	7.17	37%	07:30	1,719	289	12,099
lotprive.com	516,567	na	2.5	46%	02:12	337	na	3,293
lottissimo.com	7,801,432	na	1	na	na	24	na	496
the-saleroom.com	23,554	2,151	7.7	37%	07:15	3,891	na	4,094

©Arts Economics (2016) with data from Similar Web, Alexa, Facebook, Twitter and Instagram. Data measured in December 2015 apart from monthly visitor traffic, which refers to January 2016.



An interesting new trend in the online space that began in 2014 was a consolidation of the competitive landscape, with Leon Black's acquisition of Artspace (2014), Demand Media's acquisition of Saatchi Art for \$17 million (2014), and Christie's acquisition of Collectrium for \$16 million (2015). 2015 also saw several rounds of refinancing of existing players (such as Paddle8 and Auctionata), but a relative shortage of noteworthy new entrants, aside from De-Pury.com.

One might be led to wonder whether the frenzy of activity of the past few years surrounding the online art space might not have subsided or reached a plateau of maturity, without much disruption having occurred, as anticipated to the traditional sectors. "Disruption" and "democratisation" were the two most promised outcomes in the art market by many of the newly emerging online companies. However, for the most part, the majority of online players are just doing the same thing online that is already being done offline, with the new online channel complementing traditional offline channels. By making fine art and contemporary art more accessible to new audiences, there certainly has been a trend towards democratizing art. However, there has not been any significant signs

of disruption, in the sense of a radical overturning of the incumbent offline art market. A reduced volume of innovation alongside consolidation and refinancing, the cooling of high growth emerging markets (especially China), and even the maturing of the technology boom, have all led some to believe that "the burgeoning of the online art space", in terms of the proliferation of new companies, may be slowing or has stopped.

1.6 The Cross Border Trade in Art

Trade statistics come primarily from the United Nations Comtrade Database and Eurostat, and are only made available with a lag of 12 to 18 months in the case of many countries. For consistency and to follow reporting of 2013 data in the previous TEFAF Art Market Report, 2014 is analysed here, as it is the latest full year with a complete set of trade data.

The scale and value of cross-border trade in art is a strong indicator of the state of the global art market. Based on the most recent complete year of data (2014), after six years of growth, the global exchange of art between international borders reached its highest ever level.¹³ The findings mirror the fact that 2014 was the highest year ever for sales in the art market.

¹³ Data is reported as sourced in US dollars. The UN database is expanded and added to as new countries improve and add their data, which can cause slight changes year-to-year.

The advance in value is in part the result of rising prices for fine art, with paintings and sculpture consistently accounting for the vast majority of the value of works internationally traded. Fine art accounted for a share of 78% of the value of all global imports of art and antiques and 84% of exports in 2014.

Imports

In 2014, imports of art and antiques reached a total of \$24.7 billion, with reported trade flows between 144 countries. Global imports rose 3% year-on-year in US dollar terms , and, after five years of growth, reached their highest total in history.

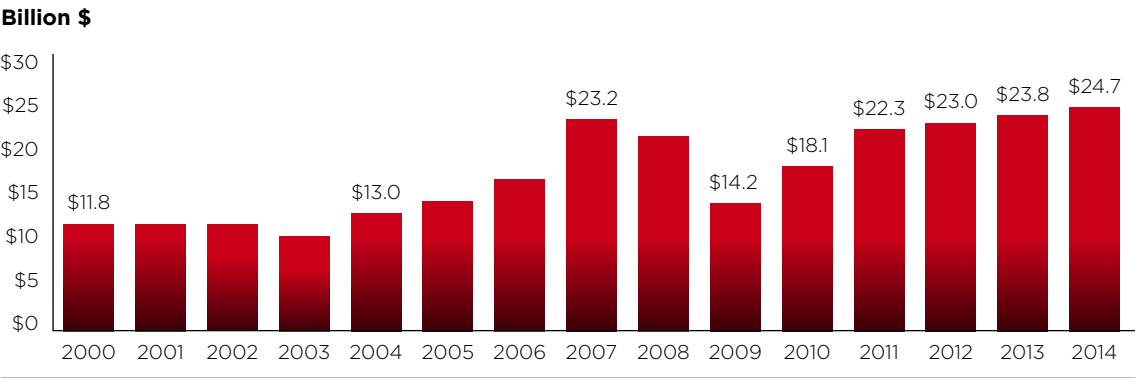
In the decade from 2004 to 2014, imports rose 90% in value, whereas domestic sales in the art market rose by 124%. This indicates the importance of domestic sales in many markets, particularly China where foreign trade is still relatively lower than more mature trade hubs such as the US and UK.

The ratio of imports to art sales in 2014 was 36%, down from 43% in 2004. While the trade in art has seen a very rapid escalation in value,

domestic sales are still larger and have grown at a more rapid pace. In comparison to trade across all industries, the art trade is slightly more domestically focused, with imports as a percentage of GDP worldwide in 2014 averaging over 50%. However this varies considerably between countries. In large domestic markets such as the US, where considerable demand is met locally, this ratio is as low as 17%, whereas in the art market, the much higher ratio indicates a considerably more international focus.

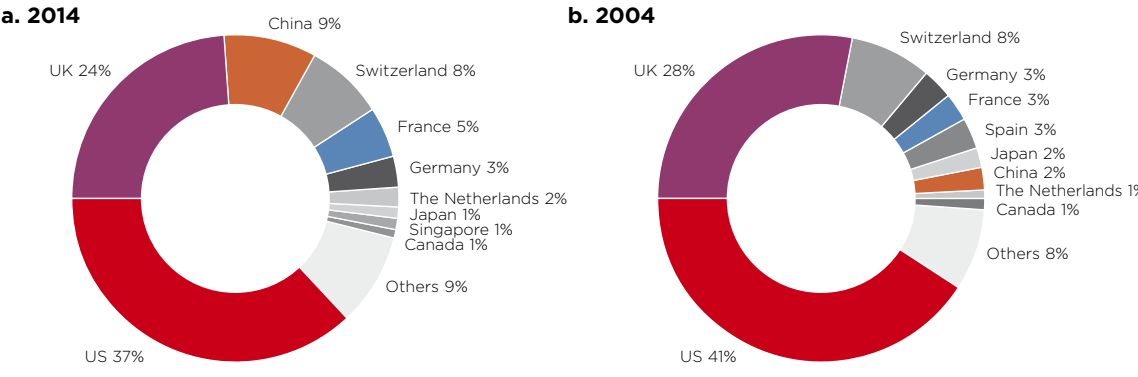
Although imports have grown steadily in many of the emerging markets, the global entrepôts of the London and New York remain the main centres for the international trade in art and antiques. The US was by far the largest importer of art and antiques in 2014, and alongside the UK, accounted for a combined 61% of all world imports of art and antiques, down 1% on 2013. This has decreased somewhat over the decade (from 69% in 2004), as other markets, such as China, have increased their share in world trade. China's imports have rapidly expanded in recent years, with their share of world imports increasing from just 2% in 2004 to 9% in 2014.

Figure 1o World Imports of Art 2000 - 2014 (Billion \$)



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Figure 1p Share of the Value of Global Imports



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Exports

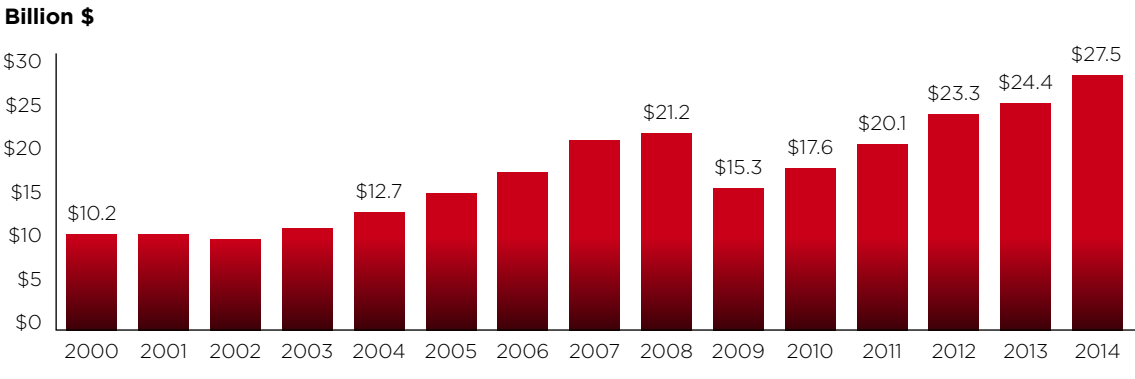
World exports of art and antiques also reached by far their highest level in 2014, with \$27.5 billion in art and antiques exported from 139 reporting countries around the world. Exports grew 12% in value year-on-year, and, like imports, after five years of consecutive growth from 2009, reached an historical peak,¹⁴ and, and have more than doubled in the ten years from 2004 to 2014.

Again, the UK and US together accounted for the majority of the value of art and antiques exports, with a combined share of 65% (up 5% year-on-

year), with the US having the largest share as it has for most of the recent past. The dominance of these two markets has also been a constant trend over the last decade and more, with a similar share of 64% in 2004.

Other notable exporters of art and antiques included Switzerland, France and China, whose combined share (20%) remained fairly stable year-on-year. China has seen particularly strong growth in exports over the decade, with its share of value rising from 1% to 5% of the global total.

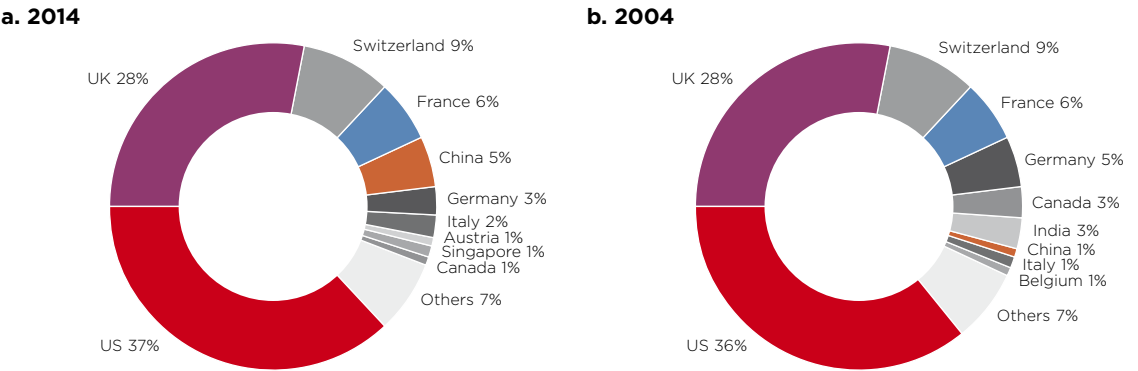
Figure 1q World Exports of Art 2000-2014 (Billion \$)



©Arts Economics (2015) with data from the United Nations

¹⁴ The data reported for art and antiques in 2014 is based on the Harmonised System (HS) of tariff nomenclature, which is the internationally standardized system to classify traded products. It is worth noting that a comparison of world imports and exports of art reveals a discrepancy of over \$2 billion in excess exports. Ideally bilateral trade statistics would be symmetrical between countries. However, in practice asymmetry is common for several reasons, including different national price and trade systems, exchange rates, different thresholds for recording international trade, product classification or misattribution, the treatment of re-exports and re-imports and more inconsistencies or inaccuracies in some national records. These differences are not peculiar to art and antiques, but art is among the most mismatched statistics in some regions, notably China.

Figure 1r Share of the Value of Global Exports



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AFTER SIX YEARS OF GROWTH, THE GLOBAL EXCHANGE OF ART BETWEEN INTERNATIONAL BORDERS REACHED ITS HIGHEST EVER LEVEL IN 2014

Table 1f Global Imports and Exports of Art in 2014 (Million \$, Percent)

2014	Exports (\$m)	Change on 2013	Imports (\$m)	Change on 2013	Net Exports (\$m)
Austria	\$313.7	-2%	\$229.4	10%	\$84.2
Belgium	\$184.8	56%	\$183.6	0%	\$1.1
Denmark	\$61.8	6%	\$47.2	17%	\$14.6
France	\$1,459.4	-31%	\$1,157.2	83%	\$302.2
Germany	\$842.3	-8%	\$793.7	0%	\$48.6
Italy	\$595.0	5%	\$124.4	-3%	\$470.5
Luxembourg	\$66.3	256%	\$13.1	23%	\$53.2
Netherlands	\$79.7	-26%	\$333.6	2%	-\$253.9
Spain	\$103.1	-20%	\$67.8	39%	\$35.4
Sweden	\$65.7	50%	\$44.5	49%	\$21.3
UK	\$7,748.7	12%	\$5,865.1	2%	\$1,883.6
Other EU	\$90.4	16%	\$117.7	7%	-\$27.3
EU	\$11,610.9	2%	\$8,977.5	9%	\$2,633.4
Switzerland	\$2,464.3	35%	\$1,925.0	-15%	\$539.3
US	\$10,193.0	32%	\$9,184.0	1%	\$1,009.0
Australia	\$94.9	1%	\$169.5	13%	-\$74.6
Canada	\$250.4	-13%	\$257.9	10%	-\$7.5
China	\$1,302.3	-17%	\$2,297.3	2%	-\$995.0
Singapore	\$304.5	40%	\$278.9	9%	\$25.6
Japan	\$197.9	-25%	\$322.8	13%	-\$124.9
Korea	\$113.0	-35%	\$141.9	-2%	-\$29.0
Qatar	\$62.1	-4%	\$178.9	93%	-\$116.8
Brazil	\$81.8	57%	\$65.7	26%	\$16.1
India	\$234.2	-17%	\$39.8	-20%	\$194.3
Russia	\$5.3	13%	\$19.2	4%	-\$13.9
World	\$27,003.1	11%	\$24,655.7	3%	\$2,347.4

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The US

The US was the largest international trading centre for art and antiques in 2014, with a global share of 38% of imports and exports. Although imports were relatively stable, increasing just 1% year-on-year, five years of consistent growth led them to their highest total in history of \$9.2 billion. Imports averaged a growth rate of 7% in the ten years from 2004 to 2014, expanding by 72% in total value over the period.

Exports had a much stronger annual advance (of 32%) to \$10.2 billion, their fourth year of growth from a low of just over \$6.5 billion in 2010. In the ten years up to 2014, they have averaged a growth rate of 12% per annum, and expanded by over 190% in total during that period. The very large rise in exports meant that the US became a net exporter of art and antiques in 2014. This indicates the importance of New York as a global entrepot,

with the growing importance of foreign buyers at sales in New York and in other regions in the US, who buy there and export their acquisitions.

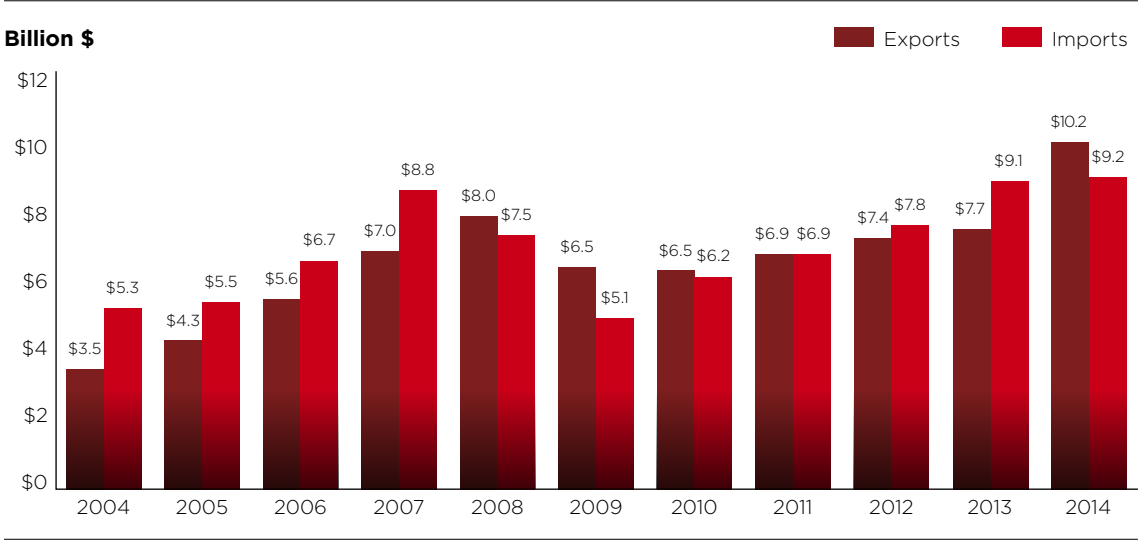
Despite exports achieving a higher growth rate over the longer term, in the period from 2009 to 2014, the advance in imports has been stronger (an 81% increase versus a 57% rise in exports). This reflects the stronger recovery in buying in the US than in some other areas.

Data from the US International Trade Commission on the first six months of 2015 indicates that trade to and from the US has continued to flourish. In the first six months of 2015, imports of art and antiques were up 21% on the same period of 2014 (and up 22% on the last six months of 2014), while exports were also up 7% on the first six months and 39% on the latter half of 2014.

THE US WAS THE LARGEST INTERNATIONAL TRADING CENTRE FOR ART AND ANTIQUES, WITH A GLOBAL SHARE OF 38% OF IMPORTS AND EXPORTS



Figure 1s US Imports and Exports of Art 2004-2014 (Billion \$)



©Arts Economics (2016) with data from the United Nations

The main sources of art imports to the US were the major markets in Europe. As in 2013, France was the largest source market by value, accounting for a 27% share of imports into the US, while the UK accounted for 18%. Trade is highly concentrated geographically, with the top five sources in Europe (France, the UK, Germany, Italy and Spain) accounting for a combined 71% of the total, while China accounted for just 4%.

The US exported the greatest amount of art and antiques by value to the UK, with a share of 29% in 2014, followed by Switzerland with 22%. China accounted for a much larger share in US exports than imports at 14%, up 6% in share from 2013. Again the top five export markets accounted for a large majority of the value of exports (with the UK, Switzerland, China, France and Germany aggregating to a share of 78%).

THE EU WAS A NET EXPORTER OF ART IN 2014, WITH A LARGE TRADE SURPLUS OF \$2.6 BILLION

Although there are many cultural, historical and economic motivations for the exchange of art across borders, international trade tends to be highly correlated with the trade in other consumer goods and with the income and per capita income of the destination countries. The US provides a useful example of how this has played out over the last two decades. With some exceptions, those countries whose imports of art and antiques from the US have grown the fastest, have also tended to be those with the fastest growing national incomes, whereas countries such as Japan that have seen much less growth, have seen a decline in imports from the US. US art imports (that is, exports from the countries listed in Table 1g) are less correlated with income, and vary in terms of growth performance between new and established markets.

Bilateral trade in art is highest between partners with higher incomes, and tends to rise in tandem with the growth in the trade of consumer goods generally. In the US this is evident for both imports and export of consumer goods, which show a correlation with the trade in art (of 80% or more) over the last ten years.

Table 1g Growth in GDP versus Growth in Trade from 1991-2014

	National GDP	Art Exports	Art Imports
Brazil	51%	11%	10%
Russia	45%	19%	16%
Nigeria	26%	35%	16%
Qatar	16%	14%	9%
China	15%	22%	13%
Argentina	14%	10%	-2%
India	13%	48%	13%
UAE	10%	26%	20%
Korea	8%	13%	9%
Singapore	7%	10%	8%
Hong Kong	5%	18%	0%
UK	5%	10%	4%
Sweden	4%	4%	4%
Austria	3%	6%	11%
France	3%	6%	10%
Germany	2%	4%	13%
Switzerland	2%	9%	2%
Japan	0%	-4%	3%

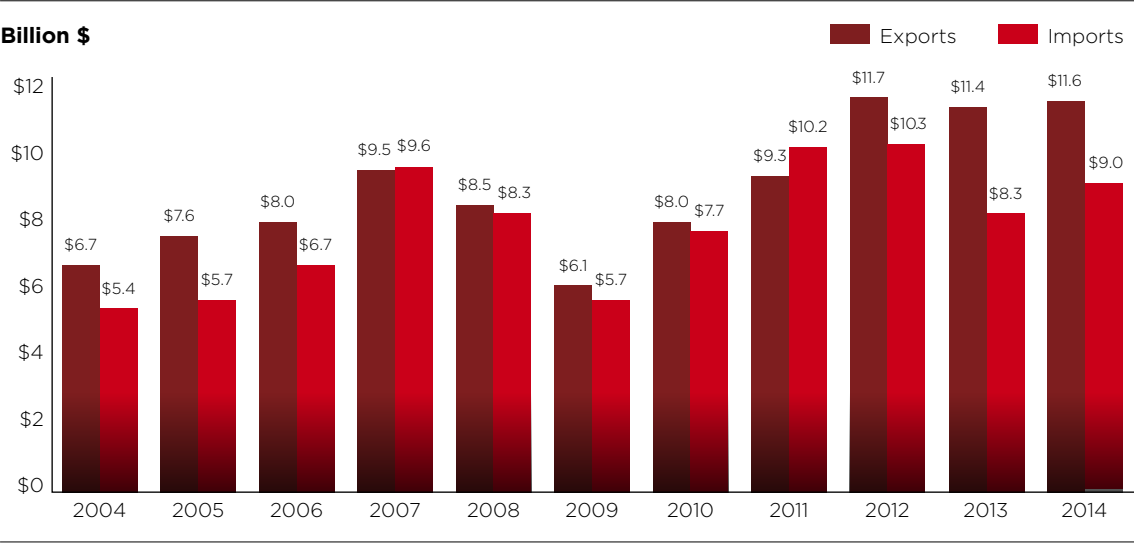
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The EU

The EU was a net exporter of art in 2014, with a large trade surplus of \$2.6 billion. Exports of art and antiques increased by 2% annually, reaching \$11.6 billion, just under their historical peak of \$11.7 billion in 2012. Exports from the EU have experienced some volatility over the decade to 2014, but still averaged 7% growth per annum and a total increase of 74% from 2004 to 2014.

Imports increased by 9% to \$9.0 billion in 2014. They had not performed as strongly as exports in the previous three years, and the significant loss in value in 2013 (of 19%) meant that they were still below their peak in 2014. Like exports, import values have still achieved positive growth over ten years, averaging per annum increases of 10% from 2004 to 2014 and a total rise of 66%.

Figure 1t Imports and Exports from the EU (\$ Billion)



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The EU’s more lacklustre performance than the US and the increased globalisation of the international art trade has meant that its share of global trade has fallen over the last decade. While imports edged up 1% in share year-on-year, they have fallen 10% since 2011. Exports lost 5% share and have fallen by 11% in the last ten years.

Looking ahead, some initial data for the first six months of 2015 from Eurostat indicates that imports remained stable in 2015 on the first six months of 2014 (and are up by 20% on the last six months of 2014). Exports showed very strong initial results, up 55% in value on the same period of 2014 (and also up 20% on the last six months of the year).

Table 1h Summary Statistics: EU Imports and Exports of Art and Antiques

	Exports	Imports	Net Exports	% World Exports	% World Imports
2004	\$6.7	\$5.4	\$1.3	53%	41%
2005	\$7.6	\$5.7	\$1.9	52%	40%
2006	\$8.0	\$6.7	\$1.2	47%	40%
2007	\$9.5	\$9.6	-\$0.1	46%	41%
2008	\$8.5	\$8.3	\$0.2	40%	39%
2009	\$6.1	\$5.7	\$0.4	40%	40%
2010	\$8.0	\$7.7	\$0.3	46%	43%
2011	\$9.3	\$10.2	-\$0.9	47%	46%
2012	\$11.7	\$10.3	\$1.4	50%	45%
2013	\$11.4	\$8.3	\$3.1	47%	35%
2014	\$11.6	\$9.0	\$2.6	42%	36%

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In terms of total values, most of the EU’s imports and exports come from and are destined for countries outside Europe. According to data from Eurostat¹⁵, intra-EU trade accounted for just 16% of total EU imports of art and antiques in 2014. This is identical to its share ten years previous in 2004. In 2014, the share of intra-EU exports was just 8%, and this also has remained relatively unchanged, falling just 2% over ten years.

These total figures are heavily influenced by the UK, which dominates values for both imports and exports, and mainly trades with the US and other markets outside Europe, acting as the entry and exit point for most external trade.

Some of the smaller countries in the EU trade more with each other. However these are a minority and the average share of extra-EU trade

¹⁵ Trade statistics reported by Eurostat are often slightly different from the UN Trade data. While the UN Statistics Division (UNSD) receives the trade data directly from the statistical offices of the member states, individual states generally maintain two different trade datasets, one based on national concept of international trade statistics, which is sent to UNSD, and another one based on the EU concept of international trade statistics which is sent to Eurostat. The main difference between these two concepts is the definition of the trading partner, with the national concept using the country of origin for imports, while the EU concept uses country of consignment (or the destination principle).

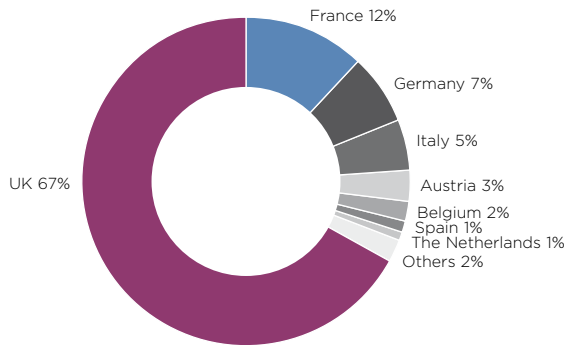
has risen substantially since the formation of the Single Market. This indicates that the Single Market has still had little effect on the location of art markets within Europe.

The UK remained the EU’s largest importer and exporter of art and antiques in 2014, with a 67% share of the value of EU exports (up 6% on 2013) and 65% of imports (down 5% year-on-year). The dominance of the UK with regard to the value of

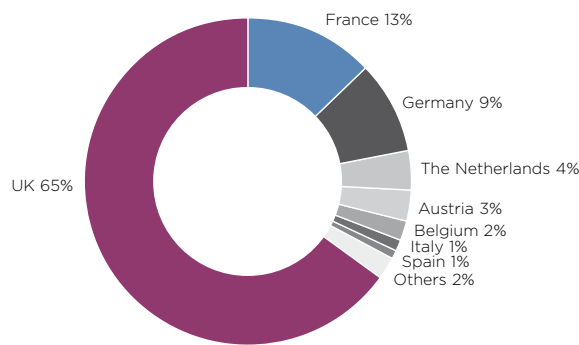
international trade has remained constant in the EU, with similar shares of 68% of both imports and exports in 2004. The UK is an important international entrepôt market and also has a significant share of global imports and exports, although these shares have declined over the last decade: the UK’s share of global imports dropped from 28% in 2004 to 24% in 2014, while its share of exports fell from 36% to 28% in the same period.

Figure 1u The EU’s Market Share of Exports and Imports by Value

a. Exports of Works of Art 2014



b. Imports of Works of Art 2014



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Both imports and exports rose in value over 2014, with exports achieving the highest rate of increase. After a substantial decline of 27% in 2013, UK imports edged up 2% to reach just under \$5.9 billion in 2014. Although they have increased by over 50% since their low point of \$3.9 billion in 2009, three years of poor performance has meant that they remained below their peak (of \$7.9 billion in 2011).

Exports saw a more substantial increase year-on-year of 12% to \$7.7 billion, their highest ever recorded level, and more than doubling in value from their low point in 2009 when the global financial crisis reduced demand from overseas buyers. Exports expanded by 69% in the ten years from 2004 to 2014, although their average annual growth rate over the period is slightly less than imports.

The main destination markets for the UK’s exports were those outside Europe, with 55% going to the US (up 6% year-on-year), while a further 21% went to Switzerland and 11% to China. Intra-EU trade on the other hand accounted for just 2% of the total exports.

The source markets for UK imports in 2014 were also largely outside the EU, and the US is again its most important trade partner and accounted

for a share of 29% (down 5% year-on-year), while Switzerland’s share was 17%. There were also important markets in Europe however, including France (14%) and Italy (8%). The Netherlands was the source of 5% of the total and China and Germany accounted for 4% each. In total, intra-EU trade accounted for 36% of the value of imports to the UK in 2014.

Due to the underperformance of imports relative to exports, the UK maintained a trade surplus in art and antiques for the second year running, having run a deficit for the previous six years from 2007 to 2012. A surplus can indicate that domestic demand was less than domestic sales, or that there was strong overseas demand for art sold in the UK. It is likely that some of the external demand is from buyers throughout the EU, who use the UK as a conduit for purchases made outside the EU, as the UK maintains the lowest import VAT rate permissible in the EU (at 5%).

Other important markets in the EU include **France**, which was the second largest trader in 2014, with a share of 12% of EU exports (down 17% on 2013) and 13% of imports (up 6% year-on-year).

French imports expanded dramatically over 2014, increasing 83% to by far their highest ever total of \$1.1 billion. This large rise meant that imports more

INTRA-EU TRADE
ACCOUNTED FOR
JUST 16% OF TOTAL
EU IMPORTS AND
8% OF EXPORTS
OF ART AND
ANTIQUES IN 2014

than doubled in value from their low of \$551 million in 2009, and have increased to nearly three times their size in the decade from 2004. Exports, on the other hand, contracted by 31% in value to \$1.5 billion in 2014, having reached an historic high the previous year of \$2.1 billion. Over the decade from 2004 to 2014, exports from France have increased in value by 77%. France has been a consistent net exporter of art since 2000, however the much superior performance of exports over imports year-on-year meant the trade surplus was significantly reduced from \$1.5 billion in 2013 to \$302 million in 2014, its lowest level in 15 years.

The largest trading partner for France was the US, although imports and exports from and to the US both fell year-on-year in 2014. Exports from France to the US accounted for a 34% share, while those to Switzerland accounted for 25% and to China, 11%. Imports also mainly came from these regions with the US accounting for 27%, Switzerland (17%), China (4%) and the UK (3%).

Germany was the third largest importer in 2014, with a 9% share of EU imports and 7% of exports (both falling slightly, by 1%, from 2013). After three strong years of growth from 2009 to 2012, German imports have been more stagnant over the last two years, with imports reaching \$794 million in 2014, an increase of less than 0.5% on

the previous year. However the generally positive momentum over five years has meant that imports have now increased by 47% since their low point of \$424 million in 2009 and by just under 100% in the decade from 2004.

Exports from Germany, on the other hand, have seen three years of consistent decline, decreasing 8% year-on-year to \$842 million. Their advance over the decade from 2004 to 2014 has been just 30%, less than half the increase in the UK or France. Like France, Germany has been a net exporter of art for the last 15 years, although its surplus in 2014 (of \$49 million), was less than half the previous year and the lowest by far since 2000.

The most significant trading partner for Germany is the US, which accounted for 32% of exports in 2014 and 41% of imports. Neighbouring Switzerland is also an important partner with 29% of exports and a stable share of 32% of imports.

Switzerland

In 2014, Switzerland was the fourth largest importer of art and antiques worldwide next to the US, UK and China, with a share of 8% of imports (down 2% year-on-year). It was also the third largest global exporter (next to the US and UK), accounting for 9% of exports (up 1%).

Exports from Switzerland grew substantially over 2014, increasing 35% to reach \$2.5 billion. This was the fifth consecutive year of rising exports, leaving them at their highest level in history (having advanced 125% in the decade from 2004).

Imports also maintained positive growth in recent years, but in 2014 this stalled, with aggregate values contracting 15% to \$1.9 billion. 2013 had been a very strong year for imports, and the level of inward trade in 2014 was still above all the years before 2013, apart from a peak year in 2007 when they reached \$2.0 billion. Imports have increased in value by 82% in the decade from 2004 to 2014.

The large growth in exports relative to imports meant that Switzerland's balance of trade in art changed for the first time since 2006, becoming a net exporter of art with a substantial surplus of over \$539 million.

Swiss exports were mainly to the other large art markets, with 49% to the US (up 14% year-on-year), 14% to the UK (half its share in 2013), and France and Germany accounted for a combined 16%. Imports were also from the US (31%), France (18%) and the UK (16%), with the Netherlands and Germany accounting for 7% each.

Although Switzerland is already one of the largest centres for trade in the international art market, some experts believe that the reported trade figures are somewhat understated. Although freeports have expanded in various parts of Asia and Europe, Switzerland remains a key international centre for the storage of art in these facilities. If a work of art is held in storage at a free port in Switzerland and then consigned elsewhere, it may not show up in the national trade statistics.

At the end of 2015, in an attempt to crackdown on money laundering and other illegal practices, the Swiss government passed an amendment to the Swiss Customs Act which came into force in January 2016, imposing stricter restrictions on freeports and widening the definition of sensitive goods for money laundering monitoring. This regulation will also allow more effective tracking of art moving in and out of freeports, and hence should improve reporting of trade flows.

In order to distinguish goods intended for storage as against those for export, under the new regulations, exporters must explicitly declare to the Federal Customs Administration of Switzerland (or EZV) if works are intended to be exported to a freeport. The identity of the buyer of the exported work must also be declared and

the process will only be permitted if the buyer has a registered office or a known home address outside Switzerland. Freeport managers also have stricter registration requirements for those storing goods at their facilities.

One of the biggest changes in the regulations was the imposition of a new six month time limit on storage of goods intended for export (although this can be extended in some circumstances by the EZV), due to the concerns that longer-term storage items are most likely to be linked to tax evasion, avoidance of trade regulations or other improper practices.

China

While many of the emerging markets have not made any significant impact on the international trade in art, China's cross border trade has grown steadily over the last ten years, and it is now the fifth largest exporter and third largest importer of art and antiques (aggregating the trade reported by both Mainland China and Hong Kong).

In 2014, imports reached \$2.3 billion, increasing a relatively moderate 2% year-on-year after a large advance of 68% in 2013. China's imports of art and antiques averaged growth rates of 32% from 2004 to 2014, increasing over 1,000% in total value over the period.

It is important to note in interpreting the data on Chinese trade that China and Hong Kong conduct a considerable amount of trade with each other. However even removing these intra-Chinese imports from both regions leaves total imports of \$2.1 billion, and keeps China ranked in third place ahead of Switzerland.¹⁶ While Hong Kong still dominates imports into China with a majority of the value, in the last two years, the share of Mainland Chinese imports has expanded dramatically, and accounted for 24% of the total in 2014 (versus just 3% in 2004).

Besides internal trade, important source countries for Mainland Chinese imports in 2014 were Thailand (39%), the US (7%) and France (6%). The US and UK are by far the most important source markets for imports into Hong Kong, accounting for 62% of the value of total imports (43% and 19% respectively).

Exports have also seen very rapid growth over the last decade. However after four years of growth, they fell 17% in 2014 to \$1.3 billion. Despite this drop in value, their growth from 2004 to 2014 has averaged 31% per annum, and they have risen over 740% during that period. Again, like imports, some of the recorded exports from Mainland China and Hong Kong are with each other. Removing this "intra-Chinese trade"

leaves total exports of just over \$1.0 billion, and its position in terms of global export share remains fifth (ahead of Germany).

Important destination markets for Mainland Chinese exports in 2014 were Japan (34%), the US (12%) and the UK (4%), while for Hong Kong, these were the US (28%), UK (21%) and Switzerland (14%).

CHINA'S CROSS
BORDER TRADE HAS
GROWN STEADILY
OVER THE LAST
TEN YEARS, AND IT
IS NOW THE FIFTH
LARGEST EXPORTER
AND THIRD LARGEST
IMPORTER OF ART
AND ANTIQUES

¹⁶ It is also important to note that there are recurring problems of diverging mirror statistics in China. While the imports recorded in Hong Kong from China are reasonably close to exports reported from the Mainland, the imports recorded in China from Hong Kong are substantially lower than the exports destined for Mainland China from Hong Kong. While differences in bilateral trade statistics are common enough due to different systems used for recording and reporting trade flows, the size of this difference would seem to indicate some underreporting of imports from Mainland China.

Table 1i Chinese Imports and Exports of Art and Antiques

	Imports	Mainland	Hong Kong	Exports	Mainland	Hong Kong
2000	\$133.2	6%	94%	\$134.1	18%	82%
2001	\$145.7	4%	96%	\$117.8	18%	82%
2002	\$160.2	3%	97%	\$150.5	15%	85%
2003	\$175.6	3%	97%	\$128.9	16%	84%
2004	\$207.7	3%	97%	\$154.8	19%	81%
2005	\$275.3	3%	97%	\$258.9	17%	83%
2006	\$395.9	4%	96%	\$294.7	22%	78%
2007	\$703.5	2%	98%	\$439.0	17%	83%
2008	\$769.7	3%	97%	\$507.0	15%	85%
2009	\$559.4	3%	97%	\$278.2	18%	82%
2010	\$810.8	3%	97%	\$452.0	36%	64%
2011	\$1,449.4	3%	97%	\$818.9	46%	54%
2012	\$1,336.1	7%	93%	\$1,010.3	53%	47%
2013	\$2,250.0	34%	66%	\$1,564.5	67%	33%
2014	\$2,297.3	24%	76%	\$1,302.3	46%	54%

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Emerging and Asian Markets

An increase in the number of global high net worth individuals (HNWIs) and advancing wealth per capita in many regions has boosted spending on luxury goods, which are purchased locally and overseas, raising both domestic consumption and imports. However, besides China, most of the other emerging and Asian markets have reported relatively low trade figures in recent years. Of

the countries listed in the Tables 1j and 1k, Japan, Korea, Qatar, Mexico and Russia have consistently been net importers of art over the last 15 years, importing up to ten times more than they export. The domestic markets in these regions are generally smaller, and the dominance of imports reflects their roles as buyers rather than as major markets for art.

Singapore and the UAE were also net importers in all years up to 2014. However a stronger growth in exports over imports, meant that both ran a trade surplus for the first time in 2014.

Brazil, India and Indonesia, on the other hand, have been net exporters of art and antiques for the last ten years. Each of these markets saw a drop in exports year-on-year, and India’s external trade has been declining over ten years. Exports from India are six times the value of imports and the local market is small and domestic.

Japan is a much more mature market than the others, and is home to one of the largest population of HNWIs worldwide, making it an important source for art buyers. This is reflected by it having by far the highest imports of the group at \$322.8 million in 2014. Besides Japan, where imports have grown at a low, positive rate, the rapid growth in imports over the last ten years is highly evident in the Table 1j, with Mexico, Russia and India averaging per annum growth rates in excess of 70%. The best performance year-on-year was the growth in imports to Mexico (up over 200%), while imports to Qatar also increased by 93%.

The largest value exporter of the group was Singapore, with exports increasing 40% to \$304.5 million in 2014, while the UAE saw by far the

largest expansion of exports annually, increasing by 394%. Many of the other markets experienced annual declines, although most have seen significant advances over the decade (with the exception of India and Mexico).

JAPAN IS HOME TO ONE OF THE LARGEST POPULATIONS OF HNWIS WORLDWIDE, MAKING IT AN IMPORTANT SOURCE FOR ART BUYERS



Table 1j Imports of Art and Antiques to Emerging Markets (\$ Million, %)

	2014 (\$m)	Change 2013-2014	Change 2004-2014	Average annual growth (2004-2014)
Brazil	\$65.7	26%	1404%	56%
India	\$39.8	-20%	5568%	167%
Indonesia	\$2.7	30%	137%	18%
Japan	\$322.8	13%	7%	3%
Mexico	\$66.1	231%	621%	38%
Qatar	\$178.9	93%	9800%	76%
Korea	\$141.9	-2%	54%	26%
Russia	\$19.2	4%	140%	73%
Singapore	\$278.9	9%	213%	31%
UAE	\$122.7	na	1221%	43%

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Table 1k Exports of Art and Antiques from Emerging Markets (\$ Million, %)

	2014 (\$m)	Change 2013-2014	Change 2004-2014	Average annual growth (2004-2014)
Brazil	\$81.8	-33%	801%	50%
India	\$234.2	-17%	-42%	-3%
Indonesia	\$9.6	-40%	132%	13%
Japan	\$197.9	-25%	198%	16%
Mexico	\$7.6	-43%	-10%	2%
Qatar	\$62.1	-4%	11556%	329%
Korea	\$113.0	-35%	62%	46%
Russia	\$5.3	13%	89%	33%
Singapore	\$304.5	40%	933%	49%
UAE	\$161.7	394%	18191%	122%

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WHILE HIGH NET WORTH BUYERS ARE INCREASINGLY GEOGRAPHICALLY DISPERSED, THE ART MARKET REMAINS DOMINATED BY A SMALL NUMBER OF INTERNATIONAL TRADING HUBS, PRINCIPALLY THE US AND UK

As noted above, Japan is a significant importer of art and is the highest value importer of the Asian markets outside China in 2014. It is clear however that in certain years relatively smaller markets such as Korea have seen a rapid, short-term advance in imports. But at this relatively lower level of value by comparison with the larger international hubs, these short-term dramatic swings in imports and exports can be due to a small number of high value transactions entering or exiting the country, rather than a signal of a change in trend.

The global distribution of wealth and the international trade in art remain closely linked. In general, wealthy nations show a much higher level of bilateral trade in art, antiques and other luxury goods. While high net worth buyers are increasingly geographically dispersed (see Chapter 4), the art market remains dominated by a small number of international trading hubs, principally the US and UK and to a lesser extent Switzerland and Hong Kong. Trade in these hubs is based on bringing together substantial enough collections of art and antiques for sale to attract both local and international art buyers, as well as fostering a concentration of knowledge, logistical services and expertise to service the market.

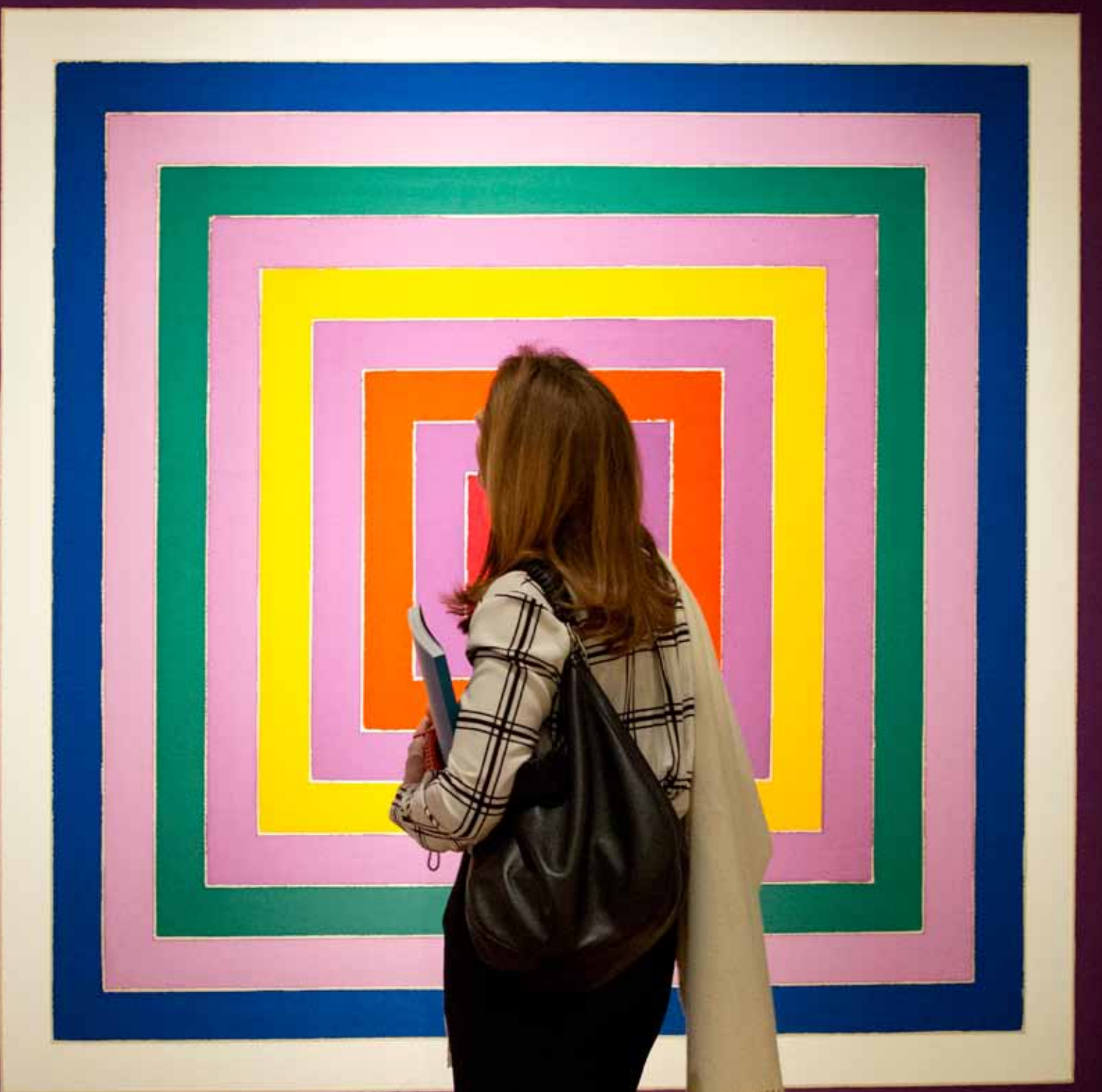
Figure 1v Growth in International Trade: Asian Markets



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CHAPTER 2

SECTORS



SECTORS

Key Findings

- In 2015 the largest sector of the fine art auction market was Post War and Contemporary art, accounting for 46% of the auction market by value and 41% of transactions.
- After two years of double-digit growth, the Post War and Contemporary auction sector slowed in 2015, with auction sales falling 14% in value to \$6.8 billion, alongside a 20% drop in the number of transactions.
- Modern art remained the second largest sector of the fine art auction market, accounting for 30% the value of auction sales and 27% by volume.
- Sales of Modern art at auction fell by 1% in 2015 in value to \$ 4.5 billion and 20% by number.
- The Impressionist and Post-Impressionist sector represented 13% of the value and volume of the fine art auction market in 2015.
- Auction sales of Impressionist and Post-Impressionist art dropped slightly by 3% to \$1.9 billion, with a more substantial drop in the number of works sold of 18%.
- The Old Master sector accounted for 9% of the value of the fine art auction market in 2015 and 11% of the number of transactions. European Old Masters accounted for 4% of total fine art sales and 6% of lots sold.
- The Old Master sector dropped by 20% in value in 2015, while auction sales in the European Old Master sector fell by 33%, despite moderate growth in the number of transactions (of 4%) .
- In contrast to most parts of the fine art market, auction sales of Chinese decorative art and antiques increased by 6% year-on-year to \$2.2 billion, while the number of lots sold fell slightly by 3%.

The key trends in global art sales are influenced by the performance of the various sectors that combine to make up the fine and decorative art market. These sectors, defined by artists, periods and genres combine to produce the national and global totals discussed in Chapter 1. They have, in many cases, performed quite differently in recent years, particularly since the market's low point of 2009. While the global financial crisis affected virtually all sectors of the market, some have recovered faster and more strongly than others, resulting in a market biased by value towards fine art, most markedly in the Modern and Contemporary sectors.

To analyse prices and sales within individual sectors, the primary source of data necessarily comes from auction sales. While dealer polling can inform analysis of the trends within sectors and the market overall, auctions are the only large-scale source of individual transaction data that is publicly available. This data is not without issues, with some companies publishing limited, selective or no results at all. To ensure the most consistent analysis, therefore, one central database, Artnet, is used. Artnet's global database covers over 1,700 auction houses in over 52 countries. For inclusion in the database, a basic criterion is that an individual work had a minimum presale estimate

of \$500. This covers all major sales in first and second-tier auction houses around the world, but does exclude a significant volume of low value works, which are prevalent in some locations. However these low value sales tend not to significantly affect aggregate trends in the overall market because the total value of sales is heavily influenced by higher priced objects.

2.1 Fine Art Sectors

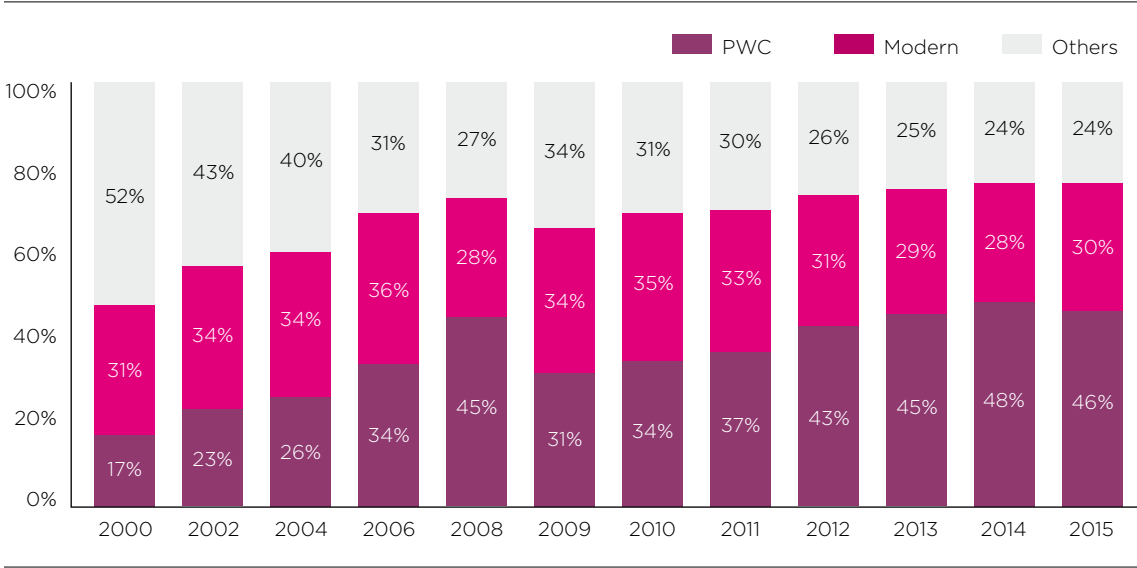
The influence of differing sectors of the art market changes slowly over time, as a result of changing demand, supply and the evolution of tastes, fashions and lifestyles. While Impressionist and Modern art works were the most popular with many collectors in the 1980s and early 1990s, the market has since been heavily dominated by Modern and Contemporary art, by reference to both their share of value and volume within the fine art sector over the last 15 years.

As noted in Chapter 1, fine art has been a clear leader of the recovery of the art market since 2009, and has dominated decorative art and antiques in terms of value for more than ten years, particularly at the high-end. In the context of fine art there have also been leaders and laggards, with Modern and Contemporary consistently dominating by value over the last five years.

At the turn of this century, Modern and Contemporary art accounted for under half of the overall value of the fine art market, with a combined share of 48%. However this increased rapidly over the next 15 years. Post War and Contemporary was the smaller of the two sectors for many years, but

in 2005 it equalised its share with Modern (at 31% each), and since then has been the larger sector of the market by value for most years (with the exception of 2009 and 2010, when Post War and Contemporary experienced a relatively greater loss in sales during the financial crisis).

Figure 2a Market Share by Value of the Fine Art Auction Market: 2000-2015



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It should be noted that a number of different definitions are used within the art trade to classify different sectors. To analyse sales performance in a consistent manner, it is therefore necessary to divide the sectors based on defined criteria, which include an artists' date of birth, date of creation of their works and also their importance to a particular movement. For the purposes of such analysis by sector, the following definitions are used¹⁷:

- a. Post-War and Contemporary, defined as artists born after 1910.
- b. Modern, defined as artists born between 1875 and 1910.
- c. Impressionist and Post-Impressionist, which are defined as artists born between 1821 and 1874.
- d. Old Masters, defined as artists born before 1821.¹⁸ Within the Old Master sector, European Old Masters are analysed separately.

In 2015, the largest sector of the fine art market, by a considerable margin, was Post War and Contemporary art, accounting for 46% of total sales values. The share of the Post War and Contemporary sector fell 2% year-on-year, with a proportionate rise in the share of the Modern art sector to 30%. Modern art was again the second largest sector of fine art sales by value, and the combined share of these two leading sectors was 76%.

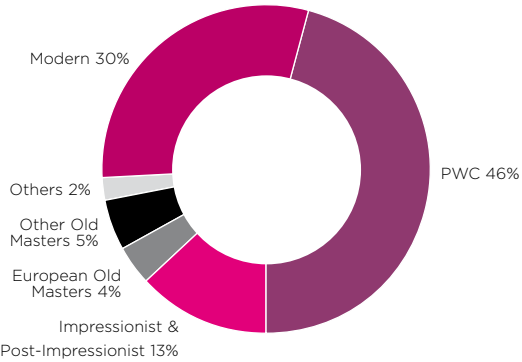
They also accounted for the majority of the number of transactions, with a combined share of 68% of the fine art market's total, also identical to 2014, as Post War and Contemporary's 1% loss in share was matched by a gain of 1% in the Modern sector.

THE LARGEST SECTOR OF THE FINE ART MARKET WAS POST WAR AND CONTEMPORARY ART ACCOUNTING FOR 46% OF TOTAL SALES VALUES

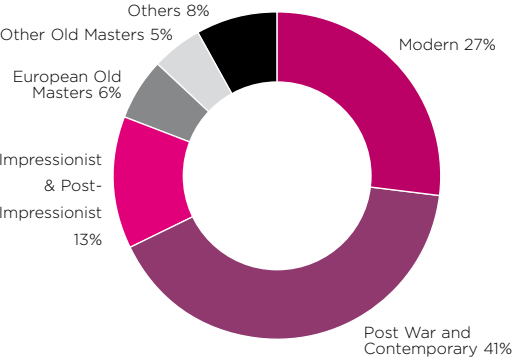
¹⁷ Most artists categorization is based on date of birth, but there are a small number of artists who are included in different sectors because of their relevance to a particular movement, for example Francis Bacon (born 1909) and Mark Rothko (born 1903) are both included in the Post War and Contemporary sector despite the cut off date of 1910.
¹⁸ More specifically, this sector is defined as artists born between 1250 and 1820, or works executed 1275-1850.

Figure 2b Market Share by Sector of the Fine Art Auction Market in 2015¹⁹

i. By Value of Sales



ii. By Volume of Sales



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2.2 Post War and Contemporary Art

Post War and Contemporary has been one of the strongest sectors of the art market since 2009, driving much of its growth and accounting for the majority of high prices at auction. It has also been one of the more volatile sectors, with expansions and contractions exceeding those of the market as a whole and many of the other sectors within it.

In 2015 it was the largest sector by both value and volume (at 46% and 41% respectively), and it

continues to be one of the fastest growing, having increased in value by 328% since 2005, or an average of 25% per year.

However after two years of double-digit growth to its historical peak of \$7.9 billion at auction in 2014, the market slowed in 2015, with sales falling 14% in value to \$6.8 billion, alongside a 20% drop in the number of lots sold. This total, which is still the second highest achieved in history, is the biggest fall in sales since 2009. Post War and

¹⁹ The "other" category includes a small number of artists born before 1275 or any artist where a birth date could not be established or there was a lack of full attribution to the artist.

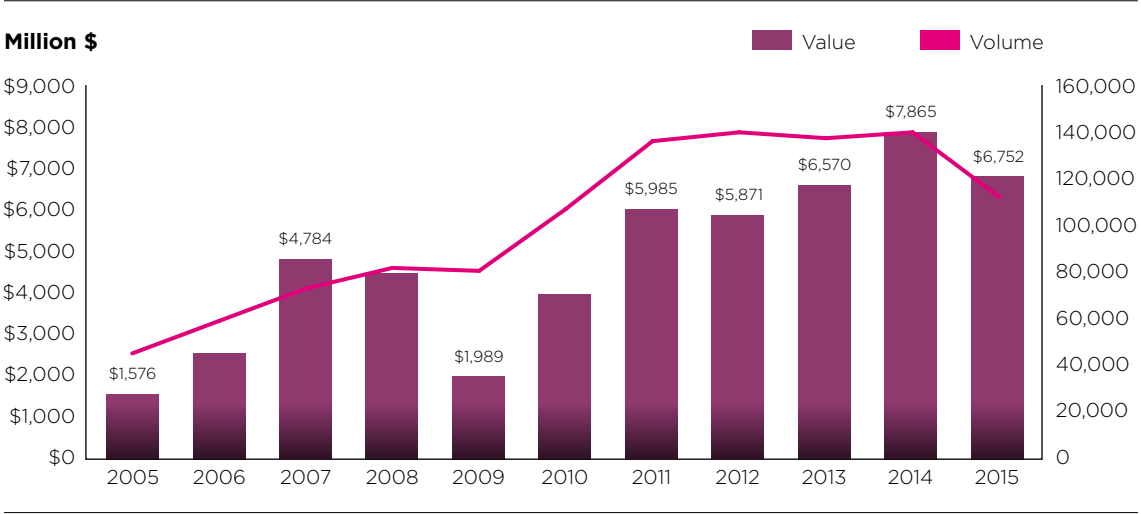
Contemporary art sales had boomed up to 2007, rising by over 200% in value in the two years from 2005 to 2007, alongside a steady increase in the number of works sold at auction. This sector became a key target for new global high net worth collectors and the primary focus of investment-driven buyers, with relatively greater liquidity and access than some other sectors. While the interest of speculators in the sector helped to drive its boom, it also made it one of the hardest hit in the recession, and Post War and Contemporary art lost 58% of its value in the two years to 2009, as the supply of high quality works on the market fell, as did prices.

From this low, however, the market rapidly gained in value, with more sales and higher prices, particularly for the narrow group of key artists

that had attracted much of the attention of new and older collectors. While the turn in the growth trend in 2015 could signal a cooling of the sector, the reality is that, just like the market overall, some slowdown was inevitable given its highly inflated size over the last decade. The bigger the sector gets, the harder it is to maintain growth at as fast a pace. For example, looking to the future, if the sector were to grow 5% in the next year, it would need to generate more additional sales than a 20% growth increase in 2005. In a supply-limited market like art, it becomes even more difficult to maintain very high sales figures year-on-year than in other industries. Although Post War and Contemporary is arguably the one sector of the fine art market where supply is somewhat replenishable, it is still limited in the short-run and particularly so at the top end.

THE US REMAINED THE KEY CENTRE WORLDWIDE FOR SALES OF POST WAR AND CONTEMPORARY ART WITH A GLOBAL SHARE OF 47%

Figure 2c The Post War and Contemporary Art Sector: 2005-2015



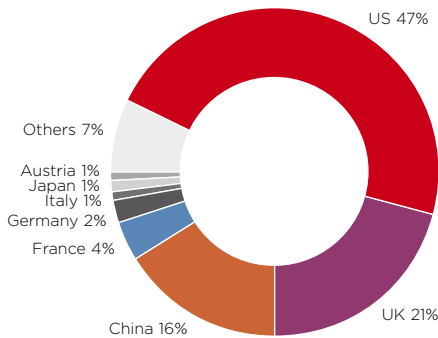
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In 2015, the US remained the key centre worldwide for sales of Post War and Contemporary art, with its global share increasing 1% to 47% by value. The UK was the second largest market increasing 3% to 21%, while China's share fell 6% to 16%. The US also had the highest share of transactions at 23%, up 3% year-on-year, while China, in second place with 12%, experienced a drop of eight percentage points.

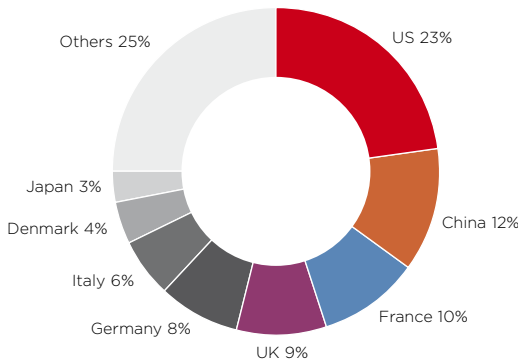
The EU as a whole accounted for 30% of the value of this sector and a larger share of the number of transactions globally, at 47%. The UK was the largest market in this sector in Europe, accounting for 71% of total EU sales values. Although the decline in share of China meant that the EU gained 4% in share, it remained below its peak of 46% in 2008. The US, on the other hand, has steadily gained share, increasing 16 percentage points from 31% in 2011.

Figure 2d Market Share of the Post War and Contemporary Sector in 2015

a. Market Share by Value



b. Market Share by Volume



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After five years of consistent and substantial growth in sales, aggregate values in the US fell for the first time in 2015, reaching \$3.2 billion, down 11% from their record high of \$3.6 billion in 2014. Sales of Post War and Contemporary art in the US increased by close to 270% in the period between 2005 and 2015 and over 340% since 2009.

After a poor year in 2013, the UK experienced positive growth in sales for two consecutive years, with total values increasing 2% year-on-year in

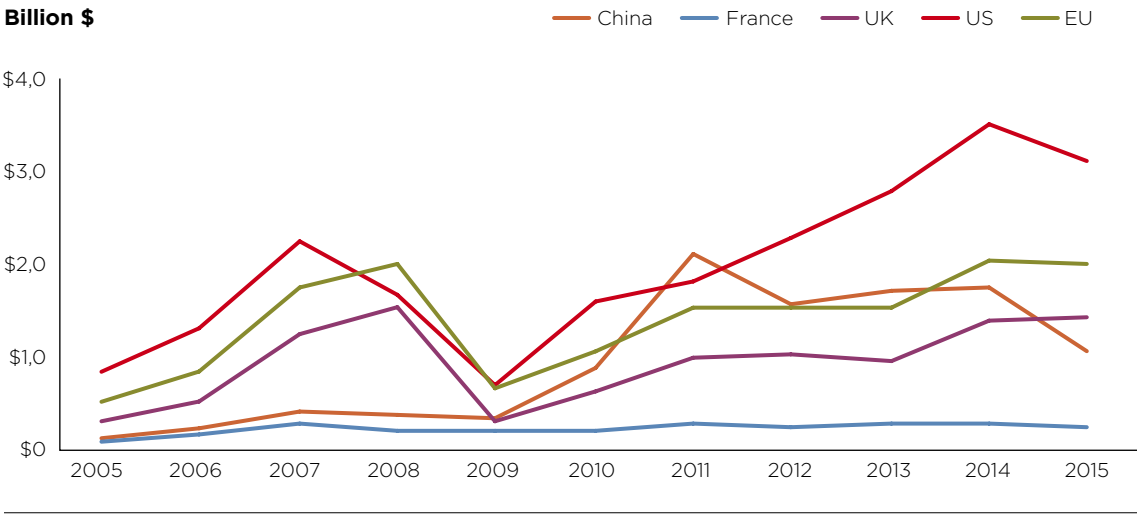
2015 to \$1.4 billion. France on the other hand, saw sales decline by 11%, its second year of negative growth, to \$256 million. In the recovery period of the market from 2009 to 2015, sales in France increased just 29%, versus a rise of 345% in the UK. Overall, the net performance of the EU was stagnant, with sales contracting slightly by 1%.

Sales in China were one of the worst performing annually, contracting 39% in value year-on-year to reach \$1.1 billion in 2015, with the volume of

sales also falling by 52%. Sales have declined 50% since their peak of \$2.2 billion in 2011, when China was temporarily the largest market for Post War and Contemporary art globally. Over the longer

term however, sales have grown substantially, with an increase in total values of over 680% in the decade from 2005 to 2015.

Figure 2e Sales in the Post War and Contemporary Sector 2005-2015



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WORKS PRICED AT OVER \$1 MILLION ACCOUNTED FOR 58% OF THE VALUE OF POST WAR AND CONTEMPORARY ART SALES BUT LESS THAN 1% OF THE NUMBER OF LOTS SOLD

Although the Post War and Contemporary sector has now become distinguished as the key centre for record, multi-million dollar prices at auction, as in most other sectors, the bulk of transactions are in reality at much lower levels. In 2015, the majority (90%) of works that were sold at auction were priced below \$50,000, with over half (54%) less than \$5,000. These transactions however only made up 12% of the sector’s aggregate value, which remains highly dominated by the top end of the market.

Works priced at over \$1 million accounted for the majority (58%) of value but less than 1% of the number of lots sold during the year. In the market above \$1 million, the US has a much larger share (with 61% of its value). It accounts for 77% of the segment over \$10 million, with 54 of the 74 works sold for over \$10 million during the year sold in New York (another 17 in the UK and the remaining three in China).

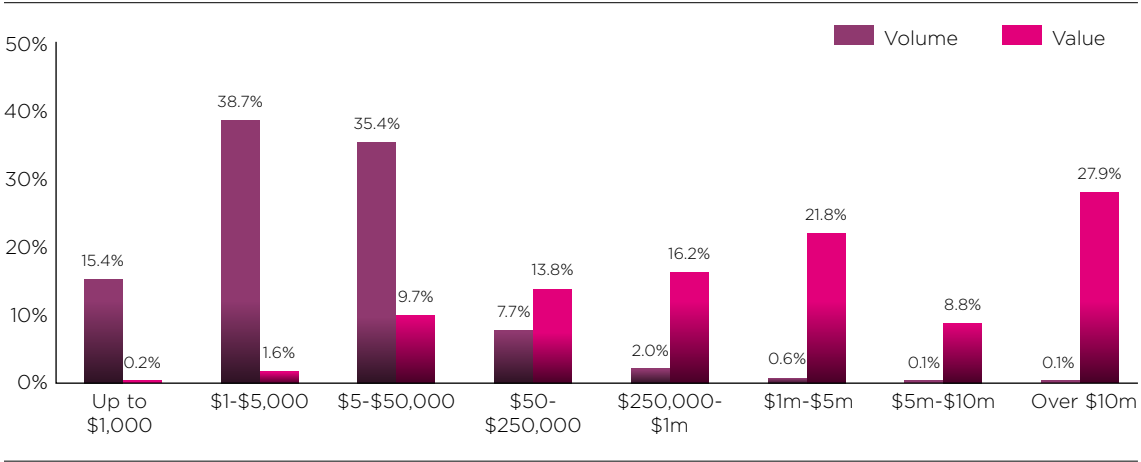
Because most of the highest priced works are sold in the US and UK, these two countries also have the highest average prices, which are double the global average and over five times those in significant mid-sized markets such as France and Germany. These averages are highly skewed by the very high priced transactions and the median, or middle price of the market, is much lower.

In all countries, the bulk of transactions were at prices of less than \$50,000. However in value terms, the segment above \$50,000 dominated in most of the larger markets. In contrast, in several smaller and mid-sized markets, such as Belgium, Spain, Sweden and Switzerland, the moderate segment below \$50,000 also accounted for the majority of value.

China is an interesting case among the larger markets in that it had one of the higher shares

worldwide (22%) of lots sold for more than \$50,000. These lots also accounted for 86% of the market’s value. China had a lower average price in the sector and is less represented in the ultra-high segments above \$5 million than the US and UK. However it has a strong upper-middle market, with the segment between \$50,000 and \$5 million accounting for half of its overall value. This stronger upper middle market is also reflected in a higher median price than the US or UK.

Figure 2f Share of Sales of Post War and Contemporary Art by Price Bracket in 2015



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Table 2a Prices in the Post War and Contemporary Sector in 2015

Country	Prices		Share of Value		Share of Volume	
	Average Prices	Median Price	Under \$50,000	Over \$50,000	Under \$50,000	Over \$50,000
Austria	\$17,434	\$4,242	41%	59%	93%	7%
Belgium	\$5,639	\$2,098	78%	22%	99%	1%
China	\$75,971	\$14,424	14%	86%	78%	22%
Denmark	\$4,173	\$1,431	76%	24%	99%	1%
Finland	\$3,127	\$1,573	95%	5%	100%	0%
France	\$22,368	\$3,983	30%	70%	93%	7%
Germany	\$11,991	\$2,918	48%	52%	96%	4%
Ireland	\$3,602	\$1,931	97%	3%	100%	0%
Italy	\$12,409	\$1,960	33%	67%	96%	4%
Japan	\$12,725	\$3,400	47%	53%	95%	5%
Netherlands	\$22,953	\$3,898	31%	69%	89%	11%
Norway	\$10,729	\$5,426	80%	20%	97%	3%
Singapore	\$33,058	\$16,072	41%	59%	83%	17%
Spain	\$5,706	\$1,897	65%	35%	98%	2%
Sweden	\$10,815	\$4,721	71%	29%	98%	2%
Switzerland	\$7,817	\$2,413	62%	38%	97%	3%
Taiwan	\$44,753	\$10,838	22%	78%	83%	17%
UAE	\$66,474	\$35,000	20%	80%	61%	39%
UK	\$143,594	\$9,125	6%	94%	79%	21%
US	\$119,368	\$4,200	5%	95%	87%	13%
World	\$58,706	-	12%	88%	89%	11%
EU	\$37,534	-	16%	84%	93%	7%

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Apart from only accounting for a tiny fraction of transactions, the highest prices were achieved for the work of a very limited group of artists. In 2015, only 32 artists accounted for sales over \$10 million, representing 0.2% of the 19,550 artists selling at auction in the sector during the year. Those selling at prices of over \$1 million similarly represents a very small share of less than 2% of artists. Most artists in this sector were responsible for works selling for less than \$50,000, with the most concentrated single segment being those priced between \$1,000 and \$5,000.

The highest selling artist in 2015 (as in 2014) was Andy Warhol, alone accounting for over 8% of

the sector’s value, with four works in the top 20 works sold at auction in this sector. The top 20 artists accounted for 45% of the value of total sales, despite only accounting for only 4% of the lots sold. Many of the names in the top 20 were identical to those in 2014, with just five new entrants (Jean Dubuffet, Lucian Freud, Sigmar Polke, Yayoi Kusama and Yves Klein). There were just four living artists in the top 20 in 2015 (Christopher Wool, Yayoi Kusama, Cui Ruzhuo and Jeff Koons).

The highest priced work in this sector auctioned in 2015 was Roy Lichtenstein’s *Nurse*, which sold at Christie’s in New York in November for \$95 million.

Table 2b Share of Artists by Price Segment in the Post War and Contemporary Market in 2015

Price Bracket	Number of artists per segment	Share of artists - all segments	Share of total artists selling in each segment
Up to \$1,000	8,465	21%	43%
\$1,000-\$5,000	15,371	38%	79%
\$5,000-\$50,000	12,219	30%	63%
\$50,000-\$250,000	3,044	8%	16%
\$250,000-\$1m	843	2%	4%
\$1m-\$5m	272	1%	1%
\$5m-\$10m	51	0.1%	0.3%
Over \$10m	32	0.1%	0.2%
Total	19,550	100% (artists in all segments)	100% (all artists)

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Table 2c Top Selling Post War and Contemporary Artists in 2015

Rank	Artist	Share of Value	Share of Volume
1	Andy Warhol	7.8%	1.2%
2	Francis Bacon	3.4%	0.1%
3	Cy Twombly	3.3%	0.1%
4	Mark Rothko	3.2%	0.0%
5	Lucio Fontana	3.2%	0.2%
6	Roy Lichtenstein	3.2%	0.4%
7	Gerhard Richter	3.0%	0.3%
8	Alexander Calder	2.0%	0.4%
9	Jean-Michel Basquiat	2.0%	0.1%
10	Christopher Wool	1.7%	0.1%
11	Zao Wou-Ki	1.6%	0.3%
12	Lucian Freud	1.5%	0.1%
13	Wu Guanzhong	1.5%	0.1%
14	Jean Dubuffet	1.4%	0.1%
15	Willem de Kooning	1.3%	0.1%
16	Yves Klein	1.1%	0.1%
17	Sigmar Polke	1.0%	0.1%
18	Yayoi Kusama	0.9%	0.1%
19	Cui Ruzhuo	0.9%	0.5%
20	Jeff Koons	0.9%	0.2%
Others	Others	55.1%	95.6%

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Table 2d Top Prices in the Post War and Contemporary Sector in 2015

Artist	Nationality	Lot Title	Auction House	Sale Price (\$m)
Roy Lichtenstein	American	Nurse	Christie's New York	\$95.4
Mark Rothko	American	No. 10	Christie's New York	\$81.9
Cy Twombly	American	Untitled (New York City)	Sotheby's New York	\$70.5
Lucian Freud	British	Benefits Supervisor Resting	Christie's New York	\$56.2
Andy Warhol	American	Coloured Mona Lisa	Christie's New York	\$56.2
Francis Bacon	Irish	Portrait of Henrietta Moraes	Christie's New York	\$47.8
Andy Warhol	American	Mao	Sotheby's New York	\$47.5
Mark Rothko	American	Untitled (Yellow and Blue)	Sotheby's New York	\$46.5
Gerhard Richter	German	Abstraktes Bild	Sotheby's London	\$46.4
Cy Twombly	American	Untitled	Christie's New York	\$42.7
Roy Lichtenstein	American	The Ring (Engagement)	Sotheby's New York	\$41.7
Mark Rothko	American	No. 36 (Black Stripe)	Christie's New York	\$40.5
Jean-Michel Basquiat	American	The Field Next to the Other Road	Christie's New York	\$37.1
Andy Warhol	American	Four Marilyns	Christie's New York	\$36.0
Lucian Freud	British	The Brigadier	Christie's New York	\$34.9
Andy Warhol	American	One Dollar Bill (Silver Certificate)	Sotheby's London	\$32.6
Cui Ruzhuo	Chinese	Landscapes (8 Works)	Poly Auction (Hong Kong)	\$30.5
Cy Twombly	American	Untitled (New York)	Christie's London	\$30.0
Christopher Wool	American	Untitled (Riot)	Sotheby's New York	\$29.9
Lucio Fontana	Argentinian/ Italian	Concetto Spaziale, La Fine di Dio	Christie's New York	\$29.2

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This sector is also highly concentrated in value in terms of sellers. The top 20 auction houses accounted for 90% of the value of sales in 2015, but only about third of the number of lots. The top five auction houses (Christie's, Sotheby's, Philips, Poly Auction and China Guardian) accounted for an 81% share of the value of the sector (up 3% on the share of the top five houses in 2014) and 20% of the transactions (also up 2% year-on-year). Christie's and Sotheby's accounted for the largest share by a significant margin, with Christie's attaining the highest individual share by value at 38% and Sotheby's at 32%.

2.3 Modern Art

Modern art remained the second largest sector of the fine art market, accounting for 30% of the value of fine art auction sales (up 2% year-on-year). The volume of transactions dropped one percentage point to 27%. Despite this increase in value and a relatively better year-on-year

performance, the sector remained considerably smaller than Post War and Contemporary, with a margin of 16% in market share (the gap narrowing four percentage points on 2014).

Sales in the sector fell by just 1% in 2015, a much smaller decline than Post War and Contemporary, reaching \$4.5 billion. The volume of sales fell more significantly by 20%. The smaller drop in values was due in part to the very high prices attained by a few artists at auction, in particular Pablo Picasso, Alberto Giacometti and Amedeo Modigliani who accounted for the three highest priced works in the art market in 2015.

The sector lost one third of its value in the years between 2007 and 2009, but recovered very strongly, more than doubling in value to reach \$5.4 billion in 2011, its historical peak. Since then the market has diminished slightly, but maintained a high and relatively stable level of sales.

MODERN ART REMAINED THE SECOND LARGEST SECTOR ACCOUNTING FOR 30% OF THE VALUE OF FINE ART AUCTION SALES

Figure 2g Sales in the Modern Art Sector: 2005-2015



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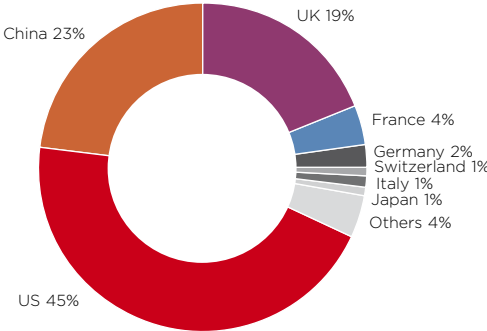
After being neck and neck with China in terms of market share in 2014, the US pulled away from the other markets to establish a clear leading position with a 45% share of the market in 2015, up 14% on 2014 and its highest market share since 2006. China's share dropped eight percentage points to 23%, which was still just ahead of the third largest market, the UK, with a share of 19% (also down 4% on 2014). The US

also had the largest volume of transactions (at 25%, up 4% year-on-year), followed by China with 14% and France with 11%.

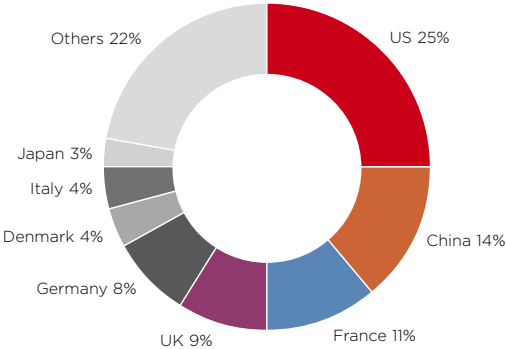
Just under half (48%) of all the transactions in the Modern sector were in the EU in 2015, although its share by value was less at 28%, down 6% year-on-year and losing 23 percentage points from its peak in share in 2008.

Figure 2h Market Share of the Modern Sector in 2015

a. Market Share by Value



b. Market Share by Volume



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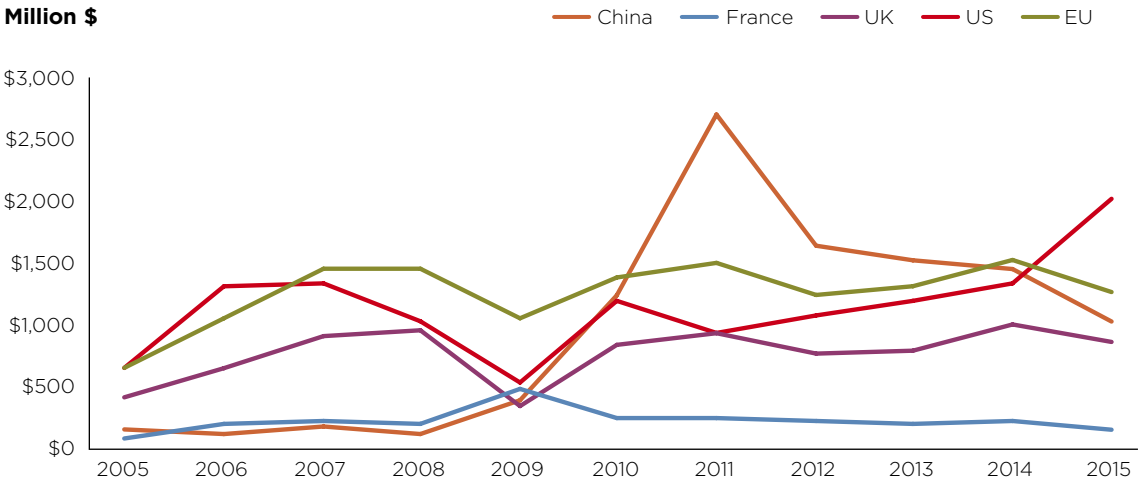
It is clearly evident in Figure 2i that the performance of sales in the US was markedly different than in all of the other major art markets in 2015. Sales in the US grew 52% year-on-year, with record prices in New York driving values upwards. After four years of growth, this led to a new historical high of just over \$2.0 billion in the US. The US has seen the strongest performance of all markets in this sector since the low point in 2009, growing in value by 275% (versus just 21% growth in the EU in the same period).

After reaching a peak of just over \$1.0 billion in 2014, sales in the UK fell 15% to \$870 million. However sales in this sector in the UK have outperformed many other European countries, more than doubling in value over the decade from 2005 to 2015. Nonetheless this is around half the growth rate of the US, and much less than the increase in China of over 500% in the same period. French sales of Modern art dropped 27% in 2015, reaching \$176 million, their lowest level since 2005, and the EU as a whole showed a decline of 16% in value.

After experiencing astonishing three-digit growth rates in the years from 2009 through 2011, the Chinese Modern market reached a peak of just under \$2.7 billion, becoming the largest market worldwide that year with a share of 50% of the value of global sales. However since then, China

has experienced four consecutive years of decline. Sales dropped 28% year-on-year in 2015 to reach \$1.0 billion, although this was still over six times their size in 2005. China's market share has increased by 13% over the decade in contrast to the EU, which has lost around the same.

Figure 2i Sales in the Modern Sector 2005-2015: Key Markets



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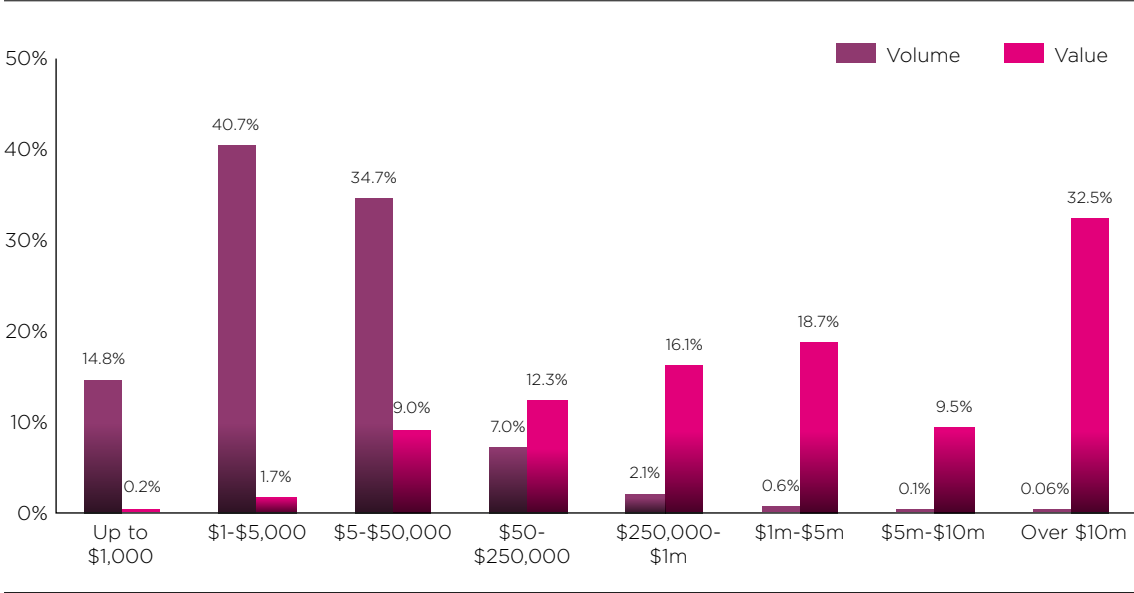
SALES ABOVE \$10 MILLION EXPANDED THE MOST AND BECAME THE LARGEST SEGMENT BY VALUE IN THE MODERN ART SECTOR WITH A 32% SHARE

While the Modern sector came into focus in 2015 for record-breaking prices at auction, just as in the Post War and Contemporary sector, the majority of the number of Modern works sold (90%) were for price points below \$50,000, despite these transactions accounting for just 11% of the overall value of the sector.

Just over half (56%) of the lots sold at auction in 2015 were at prices below \$5,000, with the largest volume of transactions in the price segment between \$1,000 and \$5,000. These works accounted for less than 2% of the total value of the sector, the bulk of which remains at the high-end.

Works sold for over \$1 million, although representing just 1% of the number of sales, accounted for 61% of the overall value (up from 48% in 2014). Sales above \$10 million expanded the most in the million dollar plus segment, becoming the largest segment at the high end with a 32% share (versus 17% in 2014 when the segment between \$1 million and \$5 million was the largest). In 2015, 48 lots were sold for more than \$10 million dollars (as against 32 in the Post War and Contemporary sector). This represented an increase of 15 works in this segment over 2014, and the most ever sold in this price bracket in ten years. The majority (54%) of them were sold in New York, with the remainder in the UK and China.

Figure 2j Sales of Modern Art by Price Bracket in 2015



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The highest average prices in 2015 were in the three largest markets of the UK, China and the US. The average price in the UK was more than three times the EU average, and more than six times other major European markets, such as France and Germany. As in 2014, the UK had a slightly higher average than the US, due mainly

to the much lower volume of sales (with 7,040 lots sold, versus about 18,765 in the US). These averages, in common with all countries given in Table 2e, are skewed by a small number of highly priced works, as is evidenced by the much lower median prices in 2015.

Table 2e Prices in the Modern Sector in 2015

Country	Prices		Share of Value		Share of Volume	
	Average Prices	Median Price	Under \$50,000	Over \$50,000	Under \$50,000	Over \$50,000
Austria	\$14,082	\$3,122	41%	59%	95%	5%
Belgium	\$8,916	\$2,150	48%	52%	97%	3%
China	\$101,377	\$14,406	10%	90%	76%	24%
Denmark	\$4,239	\$1,531	80%	20%	99%	1%
Finland	\$3,250	\$1,647	96%	4%	100%	0%
France	\$21,054	\$3,879	31%	69%	94%	6%
Germany	\$14,271	\$2,950	39%	61%	95%	5%
Ireland	\$5,972	\$2,306	71%	29%	98%	2%
Italy	\$11,777	\$1,969	37%	63%	96%	4%
Japan	\$10,737	\$3,161	54%	46%	96%	4%
Netherlands	\$10,388	\$2,320	54%	46%	96%	4%
Norway	\$19,980	\$5,900	43%	57%	90%	10%
Singapore	\$60,591	\$26,987	19%	81%	65%	35%
Spain	\$5,274	\$2,402	90%	10%	99%	1%
Sweden	\$12,070	\$4,286	55%	45%	97%	3%
Switzerland	\$14,442	\$2,410	36%	64%	95%	5%
Taiwan	\$37,956	\$9,522	29%	71%	87%	13%
UAE	\$92,063	\$50,000	18%	82%	50%	50%
UK	\$124,132	\$6,788	6%	94%	83%	17%
US	\$108,231	\$3,600	6%	94%	90%	10%
World	\$59,975	-	11%	89%	89%	11%
EU	\$35,147	-	17%	83%	93%	7%

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As with Post War and Contemporary art, there is a relatively small group of artists driving the main trends in this sector. In 2015, the work of 25 artists accounted for all individual sales of over \$10 million. These represented 0.3% of the 10,020 artists selling at auction in the sector during the

year. The work of only 2% of all artists whose work was sold at auction made over \$1 million, and most sold in the brackets below \$50,000. Like Post War and Contemporary art, the most concentrated single segment for artists' sales was between \$1,000 and \$5,000.

Table 2f Share of Artists by Price Segment in the Modern Sector in 2015

Price Bracket	Number of artists per segment	Share of artists - all segments	Share of total artists selling in each segment
Up to \$1,000	5,396	23.8%	53.7%
\$1,000-\$5,000	9,130	40.2%	90.8%
\$5,000-\$50,000	5,941	26.3%	59.3%
\$50,000-\$250,000	1,501	6.6%	15.0%
\$250,000-\$1m	498	2.2%	5.0%
\$1m-\$5m	147	0.6%	1.5%
\$5m-\$10m	35	0.2%	0.4%
Over \$10m	25	0.1%	0.3%
Total	10,020	100% (artists in all segments)	100% (all artists)

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Picasso remained the top selling artist, as he had been in 2014, accounting for 14% of the value of sales in the sector and a considerable 4% of all transactions. Picasso's *Les Femmes d'Alger (Version 'O')* achieved the world record price at auction selling for \$179 million in New York in May, exceeding the previous record set in 2013 by Francis Bacon's *Three Studies of Lucien Freud* (which sold for \$142 million, also at Christie's in New York). In this same sale, and setting a new record for the sculpture at auction, Alberto Giacometti's *L'homme Au Doigt* sold for \$141 million. Giacometti was the second highest selling artist overall in the sector in 2015 with a share of 6% by value.

The second highest price in the sector in 2015, and also the second highest auction price ever achieved in history next to the Picasso, was Amedeo Modigliani's *Nu Couché*, which was sold for \$170 million at Christie's New York November

sale. Modigliani also accounted for a 6% share by value in this sector, despite only 33 of the artist's works having sold at auction during the year.

The concentration of value in the top 20 artists was pronounced in this sector, with their work accounting for 59% of total sales in just 10% of transactions. The majority of the top 20 artists were unchanged from 2014, with just five new entrants (Pan Tianshou, Kazimir Malevich, Henry Moore, Lu Yanshao and Chaïm Soutine). Western artists dominated the group, although the seven Chinese represented accounted for a 15% share of the total value of the sector. Li Keran accounted for just 3% of the sector's share, the sixth highest selling artist, with two works in the top 20. The only other Chinese artist with a work in the top 20 prices (Table 2h) was Pan Tianshou, whose *Eagle Rock and Flora* set a record for the artist at \$43 million at China Guardian's Spring sales.

PICASSO'S *LES FEMMES D'ALGER (VERSION 'O')* ACHIEVED THE WORLD RECORD PRICE AT AUCTION SELLING FOR \$179 MILLION IN NEW YORK IN MAY

Table 2g Top Selling Modern Artists in 2015

Rank	Artist	Share of Value	Share of Volume
1	Pablo Picasso	14.5%	3.8%
2	Alberto Giacometti	5.6%	0.2%
3	Amedeo Modigliani	5.6%	0.04%
4	Zhang Daqian	4.2%	0.8%
5	Joan Miró	3.2%	1.4%
6	Li Keran	2.9%	0.2%
7	Marc Chagall	2.2%	1.3%
8	Fu Baoshi	2.2%	0.1%
9	Pan Tianshou	2.1%	0.1%
10	Henri Matisse	2.0%	0.4%
11	Fernand Léger	1.8%	0.2%
12	René Magritte	1.8%	0.1%
13	Kazimir Malevich	1.8%	0.0%
14	Henry Moore	1.6%	0.5%
15	Chaïm Soutine	1.5%	0.0%
16	Xu Beihong	1.5%	0.2%
17	Piet Mondrian	1.3%	0.0%
18	Lin Fengmian	1.2%	0.2%
19	Lu Yanshao	1.0%	0.3%
20	Wassily Kandinsky	1.0%	0.1%
Others	Others	41.0%	90.0%

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Table 2h Top Prices in the Modern Sector in 2015

Artist	Nationality	Lot Title	Auction House	Sale Price (\$m)
Pablo Picasso	Spanish	Les Femmes d’Alger (Version ‘O’)	Christie’s New York	\$179.4
Amedeo Modigliani	Italian	Nu Couché	Christie’s New York	\$170.4
Alberto Giacometti	Swiss	L’Homme au Doigt	Christie’s New York	\$141.3
Pablo Picasso	Spanish	La Gommeuse	Sotheby’s New York	\$67.5
Pablo Picasso	Spanish	Buste de Femme (Femme à la Résille)	Christie’s New York	\$67.4
Piet Mondrian	Dutch	Composition No. III	Christie’s New York	\$50.6
Pan Tianshou	Chinese	Eagle Rock and Flora	China Guardian	\$45.0
Amedeo Modigliani	Italian	Paulette Jourdain	Sotheby’s New York	\$42.8
Gustav Klimt	Austrian	Bildnis Gertrud Loew	Sotheby’s London	\$38.9
Kazimir Malevich	Russian/ Ukrainian	Mystic Suprematism	Sotheby’s New York	\$37.8
Kazimir Malevich	Russian/ Ukrainian	Suprematism, 18th Construction	Sotheby’s London	\$33.6
Pablo Picasso	Spanish	Femme au Chignon dans un Fauteuil	Sotheby’s New York	\$29.9
Li Keran	Chinese	Thousands of Mountains in Autumn	China Guardian	\$28.9
Chaïm Soutine	Belarusian	Le Bœuf	Christie’s New York	\$28.2
Pablo Picasso	Spanish	Deux Personnages (La Lecture)	Sotheby’s London	\$25.7
Henri Matisse	French	Odalisque au Fauteuil Noir	Sotheby’s London	\$23.9
Joan Miró	Spanish	Painting (Women, Moon, Birds)	Christie’s London	\$23.6
Pablo Picasso	Spanish	Homme à L’épée	Christie’s New York	\$22.6
Alberto Giacometti	Swiss	James Lord	Christie’s New York	\$20.9
Li Keran	Chinese	Jinggang Mountain	China Guardian	\$20.4

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The top 20 auction houses accounted for 89% of the value of sales in 2015, in 34% of the number of lots sold. The top five auction houses (Christie's, Sotheby's, China Guardian, Poly Auction and Beijing Council) accounted for most of that value (totalling a share of 79%, up 8% on 2014). Christie's and Sotheby's alone accounted for 67%, up 9% on their combined share in 2014.

2.4 Impressionist and Post-Impressionist

The Impressionist and Post-Impressionist sector represented 13% of the value of the fine art auction market in 2015, up 1% on 2014, while its share of the volume of sales was stable at 13%. The works of Impressionist artists were highly sought after in the 1980s and early 1990s, however the rise in the popularity of Post War and Contemporary art has reduced its share of the art market in recent years. Up to 2000, the sector

maintained a share of just over 30% of the fine art market by value, but this has since declined, falling to 20% in 2005, and losing successive increments each year since then.

After a substantial decline over the two years to 2009, which saw values in this sector cut in half, sales recovered very strongly reaching an historic peak of \$2.4 billion in 2011, buoyed in part by the rising values of the Chinese market. After a fall in values of 31% over 2012 (again influenced by China), the sector once again regained its positive momentum up to 2014. In 2015, values dropped slightly by 3% to reach \$1.9 billion, with a more substantial drop in the number of works sold of 18%. Although this is still 18% less than the market's peak in 2011, it is a higher level than achieved in any year prior to that, and represents an 88% rise in the decade between 2005 and 2015.

THE IMPRESSIONIST AND POST-IMPRESSIONIST SECTOR REPRESENTED 13% OF THE VALUE OF THE FINE ART AUCTION MARKET IN 2015

Figure 2k Impressionist and Post-Impressionist Auction Sales 2005-2015



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The US was the leading market by value in 2015, with a share of 45%, up 11% year-on-year and its highest level since 2007. After three years of growth, including a rise of 32% in 2015, the US market reached \$872 million, the highest level achieved in history and an advance of 190% since its recent low in 2009.

China's market, on the other hand, suffered a loss in share of 9% to 18% making it the third

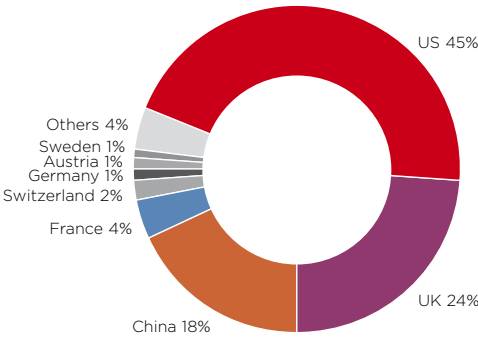
largest market worldwide next to the UK. From a small base of just \$2.4 million in 2008, the Chinese market grew to over 40 times its size within three years, reaching a high of over \$1 billion in 2011 and becoming the largest market in this sector (with a market share of 46% versus 21% in the US). However the market lost over half of its value in 2012 and then, after two years of low growth, fell substantially, by 36%, in 2015 to \$354 million.

Similarly after two years of growth, sales in the UK dropped 5% in value year-on-year to \$473 million, below the market's peak of \$605 million in 2008, but having doubled its value since the low point of 2009. The UK is now the second largest market in this sector, with a share of 24%, down 1% on 2014. The UK's share of this sector within the EU was 73% in 2015.

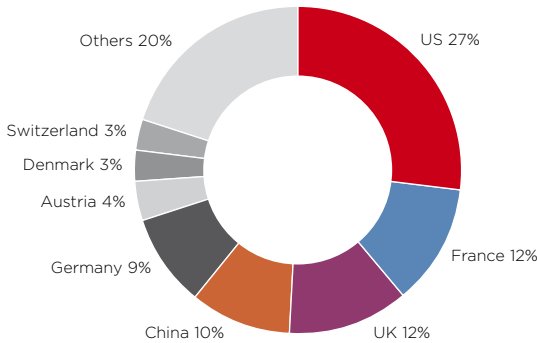
The EU's share of the global market was 33% by value and 55% of the number of transactions. France maintained a relatively stable share of 4% of the value of global transactions, although its share by volume was higher at 12%. The French market has declined for two consecutive years, reaching just over \$71 million in 2015.

Figure 2l Market Share of the Impressionist and Post-Impressionist Sector in 2014

a. Market Share by Value

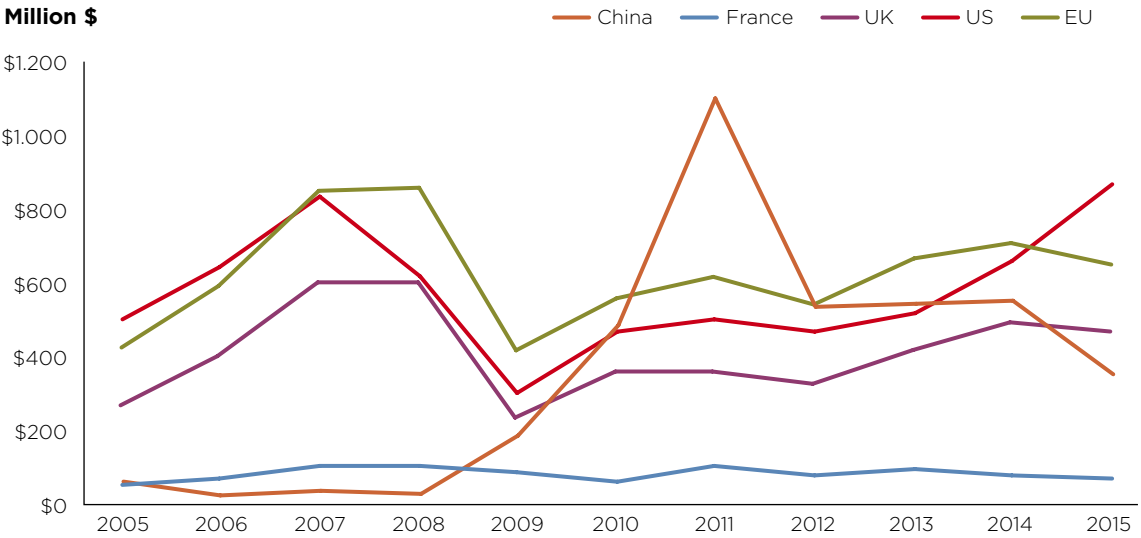


b. Market Share by Volume



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Figure 2m Sales in the Impressionist and Post-Impressionist Sector 2005-2015: Key Markets

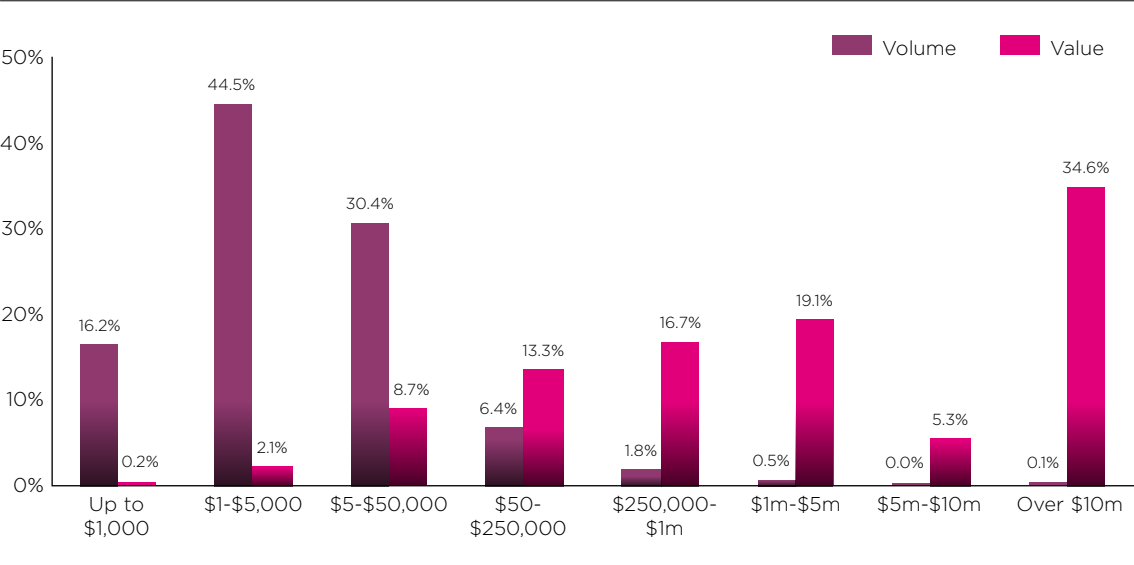


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In 2015, 91% of the transactions at auction were for prices below \$50,000, with the majority (61%) less than \$5,000. As in other sectors, low priced transactions, although large in number, accounted for a relatively small portion of the value of the market overall, with those below \$50,000 representing an 11% share of total sales in 2015.

The majority of the market's value (59%) comes from sales in excess of \$1 million, advancing considerably in share year-on-year (from 47% in 2014). In 2015, works priced at over \$10 million represented the largest single segment by value, accounting for 35% of sales in just 28 transactions (versus 21% in 2014).

Figure 2n Sales of Impressionist and Post-Impressionist Art by Price Bracket in 2015



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The highest average prices in the sector in 2015 were in the UK and China, which were higher than the US because of having less than half the number of transactions in each case. Prices in the UK were by far the highest in Europe and more than three times the EU average.

While in all countries the majority of lots sold were for less than \$50,000, the portion of value these works represented varies. In many of the smaller and mid-sized markets, such as Italy and Spain, they also account for a majority of the value in the sector, while in the larger markets such as the UK, US and China, the bulk of sales values are at the higher end.

Table 2i Prices in the Impressionist and Post-Impressionist Sector in 2015

Country	Prices		Share of Value		Share of Volume	
	Average Price	Median Price	Under \$50,000	Over \$50,000	Under \$50,000	Over \$50,000
Austria	\$10,524	\$3,424	53%	47%	97%	3%
Belgium	\$4,354	\$1,757	75%	25%	99%	1%
China	\$90,996	\$11,241	9%	91%	75%	25%
Denmark	\$3,948	\$1,379	84%	16%	99%	1%
Finland	\$12,027	\$3,312	49%	51%	95%	5%
France	\$15,866	\$2,904	35%	65%	95%	5%
Germany	\$8,443	\$2,177	54%	46%	97%	3%
Ireland	\$9,204	\$2,907	52%	48%	96%	4%
Italy	\$6,331	\$1,797	60%	40%	98%	2%
Japan	\$25,971	\$3,468	22%	78%	94%	6%
Netherlands	\$10,031	\$2,352	48%	52%	96%	4%
Norway	\$8,709	\$3,605	79%	21%	98%	2%
Singapore	-	-	-	-	-	-
Spain	\$5,670	\$2,433	67%	33%	98%	2%
Sweden	\$21,800	\$3,749	29%	71%	94%	6%
Switzerland	\$31,393	\$3,150	18%	82%	91%	9%
Taiwan	\$10,958	\$9,097	100%	0%	100%	0%
UAE	-	-	-	-	-	-
UK	\$107,218	\$4,770	6%	94%	87%	13%
US	\$87,940	\$3,000	6%	94%	90%	10%
World	\$51,917	-	11%	89%	90%	10%
EU	\$31,497	-	17%	83%	94%	6%

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The work of most artists in this sector in 2015 sold for less than \$50,000, with the single largest segment for artists being between \$1,000 and \$5,000. Those works selling for over \$1 million made up just 1% of the 8,383 artists whose work was sold at auction in 2015.

While it is not surprising that the US had the largest number of artists selling in this sector

at auction in 2015 (followed by the UK), it is interesting to note that mid-sized markets, such as France and Germany, had up to three times the number of China. The relatively thin market in China is particularly evident at the higher end: despite accounting for 22% of the lots sold in the segments above \$1 million, these works were by only 11 artists, versus 39 in the UK and 48 in the US.

Table 2j Share of Artists by Price Segment in the Impressionist and Post-Impressionist Sector in 2015

Price Bracket	Number of artists per segment	Share of artists - all segments	Share of total artists selling in each segment
Up to \$1,000	3,832	22.3%	45.7%
\$1,000-\$5,000	7,611	44.3%	90.8%
\$5,000-\$50,000	4,452	25.9%	53.1%
\$50,000-\$250,000	911	5.3%	10.9%
\$250,000-\$1m	267	1.6%	3.2%
\$1m-\$5m	81	0.5%	1.0%
\$5m-\$10m	12	0.1%	0.1%
Over \$10m	14	0.1%	0.2%
Total	8,383	100% (artists in all segments)	100% (all artists)

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Claude Monet was the highest selling artist in 2015, accounting for a 17% share of total sales and with nine works in the top 20, out of the total of 33 lots by the artist sold during the year. The top three rankings were unchanged on 2014, and there was little variation in the top 20 list with only three new entries: Henri de Toulouse-Lautrec, Aristide Maillol and Albert Anker. With a much smaller group of artists in this sector and a high concentration of value at the top end, the top

20 artists have a greater share of value than in either Post War and Contemporary or Modern art, accounting for 68% of total sales in 2015 (in just 6% of the lots sold).

The highest prices in the sector in 2015 were for two works by Van Gogh: *L'Allee des Alyscamps*, sold for \$66 million at Sotheby's in May in New York, and *Paysage Sous Un Ciel Mouvementé* which sold at Sotheby's for \$54 million in November.

THE TOP 20 IMPRESSIONIST AND POST-IMPRESSIONIST ARTISTS ACCOUNTED FOR 68% OF TOTAL SALES VALUES IN THE SECTOR IN 2015

Table 2k Top Selling Impressionist and Post-Impressionist Artists in 2015

Rank	Artist	Share of Value	Share of Volume
1	Claude Monet	17.4%	0.1%
2	Qi Baishi	8.6%	1.2%
3	Vincent van Gogh	7.4%	0.0%
4	Edgar Degas	4.3%	0.2%
5	Paul Gauguin	4.0%	0.2%
6	Paul Cézanne	3.5%	0.1%
7	Huang Binhong	3.1%	0.5%
8	Henri de Toulouse-Lautrec	3.0%	1.0%
9	Wu Changshuo	2.5%	0.5%
10	Camille Pissarro	1.9%	0.3%
11	Auguste Rodin	1.8%	0.5%
12	Pierre-Auguste Renoir	1.8%	0.3%
13	Alfred Sisley	1.6%	0.1%
14	Paul Signac	1.6%	0.2%
15	Édouard Manet	1.5%	0.1%
16	Pierre Bonnard	1.3%	0.5%
17	Aristide Maillol	0.8%	0.2%
18	Georges Seurat	0.7%	0.0%
19	Thomas Moran	0.7%	0.1%
20	Albert Anker	0.7%	0.2%
Others	Others	31.8%	93.8%

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Table 2l Top Prices in the Impressionist and Post-Impressionist Sector in 2015

Rank	Artist	Nationality	Lot Title	Auction House	Sale Price (\$m)
1	Vincent Van Gogh	Dutch	L'Allée des Alyscamps	Sotheby's New York	\$66.3
2	Vincent Van Gogh	Dutch	Paysage Sous un Ciel Mouvementé	Sotheby's New York	\$54.0
3	Claude Monet	French	Nymphéas	Sotheby's New York	\$54.0
4	Claude Monet	French	Le Parlement, Soleil Couchant	Christie's New York	\$40.5
5	Claude Monet	French	Le Grand Canal	Sotheby's London	\$35.8
6	Claude Monet	French	Nymphéas	Sotheby's New York	\$33.9
7	Paul Gauguin	French	Thérèse	Christie's New York	\$31.0
8	Édouard Manet	French	Le Bar aux Folies-Bergère	Sotheby's London	\$26.6
9	Edgar Degas	French	Petite Danseuse de Quatorze Ans	Sotheby's London	\$24.8
10	Claude Monet	French	Le Palais Ducal	Sotheby's New York	\$23.1
11	Paul Cézanne	French	L'Homme à la Pipe	Christie's New York	\$20.9
12	Paul Cézanne	French	Vue sur L'Estaque et le Château d'If	Christie's London	\$20.6
13	Claude Monet	French	Bassin aux Nymphéas, les Rosiers	Sotheby's New York	\$20.4
14	Paul Gauguin	French	Nature Morte aux Mangos	Sotheby's London	\$18.1
15	Qi Baishi	Chinese	Flora and Insects Album	Poly Auction	\$18.0
16	Claude Monet	French	Iris Mauves	Christie's London	\$17.1
17	Edgar Degas	French	Danseuses en Blanc	Sotheby's New York	\$17.1
18	Claude Monet	French	Les Meules à Giverny	Christie's New York	\$16.4
19	Henri De Toulouse-Lautrec	French	Au Lit: Le Baiser	Sotheby's London	\$16.3
20	Claude Monet	French	Les Peupliers à Giverny	Sotheby's London	\$16.3

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As in many other sectors, Sotheby's and Christie's maintained a leading share of sales, with a combined 69% of the value of sales and 12% of transactions. These two leading houses, along with Poly Auction, China Guardian and Beijing Council, accounted for 79% of values, while the top 20 were responsible for 88% by value and 34% of the total number of transactions at auction.

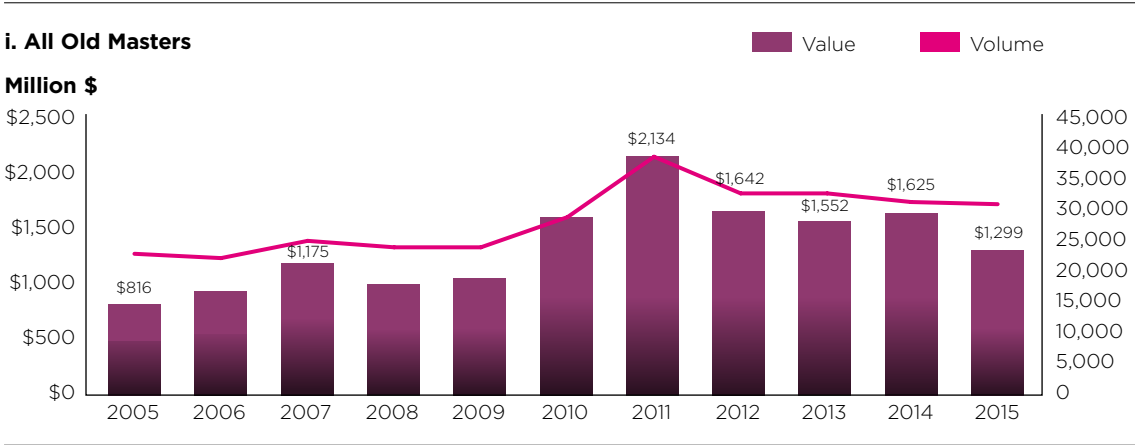
2.5 Old Masters

The Old Master sector accounted for 9% of the fine art auction market in 2015 (stable on 2014), while its share of the volume of sales rose by three percentage points to 11%. Old Master paintings covers all works sold by artists born between 1250 and 1820 of all nationalities. However, the more commonly used term "Old Master" is associated with the works of European artists. In 2015, 43% of the value of Old Master paintings was accounted for by the sale of European Old Master works (down 13% year-on-year) and 56% of the individual transactions (also 13% less in share than 2014). European Old Masters accounted for just 4% of the value of the global fine art market and 6% of lots sold.

In recent years, the Old Master market has been heavily influenced by Chinese Old Master sales, peaking in 2011 at the height of the boom in China at \$2.1 billion. As the Chinese market cooled in 2012, the sector lost 23% of its value, while volumes also fell 15%. Since that point the market was relatively stable, but in 2015 it dropped by 20% in value, its second largest annual contraction in ten years, with values falling back to pre-2010 levels and the number of lots sold also declining by 2%.

European Old Masters have tended to fare somewhat differently from other more modern parts of the fine art market, with annual growth in sales somewhat less volatile. They peaked in 2007 (at \$906 million) and then fell 30% in the two years to 2009. Sales showed more moderate growth over the next few years. However, after a particularly strong year in 2014 (with values growing 19%), sales fell by 33% in 2015 despite moderate growth in the number of transactions (of 4%). The scarcity of the highest quality major works appearing on the market has kept values from escalating in the same way as other sectors, and the market in 2015 was at its lowest point in ten years, with the value of sales 14% lower than in 2005.

Figure 2o Old Master Painting Sales 2005-2015

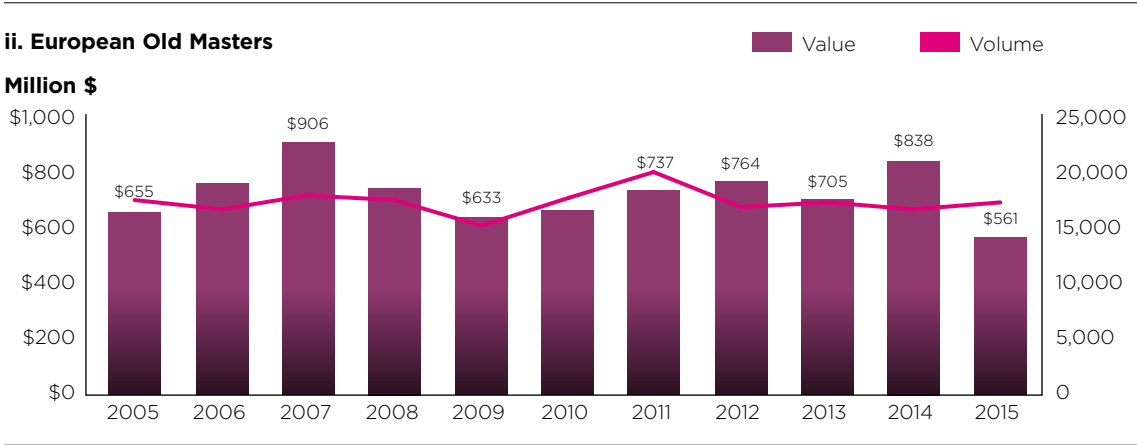


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It is worth noting that while public auction sales in this sector declined over 2015, private sales, which make up a very important component of aggregate values, were particularly strong. A notable example in the public domain in 2015 included the facilitation by Christie's of the private sale of two important Rembrandt works to the French and Dutch governments in February. The two works, *Portrait of Maerten Soolmans* and *Portrait of Oopjen Coppit*, were sold via Christie's private sales channel for a reported price of €180 million (\$90 million) each, believed to be a new

record for the sector (and exceeding the public auction record of \$76.7 million for *The Massacre of the Innocents* by Peter Paul Rubens at Sotheby's in 2002.) These two private sales alone, at over \$180 million, were equivalent to one third of the size of the public auction market in 2015, and underline the importance of private sales in this sector.

China was the largest market in the Old Master sector in 2015, with a 43% share (up 10% from 2014). This was despite a decline in sales year-on-year of 8%, its fourth year of negative or stagnant



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growth, leaving the market at \$552 million. The triple digit growth during years such as 2009 and 2010, however, means that, despite the recent decline, the market has still seen over 1,000% growth in the decade from 2005.

After growth of 43% in 2014, sales in the UK fell to \$255 million in 2015, a drop of 49% year-on-year, and moving to third place in the market behind the US and China, with its share falling 13% to 20%. Most of the sales (86% by value) were of European Old Master works, and the UK has

remained a key global centre for the trade in this more traditional part of the market. The UK was the largest market in the European Old Master sector, with a 39% share in 2015, although this was down from its share of 50% of the value of the market in 2014.

The US was the second largest market in both the wider Old Master sector and in European Old Masters, with an increase in share in each year-on-year (by 2% and 6% respectively). There was low positive growth in the overall Old Master

sector in the US, with sales values growing just 2% annually to reach \$277 million. However in the European subsector, which accounts for over 70% of the total, sales fell 12%.

France, the third largest European Old Master market, has experienced four years of decline, with both the wider Old Master sector and the European portion declining 5% year-on-year in 2015. Despite this, due to the concurrent poor performance elsewhere and a shrinking global market, France gained share: up 1% to 6% in

the Old Master sector and up 4% to 11% in the European Old Master sector.

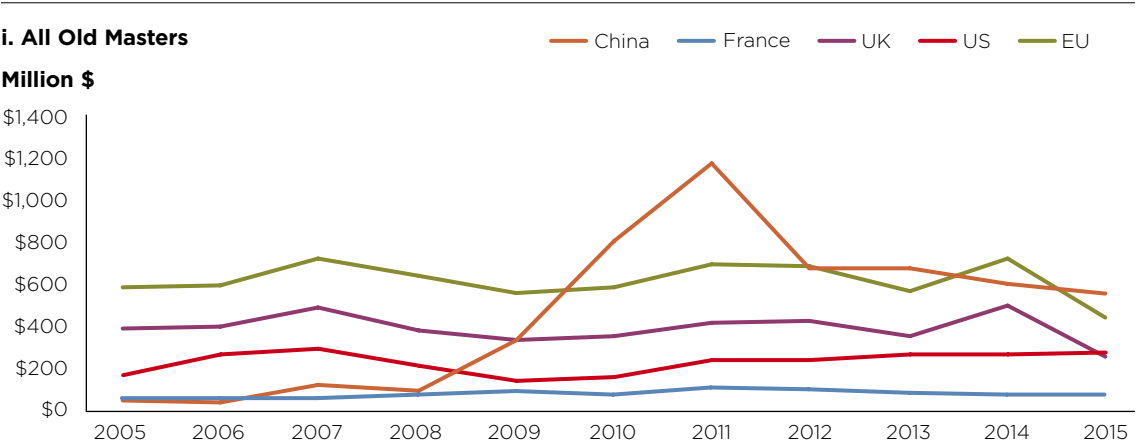
Due to the dominance of the UK, the EU accounts for 66% of the value of sales of European Old Masters, but a considerably smaller 34% in the wider sector. As the major markets fell in value, aggregate sales were also poor year-on-year, falling close to 40% in both. In the decade from 2005 to 2015, sales in the EU of European Old Master paintings have fallen 29% to \$370 million in 2015.

Table 2m Global Market Share: Old Master Paintings in 2015

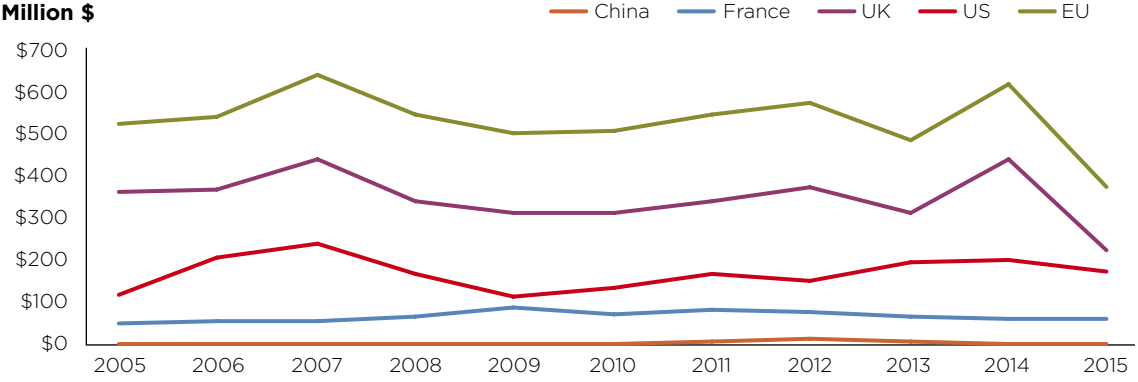
Old Masters			European Old Masters		
Country	Share of Value	Share of Volume	Country	Share of Value	Share of Volume
China	43%	18%	UK	39%	22%
US	21%	20%	US	31%	18%
UK	20%	16%	France	11%	18%
France	6%	14%	Germany	6%	15%
Germany	3%	10%	Austria	5%	5%
Austria	2%	3%	Switzerland	2%	5%
Switzerland	1%	4%	Italy	2%	4%
Italy	1%	3%	Netherlands	2%	4%
Others	3%	11%	Others	3%	11%

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Figure 2p Sales in the Old Master Sector 2005-2015: Key Markets



ii. European Old Masters

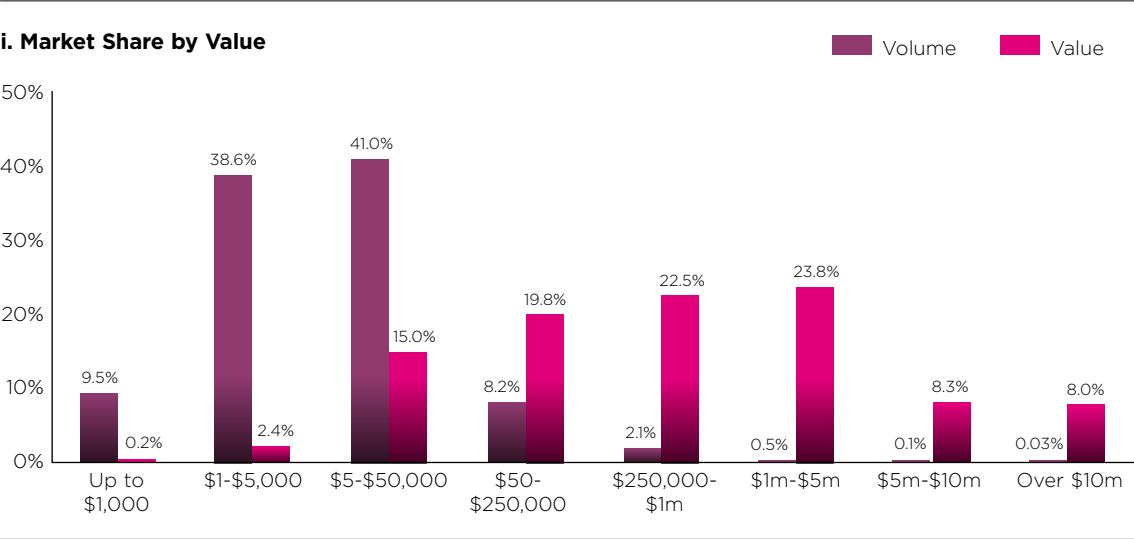


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In 2015, the majority (89%) of lots sold in the Old Master sector were in the lower end of the market, at prices less than \$50,000. Values are somewhat less skewed than in other sectors: works sold for less than \$50,000 accounted for 18% of the market's value and those over \$1 million accounted for 40%.

This was also the case in the European Old Master sub-sector, where 91% of the lots sold in 2015 were priced at less than \$50,000, accounting for 21% of the market's value. There were just 64 lots sold for over \$1 million in 2015, or less than half of a percent of the market's volume, and these accounted for 35% of its value. They included just three lots sold for more than \$10 million (versus eight in the wider sector).

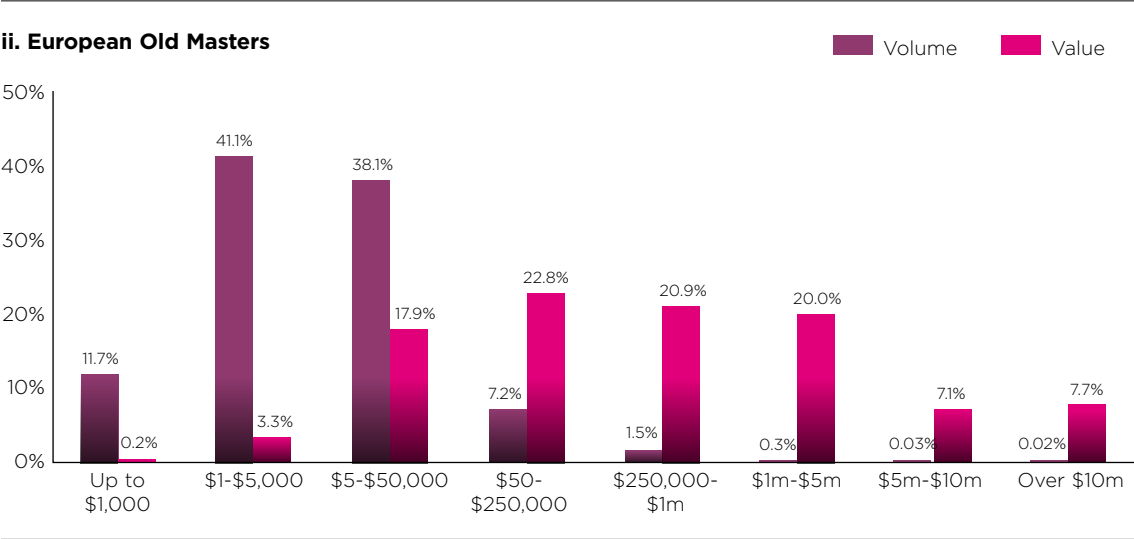
Figure 2q Sales in the Old Master Sector by Price Bracket in 2015



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The highest average prices by far in the wider sector were found in China, nearly double that of the UK in 2015, which in turn achieved nearly twice the EU average. Apart from China, the other major markets have a much more even distribution of prices. Although average prices are still higher than median prices, in the UK and US the differentials are much less than in

other sectors, indicating a smaller influence from higher prices on the average, and a more even distribution of works around the middle of the market. This is also the case in the European Old Master sector, where the US and UK have the highest average prices, but with less of a margin vis-à-vis other markets than in other sectors, again due to more moderate prices.



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Table 2n Prices in the Old Master Sector in 2014

i. Old Masters		Prices		Share of Value		Share of Volume	
Country		Average Price	Median Price	Under \$50,000	Over \$50,000	Under \$50,000	Over \$50,000
Austria		\$28,661	\$6,982	31%	69%	88%	13%
Belgium		\$4,878	\$2,813	90%	10%	99%	1%
China		\$101,302	\$11,861	9%	91%	77%	23%
Denmark		\$5,746	\$1,744	61%	39%	98%	2%
Finland		\$8,993	\$4,786	56%	44%	96%	4%
France		\$17,322	\$4,914	43%	57%	93%	7%
Germany		\$12,502	\$3,240	47%	53%	95%	5%
Ireland		\$5,238	\$3,082	92%	8%	99%	1%
Italy		\$14,675	\$5,371	56%	44%	94%	6%
Japan		\$9,934	\$3,973	65%	35%	97%	3%
Netherlands		\$15,505	\$5,404	55%	45%	94%	6%
Norway		\$14,887	\$5,360	61%	39%	93%	7%
Singapore		-	-	-	-	-	-
Spain		\$11,564	\$4,337	62%	38%	96%	4%
Sweden		\$8,778	\$4,728	76%	24%	97%	3%
Switzerland		\$12,934	\$3,640	49%	51%	95%	5%
Taiwan		\$14,311	\$7,524	65%	35%	90%	10%
UAE		-	-	-	-	-	-
UK		\$51,148	\$7,584	17%	83%	87%	13%
US		\$45,915	\$4,000	14%	86%	90%	10%
Total		\$42,493	-	18%	82%	89%	11%
EU		\$25,509	-	29%	71%	92%	8%

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ii. European Old Masters		Prices		Share of Value		Share of Volume	
Country		Average Price	Median Price	Under \$50,000	Over \$50,000	Under \$50,000	Over \$50,000
Austria		\$31,962	\$7,076	27%	73%	86%	14%
Belgium		\$4,585	\$2,467	89%	11%	100%	0%
China		\$78,437	\$33,374	9%	91%	53%	47%
Denmark		\$5,985	\$1,653	59%	41%	98%	2%
Finland		\$2,151	\$1,918	100%	0%	100%	0%
France		\$19,270	\$5,013	38%	62%	92%	8%
Germany		\$13,104	\$3,106	44%	56%	95%	5%
Ireland		\$5,171	\$2,573	90%	10%	99%	1%
Italy		\$17,904	\$5,908	49%	51%	92%	8%
Japan		\$8,738	\$3,348	60%	40%	96%	4%
Netherlands		\$15,947	\$5,404	54%	46%	93%	7%
Norway		\$15,930	\$6,051	59%	41%	92%	8%
Singapore		-	-	-	-	-	-
Spain		\$13,801	\$4,330	55%	45%	95%	5%
Sweden		\$9,358	\$4,690	74%	26%	97%	3%
Switzerland		\$13,413	\$3,640	47%	53%	94%	6%
Taiwan		\$9,709	\$9,709	100%	0%	100%	0%
UAE		-	-	-	-	-	-
UK		\$57,854	\$7,282	14%	86%	87%	13%
US		\$57,028	\$3,998	11%	89%	87%	13%
World		\$32,499	-	21%	79%	90%	10%
EU		\$28,445	-	26%	74%	92%	8%

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IN ALL OTHER SECTORS, THE NUMBER OF ARTISTS SELLING AT AUCTION HAS EXPANDED BETWEEN 2005 AND 2015, HOWEVER EUROPEAN OLD MASTER ARTISTS CONTRACTED BY 7%

Although many artists are incorporated in the Old Master sector, those whose work were sold at auction are a relatively small group. In all of the other sectors of the fine art market, the number of artists selling at auction has expanded between 2005 and 2015: increasing by 138% in the case of Post War and Contemporary, by 36% in the Modern sector and by 12% in the Impressionist and Post Impressionist sector. In the aggregate Old Master sector, because of the emergence of the market in China, the number of artists in the wider sector has also increased over the decade (by 12%). However the number of European Old Master artists whose work sold at auction contracted by 7% from 2005 to 2015.

The majority of the artists whose work was sold in the aggregate Old Master sector were in the segments between \$1,000 and \$50,000. The densest segment for artists was prices between \$5,000 and \$50,000, which accounted for 83% of the 7,662 artists selling in the sector in 2015.

Similarly for European Old Masters, the strongest segments were \$1,000 to \$5,000 and \$5,000 to \$50,000, both accounting for 80% or more of the 5,236 artists that made sales in 2015.

Table 2o Share of Artists by Price Segment in the Old Master Sector in 2015

i. All Old Masters			
Price Segment	Number of Artists	Share in all Segments	Share in Sector
Up to \$1,000	1,912	11.7%	25.0%
\$1,000-\$5,000	6,021	36.7%	78.6%
\$5,000-\$50,000	6,359	38.8%	83.0%
\$50,000-\$250,000	1,577	9.6%	20.6%
\$250,000-\$1m	400	2.4%	5.2%
\$1m-\$5m	101	0.6%	1.3%
\$5m-\$10m	16	0.1%	0.2%
Over \$10m	8	0.0%	0.1%
Total	7,662	100% (artists in all segments)	100% (all artists)

ii. European Old Masters			
Up to \$1,000	1,451	13%	28%
\$1,000-\$5,000	4,268	38%	82%
\$5,000-\$50,000	4,194	38%	80%
\$50,000-\$250,000	981	9%	19%
\$250,000-\$1m	228	2%	4%
\$1m-\$5m	48	0.4%	1%
\$5m-\$10m	6	0.1%	0.9%
Over \$10m	3	0.03%	0.1%
Total	5,236	100% (artists in all segments)	100% (all artists)

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At the top end, on the other hand, sales came from the work of a very small group of artists, with less than 2% achieving prices in excess \$1 million and 1% in the European Old Master sector.

Works by only eight Old Master artists sold for in excess of \$10 million in 2015, including five Chinese artists. The top five selling artists on aggregate in the sector were also Chinese (as were 11 in the top 20), with Dong Qichang the highest seller, although accounting for a relatively small share of the total market at 3%. Value in this sector is much less concentrated than in all of the other sectors of fine art. The top 20 artists in the Old Master sector in 2015 accounted for just 26% of total sales (and 31% in the European sub-sector), which is around half of the share of the same group of Modern artists. There was also more variety in top selling artists group from year-to-year, with 13 new entrants in the list in 2015. This is in part due to the lower volume of sales in the sector and the lower entry level to the top 20 (by value), where a smaller number of sales can spur entry or exit than in the more modern sectors. However it is most indicative of the rarity of supply of key artists in the sector, with many artists appearing less frequently on the

market from year to year, with their works secured in museum or private collections, reducing their market activity.

The strongest selling European Old Master artist in 2015 was the English artist John Constable, whose works accounted for 4% of the European Old Master sub-sector and 2% of the wider market. His share was a close second to Gustave Courbet in the European Old Master sector, who also accounted for the highest priced work sold in the sector during the year, *Femme Nue Couchée* which sold for \$15.3 million at Christie's New York in November, a record price for the artist. Neither of these artists were in the top 20 artists in 2014, and this list showed the most change of all sectors with 15 new names and only five incumbents. Again, rather than necessarily indicating changing preferences at the higher end, this is again due primarily to a shortage of supply of top works by key artists in the sector, making them appear less frequently on the auction market, and in part to the lower entry levels making one or two strong sales affect the list more heavily than in other sectors, with even the highest selling artist (Constable) representing sales of less than \$20 million in total.

VALUE IN THE OLD MASTER SECTOR IS MUCH LESS CONCENTRATED, WITH THE TOP 20 ARTISTS ACCOUNTING FOR JUST 26% OF TOTAL SALES

The highest priced work sold in China to an attributable artist was by Ming Dynasty Master, Wen Zhengming, whose calligraphy sold for \$12.7 million at Poly Auction in Beijing in December, also a record for the artist. An anonymous collection of Buddhist Sutra’s from the early 1400s sold for a slightly higher price of \$14.0 million at Sotheby’s in March.

In terms of sellers, the market is, like other sectors, relatively concentrated in terms of value among the top 20 houses. In the wider sector, the top 20 houses accounted for 83% of the value of sales in 2015 (and 41% of the lots sold) , with the top five (Sotheby’s Christie’s, Poly Auction, China Guardian and Beijing Council) accounting for 66%. Christie’s and Sotheby’s had a smaller combined share than in some other sectors, at 43%, with the major Chinese houses also commanding a significant portion of market values.

The European Old Master sub-sector was even more concentrated. The top 20 houses accounted for 89% of value, with the top five (Sotheby’s, Christie’s, Dorotheum, Bonham’s and Hampel) accounting for 79%. Within that group, Sotheby’s and Christie’s were responsible for 72% of the value of sales in 2015, as well as 26% of the lots sold.

Table 2p Top Selling Old Master Artists in 2015

Rank	Old Masters	Value	Volume	European Old Masters	Value	Volume
1	Dong Qichang	2.8%	0.4%	John Constable	3.5%	0.1%
2	Emperor Qianlong	2.3%	0.3%	Gustave Courbet	3.3%	0.2%
3	Shi Tao	2.1%	0.1%	Lucas Cranach the Elder	2.8%	0.2%
4	Bada Shanren	1.9%	0.1%	Pieter Brueghel the Younger	1.9%	0.1%
5	Wen Zhengming	1.8%	0.1%	Agnolo Bronzino	1.7%	0.02%
6	John Constable	1.7%	0.2%	Martin Johnson Heade	1.6%	0.1%
7	Gustave Courbet	1.5%	0.0%	Jan Brueghel the Elder	1.6%	0.1%
8	Wang Duo	1.4%	0.1%	Jan Brueghel the Younger	1.5%	0.3%
9	Wang Hui	1.3%	0.2%	Ferdinand Bol	1.5%	0.04%
10	Lucas Cranach the Elder	1.2%	0.1%	El Greco	1.4%	0.04%
11	Jin Nong	1.0%	0.1%	Jan Gossaert	1.3%	0.05%
12	Qiu Ying	1.0%	0.1%	Francesco Guardi	1.2%	0.2%
13	Zhang Ruitu	1.0%	0.2%	Willem Claesz Heda	1.1%	0.03%
14	Agnolo Bronzino	0.8%	0.1%	Giovanni Paolo Panini	1.1%	0.1%
15	Martin Johnson Heade	0.7%	0.01%	Bernardo Bellotto	1.1%	0.05%
16	Jan Brueghel the Elder	0.7%	0.0%	Aert van der Neer	1.0%	0.1%
17	Shen Zhou	0.7%	0.1%	Salomon van Ruysdael	1.0%	0.1%
18	Jan Brueghel the Younger	0.7%	0.2%	Willem van de Velde the Elder	1.0%	0.03%
19	Ferdinand Bol	0.7%	0.1%	Rembrandt van Rijn	0.9%	3.0%
20	Pieter Brueghel the Younger	0.6%	0.02%	Giovanni Domenico Tiepolo	0.9%	0.1%
Others	Others	74.1%	97.5%	Others	68.6%	95.2%

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Table 2q Top Prices in the Old Master Sector in 2015

i. All Old Masters				
Artist	Nationality	Lot Title	Auction House	Price (\$m)
Gustave Courbet	French	Femme Nue Couchée	Christie's New York	\$15.3
Lucas Cranach the Elder	German	The Bocca Della Verità	Sotheby's London	\$14.3
Anon Chinese (Ming Dynasty)	Chinese	Collection of Buddhist Sutras	Sotheby's New York	\$14.0
John Constable	British	The Lock	Sotheby's London	\$13.8
Wen Zhengming	Chinese	Calligraphy	Poly Auction	\$12.7
Emperor Qianlong	Chinese	Ink and Colour Handscroll	Poly Auction	\$12.0
Dong Qichang	Chinese	Forest Landscape with Thatch Cottage	China Guardian	\$10.8
Shi Tao	Chinese	Stones and Hill	Poly Auction	\$10.4
Agnolo Bronzino	Italian	Portrait of a Young Man with a Book	Christie's New York	\$9.1
Ferdinand Bol	Dutch	Portrait of a Boy	Sotheby's London	\$8.0
Zheng Zhong	Chinese	Thousands Miles of Mountain and Stream	China Guardian	\$7.4
Jan Gossaert	Flemish	The Virgin and Child	Sotheby's London	\$7.0
Jin Nong	Chinese	Calligraphy in Clerical Script	China Guardian Auctions	\$6.5
Bada Shanren	Chinese	Landscape	Sungari International	\$6.1
Martin Johnson Heade	American	The Great Florida Sunset	Sotheby's New York	\$5.9
Wu Zhen	Chinese	Mountain Landscape on Hanging Scroll	Shanghai Gongmei	\$5.7
Qiu Ying	Chinese	Ink and Colour Mountain Landscape on Hanging Scroll	Shanghai Gongmei	\$5.6
Willem van de Velde the Elder	Dutch	Dutch Harbor in a Calm	Sotheby's New York	\$5.4
Giovanni Paolo Panini	Italian	Rome, The Pantheon	Sotheby's New York	\$5.3
John Constable	British	Salisbury Cathedral from the Meadows	Sotheby's New York	\$5.2
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ii. European Old Masters				
Artist	Nationality	Lot Title	Auction House	Price (\$m)
Gustave Courbet	French	Femme Nue Couchée	Christie's New York	\$15.3
Lucas Cranach the Elder	German	The Bocca Della Verità	Sotheby's London	\$14.3
John Constable	British	The Lock	Sotheby's London	\$13.8
Agnolo Bronzino	Italian	Portrait of a Young Man with a Book	Christie's New York	\$9.1
Ferdinand Bol	Dutch	Portrait of a Boy, Said to be the Artist's Son, Aged 8	Sotheby's London	\$8.0
Jan Gossaert	Flemish	The Virgin and Child	Sotheby's London	\$7.0
Martin Johnson Heade	American	The Great Florida Sunset	Sotheby's New York	\$5.9
Willem van de Velde the Elder	Dutch	Dutch Harbor in a Calm	Sotheby's New York	\$5.4
Giovanni Paolo Panini	Italian	Rome, The Pantheon	Sotheby's New York	\$5.3
John Constable	British	Salisbury Cathedral from the Meadows	Sotheby's New York	\$5.2
Aert van der Neer	Dutch	Frozen River at Sunset	Sotheby's New York	\$4.8
Willem Claesz Heda	Dutch	A Still Life of a Roemer	Sotheby's London	\$4.5
Giovanni Domenico Tiepolo	Italian	The Tiepolo Family	Sotheby's London	\$4.4
John Martin	British	The Celestial City and the River of Bliss	Sotheby's London	\$4.2
Jan Brueghel the Elder	Flemish	Paradise Landscape with the Animals Entering Noah's Ark	Sotheby's New York	\$4.0
Bernardo Bellotto	Italian	Venice, A View of the Grand Canal	Sotheby's London	\$3.9
Richard Parkes Bonington	British	A Coastal Landscape with Fisherfolk, A Beached Boat Beyond	Christie's London	\$3.8
El Greco	Greek	Christ on the Cross	Christie's London	\$3.7
Ludger Tom Ring the Younger	German	Ring Still Life with Wild Roses, Peonies and other Flowers in a White Earthenware Vase	Sotheby's New York	\$3.1
Sir Peter Paul Rubens and Jan Brueghel the Younger	Dutch	Landscape with Pan and Syrinx	Sotheby's New York	\$3.1
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2.6 Decorative Art Sectors

The decorative art sectors are slightly more complex to analyse at a micro-level with works less easily classified by artist and lot description, making them more difficult to categorise. This has led to less collation and aggregation by major databases. However, Artnet has developed a global vetted database on decorative art, which covers:

- Sales of major works in the decorative art sector (in major auction houses);
- Works with original estimates in excess of \$500;
- Sales from 17 countries;
- Sales from 2011 to the present.

The database therefore covers a small segment by volume of the decorative art and antiques market, which contains millions of very low value transactions in most countries around the world. Using this database, it is interesting to compare the performance of a sector of the decorative arts to that of fine art in 2015.

The market for Chinese art has historically been based mainly on decorative arts, and within China, despite being hampered by a limited supply of top quality works coming on to the auction market, the decorative art segments were by far the best performing in 2015. While the importance

of Mainland China as a centre for domestic sales of art is a relatively new phenomenon, Chinese art and antiques have also played an important role in the global art market for many years. Important Chinese works of art have featured in major museum collections around the world and there are several generations of influential private collectors. Given its central role in the decorative sector, a brief analysis of Chinese decorative art and antiques is given below.

2.7 Chinese Decorative Art and Antiques

For the purposes of this analysis, Chinese decorative art and antiques includes porcelain, jade carving, furniture, textiles, metalware and other carvings. These decorative works have played a fundamental role in the history of Chinese art and remain a key sector of the market, where some of the highest prices were achieved at auction in China. There are also very well established public and private collectors of Chinese decorative arts and antiques outside China, which has promoted their inclusion in major auctions and galleries around the world.

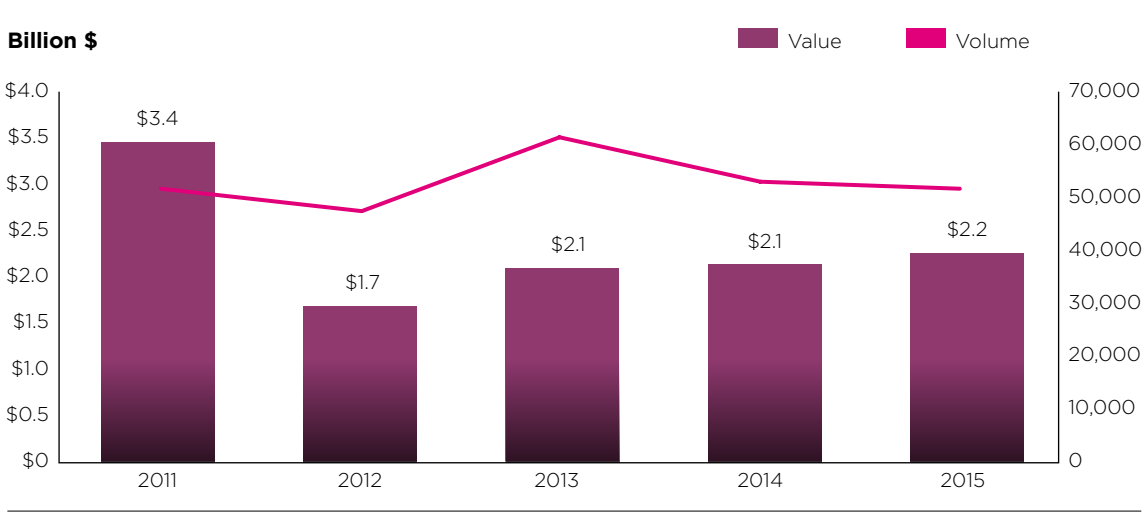
Although sales growth was relatively low and from a relatively lower base than in some modern fine art sectors, the Chinese decorative sector maintained a positive trend in 2015, in contrast to most parts of the fine art market. Sales reached

a high of \$2.2 billion,²⁰ an increase of 6% year-on-year. This was the third year of low but positive growth for the sector, but it remains 35% below its recent peak in 2011 of \$3.4 billion at the height of the boom in the Chinese market. The cooling off of the Chinese market in the last few years has filtered down to this sector, but it has nonetheless performed significantly better in

terms of annual growth than fine art in China and in many other countries.

The number of lots sold fell slightly by 3% year-on-year, indicating that the rise in values was due in part to rising prices. This was the second year of negative or stagnant growth in volumes, with the number of transactions having peaked in 2013.

Figure 2r Sales in the Chinese Decorative Art and Antiques Auction Market 2011-2015



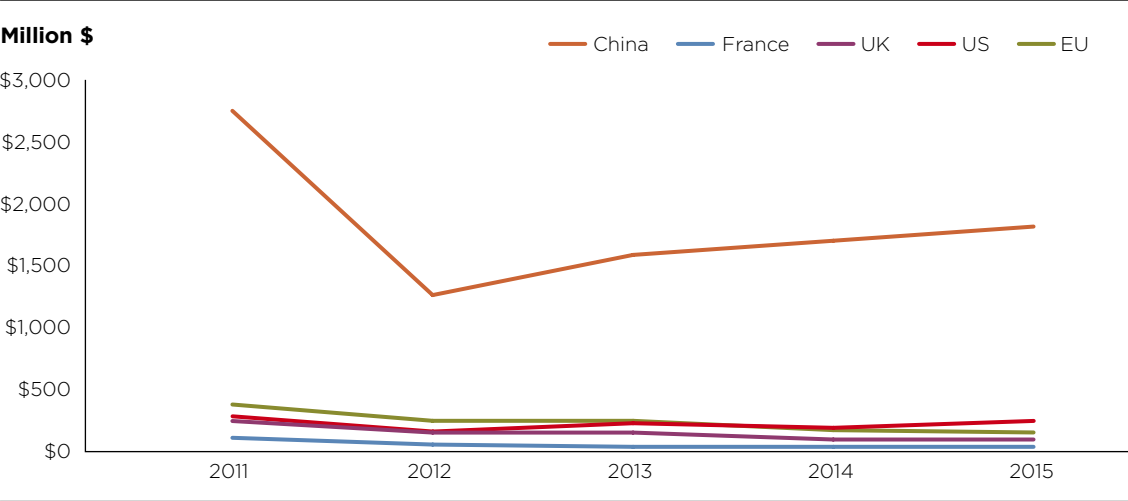
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²⁰ As in 2014 and in the interests of preserving the consistency of the data from China, Macao Chung Shun International Auctions have been removed from the data. The auction house had posted \$251 million in sales in 2015.

China dominates this sector with a market share by value of 82% in 2015, up 1% year-on-year, as well as 51% of the lots sold (down 9%). Despite the overall decline in the Chinese market on aggregate, sales in this sector grew 5% year-on-year, alongside a drop in the number of transactions (of 17%). However, at \$1.8 billion in 2015, total sales remain significantly lower than the peak of the market in 2011, when values reached just \$3.4 billion.

The US is the second largest market, with 11% of total sales values and 32% of the number of transactions in the sector in 2015. Sales grew by 26% year-on-year in the US, reaching \$246 million, their highest level since the peak of the market in recent years at \$289 million in 2011. The third largest market was the UK, with a 4% global share by value and 8% by volume. Sales in the UK were fairly stagnant in 2015, advancing just 1% to \$91

Figure 2s Sales in the Chinese Decorative Art and Antiques Sector 2011-2015: Key Markets



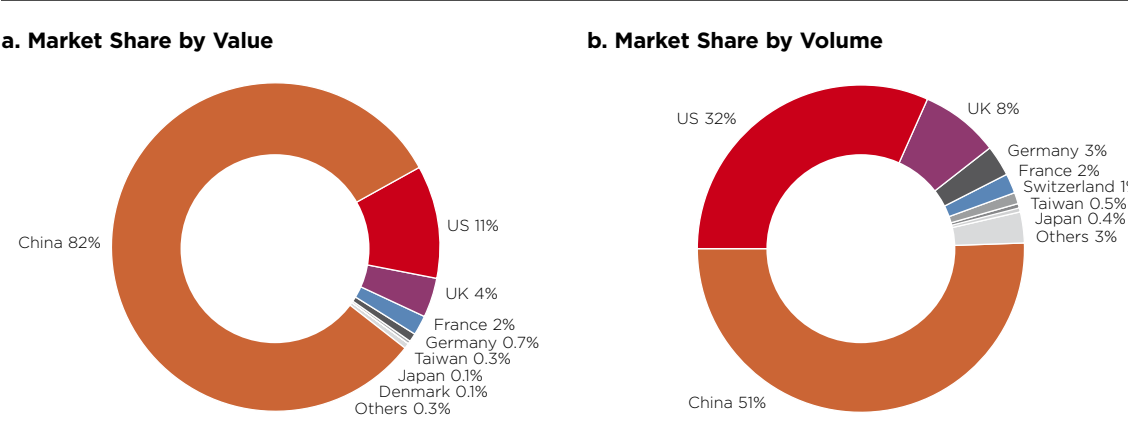
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million, just over one third of their size in 2011 when the market reached \$251 million. Sales in France saw a decline of 15%, and the EU as a whole fell 10% year-on-year to \$148 million. The share of the EU peaked in 2012 at 15%, but by 2015 this had fallen back to 7%.

Like the other sectors, low to mid-priced lots dominated Chinese decorative art at auction,

with 88% of all lots sold in 2015 at prices below \$50,000. Although value is slightly less skewed than in some fine art sectors, high-end works still account for a large share of value, with works selling for over \$1 million, accounting for 36% of total values. In this price range, China dominates with a share of 86% of the value of the over \$1 million market and 85% of transactions (next to the US with a share of 9% by value and volume).

Figure 2t Market Share in the Chinese Decorative Art and Antiques Auction Market in 2015



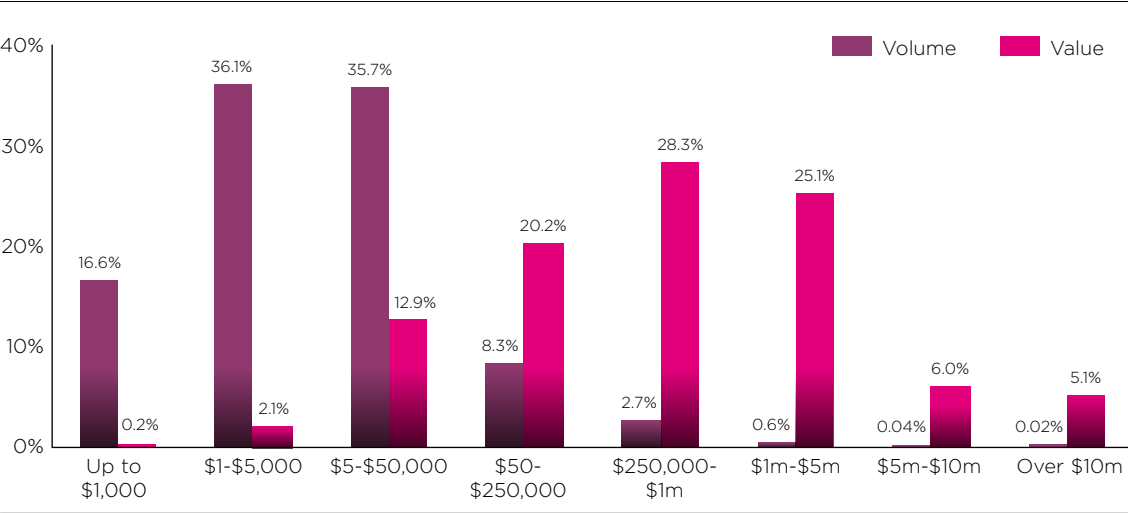
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China also had the highest average prices and, among the larger art markets, the highest share of value in the segment above \$50,000.

There were just nine works sold for over \$10 million during the year and all of these were in

China. The most important category in the over \$1 million segment is the price range between \$1 million and \$5 million, which alone accounted for 25% of the market. Around half of the market by value was sold in the price range of between \$250,000 and \$5 million in 2015.

Figure 2u Sales of Chinese Decorative Art and Antiques by Price Bracket in 2015



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Table 2r Prices in the Chinese Decorative Art and Antiques Sector in 2015

Country	Prices		Share of Value		Share of Volume	
	Average Prices	Median Price	Under \$50,000	Over \$50,000	Under \$50,000	Over \$50,000
Austria	\$3,545	\$1,225	48%	52%	97%	3%
China	\$69,975	\$8,540	12%	88%	81%	19%
Denmark	\$20,782	\$6,341	42%	58%	92%	8%
Finland	\$45,494	\$45,494	6%	94%	50%	50%
France	\$34,706	\$4,785	22%	78%	90%	10%
Germany	\$12,359	\$2,294	40%	60%	97%	3%
Japan	\$13,736	\$4,912	46%	54%	98%	2%
Netherlands	\$2,566	\$1,366	100%	0%	100%	0%
Sweden	\$7,615	\$2,510	61%	39%	98%	2%
Switzerland	\$4,095	\$1,278	57%	43%	98%	2%
Taiwan	\$26,379	\$2,590	20%	80%	92%	8%
UK	\$21,810	\$4,451	32%	68%	95%	5%
US	\$14,706	\$1,708	28%	72%	96%	4%
World	\$43,370		15%	85%	88%	12%
EU	\$21,157		31%	69%	94%	6%

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THE CHINESE DECORATIVE ART AND ANTIQUES SECTOR MAINTAINED A POSITIVE TREND IN 2015, IN CONTRAST TO MOST PARTS OF THE FINE ART MARKET

The highest priced works were sold mainly in Hong Kong and Mainland China, and, as in 2014, important porcelain and ceramics garnered some of the highest results. The highest priced object sold in this sector in 2015 was a tea service, which reportedly sold for \$16.2 million at Dongzheng Auctions in Beijing.

The top 20 auction houses accounted for 93% of the value of sales in the sector in 2015 and 59% of the lots sold. While in 2014 Sotheby's and

Christie's were the highest ranking houses (with a combined 29% of value), in 2015, although they maintained a 28% share, they dropped to third and fourth place respectively behind Poly Auction and Art Sea Hong Kong. The top five houses (which included these four and China Guardian) accounted for 70% of the market's value (up 10% on 2014) and 53% of the lots sold (up 16%). The leading house, Poly Auction, alone accounted for 18% of the value of the sector and 14% of the lots sold.

THE HIGHEST PRICED CHINESE DECORATIVE ART WORKS AND ANTIQUES WERE SOLD IN HONG KONG AND MAINLAND CHINA, AND IMPORTANT PORCELAIN AND CERAMICS GARNERED SOME OF THE HIGHEST RESULTS

Table 2s Top 20 Prices in the Chinese Decorative Art Sector in 2015

Rank	Lot Title	Auction House	Price (\$m)
1	"Squirrel and Grapes" Tea Set Gu Jingzhou	Dongzheng Auction	\$16.2
2	An Outstanding 'Guan' Octagonal Vase, Southern Song Dynasty	Sotheby's Hong Kong	\$14.7
3	The Seal: Qing Dynasty, Kangxi Period, The Seal Face: Qing Dynasty, Yongzheng Period	Sotheby's Hong Kong	\$13.5
4	A White Jade "Tai Shang Huang Di Zhi Bao" Seal Qing Dynasty Qianlong Period	Poly Auction	\$11.7
5	An Extremely Rare and Superbly Enamelled Pair of Famille-Rose 'Peach' Bowls Marks and Period of Yongzheng	Sotheby's Hong Kong	\$11.6
6	A Fine And Important Falangcai Sepia-Enamelled 'Prunus and Bamboo' Bowl	Christie's Hong Kong	\$11.0
7	A Gilded Iron "Dragon" Tomahawk Ming Dynasty Yongle Period	Beijing Hanhai	\$10.4
8	A Bronze and Cloisonne Enamel Tripod Censer with Seal Mark "Qian Long Nian Zhi" Qing Dynasty Qianlong Period	Royal Art Hong Kong	\$10.1
9	A Pair of Famille Rose 'Immortals' Ruyi Vases	Art Sea Hong Kong	\$9.9
10	A Fine and Superbly Painted Blue and White 'Dragon' Vase	Sotheby's Hong Kong	\$9.8
11	Four Huanghuali Horseshoe-Back Armchairs, Ming Dynasty,	Christie's New York	\$9.7
12	A Fine and Magnificent Famille-Rose 'Peach' Vase, Qianlong	Sotheby's Hong Kong	\$8.2
13	A Magnificent Carved Celadon, Underglaze-Blue and Famille-Rose Decorated 'Boys' Vase, Qianlong	Sotheby's Hong Kong	\$8.2
14	A Lavender Jadeite Carving	Royal Art Hong Kong	\$7.3
15	A Magnificent and Fine Blue and White 'Dragon' Hu-Shaped Vase, Qianlong	Christie's Hong Kong	\$7.2
16	A Celadon-Glazed Famille-Rose "Ping, Bamboo and Plum" Tianqiuping	Art Sea Hong Kong	\$6.7
17	A Magnificent and Monumental Yellow-Ground Famille-Rose 'Anbaxian' Sgraffiato Vase with Dragon Handles, Qianlong	Sotheby's Hong Kong	\$6.6
18	A Rare Blue and White Facetted Vase, Xuande	Sotheby's London	\$6.1
19	A Tripod Censer	Royal Art Hong Kong	\$5.7
20	A Figure of Vajraputra Yuan Dynasty	Poly Auction	\$5.7

CHAPTER 3

PRICES AND THE POLARISED ART MARKET



PRICES AND THE POLARISED ART MARKET

Key Findings

- In 2015, 90% of the works sold in the fine art auction market were for prices less than \$50,000, but these accounted for just 12% of total sales values. Works sold for over \$1 million accounted for the majority (57%) of the value of sales in 2015 in just under 1% of all transactions.
- The highest single segment by value was the ultra-high segment (prices over \$10 million), accounting for 28% of total sales values, despite representing a tiny fraction (0.1%) of overall fine art auction transactions.
- Growth in sales above \$1 million have far outpaced growth in values in all other segments. The high-end segment (sales over \$1 million) increased by over 400% from 2005-2015 (more than four times the increase of the low and medium segments).
- Within the high-end segment, ultra-high end sales (sales above \$10 million), have performed best, with an increase of more than 1,000% from 2005-2015, and a compound annual growth rate (CAGR) of 27% per annum. This CAGR not only outpaced other segments of the art market (at more than five times the growth of the low-end), but it also more than doubled that of rapidly growing commodities, including gold.
- Just 1% of the number of artists whose work sold at auction in 2015 accounted for 57% of the market's total sales value, and 5% of artists accounted for nearly three quarters (74%).
- Globally, 1% of artists had works sold for over \$1 million (and only 0.1% for over \$10 million or just 81 artists worldwide).

SINCE THE GLOBAL FINANCIAL CRISIS AND THE CONTRACTION IN THE ART MARKET IN 2009, WHILE THE HIGH-END HAS RECOVERED WELL, THE MIDDLE MARKET HAS COME UNDER MOUNTING PRESSURE

3.1 Art Segments and Prices

The fine art sector has been one of the main drivers of growth in the art market as a whole, particularly for sales at the high-end of the market. Anecdotally, both dealers and auction houses have reported that since the global financial crisis and the contraction in the art market in 2009, while the high-end of the market has recovered well, the middle market has come under mounting pressure.

Dealers and collectors agree that the market has polarised between what are considered to be the best, most sought after and generally highly priced works versus the rest. Many dealers noted that their sales were divided into the low volume and often highly priced top end of the market where they could achieve the highest margins, versus the middle and lower segments, where they sold, often at higher volumes, but at lower prices and with narrower margins. While the same is true for some auction houses, the increasingly narrow focus by top collectors on the very high-end of the fine art market, and a very limited group of the most sought after artists, has made it highly competitive to secure vendors, with financial incentives and guarantees increasingly used for the highest priced lots. These incentives, while useful for securing particular works and the

publicity that comes with them, have in many cases substantiality reduced the profitability of the sales.

As all of the businesses in the market function in different price and value segments, the definition of “middle market” varies significantly, and one dealer’s mid-priced objects could be the very highest achievable level for another. This has made it difficult to define precisely which segments of the market have actually performed the best or the worst in recent years.

For the purposes of this analysis of the different segments, the following broad definitions are used to divide up the market:

- 1. The low-end - prices up to \$50,000.
- 2. The middle market - prices from \$50,000 to \$1 million.
- 3. The high-end - prices in excess of \$1 million, including the “ultra-high-end” with prices in excess of \$10 million.

As the auction sector is the primary source of publicly available data for individual transactions on a large scale, it is used for the majority the analysis which follows to assess the performance of these segments over time.

3.2 Fine Art Auction Prices

In 2015, fine art²¹ dominated values and, despite declines in many sectors, remained the sector where most of the highest prices were achieved at auction. Table 3a sets out the change in average prices at fine art auctions in the last eight years. In a very heterogeneous market such as art, national and world average prices are of limited value in assessing which precise parts of the market have actually seen an increase in price, but they offer a broad benchmark of relative values over time. Average fine art prices at auction worldwide increased by 10% in 2015, as the decline in sales values at auction was considerably less than the decline in volumes. Prices have risen by 84% since their recent lowest point in 2009, and the country with the highest increase in that period was the US, where sales rose 159%.

In 2015, average prices in the US increased 8% year-on-year, and reached their highest level in ten years. The UK had higher average prices than the US (with a much smaller volume of sales), but after several years growth these fell 6% in 2015. France was one of the few countries in Europe that saw an increase in prices, with an uplift of 6%. In China, despite the decline in values, a disproportionate drop in the volume of works sold also led to a rise in average prices (of 27%).

²¹ For the purposes of this analysis, fine art includes paintings, sculptures and works on paper (including watercolours, prints, drawings and photographs), while decorative art while decorative art includes furniture and decorations (in glass, wood, stone, ceramic, metal or other material), couture, jewellery, ephemera, textiles and other antiques.

Table 3a Average Auction Prices* for Fine Art by Country 2008-2015

	2008	2009	2010	2011	2012	2013	2014	2015
Austria	\$14,025	\$12,800	\$17,090	\$13,650	\$14,535	\$17,110	\$16,335	\$16,510
France	\$17,285	\$25,755	\$17,270	\$18,975	\$18,025	\$18,175	\$17,900	\$19,060
Germany	\$10,625	\$9,500	\$9,460	\$11,370	\$10,790	\$11,125	\$11,915	\$11,840
Italy	\$20,920	\$17,970	\$11,465	\$8,920	\$7,135	\$7,950	\$9,710	\$10,970
Netherlands	\$18,630	\$17,070	\$18,000	\$14,725	\$16,720	\$18,535	\$19,970	\$15,385
Spain	\$17,920	\$9,745	\$13,275	\$8,160	\$9,425	\$7,735	\$7,750	\$6,360
Sweden	\$15,450	\$9,640	\$11,785	\$13,105	\$15,110	\$16,145	\$14,975	\$12,420
UK	\$106,405	\$52,195	\$72,590	\$78,955	\$84,435	\$86,890	\$115,075	\$108,000
EU	\$38,035	\$23,210	\$24,945	\$26,255	\$26,840	\$25,820	\$31,610	\$32,365
Singapore	\$32,155	\$25,545	\$27,250	\$29,595	\$31,965	\$47,785	\$39,670	\$37,385
Japan	\$18,635	\$13,650	\$16,235	\$9,335	\$10,375	\$10,035	\$12,045	\$11,105
China	\$76,920	\$50,375	\$90,530	\$92,650	\$60,695	\$72,550	\$67,135	\$85,310
UAE	\$95,855	\$38,125	\$66,895	\$36,175	\$31,010	\$50,340	\$69,565	\$63,060
Switzerland	\$26,745	\$14,490	\$21,655	\$28,315	\$25,290	\$23,370	\$21,110	\$14,835
US	\$70,720	\$36,690	\$56,500	\$50,060	\$61,475	\$71,190	\$87,895	\$94,935
World	\$45,805	\$28,535	\$40,625	\$44,515	\$40,245	\$42,885	\$47,865	\$52,640

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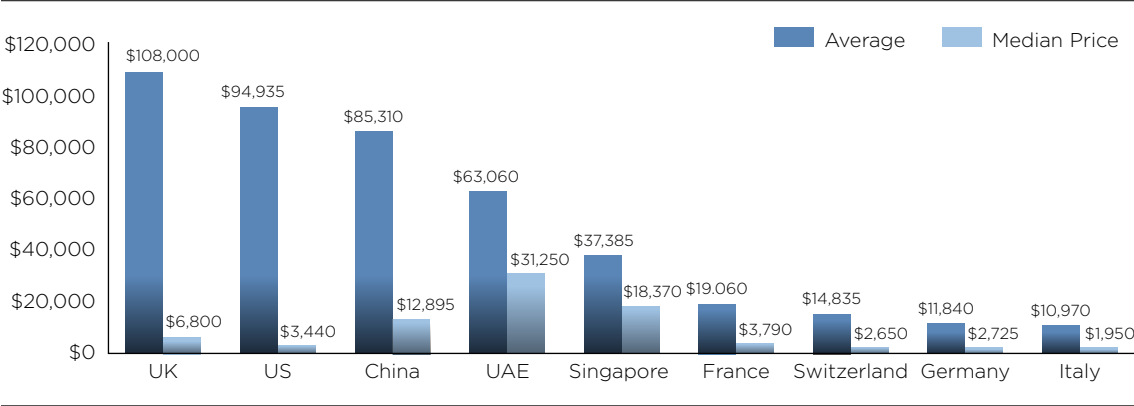
THE MARGIN BETWEEN AVERAGE AND MEDIAN PRICES IS INCREASING AS THE HIGH-END DISLODGES MORE FROM THE REST OF THE MARKET

Average prices at auction are often skewed upwards by a small number of very highly priced lots. To gauge trends in prices over time and between markets, the median price is a useful comparative measure and is analysed in Figure 3a.²² The averages in all markets are distorted by high prices, but more markedly so in the larger markets where the top-end sales occur. In the US, the average price was 28 times the median and in the UK is was 16 times its size. It was between three and six times in other European markets where there are generally lower prices and fewer very highly priced works sold at auction relative to

the total number of lots sold. There is also a lower ratio in smaller markets, such as Singapore and the UAE, where there is a very low volume of sales at auction, but relatively higher prices.

The margin between the average and median is also increasing over time as the high-end dislodges more from the rest of the market, particularly in the largest art markets. In the US for example in 2009, the average price was 14 times that of the median price. It had risen to 20 times by 2013, increased again to 25 times in 2014, and peaked at 28 times in 2015.

Figure 3a Average and Median Fine Art Auction Prices* in 2015



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²² The median is a measure of central tendency that is used when distributions are skewed to get a better idea of where the middle of market is. The median price is simply the price separating the higher and lower halves of the distribution of prices: if prices in the art market were arranged from lowest to highest, the median price is the middle price or centre point along the spectrum.

WORKS SOLD FOR OVER \$1 MILLION ACCOUNTED FOR THE MAJORITY OF VALUE (57%) IN JUST LESS THAN 1% OF TRANSACTIONS

3.3 Sales by Segment in 2015

Although high priced transactions have a very marked effect on average prices, in terms of the daily functioning of the art market, they represent a tiny fraction of the volume of sales in all art markets. The bulk of transactions carried out at auction, as well as through dealers, take place at the lower priced end of the market.

Figure 3b sets out the value and volume of aggregate fine art auction sales by reference to price segments. In 2015, 90% of the works sold at auction were for prices less than \$50,000, with 56% sold for \$5,000 or less. However, these lower value lots made up a small portion of the market's total sales value: lots under \$50,000 accounted for 12% of total sales values, and those under \$5,000 only 2%.

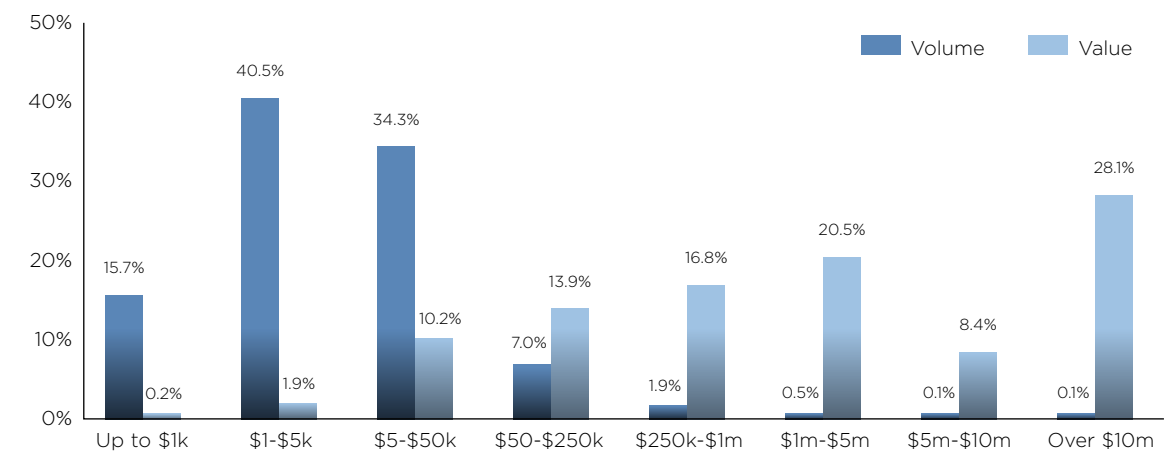
At the high-end of the market, works sold for over \$1 million accounted for the majority of value (57%) in just less than 1% of transactions. The highest single segment by value was the ultra-high segment (prices over \$10 million) accounting for 28% of total sales values, despite representing a tiny fraction of the overall transactions. Because the market is so skewed by value to the high-end (and by volume to the low-end), the presence or absence of a relatively small number of very highly priced lots at auction

can have a significant impact on aggregate sales, while these trends are unrelated to the majority of businesses in the art market, which transact predominantly at lower prices.

As most auction records in recent years have been in the fine art market, this sector has become the most skewed in terms of values. It is interesting therefore to compare the

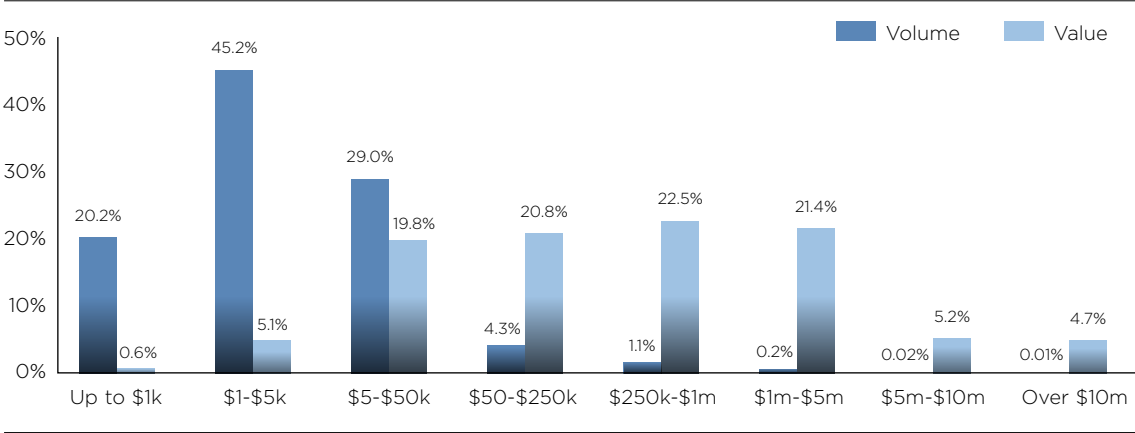
breakdown by segment with decorative art sales. As explained in Chapter 2, Artnet's database of decorative art transactions covers a small segment by volume of the decorative art and antiques market, which contains millions of very low value transactions in most countries around the world. However, it provides a useful way in which to investigate the segmentation by price outside of the fine art market.

Figure 3b Share of Lots Sold and Total Value at Global Fine Art Auctions in 2015 by Price Bracket



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Figure 3c Share of Lots Sold and Total Value at Selected Global Decorative Art Auctions in 2015 by Price Bracket

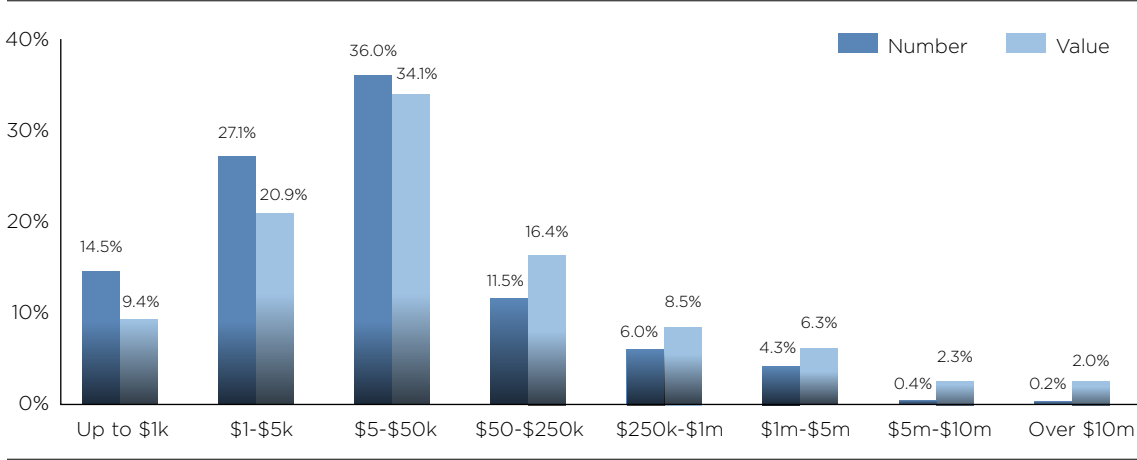


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Figure 3c analyses decorative art sales by value and volume of sales in various price segments. As in fine art, in 2015, the majority (94%) of objects sold at auction were priced at less than \$50,000, with the single most common segment being those priced between \$1,000 and \$5,000. However in the decorative sector, values are slightly more evenly distributed around the middle of the price spectrum. Lots sold for less than \$50,000 account for 25% of total sales, a significantly larger share of values than in the fine art market.

At the higher end of the market, only a tiny fraction (0.3%) of objects sold for over \$1 million and these accounted for 31% of the market's total value. In contrast to the fine art market, the highest single segment by value was objects priced between \$250,000 and \$1 million (at 22%), however values were fairly evenly spread across the middle of the price distribution. The ultra-high segment in this market only accounts for 5% of total sales values in a tiny 0.01% of transactions at auction.

Figure 3d Share of Individual Sales and Total Sales Values by Dealers in 2015 by Price Bracket



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It is also possible to make a comparison to the dealer market based on the survey carried out in 2015. The dealers sampled covered one of the most balanced distributions by price. Figure 3d sets out the number of individual sales and the value of sales by dealers according to the different price segments. The majority of both value (64%) and volume (78%) of sales took place in the segment below \$50,000, with the highest share of both within \$5,000 and \$50,000. Works and objects priced at over \$1 million accounted for only 5% of the volume of sales on

average and 10% of values. As explained in Chapter 1, the dealer survey includes a good cross-section of mid-to-high level dealers, as it relies on membership of a dealer association or exhibition at a major fair or similar event for inclusion. It therefore excludes a large number of very small galleries and dealers (hence underestimating the volume of sales at the lower end) and potentially also a small number of the highest end dealers, who do not answer the survey (hence underestimating the share of value at the highest end).

31% of dealers who responded to the survey identified the segment between \$5,000 and \$50,000 as being their most profitable, and this was also the highest rated for the last five years. Another 44% reported that the best margins came from sales between \$250,000 and \$1 million and \$1 million and \$5 million. Most dealers (73%) did not see this changing over the next five years, although 22% thought that their most profitable price segment in future would be a higher one.

3.4 Market Share by Segment

Returning the focus to the fine art auction sector, global market share also fluctuates between price bands. While the top ranked countries do not change, the higher up the price spectrum, the greater the share of the top three markets, and in particular the dominance of the US, where most of the highest end auction sales now take place.

Figure 3e analyses the share of sales in different price points in national markets. In the low-end market, for works priced less than \$50,000, the

top three markets of the US, China and the UK accounted for 54% of the total sales by value in 2015 and 44% of the lots sold. In the middle market, their share of values rose to 77% (and 72% of the volume of sales). China has the largest share in this middle segment between \$50,000 and \$1 million, accounting for 33% of the value of global sales, with more moderately priced sales playing a key role in the Chinese market, and China's top-end at a generally lower level than the US or UK. Around half of the value within the Chinese fine art auction market was in this middle section between \$50,000 and \$1 million (versus less than 30% of sales within the US market in 2015).

In the market for works priced at over \$1 million, the three top markets step up in share yet again, accounting for 97% of total sales values in 2015, and all sales priced at over \$10 million. The position of the US is clearly dominant in these upper segments, with a 72% share of the sales by value in the over \$10 million.

IN THE MARKET FOR WORKS PRICED AT OVER \$1 MILLION, THE THREE TOP MARKETS ACCOUNTED FOR 97% OF TOTAL SALES VALUES

Figure 3e Market Share of Fine Art Auction Market by Price Segment in 2015

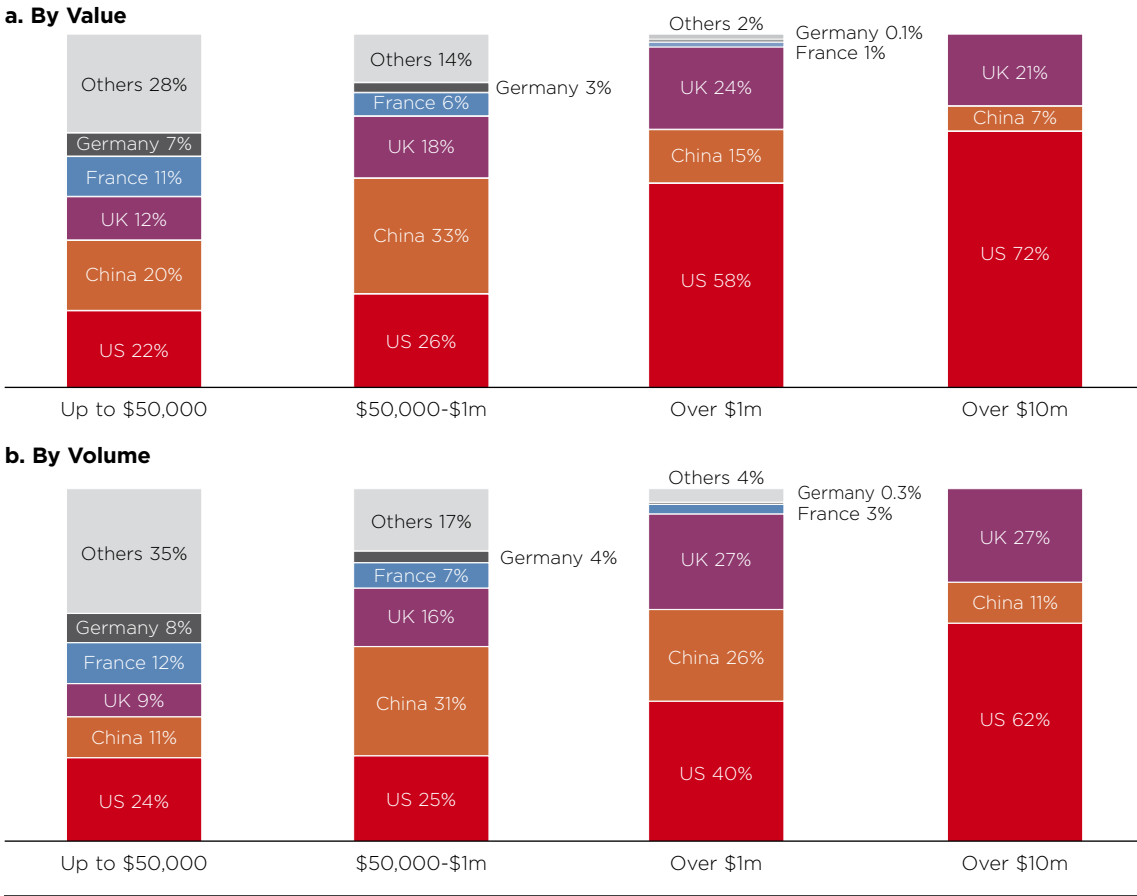


Table 3b Market Share by Value: High-end (Works Priced Over \$1 million)

Country	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
China	2%	2%	4%	3%	17%	30%	42%	24%	24%	17%	15%
France	1%	3%	3%	2%	18%	2%	2%	3%	2%	2%	1%
UK	33%	29%	33%	45%	25%	24%	23%	26%	22%	28%	24%
US	62%	63%	56%	46%	36%	40%	29%	44%	49%	52%	58%
Others	3%	3%	4%	3%	4%	4%	3%	3%	3%	2%	2%

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Table 3b looks at global market share in the high-end of the market, for works priced over \$1 million. The US has maintained a leading position in this segment of the market, apart from in 2011, when the combination of the global financial crisis and the ascent of the Chinese market led to a reduction in share to 29% (while China rose to 42%). Since then, it has built share again and returned to a majority in this segment in both 2014 and 2015, while China has consequently more than halved its share since 2011. Although there has been some fluctuation, the UK has generally lost share by value in the high-end segment since 2008, losing 21 percentage points over the seven years to 2015. France has varied little, with the notable exception of 2009, when at the depth of the contraction in art markets elsewhere, France had an exceptionally strong year (buoyed by the

sale of the Yves Saint Laurent and Pierre Bergé collection which totalled €374 million / \$536 million with 48 lots sold for over \$1 million).

The trend in the volume of sales has followed a very similar path, with the US shifting from a majority of 56% in 2005 to a low of 23% in 2011 (versus China’s 50%). However by 2015, the US had regained share to 40% versus 27% in the UK and 26% in China.²³

The dominance of the US in the high-end segment varies somewhat between sectors. In the European Old Master sector for example, the UK has maintained a majority share in the high-end segment for the last ten years, ranging from a low of 53% of the value of sales in 2015 (versus 43% in the US) to 82% in 2005 (versus just 14% in the US).

²³ While their shares of the number of transactions are similar in the market for works priced over \$1 million, the UK had a much larger share than China in the ultra-high-end (over \$10 million market) accounting for 27% of the transactions volumes in 2015 versus 11% in China.

Table 3c Market Share by Value: Middle Market (Works Priced Between \$50,000 and \$1 million)

Country	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
China	13%	9%	10%	11%	25%	38%	53%	46%	44%	43%	33%
France	7%	8%	8%	8%	12%	7%	6%	6%	6%	6%	7%
UK	29%	29%	30%	31%	20%	17%	13%	15%	15%	16%	18%
US	37%	39%	33%	28%	24%	22%	16%	20%	21%	20%	26%
Others	14%	15%	19%	21%	19%	17%	12%	13%	14%	15%	16%

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In the much larger Post War and Contemporary sector however, the US has always been the leading market, with its global share ranging from 45% in 2011 to 80% in 2005. In 2015, the US accounted for 61% of sales values (versus 25% in the UK and 10% in China). Again in the segment above \$10 million, this is much more exaggerated in the Post War and Contemporary sector, where the US has averaged an 82% share over ten years and has always maintained the majority of sales.

Table 3c examines market shares in the middle market of works priced between \$50,000 and \$1 million. The top three markets of the UK, US and China still account for a majority share, which has not dipped beneath 69% of sales values in the ten years from 2005 to 2015. However, the breakdown

between these markets is quite different to the high-end. The UK and US jointly accounted for the majority of this market up to 2009, but from that point, China began to take the lead. China’s global share of sales values escalated until the height of the market in 2011, when it accounted for over half of the value of sales in the middle market (and 50% of the number of transactions). As the Chinese market slowed, its share dropped, and in 2015 it accounted for around one third of the value of the middle market, but remains the largest national market in this segment. China has also accounted for the largest volume of sales in this segment since 2009, although its share has dropped from 50% in 2011 to 31% in 2015. The US had the most transactions up to 2009, and in 2015 accounted for 25% next to the UK at 16%.



Table 3d records the distribution of the low-end of the market (works priced below \$50,000). Here, the lead of the top three markets is at its lowest. Together they accounted for 58% in 2005, dropping to a low of 47% (in 2008) and peaking in 2012 at 61%. The US remained the largest market in 2015, but with a much smaller share than it had in other segments (at 22% of sales values and 24% of the number of transactions). China was in second place with 20% (and 11% of transactions), after maintaining a leading position from the years between 2009 and 2014.

In this end of the market the EU has a substantial 46% share (and 56% of transactions), and accounted for the majority of sales by value up to 2009. The UK has a considerably less dominant position within the EU market in this segment, with a share by value only fractionally ahead of France in 2015. France has also consistently had a greater number of transactions in the low-end segment than the UK since 2008.

Table 3d Market Share by Value: Low-end (Works Priced Less than \$50,000)

Country	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
China	9%	8%	7%	6%	19%	22%	31%	33%	29%	30%	20%
France	12%	14%	13%	15%	14%	12%	11%	10%	10%	10%	12%
UK	20%	20%	19%	17%	12%	12%	10%	10%	10%	10%	12%
US	29%	30%	27%	24%	19%	20%	18%	18%	19%	18%	22%
Others	30%	29%	34%	38%	36%	34%	31%	29%	32%	32%	34%

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THE HIGHER UP THE PRICE SPECTRUM,
THE GREATER THE SHARE OF THE TOP
THREE MARKETS

3.5 The Performance of Price Segments Over Time

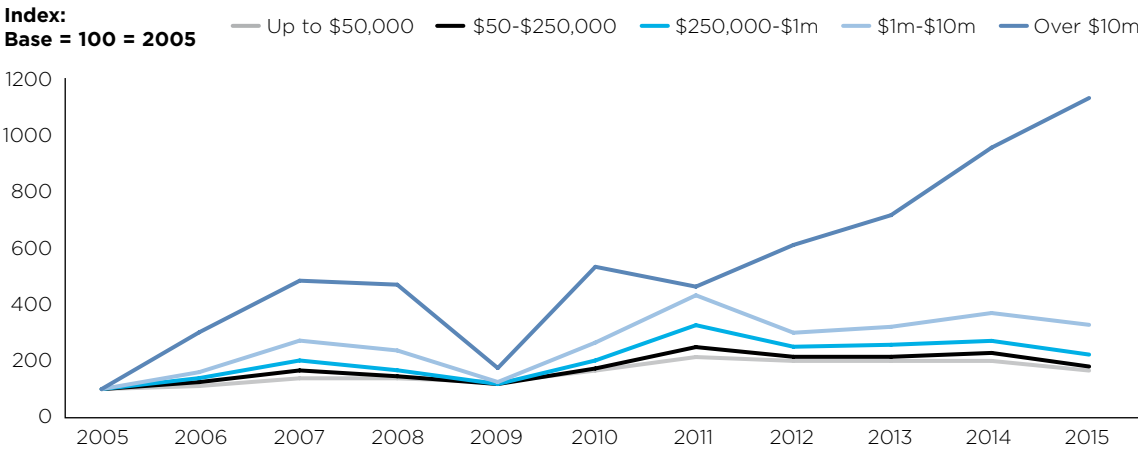
Figure 3f shows an index of the growth in sales values in the fine art market in the different price segments (using 2005 as the base year). It is clearly evident that growth in the segment above \$10 million has far outpaced growth in values in all other segments.

While the high-end segment (sales over \$1 million) increased by over 400% in this period (over four times the increase of the low and

medium segments), sales above \$10 million, the ultra-high segment, increased by more than 1,000% , with a compound annual growth rate (CAGR) of 27% per annum. This CAGR is not only outpacing other segments of the art market (at more than five times the growth of the low-end), but it also more than doubled that of rapidly growing commodities, including gold.

The low-end segment (prices up to \$50,000) grew 65% in value from 2005 to 2015, with a compound

Figure 3f Growth of Sales by Value in Price Segments



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annual growth rate of 5% per annum. Given that general inflation (based on US rates) was over 21% during this period, this represents fairly moderate growth. The best performing segment within the low-end over ten years was the very lowest section of prices below \$1,000. However since 2009, sales between \$5,000 to \$50,000 have had a higher compound annual growth rate (CAGR).

The middle market (between \$50,000 and \$1 million) has seen annual growth rates fairly similar to the low-end over the decade between 2005 and 2015. In the recovery period from 2009 however it has actually performed better, with an increase in value of 70% versus 30% for the low-end. In the middle segment, the higher priced section of \$250,000 to \$1 million has seen superior performance, although still significantly less growth than the high-end.

In summary, the low and middle segments of the market over the ten year period from 2005 to 2015 grew relatively slowly and roughly at the

same pace. The best performing parts over a ten year period were works priced below \$1,000 and the segment between \$250,000 to \$1 million. Therefore the slowest growth in the market during this period was the broad segment between \$1,000 and \$250,000.

It is worth noting however that the first part of the decade differed significantly from the latter part. From 2005 to 2009, the highest CAGRs were in the lowest priced segments, with the segments below \$5,000 growing at up to three times the rate of the middle of the market. When the market as a whole contracted in 2009, this lowest end of the market actually increased in value year-on-year, while every other segment of the market over \$5,000 fell. But in the recovery period from 2009, the opposite has been true, and growth rates have been closely correlated with rising price levels. The best performing segments in the more recent period were those with the highest prices, and the worst in terms of growth were at the lowest end.

THE HIGH END SEGMENT INCREASED BY OVER 400% FROM 2005 TO 2015, OVER FOUR TIMES THE INCREASE OF THE LOW AND MEDIUM SEGMENTS

Table 3e Annual Growth, Total Growth and Share of Sales by Value

Price Segment	Low-end (Up to \$50,000)			Middle (\$50,000 - \$1 million)		High-end (Over \$1 million)		
	Up to \$1k	\$1-\$5k	\$5-\$50k	\$50-\$250k	\$250k-\$1m	\$1m-\$5m	\$5m-\$10m	Over \$10m
Share 2005	0.3%	3%	19%	23%	22%	18%	8%	7%
Share 2015	0.2%	2%	10%	14%	17%	20%	8%	28%
Change 2005-2015	118%	86%	61%	80%	122%	229%	220%	1,027%
CAGR 2005-15	8%	6%	5%	6%	8%	13%	12%	27%
Change 2005-2009	83%	52%	22%	15%	22%	28%	9%	72%
CAGR 2005-09	16%	11%	5%	4%	5%	6%	2%	15%
Change 2009-2015	19%	22%	32%	56%	83%	156%	193%	553%
CAGR 2009-15	3%	3%	5%	8%	11%	17%	20%	37%
Change 2014/15	-18%	-16%	-20%	-22%	-18%	-13%	-10%	19%

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THE HIGH-END PERFORMED BETTER THAN THE REST OF THE MARKET, AND WITHIN THIS SEGMENT, THE ULTRA-HIGH-END HAS ALSO OUT-PERFORMED THE REST OF THE SEGMENT

The high-end of the market (sales over \$1 million), on the other hand, has seen much stronger growth overall. The high-end performed better than the rest of the market, and within this segment, the ultra-high-end has also out-performed the rest of the segment.

The growth in the fine art market overall in the segment above \$ 1 million in ten years was just over 400%. This was amplified even further in some sectors of the market, such as Post War and Contemporary art, where the million dollar plus segment advanced by 660%. The ultra-high-end (above \$10 million) experienced a rise of over 1,000% in ten years and again, this was even more exaggerated in the Post War and Contemporary sector (up nearly 1,500%) and Modern art (increasing by close to 1,200%).

These high value sectors heavily influence aggregate figures because of their large share of total values, but this pattern does not hold in all sectors. In European Old Masters, for example, the high-end of the market has seen little growth, and in the ultra-high-end, the CAGR over ten years was actually the lowest of all price segments in this sector (at -4%), while the segment between \$5 million to \$10 million performed best (albeit at low 2% growth over ten years).

In the aggregate fine art market, the segment from \$5 million to \$10 million has experienced slightly slower growth over ten years than works priced up to \$5 million. However both of these segments have been far overtaken by the ultra-high segment (over \$10 million), which has experienced annual growth rates more than double the rest of the segment in the last ten years. Even despite being the worst hit in the contraction of the market in 2009 (with values in the ultra-high segment falling 63%, the worst decline of any segment), the CAGR in the period including this decline (2005 to 2009) still reached 15%, more than double the growth of the high-end and the rest of the market (with the exception of the very lowest end of less than \$1,000 at 16%).

In the recovery period, this ultra-high-end has really buoyed up the high-end, and experienced by far the largest escalation in value. It was also the only segment to increase in value in 2015, by a substantial 19% versus declines at all other levels in the market.

The very strong growth at the high-end has had a significant influence on its share of the fine art market by value. In 2005, the middle market accounted for the greatest share of value in the market (at 45%) while the high-end accounted for around one third of total sales. However by 2015, the high-end accounted for the majority share, increasing 24 percentage points to 57%,

IN 2005, THE MIDDLE MARKET ACCOUNTED FOR THE GREATEST SHARE OF VALUE IN THE MARKET (AT 45%), HOWEVER BY 2015, THE HIGH-END ACCOUNTED FOR THE MAJORITY SHARE (AT 57%)

while the middle was reduced by 14 percentage points down to 31% (and the low-end down from 22% to 12%). While the value in the lower section of the high-end (up to \$10 million) increased only slightly (by 3%), it has clearly again been the ultra-high-end that has driven the advancing share, increasing to four times its share by 2015.

This fluctuation in the share of value has come alongside virtually no change in the share of the volume of sales. The low-end accounted for the majority of transactions in 2005 and this had not changed by 2015.

It is important to note again that the increasing dominance of the high-end in terms of the share of value is heavily influenced by this being the prevailing trend in Post War and Contemporary and Modern art. In the Post War and Contemporary sector, the middle market dropped in share from 46% to 30% from 2005 and 2015 as the high-end escalated from 33% to 58%. In Modern, the high-end grew 25% to reach 61% while the middle fell to 28% (down 14% in ten years) as well as a halving of the share of the low-end (to 11% in 2015). This has not happened in all sectors, with European Old Masters again providing a useful contrast. In this sector, the share of the high-end has not changed in ten years (remaining at 35%) and the middle has risen only slightly from 41% to 44% in 2015 (with a concurrent decline in the low-end to 21%).

Table 3f Share of Price Segments 2005-2015

i. By Value	Low	Middle	High	Sales from	Sales over
	(Up to \$50,000)	(\$50,000 to \$1million)	(Over \$1 million)	\$1 million - \$10 million	\$10 million
2005	22%	45%	33%	26%	7%
2006	17%	40%	43%	28%	15%
2007	14%	38%	48%	32%	16%
2008	15%	36%	49%	31%	18%
2009	22%	42%	35%	25%	10%
2010	16%	37%	47%	30%	17%
2011	15%	40%	45%	35%	11%
2012	16%	39%	45%	29%	16%
2013	15%	37%	47%	29%	18%
2014	14%	35%	51%	30%	22%
2015	12%	31%	57%	29%	28%

ii. By Volume	Low	Middle	High
	(Up to \$50,000)	(\$50,000 to \$1 million)	(Over \$1 million)
2005	91%	9%	0.4%
2006	90%	10%	0.5%
2007	88%	11%	0.7%
2008	90%	9%	0.6%
2009	92%	7%	0.3%
2010	91%	8%	0.5%
2011	90%	10%	0.7%
2012	91%	9%	0.5%
2013	90%	9%	0.5%
2014	90%	9%	0.6%
2015	90%	9%	0.6%

Table 3g replicates some of the same growth statistics for the volume of fine art sales. This also shows that, relative to the base year, the top end has been growing more than the other segments over the last decade and especially since 2009. It is important to remember, however, that the volume of sales is very small at the high-end. The advance of 600% over ten years in the ultra-high segment (over \$10 million) represents an increase of less than 150 works, whereas the increases of the low-end involve adding close to 120,000 lots.

Similarly the ultra-high segment was the only one to show an annual increase over 2015, but this 16% rise relates to only 22 lots. So while the number of high-end sales in excess of \$1 million has grown rapidly (to over three times its original size in ten years and faster than the other segments), it still only represents less than 2,000 lots in 2015.

3.6 Artists by Price Segment

The increasingly polarised market around the top end also centres on a relatively narrow group of

Table 3g Annual Growth, Total Growth and Share of Sales by Volume

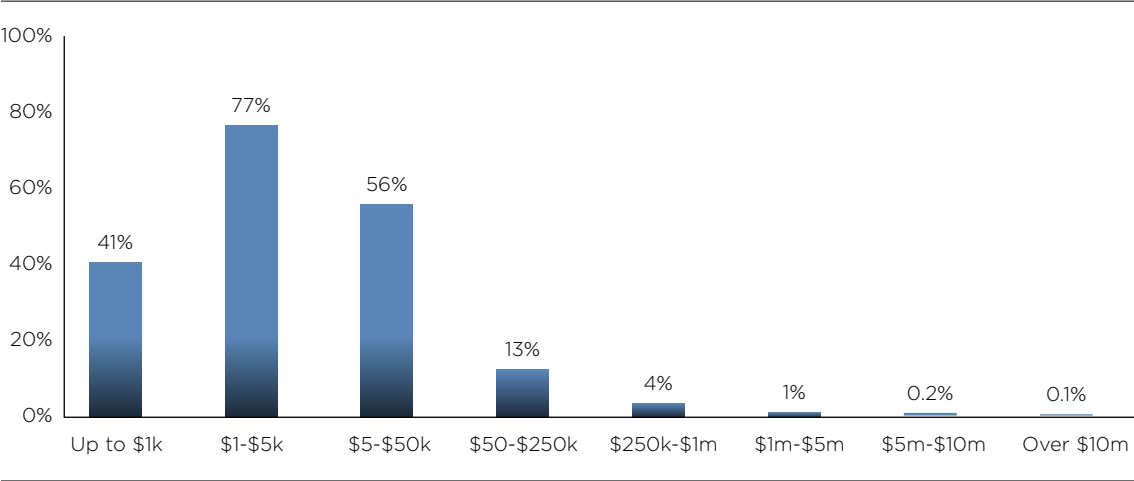
	Low-end (Up to \$50,000)			Middle (\$50,000 - \$1 million)		High-end (Over \$1 million)		
Price Segment	Up to \$1k	\$1-\$5k	\$5-\$50k	\$50-\$250k	\$250k-\$1m	\$1m-\$5m	\$5m-\$10m	Over \$10m
Share 2005	14%	39%	39%	7%	2%	0.3%	0.04%	0.02%
Share 2015	16%	41%	34%	7%	2%	1%	0.07%	0.06%
Change 2005-2015	114%	94%	64%	77%	116%	210%	208%	600%
CAGR 2005-15	8%	7%	5%	6%	8%	12%	12%	21%
Change 2005-2009	83%	57%	27%	17%	19%	26%	5%	48%
CAGR 2005-09	16%	12%	6%	4%	4%	6%	1%	10%
Change 2009-2015	17%	23%	29%	51%	81%	146%	194%	374%
CAGR 2009-15	3%	4%	4%	7%	10%	16%	20%	30%
Change 2014/15	-17%	-16%	-19%	-23%	-17%	-15%	-8%	16%

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artists. There were close to 59,000 individual artists whose work was sold at fine art auctions in 2015, with many selling across multiple price segments.²⁴ The majority of sales by value were however based around works by a very small group of artists. Just 1% of all the artists whose work sold at auction in 2015 generated 57% of the market’s total sales values, and 5% accounted for nearly three quarters (74%). This again demonstrates the very narrow focus of the market in terms of artists in the context of aggregate value.

Figure 3g sets out the share in the number of artists per segment selling in 2015. The majority of artists’ works sold for less than \$50,000, with the highest single price segment, in terms of the number of artists, being between \$1,000 and \$5,000. Globally, only 18% of artists whose works were sold across all segments at auction in 2015 reached prices above \$50,000, and the works of just 1% of artists were sold for over \$1 million (and only 0.1% for over \$10 million or just 81 artists worldwide).

Figure 3g Share of the Number of Artists by Price Segment in 2015



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²⁴ The total number of artists aggregated across all segments in 2015 (summing artists per segment) was 112,844. The figure of 58,965 represents only unique artists selling across all categories, removing any double counting.

The distribution of artists is closely correlated to the lot volume distribution for fine art, and the average number of lots per artist in all segments showed very little variation (with an average of either two or three lots per artist for all of the price segments in 2015).

While the total number of artists whose work has sold at auction has increased 77% over the ten years from 2005 to 2015, the greatest advances in number (albeit from the lowest bases) have been in the segments above \$1 million. Although a number of factors (including inflation) can influence the numbers in these categories year-on-

year, the increase is also likely due to the increased focus of many collectors on buying works at the top end of the market. It is also due to the expansion of the Post War and Contemporary sector, which has the most lots sold for over \$1 million, the greatest share of artists in the high-end compared to other sectors, and the biggest growth in the number of artists over time.

While sales by artists in the lower segments are widely spread geographically, it is not surprising that the densest number of artists in the higher brackets was in the major art markets of the US and UK. The US and UK had a combined majority

Table 3h Change in Number of Artists Selling at Auction from 2005 to 2015

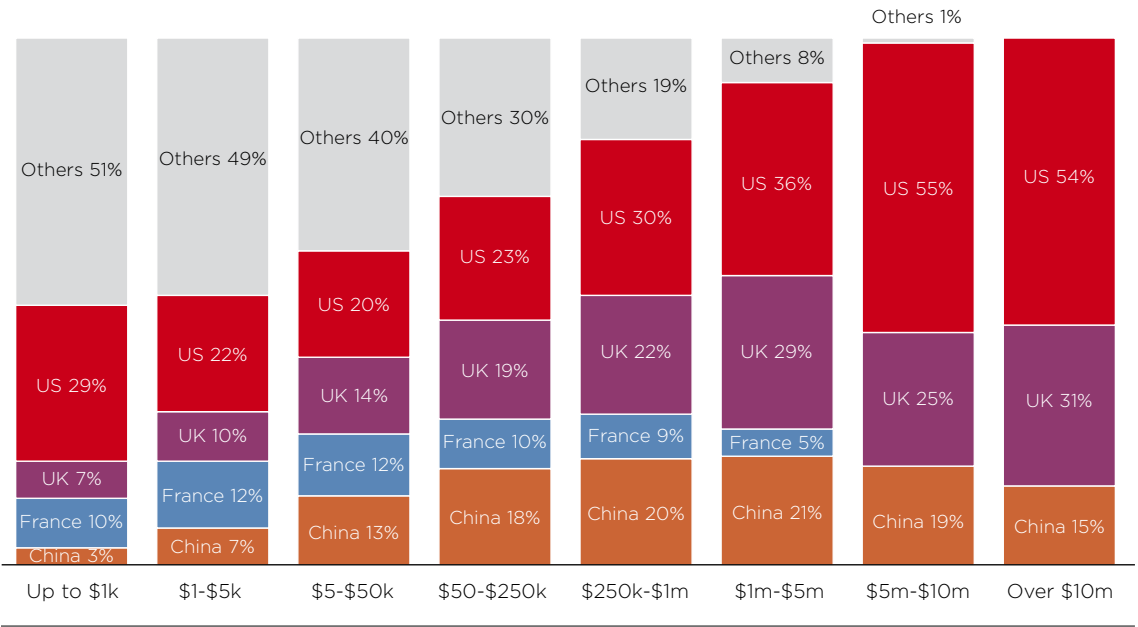
Price Segment	2015	2005	% Change
Up to \$1,000	24,218	10,916	122%
\$1,000-\$5,000	45,282	24,712	83%
\$5,000-\$50,000	32,958	20,285	62%
\$50,000-\$250,000	7,497	4,609	63%
\$250,000-\$1m	2,081	1,168	78%
\$1m-\$5m	611	283	116%
\$5m-\$10m	116	43	170%
Over \$10m	81	16	406%
Total	58,965	33,341	77%

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share in the total number of artists for all price levels above \$250,000, and the US alone held a majority in the segments above \$5 million. Of the total artists represented in the segment above \$10 million, 54% had sales that took place in the

US in 2015. No artists in that price bracket were represented in sales outside the three major markets of the US, UK and China. In contrast, in the segments up to \$5,000, the majority of artists were outside these top three markets.

Figure 3h Share of Total Artists by Location of Sales and Price Segment in 2015



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Post War and Contemporary art had the largest number of artists making sales at auction in 2015 (43% of the total)²⁵, and it also had the largest number selling at the high-end.

However regardless of the sector or its relative size, artists with works selling for more than \$1 million represent a tiny minority of the total number of artists whose work sold at auction. In 2015, across all sectors, the work of less than 2% of artists were sold in this high segment. The densest segments in all sectors were the two lower ones between \$1,000 and \$50,000.

Table 3j shows however that the number of artists whose work reached prices of over \$1 million has grown over the last ten years. In Post War and Contemporary sector, the number of artists in this segment grew 294%, the most rapid growth of any of the sectors and over twice the overall growth of artist numbers within the Post War and Contemporary art sector. The greatest advance has been in the number of artists with works selling for over \$10 million, which increased from just six artists in 2005 to 32 in 2015.

The number of artists selling works at the high-end expanded considerably in all sectors, with the

Table 3i Share of Artists by Price Segment and Sector in 2015

Price Segment	Post War & Contemporary	Impressionist & Post-Impressionist		Old Masters	European Old Masters
		Modern			
Up to \$1,000	43%	54%	46%	25%	28%
\$1,000-\$5,000	79%	91%	91%	79%	82%
\$5,000-\$50,000	63%	59%	53%	83%	80%
\$50,000-\$250,000	16%	15%	11%	21%	19%
\$250,000-\$1m	4%	5%	3%	5%	4%
\$1m-\$5m	1.4%	1.5%	1.0%	1.3%	0.9%
\$5m-\$10m	0.3%	0.3%	0.1%	0.2%	0.1%
Over \$10m	0.2%	0.2%	0.2%	0.1%	0.1%

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²⁵ This is the share of artists based on the four main sectors of Post War and Contemporary, Modern, Impressionist and Modern and Old Masters.

notable exception of the European Old Masters, which has seen the numbers in this segment shrink, as well as the number of artists whose works sold at auction generally decline by 7%. This again underlines the major issue of scarcity, particularly of the highest quality and most sought after works of art in this sector at auction.

The polarisation of the market towards the highest end is firmly established in terms of the value of sales, while most of the transactions that take place in the art market, and most of the artists whose work is sold at auction, are concentrated at the lower end. This has created

a thin market at the top, with a small number of artists selling for very high prices. Although the middle market varies widely, making it difficult to generalise for individual businesses in the art trade, the examples in the fine art auction market have indicated that the data confirms the anecdotal evidence: the top end has performed better (in terms of the growth of sales) than the middle and lower ends of the market over the last ten years, and even more so in the years of recovery of the market since 2009. Even within the high-end, the ultra-high-end has grown the fastest and again this has been particularly marked in the years since 2009.

Table 3j Number of Artists by Sector with Works Selling for Over \$1 million 2005 and 2015

	Post War & Contemporary	Impressionist & Post-Impressionist		Old Masters	European Old Masters
		Modern			
2005 Over \$1m	90	108	76	67	59
2015 Over \$1m	355	207	107	125	57
Growth in Number of Artists with Works Selling for Over \$1m	294%	92%	41%	87%	-3%
Growth in the Number of Artists	138%	36%	12%	12%	-7%

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CHAPTER 4

GLOBAL WEALTH AND ART COLLECTING

GLOBAL WEALTH AND ART COLLECTING

Key Findings

- Some 3.4 billion individuals (71% of adults worldwide) had personal wealth below \$10,000, while millionaires (representing less than 1% of adults), owned 45% of global wealth.
- In 2015, there were 33.7 million dollar millionaires around the world, down 3% year-on-year.
- It is estimated that at least 2% of this millionaire segment (around 675,000) are mid to high-level art, antiques or collectibles collectors.
- The fastest growing segment of the high net worth population is ultra-high net worth individuals (UHNWIs) who are estimated to account for up to 38% of spending in the art market.
- According to estimates, 503,000 HNWIs used credit to finance purchases in the art market in 2015 of art, antiques and collectibles.
- In 2015, dealers reported that their median number of buyers was 40 (down from 50 in 2014), and the higher a dealer's turnover, the less clients they tended to have.
- By far the largest share of both dealer and auction sales went to private collectors. In the dealer sector, on average 72% of the sales made in 2015 were to private collectors.
- Just over one third of the buyers that dealers had in 2015 were new to them in the last year.

Changing trends in the distribution of world wealth have influenced the polarisation of the art market at the high-end. The widening inequality of wealth and incomes is considered by many to be the defining challenge of this century, and the gap between the rich and poor in many developed economies is at its widest point in history.

From the late 1940s until the 1970s, many of the mature economies in the West grew strongly and the uplift in wealth and prosperity was generally spread across the board. However since the 1970s, these trends reversed: economic growth slowed and the gap between incomes widened, with the middle and lower ends slowing while the top end continued to grow at a rapid pace. In particular the rising share of incomes in the top 1% of the population in countries such as the US has climbed to levels not seen since the 1920s, and most of the advance has been in the very top 0.5% or less of households.

Some emerging economies have seen declining inequality as the middle classes expand, but in most cases, those with the highest levels of wealth remain a very small share of an otherwise low income population.

This changing distribution of wealth in emerging and mature regions is strongly linked to sales and

the international cross-border trade in art. Sales and prices at the high-end of the market are driven by high net worth individuals (HNWIs) buying domestically and globally. However, the extent to which middle and upper income groups have been squeezed out in some mature economies, as the extremes of wealth and poverty rise, has also undoubtedly put pressure on the middle market for art and antiques. While the size and wealth of the middle class (as defined by wealth) grew until 2007, since the financial crisis, growth has been more subdued, and rising wealth inequality has reduced the share of wealth in this sector in nearly all regions of the world. All of these trends potentially impact the art market and it is therefore informative to analyse the very broad changes in wealth and its distribution over 2015.

4.1 Economic Growth

Global growth slowed over 2015. In early 2016 the IMF reduced its estimates for growth in global GDP for 2015 to 3.1%, the lowest level since the recession of 2009. This represents a fall of 0.4% year-on-year, as the recovery in some of the more advanced economies was not enough to counteract falling growth in emerging markets and developing regions. The main cause of the subdued growth was that emerging market and developing economies (which accounted for over 70% of global growth), declined for the fifth consecutive

year, while the general recovery continued at a modest rate in advanced economies.

While the advanced economies of the G7 saw a slight uplift in growth (by 0.2% to 1.9%), and have all improved significantly over five years, performance and prospects between the major nations remained somewhat uneven. The US economy grew slightly (at 2.5%, up 0.1% annually) and is now at its highest level of growth since 2006, buoyed by strong domestic demand, but still limited by the lower level of global demand, a strong dollar and weak investment. The UK and Germany, on the other hand, while remaining among the strongest growing economies in the EU, both saw slight declines in their growth rates (to 2.5% and 1.5% respectively), again constrained by a weak world economy and falling exports in some industries. 2015 marked the third year of growth for the EU as a whole, and although the region is performing significantly better, remaining risks and weaknesses in investment growth mean that the outlook is that Europe will be confined to a relatively slow or stagnant growth path for the near future.

Overall in the mature economies, while private consumption has improved, rising inequality in income and wealth (discussed below) is continuing to redistribute income to those with

a high propensity to save (such as HNWIs and companies). If not channelled to investment, this could ultimately also restrict future growth.

While the RDEs (rapidly developing economies) and developing regions were the engines of growth following the financial crisis, many now face more difficult economic conditions, and 2015 represented the fifth consecutive year of decline for these markets. After decades of export and investment-driven growth, China's economy continued its five year slow-down, dropping to 6.9% in 2015, its lowest level in 25 years. While consumption growth remained relatively strong, particularly in the services sectors, investment was weak, amidst huge volatility in the stock markets, a devaluation of the currency, falling international trade and high levels of debt.

Although China is still growing at rates of more than double many developed countries, and some slowdown was inevitable from the double-digit levels up to 2007, there are many weaknesses in areas such as credit and financial markets that have contributed to its sharper than expected slowdown. China's debts allowed the economy to perform well during the financial crisis, but with a GDP ratio to debt reaching 250% in 2015, they have also left it with a heavy repayment burden, particularly as much of the credit went to

the property sector, which has since stagnated. There also remains a range of structural reforms to rebalance growth from fixed investment to consumption, which are still underway and likely to slow growth.

However, among the BRICS, Brazil and Russia continued to perform the worst. Both were in deep recession in 2015, driven by weak domestic demand, lower oil and commodity prices, political issues (and in the Russian case sanctions), all weighing down consumer optimism and creating an unfriendly climate for business and investment.

Other emerging nations, such as Taiwan and Korea, performed more weakly than expected in 2015, with slower exports and domestic demand. Despite all of the issues in these developing markets, the fact that the US has performed relatively well and that Europe is also dealing, albeit slowly, with the process of recovery from its debt crisis, predictions for world growth for the next two years are positive²⁶. Much will depend on how the emerging markets deal with their newer, largely corporate-led debt crisis, as these markets now account for a larger share of the world economy than the advanced nations.

WHILE THE RDES WERE THE ENGINES OF GROWTH FOLLOWING THE FINANCIAL CRISIS, MANY NOW FACE MORE DIFFICULT ECONOMIC CONDITIONS, AND 2015 REPRESENTED THE FIFTH CONSECUTIVE YEAR OF DECLINE

²⁶ The IMF have reduced their forecasts for global growth in 2016 three times in a year, largely due to the sharp slowdown and rebalancing in China's economy and its effects on international trade and weak commodity prices and other strains that are damaging Brazil and some of the other larger developing economies. Their latest forecasts from January 2016 are for growth of 3.4% in 2016 and 3.6% in 2017, both down 0.2% from their estimates in October 2015.

Table 4a Growth in National and Regional GDP per Annum (%)

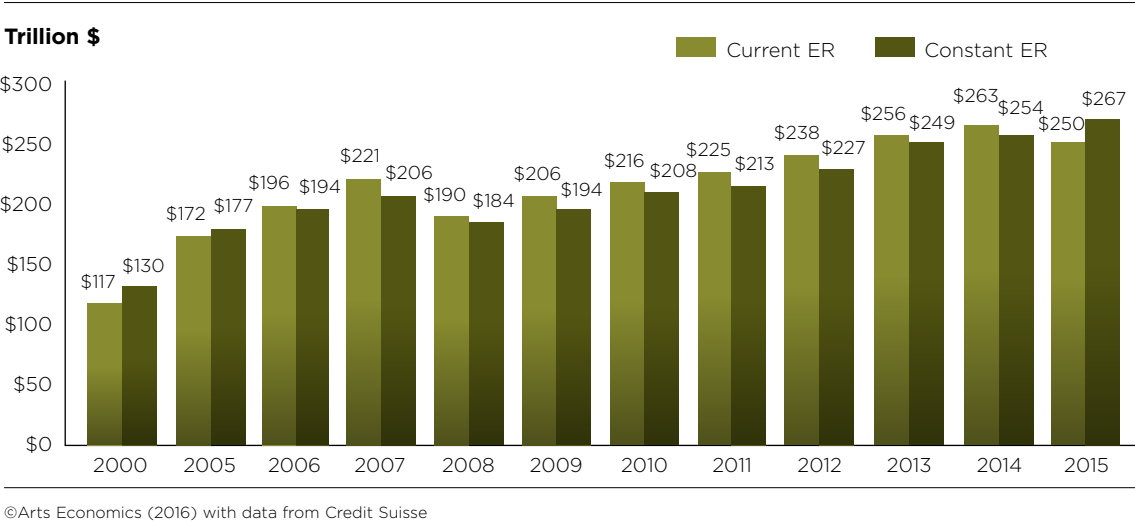
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016e	2020e
Australia	3.2%	2.7%	4.5%	2.7%	1.6%	2.3%	2.7%	3.6%	2.1%	2.7%	2.4%	2.9%	2.8%
Austria	2.1%	3.4%	3.6%	1.5%	-3.8%	1.9%	2.8%	0.8%	0.3%	0.4%	0.8%	1.6%	1.1%
Belgium	1.9%	2.6%	3.0%	1.0%	-2.6%	2.5%	1.6%	0.1%	0.3%	1.1%	1.3%	1.5%	1.5%
Brazil	3.1%	4.0%	6.0%	5.0%	-0.2%	7.6%	3.9%	1.8%	2.7%	0.1%	-3.8%	-3.5%	0.0%
Canada	3.2%	2.6%	2.0%	1.2%	-2.7%	3.4%	3.0%	1.9%	2.0%	2.4%	1.2%	1.7%	2.1%
China	11.3%	12.7%	14.2%	9.6%	9.2%	10.6%	9.5%	7.7%	7.7%	7.3%	6.9%	6.3%	6.0%
France	1.6%	2.4%	2.4%	0.2%	-2.9%	2.0%	2.1%	0.2%	0.7%	0.2%	1.1%	1.3%	1.3%
Germany	0.9%	3.9%	3.4%	0.8%	-5.6%	3.9%	3.7%	0.6%	0.4%	1.6%	1.5%	1.7%	1.7%
Greece	0.9%	5.8%	3.5%	-0.4%	-4.4%	-5.4%	-8.9%	-6.6%	-3.9%	0.8%	-2.3%	-1.3%	2.4%
Hong Kong	7.4%	7.0%	6.5%	2.1%	-2.5%	6.8%	4.8%	1.7%	3.1%	2.5%	2.5%	2.7%	3.3%
India	9.3%	9.3%	9.8%	3.9%	8.5%	10.3%	6.6%	5.1%	6.9%	7.3%	7.3%	7.5%	7.5%
Indonesia	5.7%	5.5%	6.3%	7.4%	4.7%	6.4%	6.2%	6.0%	5.6%	5.0%	4.7%	5.1%	6.0%
Ireland	6.3%	6.3%	5.5%	-2.2%	-5.6%	0.4%	2.6%	0.2%	1.4%	5.2%	4.8%	3.8%	2.5%
Italy	1.0%	2.0%	1.5%	-1.1%	-5.5%	1.7%	0.6%	-2.8%	-1.7%	-0.4%	0.8%	1.3%	1.2%
Japan	1.3%	1.7%	2.2%	-1.0%	-5.5%	4.7%	-0.5%	1.7%	1.6%	-0.1%	0.6%	1.0%	0.3%
Korea	3.9%	5.2%	5.5%	2.8%	0.7%	6.5%	3.7%	2.3%	2.9%	3.3%	2.7%	3.2%	3.6%
Netherlands	2.2%	3.5%	3.7%	1.7%	-3.8%	1.4%	1.7%	-1.1%	-0.5%	1.0%	1.8%	1.9%	2.1%
Norway	2.6%	2.4%	2.9%	0.4%	-1.6%	0.6%	1.0%	2.7%	0.7%	2.2%	0.9%	1.3%	2.0%
Qatar	7.5%	26.2%	18.0%	17.7%	12.0%	19.6%	13.4%	4.9%	4.6%	4.0%	4.7%	4.9%	2.8%
Russia	6.4%	8.2%	8.5%	5.2%	-7.8%	4.5%	4.3%	3.4%	1.3%	0.6%	-3.7%	-1.0%	1.0%
Singapore	7.5%	8.9%	9.1%	1.8%	-0.6%	15.2%	6.2%	3.4%	4.4%	2.9%	2.2%	2.9%	3.2%
Spain	3.7%	4.2%	3.8%	1.1%	-3.6%	0.0%	-0.6%	-2.1%	-1.2%	1.4%	3.1%	2.5%	1.8%
Sweden	2.8%	4.7%	3.4%	-0.6%	-5.2%	6.0%	2.7%	-0.3%	1.3%	2.3%	2.8%	3.0%	2.1%
Switzerland	3.1%	4.1%	4.2%	2.2%	-2.1%	2.9%	1.9%	1.1%	1.8%	1.9%	1.0%	1.3%	1.9%
Taiwan	5.4%	5.6%	6.5%	0.7%	-1.6%	10.6%	3.8%	2.1%	2.2%	3.8%	2.2%	2.6%	3.2%
UAE	4.9%	9.8%	3.2%	3.2%	-5.2%	1.6%	4.9%	7.2%	4.3%	4.6%	3.0%	3.1%	3.8%
UK	2.8%	3.0%	2.6%	-0.3%	-4.3%	1.9%	1.6%	0.7%	1.7%	3.0%	2.5%	2.2%	2.2%
US	3.3%	2.7%	1.8%	-0.3%	-2.8%	2.5%	1.6%	2.2%	1.5%	2.4%	2.5%	2.6%	2.6%
World	4.9%	5.5%	5.7%	3.1%	0.0%	5.4%	4.2%	3.4%	3.3%	3.4%	3.1%	3.4%	4.0%

4.2 World Wealth

Measured in US dollars, world wealth was estimated to have fallen in 2015, the first time since 2008, dropping by 5% from \$263 trillion in 2014 to \$250 trillion in in 2015. The US and China both saw the strongest gains (increasing 4% and 7% respectively). However, while there were positive gains elsewhere in domestic currencies, these were more than offset in several cases by adverse exchange rate movements against the US dollar.

Figure 4a shows the growth in aggregate world wealth measured in current versus constant exchange rates. This shows that, regardless of the exchange rate, world wealth has expanded significantly this century, and has shown generally positive momentum since 2008. When measured in constant exchange rates (that is removing the effect of the currencies in reporting), aggregate wealth actually rose 5% year-on-year.

Figure 4a Aggregate World Wealth (Trillion \$)



North America remained the wealthiest region (with 37% of the world's wealth), followed by Europe (30%), Asia-Pacific (18%) and China (9%).

Apart from regional differences in wealth, there continued to be significant disparities in the distribution of wealth and income between segments of populations within nations. Estimates of the distribution of wealth in 2015 from Credit Suisse showed that 3.4 billion individuals (71% of adults worldwide) had personal wealth below \$10,000, while millionaires (representing less than 1% adults), owned 45% of global wealth. These shares did not change dramatically year-on-year, with the share of wealth held by millionaires edging up 1%, while the wealth held by the bracket between \$100,000 and \$1 million dropped by 2% in share. The population and wealth in this bracket also showed the biggest change in absolute terms year-on-year, falling by 7% and 10% respectively.

The distribution of wealth between countries varies, with the highest numbers with wealth in excess of \$1 million being in countries such as Switzerland, Sweden, the US and the UK. In all countries however, this wealth bracket represents around 10% or less of the population, and in most cases much less. In the BRIC regions and other

developing markets, despite their relatively fast economic growth, the majority of the population still has wealth below \$10,000, with 0.1% or less having wealth over \$1 million.

Figure 4b Global Wealth Distribution in 2015

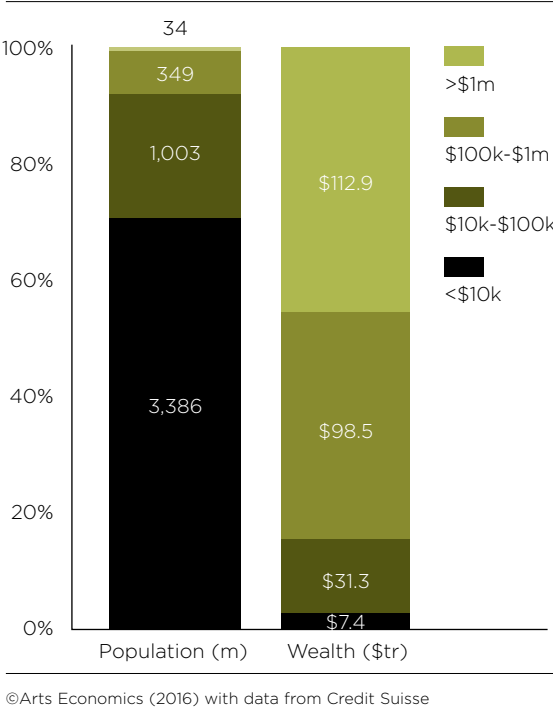


Table 4b National Distribution of Population by Wealth in 2015

Country	<\$10,000	\$10k-\$100,000	\$100k-\$1m	>\$1m
Australia	7.2%	26.1%	61.0%	5.7%
Brazil	75.9%	22.2%	1.8%	0.1%
China	62.1%	35.5%	2.3%	0.1%
Hong Kong	22.2%	57.2%	18.9%	1.7%
France	16.9%	33.1%	46.3%	3.7%
Germany	29.7%	33.9%	34.2%	2.3%
India	95.4%	4.3%	0.3%	0.02%
Indonesia	92.0%	7.0%	0.9%	0.1%
Italy	12.4%	37.6%	47.7%	2.3%
Japan	9.0%	42.3%	46.7%	2.0%
Korea	24.0%	59.3%	15.9%	0.8%
Mexico	56.7%	39.9%	3.2%	0.2%
Norway	23%	22%	50%	5%
Qatar	15.0%	50.8%	31.7%	2.5%
Russia	91.4%	7.7%	0.8%	0.1%
Singapore	10.0%	40.0%	46.5%	3.5%
Spain	12.1%	62.8%	24.1%	1.0%
Sweden	15.8%	47.4%	29.7%	7.1%
Switzerland	1.7%	47.2%	40.3%	10.8%
Taiwan	13.1%	46.7%	37.9%	2.2%
UAE	15.3%	51.1%	32.2%	1.5%
UK	10.0%	33.9%	51.3%	4.9%
US	28.1%	32.9%	32.6%	6.4%
World	71.0%	21.0%	7.3%	0.7%
Europe	44.7%	30.7%	22.9%	1.7%

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It is a distinct and consistent feature of the last 20 years that the majority of wealth is owned by the wealthiest 10% of national populations. The top 10% owned 88% of the world's wealth in 2015, leaving 12% distributed across the remaining 90%. Some of the greatest levels of wealth inequality are currently found in countries such as the US, Switzerland, Sweden, Russia, India, Brazil and Indonesia, where the share of wealth owned by the top 10% was greater than 70% of the total. In some of the emerging economies, the share of wealth within this band has been gradually increasing, whereas in the US it has remained stable. A stronger social welfare system in many of the larger European economies has meant more balance in wealth distribution, with the share of wealth owned by the top 10% at just over 50% in larger economies like the UK and France. Japan, has also proved an exception to the widening wealth gap trend, with the share of the top 10% being just under half (49%) in 2015. This is considered in part to be due to greater regulation of senior executive pay scales and top end compensation than exists in other countries such as the US.

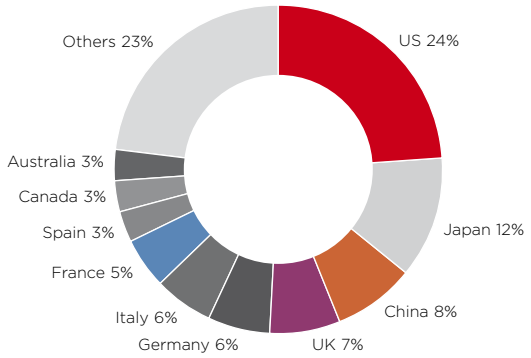
THE TOP 10% OWNED 88% OF THE WORLD'S WEALTH IN 2015, LEAVING 12% DISTRIBUTED ACROSS THE REMAINING 90%

Table 4c Share of National Wealth in the Top 10%

Country	2000	2014	2015	Change 2014-2015	Change 2000-2015
Australia	51%	51%	51%	0%	0%
Brazil	69%	73%	75%	2%	6%
Canada	62%	57%	58%	1%	-4%
China	49%	64%	66%	2%	17%
France	56%	53%	55%	2%	-1%
Germany	64%	62%	63%	1%	-1%
India	66%	74%	76%	2%	10%
Indonesia	71%	77%	78%	1%	7%
Italy	53%	52%	53%	1%	0%
Japan	51%	49%	49%	0%	-2%
Korea	53%	63%	63%	0%	10%
Mexico	69%	64%	66%	2%	-3%
Norway	67%	67%	58%	-9%	-9%
Russia	77%	75%	87%	12%	10%
Singapore	66%	57%	60%	3%	-6%
Spain	54%	52%	56%	4%	2%
Sweden	70%	69%	72%	3%	2%
Switzerland	73%	72%	71%	-1%	-2%
Taiwan	54%	55%	62%	7%	8%
UK	52%	52%	54%	2%	2%
US	75%	75%	76%	1%	1%

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Figure 4c Share of the Population in the Global Top 10% Wealth Segment



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IN 2015, THE US REMAINED THE MAIN CENTRE FOR TOP LEVEL WEALTH ACCOUNTING FOR 24% OF THE WORLD’S WEALTHIEST 10%

27 According to the data from Credit Suisse on which this analysis is based, the entry level in 2015 for the top 1% was approximately \$760,000.

In 2015, the US remained the main centre for top level wealth. It accounted for 24% of the world’s wealthiest 10% (followed by Japan, China and the UK), while in the top 1%, its share was much more concentrated at 43% (followed again by the UK with 8% and Japan with 7%).

Globally in 2015, the top 1% of wealth holders accounted for 50% of the world’s wealth²⁷ and represented less than 0.1% of the world’s population, and the share of wealth in this very top segments has been growing the fastest of all over the last five years. Although there are likely to be several reasons for the increase over the last few years, the value and rising share of financial assets (versus real assets and property) is likely to be an important factor, with wealthier people tending to hold a disproportionate share of their assets in financial form. A rise in equity prices and the size of financial assets in the US and some other high-wealth regions is likely to have increased the wealth of many of the wealthiest people in this highest band around the world and added to wealth inequality.

Art collectors tend to only be found in the wealth brackets above \$100,000, and this segment has increased over time from 217 million people in 2000 to 408 million in 2014. However in 2015, numbers in this segment contracted by 6% to 383

million. The US accounted for 25% of the global population in this wealth bracket, with Japan the second largest (13%), followed by the UK, France and Italy with 7% each.

4.3 Average Incomes

Despite a general rise in the proportion of populations with wealth at the higher end, average incomes in many emerging markets have remained low. As a result occasional or regular purchases of art and luxury products are out of reach for the majority. Despite a growing number of wealthy inhabitants, average incomes in China,

as measured by GDP per capita, remained less than one quarter of the average in Europe in 2015, and less than 15% of those in the US.

However, from this lower base, incomes in the emerging and developing markets, particularly those in Asia, have been the fastest growing of all regions. GDP per capita in emerging and developing Asia grew at just over 130% from 2005 to 2015, versus less than 30% in Europe or the G7 economies, and it is projected to grow at twice their rates over the next five years. The gap therefore, although large, is gradually narrowing.

DESPITE A GROWING NUMBER OF WEALTHY INHABITANTS, AVERAGE INCOMES IN CHINA REMAINED LESS THAN ONE QUARTER OF THE AVERAGE IN EUROPE IN 2015, AND LESS THAN 15% OF THOSE IN THE US

Table 4d GDP per capita and Growth Rates: Selected Nations

Country	USD				Own Currency		
	2015	2014-15	2005-2015	Forecast 2015-2020	2014-15	2005-2015	Forecast 2015-2020
Australia	\$51,642	-15%	43%	12%	1%	10%	6%
Austria	\$44,476	-13%	16%	19%	0%	7%	4%
Belgium	\$41,267	-14%	11%	17%	0%	3%	3%
Brazil	\$9,312	-20%	93%	19%	-4%	19%	5%
Canada	\$45,029	-11%	25%	21%	0%	6%	6%
China	\$8,154	7%	366%	40%	6%	136%	32%
France	\$38,458	-14%	6%	19%	1%	3%	6%
Germany	\$41,955	-12%	21%	19%	1%	16%	6%
Hong Kong	\$42,437	6%	60%	37%	2%	31%	12%
India	\$1,808	11%	141%	48%	6%	77%	35%
Indonesia	\$3,511	-1%	150%	36%	3%	52%	24%
Ireland	\$47,329	-11%	-7%	24%	4%	6%	11%
Italy	\$30,594	-15%	-5%	16%	1%	-10%	4%
Japan	\$33,223	-9%	-7%	19%	1%	6%	6%
Korea	\$27,513	-2%	47%	34%	2%	35%	16%
Netherlands	\$44,249	-14%	7%	20%	1%	6%	9%
Norway	\$80,749	-17%	21%	13%	0%	0%	3%
Qatar	\$81,603	-13%	50%	19%	-4%	7%	4%
Russia	\$8,184	-37%	53%	77%	-4%	23%	5%
Saudi Arabia	\$20,677	-15%	47%	26%	1%	22%	4%
Singapore	\$53,224	-5%	439%	30%	1%	29%	13%
Spain	\$26,327	-13%	-1%	24%	3%	0%	12%
Sweden	\$49,582	-15%	15%	33%	1%	8%	6%
Switzerland	\$84,070	-4%	53%	8%	0%	8%	6%
Taiwan	\$22,464	-1%	36%	45%	2%	37%	14%
UAE	\$37,962	-12%	-14%	19%	0%	-39%	3%
UK	\$43,940	-4%	10%	26%	2%	5%	8%
US	\$56,421	3%	28%	20%	3%	28%	20%



4.4 The Middle Classes

While high net worth individuals are the key buyers in the art market in terms of shaping the bigger trends, the middle class wealth groups also have an important role in differing value segments and sectors of the market. Although this segment is defined in various ways, a significant portion of the middle class in many countries represent young professionals who are likely to increase their wealth over time. They are also likely to represent a substantial portion of art buyers who buy at levels other than the highest priced works, therefore supporting a much wider range of the market than some of the more narrowly focused millionaire collectors. A significant feature of some of the emerging markets (particularly China) that will be critical to the development of greater depth in their art markets in future, is that the middle class has been expanding. The size and resources of a nation's middle class

is seen a sign of the health of its economy and general prosperity, and demand from the middle classes is essential for boosting consumption and international trade.

Using the US as the benchmark country, Credit Suisse define a middle class adult as one with wealth between \$50,000 and \$500,000 valued at mid-2015 prices. This has then been adjusted using the IMF's purchasing power parity to derive equivalent middle class wealth bounds in local purchasing power terms. For example in Switzerland, to enter the middle class, an adult must have at least \$72,900 in wealth versus an entry level of \$22,000 in Brazil or China. Table 4e shows that in terms of the share of the population, the middle classes (as well as those with wealth above the middle class range) remain a very small fraction of the total in the BRIC and the RDE economies.²⁸

A SIGNIFICANT FEATURE OF SOME OF THE EMERGING MARKETS THAT WILL BE CRITICAL TO THE DEVELOPMENT OF GREATER DEPTH IN THEIR ART MARKETS IN FUTURE, IS THAT THE MIDDLE CLASS HAS BEEN EXPANDING

²⁸ It is interesting to contrast countries like Korea and Brazil: in the 1960s both had similar income levels and growth, however by as early as the 1980s, due to the high income inequality in Brazil, the middle classes were a much smaller segment of the population whereas in Korea they now represent 45% (as opposed to 8% in Brazil). This substantial middle class segment has enabled Korea to shift from export driven growth towards domestic consumption, a transition that did not occur as much in Brazil.

Table 4e Share of Population and Wealth of the Middle Class (Wealth between \$50,000 and \$500,000) and Above Middle Class (Wealth above \$500,000)

	Share of Population		Share of Wealth		Share of World Wealth	
	Middle Class	Above Middle Class	Middle Class	Above Middle Class	Middle Class	Above Middle Class
Africa	3.3%	0.2%	32.1%	30.6%	0.3%	0.4%
Australia	66.1%	14.2%	40.3%	58.4%	1.0%	1.4%
Austria	44.0%	7.9%	38.5%	59.4%	0.2%	0.3%
Belgium	62.1%	12.3%	46.7%	51.7%	0.4%	0.5%
Brazil	8.1%	0.6%	31.0%	42.5%	0.3%	0.4%
Canada	47.8%	10.5%	39.0%	58.5%	1.1%	1.6%
China	10.7%	0.6%	32.2%	35.4%	2.9%	3.3%
France	49.2%	12.5%	38.6%	59.4%	2.0%	3.0%
Germany	42.4%	7.6%	39.9%	57.6%	1.9%	2.7%
India	3.0%	0.2%	22.6%	41.4%	0.3%	0.6%
Italy	59.7%	8.6%	47.3%	50.2%	1.9%	2.0%
Japan	59.5%	9.1%	49.0%	47.5%	3.9%	3.8%
Korea	44.6%	2.9%	47.4%	45.3%	0.7%	0.6%
Mexico	17.1%	1.0%	40.4%	35.8%	0.3%	0.3%
Netherlands	54.1%	7.4%	49.7%	50.1%	0.5%	0.4%
Spain	55.8%	3.8%	52.4%	41.6%	0.9%	0.7%
Sweden	39.4%	11.5%	22.0%	74.9%	0.2%	0.7%
Switzerland	44.5%	14.0%	19.9%	77.6%	0.3%	1.1%
Taiwan	59.4%	15.2%	29.6%	69.2%	0.4%	1.0%
UK	57.4%	12.2%	39.7%	58.1%	2.5%	3.6%
US	37.7%	12.3%	19.6%	79.1%	6.7%	27.2%
Europe	33.1%	5.2%	40.6%	56.1%	12.2%	16.8%
World	13.9%	2.0%	32.3%	60.1%	32.3%	60.1%

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In 2015, Credit Suisse estimate that 664 million adults belong to the global middle class, or 14% of the total adult population. A further 96 million (2% of world adults) have wealth above that middle class boundary. When measured in terms of US dollar wealth bands, China’s middle class became the largest in the world in 2015, with 109 million Chinese with wealth of between \$50,000 and \$500,000, versus 92 million in the US. The next largest middle classes by population were in Japan (62 million), Italy (29 million) and the UK and Germany (28 million each).

The change in the numbers of adults belonging to the middle class and above category in China has also substantially outpaced older economies, rising over 60% from 2000 to 2015 (versus 22% in the US and 18% in Europe), while their wealth has grown even faster at close to 620%, six times the rate of the older economies.

Although estimates vary between sources on the rates of change, much of the economic research on world wealth trends suggests that the emerging middle classes could double or triple over the next ten to 20 years, providing an even greater shift in wealth towards these regions, as well as a significant upward shift in the demand for discretionary consumer goods. In China it is

estimated that the largest growth in spending will centre on discretionary products. Research on Chinese consumers by Mc Kinsey estimates that the balance between consumption categories will shift from 2005 levels of around 25:75 in terms of the ratio of discretionary versus necessity or semi-necessity goods, to close to 45:55 by 2030. They also estimate that, while the mass middle classes will expand, the largest segment of the population will become the upper middle class, expected to account for 54% of households by 2022 (from just 2% in 2002).²⁹ Although there are no robust ways to predict what level of spending will be dedicated to art among these new higher income consumers, these underlying trends continue to show the potential for the development of the middle market in China.

In almost all countries, the wealth of the combined middle class and those beyond that level has grown strongly since 2000. However, much of the rise in wealth of the middle class and above has gone to those with wealth above the \$500,000 threshold, despite them representing a much smaller share of the population. The wealth in the band from \$50,000 to \$500,000, in contrast, has in many cases contracted. Globally, the split in wealth is more than 2:1 in favour of those with over \$500,000, and in North America more than 4:1.

²⁹ McKinsey Insights China

In every region during the period from 2000 to 2015, the rise in the aggregate wealth of the \$50,000 to \$500,000 segment was less than the rise of those beyond \$500,000. Outside the RDEs especially therefore, while the middle class expanded up until the financial crisis, since then it has begun to contract as rising inequality squeezes its share.

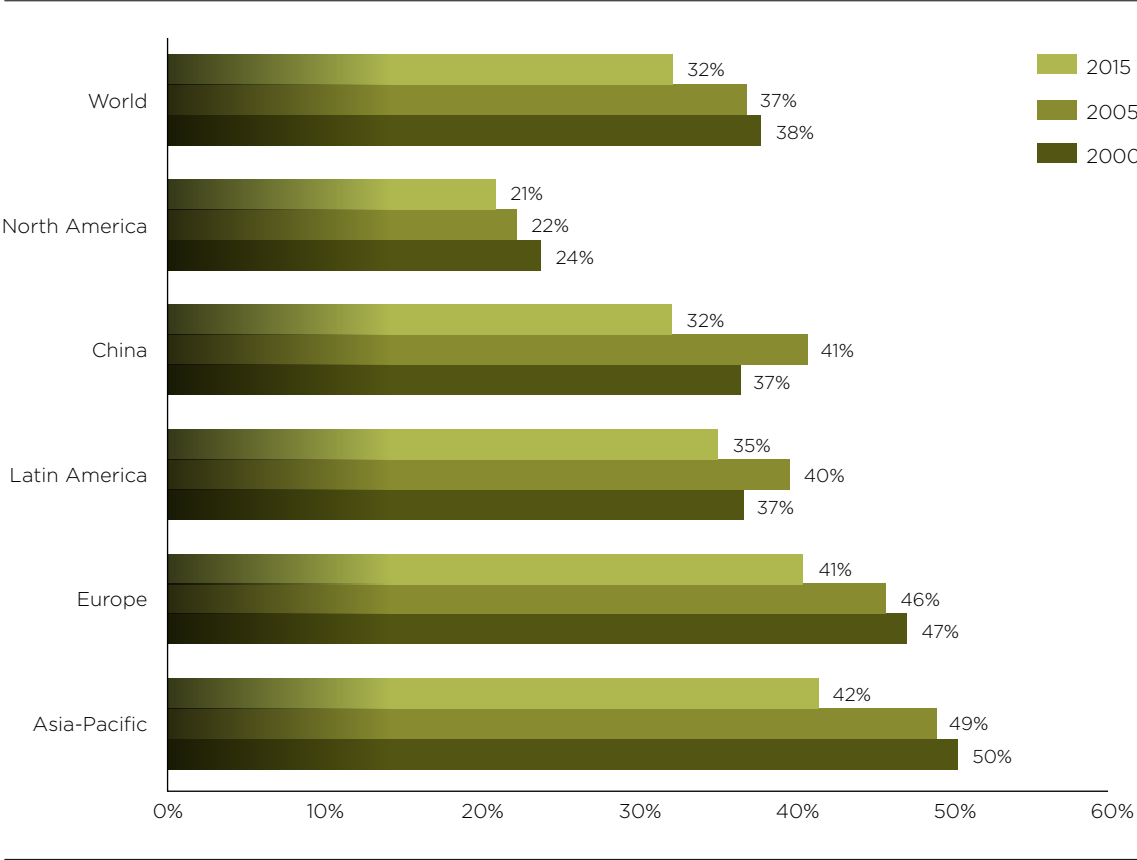
In many of the mature economies therefore, the number of middle class households and the share of wealth they own is falling as the extremes of very rich and poor rise. In the UK for example, census data shows that over the three decades to 2010, the number of poor households rose by 80%, the number of wealthy by 33% while the number of middle class dropped 27%.³⁰ Similarly in the US, in the early 1970s, middle class households represented over 60% of the population, but by 2015 had fallen to less than half.³¹

IN MANY OF THE MATURE ECONOMIES THE NUMBER OF MIDDLE CLASS HOUSEHOLDS AND THE SHARE OF WEALTH THEY OWN IS FALLING AS THE EXTREMES OF VERY RICH AND POOR RISE

The growth in average incomes of the middle class has also significantly fallen behind average incomes of the highest income tiers, while any gains in aggregate wealth have showed an even more significant lag, with the financial crisis and property market collapse wiping out significant gains made by the middle class segment up to 2007 (much more than in the highest tiers, which hold a greater share of their wealth in financial and other assets). The disparate trends in the wealth of middle-income and upper-income households are due in part to the fact that property assumes a greater role in the portfolios of those in the middle-income group. The crash in the housing market that preceded the financial crisis was more severe and of longer duration than the turmoil in the stock market. Thus, the portfolios of upper-income households performed better than the portfolios of middle-income households from 2007 to the present, and this has exacerbated the divide, particularly in countries like the US.

³⁰ See Hennig, B and Dorling, D. (2015) *Poverty and Wealth in England and London 1980-2010*, from www.londonmapper.org.uk/analysis/poverty-and-wealth-1980-2010.
³¹ These findings are from a Pew Research Centre analysis of data from the U.S. Census Bureau and the Federal Reserve Board of Governors. "Middle-income" Americans are defined as adults whose annual household income is two-thirds to double the national median, about \$42,000 to \$126,000 annually in 2014 dollars for a household of three.

Figure 4d Share of Wealth Owned by the Middle Class



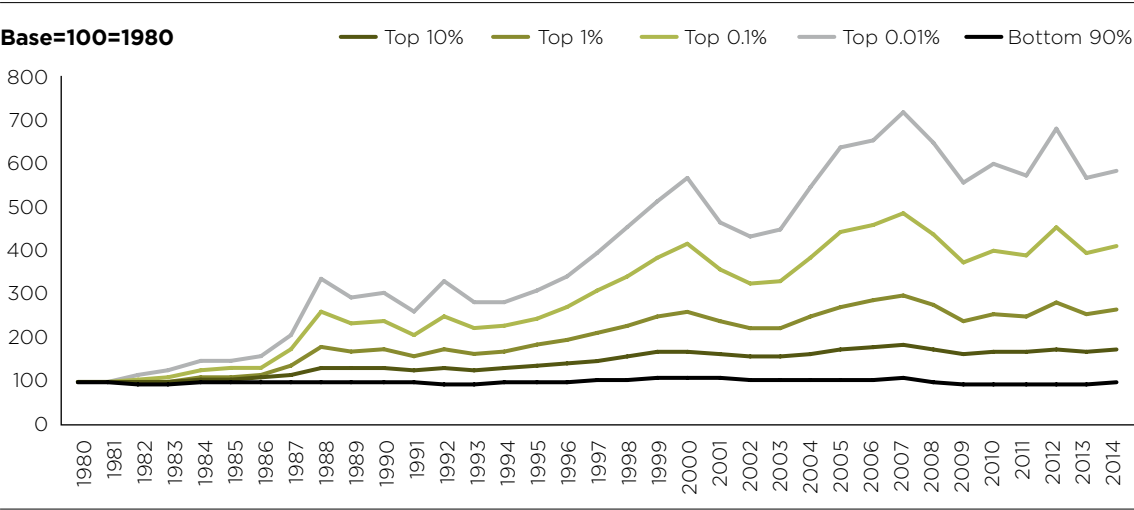
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The share of income accruing to them has also fallen, with most of the gains going to the upper income brackets. Using the US as an example, Figure 4e shows clearly that the fastest growth in incomes has been in the very top segments. From 1980 to 2014, the growth in incomes in the top 10% has been a substantial 77%, but in the very highest 0.01% segment, it was 486%. This contrasts substantially with a fall in average income for the bottom 90% of 3%. In the more recent period from

2004 to 2014, average incomes in all of the upper segments grew by over 7%, whereas in the bottom 90% of the population, it fell 7%.

All of these trends and shifts in wealth have a bearing on the art market and its performance. In the economy generally, increasing wealth inequality can have both growth promoting and growth inhibiting effects, as well as inducing more specific changes in spending patterns

Figure 4e Indices of the Growth in Average Incomes in the US by Segment: 1980 to 2014



©Arts Economics (2016) with data from The World Wealth and Income Database

over time, particularly in industries like art and other luxury goods. Growth can be promoted by greater incentives to perform and invest. However, inequality can also dampen growth by demotivating incentives (particularly as inherited wealth becomes more dominant), depressing aggregate demand, generating greater savings, and creating investment-reducing social, political and economic instability.

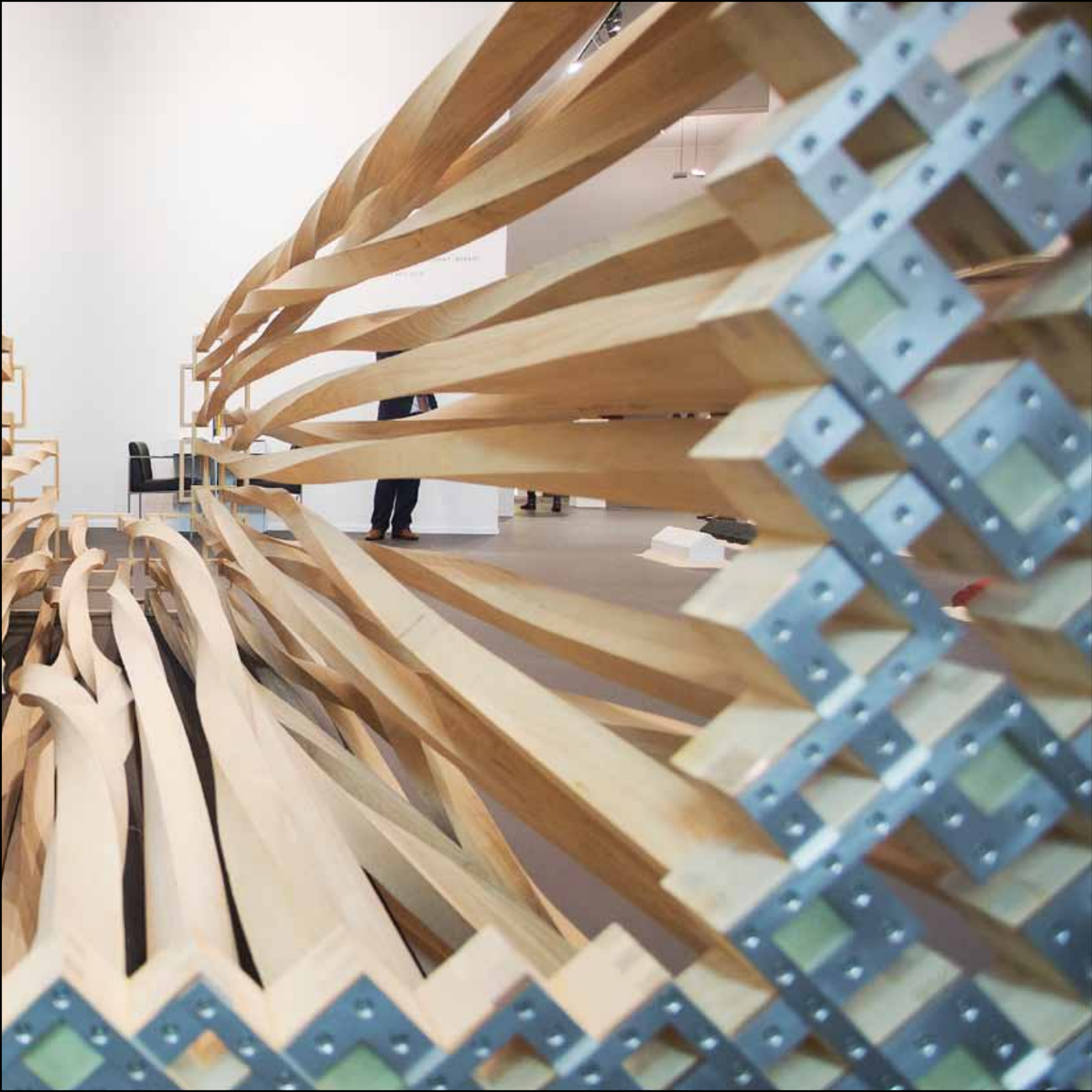
Undoubtedly more income available to upper income households has helped to support the art market over the last five years and to keep prices buoyant. While greater incomes at the very highest wealth segments have undoubtedly led to increased spending on art, it has also created a narrow market, where much of the market's success has been concentrated in the top end of certain sectors, making the market more susceptible to certain risks, limitations and instabilities. While the strong performance of prices and sales at the top end can motivate both artists and those collectors seeking financial returns, the increasingly narrow group of artists achieving success can also be demotivating.

As art is a large and infrequent purchase for collectors, many newer wealthy collectors, unfamiliar with the market, may be tempted to reduce search and information costs by seeking

to purchase only well-recognised works or those by famous artists. By doing so, the buyer is relying on established preferences of previous buyers who have already purchased the artists' works or publicly lauded their creative talent, hence reducing the risks and insecurities associated with relying on their own taste. Collectively these risk-reducing techniques tend to reinforce the "superstar phenomenon" in the art market whereby the works of the most famous artists (living or dead) command by far the highest prices, while less well-known artists are in limited demand.³²

For artists practicing today, the "superstar" aspect does not just drive up prices, but it also can deprive other, often equally talented, artists of the opportunity successfully to sell their work. It can also make it increasingly difficult for businesses in the art trade to make sales of a broader selection of works in the primary or secondary markets. Similarly collectors all seeking a small and narrow group of famous artists with a limited supply of works can push the prices of this group to increasingly high levels, putting them out of the reach of the majority of collectors. These collectors may increasingly feel that the art market, as it is portrayed in the media, is increasingly out of their reach entirely, even though there are still many other less publicised artists and works that are available at much lower prices.

³² American economist Sherwin Rosen pioneered the study of the economics of superstars in the early 1980s and believed that some superstar artists or "masters" reached their position justly because they were more talented, but the differences in their talent versus those less successful was much less than the differences in success. He felt also that some were in fact no more talented than their less-recognised peers, but their greater success was driven by the need of consumers for common tastes and culture or to "consume as others are consuming".



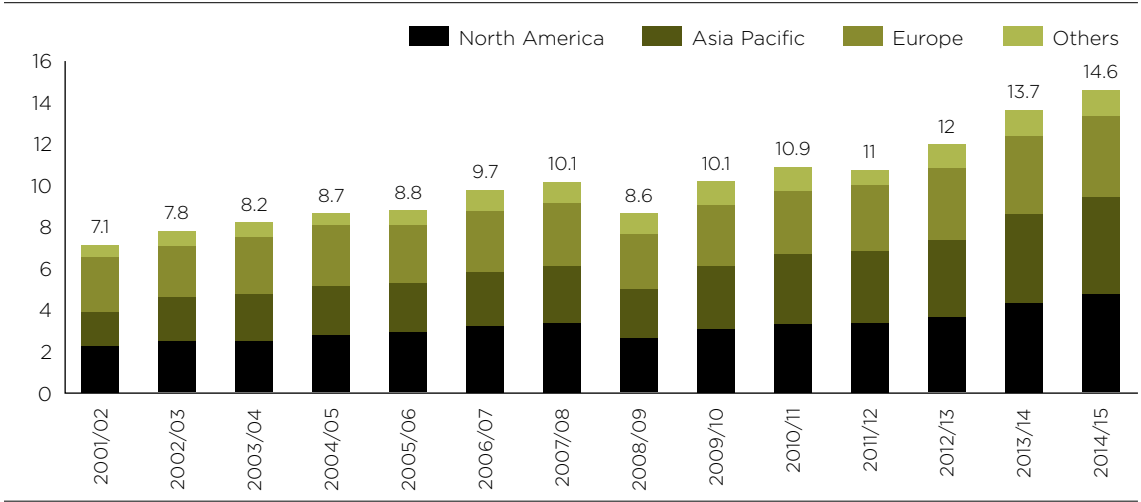
4.5 HNW Wealth

In the current polarised art market, the buyers that are most influential in shaping trends at the upper end of values are global HNWIs. By the end of 2014, the number of HNWIs (defined here as individuals with investable wealth greater than \$1 million)³³, was approximately 14.6 million, an advance of 7% over the year. Although the increase was about half that of the previous year, four years of consistent growth left numbers at their highest level in history. The Asia-Pacific region continued to grow the

fastest (increasing by 8.5% year-on-year) and reaching 4.69 million, exceeding the population of North America for the first time (at 4.68 million).

The fastest growing major countries were India (26%), China (17%) and the US (9%), while the population of HNWIs fell in both Brazil and Russia. Together, the US, Japan, Germany and China accounted for 60% of the world's HNW population, and these four countries accounted for 67% of the global population growth.

Figure 4f The Total Global Population of HNWIs



©Arts Economics (2016) with data from Capgemini/ RBC Wealth Management

³³ This definition of what will be referred to as “HNWIs” is that used in Capgemini/ RBC Wealth Management (2015) *World Wealth Report 2015* from which these figures are derived. It measures HNWIs as those with US\$1 million or more at their disposal for investing and therefore excludes personal assets and property, collectibles and other consumables. These will be referred to throughout the chapter as HNWIs to distinguish them from the broader definition of “dollar millionaires” used later in the chapter when including property and other physical assets.

HNW wealth also saw significant growth year-on-year, albeit again at around half the rate of the previous year, because of remaining Eurozone concerns, decelerating emerging markets and geopolitical tensions in the Middle East and Ukraine, all constraining growth in an otherwise expanding global economy. HNW wealth increased

7% to \$56.4 trillion, by far its greatest level and a recovery of 72% from the recent low point in 2008. North America remained the wealthiest region worldwide in terms of HNW wealth, accounting for a 29% share of the total. However, the Asia Pacific region gained the most (increasing 11% to \$15.8 million, versus a rise of 9% in North America).

Table 4f High Net Worth Wealth 2001-2017

Wealth	Total	North America	Asia Pacific	Europe	Middle East	Africa	Latin America
Forecast 2017	\$70.5	\$19.9	\$21.2	\$16.5	\$2.7	\$1.7	\$3.1
2014/2015	\$56.4	\$16.2	\$15.8	\$13.0	\$2.3	\$1.4	\$7.7
2013/14	\$52.6	\$14.9	\$14.2	\$12.4	\$2.1	\$1.3	\$7.7
2012/13	\$46.2	\$12.7	\$12.0	\$10.9	\$1.8	\$1.3	\$7.5
2011/12	\$42.0	\$11.4	\$10.7	\$10.1	\$1.7	\$1.1	\$7.1
2010/11	\$42.8	\$11.6	\$10.8	\$10.2	\$1.7	\$1.2	\$7.3
2009/10	\$39.1	\$10.7	\$9.7	\$9.5	\$1.5	\$1.0	\$6.7
2009/08	\$32.8	\$9.1	\$7.4	\$8.3	\$1.4	\$0.8	\$5.8
2008/07	\$40.8	\$11.7	\$9.5	\$10.7	\$1.7	\$1.0	\$6.2
2007/06	\$37.2	\$11.3	\$8.4	\$10.1	\$1.4	\$0.9	\$5.1
2006/05	\$33.5	\$10.2	\$7.6	\$9.4	\$1.3	\$0.8	\$4.2
2005/04	\$33.4	\$9.4	\$7.6	\$10.2	\$1.2	\$0.8	\$4.2
2004/03	\$30.7	\$8.9	\$7.1	\$9.3	\$1.0	\$0.7	\$3.7
2003/02	\$28.5	\$8.6	\$6.6	\$8.5	\$0.8	\$0.6	\$3.4
2002/01	\$26.2	\$7.6	\$5.1	\$8.4	\$1.0	\$0.6	\$3.5
2001/00	\$25.5	\$7.5	\$4.8	\$8.4	\$1.0	\$0.6	\$3.2

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Over the next two years, the highest growth in HNW wealth is expected to be in the Asia-Pacific region. Europe is expected to grow at a faster rate than the US over the next few years, however its share of HNW world wealth is not expected to change significantly. Asia Pacific is expected to take over from North America as the region with the largest total HNW wealth (with an expected share of 30%).

4.6 Global Millionaires and Wealth

The figures for HNW wealth above include only investable wealth. However taking account of non-financial assets (such as property and land), so-called “dollar millionaires”³⁴ form a much larger segment of world wealth.

In 2015, according to estimates from Credit Suisse, there were some 33.7 million dollar millionaires around the world. This number

has increased by over 145% since 2000, when there was just 13.7 million, but fell 3% year-on-year, significantly impacted by the exchange rate effects discussed earlier.

While the significant rise in dollar millionaires since 2000 is partially due to population growth and the fact that inflation progressively lowers the membership entry level, the number of millionaires has still grown significantly after discounting for these factors. While numbers of dollar millionaires dipped temporarily in 2008 as the global financial crisis took hold, they have gained in nearly every year since, and remain at their highest level to any year prior to 2014.

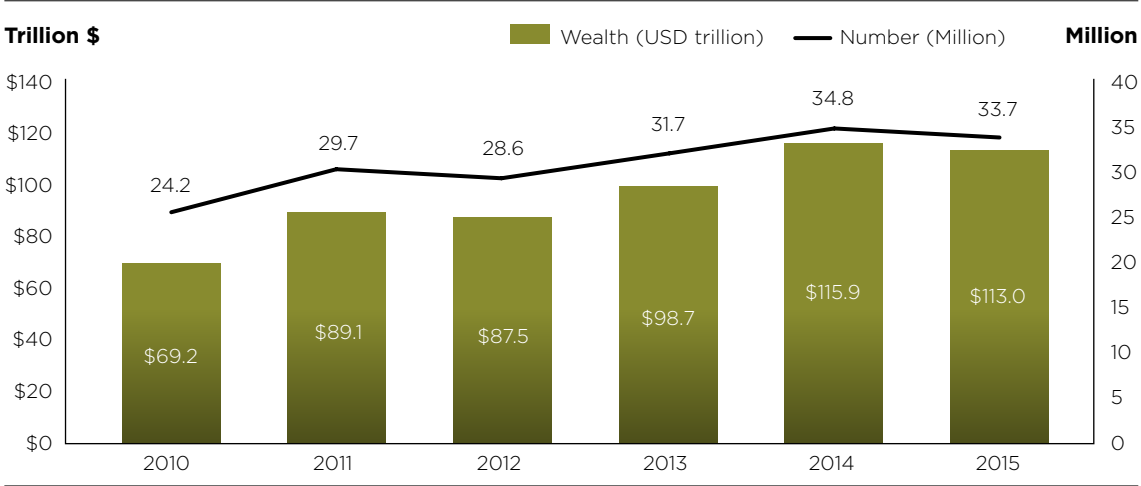
Although there is no definitive figure on the number of millionaires that are art collectors, it is estimated that at least 2% of this millionaire segment (around 675,000) would be mid to high-level art, antiques or collectibles collectors.

IT IS ESTIMATED THAT AT LEAST 2% OF THE MILLIONAIRE SEGMENT (AROUND 675,000) WOULD BE MID TO HIGH LEVEL ART, ANTIQUES OR COLLECTIBLES COLLECTORS

³⁴ The term “dollar millionaires” is used to distinguish those individuals reported in Credit Suisse’s *Global Wealth Databooks*, dating from 2010 to 2015, 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.



Figure 4g Global Population and Wealth of “Dollar Millionaires” 2010-2015



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The US has by far the densest dollar millionaire population, with a share of 46% of the world’s millionaires in 2015, up 5% year-on-year in share as their number grew by 11%. The other major art markets, the UK and China, also saw strong growth in millionaire numbers and share. In the UK, numbers grew 16% year-on-year, and it became the second largest centre for global millionaires with a 7% share of the population. Japan, France and Germany, the next largest centres with a combined share of 16%, all saw significant decreases in the

number of millionaires, with numbers falling by 22% or more in each country. China (including China and Hong Kong), on the other hand, now the sixth largest region in terms of millionaire population, saw growth of 12% year-on-year, with the majority of gains in Mainland China.

Elsewhere, there were significant gains year-on-year in regions in the Middle East such as the UAE and Qatar, albeit from a small base, and substantial losses in Russia, Brazil, Italy and Mexico.

Table 4g Population of “Dollar Millionaires”

Country	Millionaires 2014 x 1,000	Millionaires 2015 x 1,000	Change 2014/2015	2015 Share of World's Millionaires	Share of Country's Adults 2015
Australia	1,252	961	-23%	2.9%	5.7%
Brazil	225	168	-25%	0.5%	0.1%
Canada	1,138	984	-14%	2.9%	3.6%
China	1,181	1,333	13%	4.0%	0.1%
Hong Kong	102	107	5%	0.3%	1.7%
France	2,444	1,791	-27%	5.3%	3.7%
Germany	1,964	1,525	-22%	4.5%	2.3%
India	182	185	2%	0.6%	0.0%
Indonesia	98	98	0%	0.3%	0.1%
Italy	1,597	1,126	-29%	3.3%	2.3%
Japan	2,728	2,126	-22%	6.3%	2.0%
Korea	333	313	-6%	0.9%	0.8%
Mexico	172	122	-29%	0.4%	0.2%
Norway	256	205	-20%	0.6%	5.4%
Qatar	26	32	23%	0.1%	2.5%
Russia	158	92	-42%	0.3%	0.1%
Singapore	167	142	-15%	0.4%	3.5%
Spain	465	360	-23%	1.1%	1.0%
Sweden	467	520	11%	1.5%	7.1%
Switzerland	663	667	1%	2.0%	10.8%
Taiwan	379	414	9%	1.2%	2.2%
UAE	46	59	28%	0.2%	1.5%
UK	2,043	2,364	16%	7.0%	4.9%
US	14,166	15,656	11%	46.4%	6.4%
WORLD	34,837	33,717	-3%	100.0%	0.7%

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Worldwide, 88% of dollar millionaires had wealth in the bracket between \$1 million and \$5 million, and this segment dominated in all countries, from a low of 80% of the millionaire population in Russia to the highest share in Japan of 94%. Those with the highest share of millionaires with wealth greater than \$50 million in the millionaire segment tended to be in the BRIC countries and RDEs. Russia and Hong Kong had the highest share of billionaires in this segment (although it was a tiny 0.1% of their national millionaires).

The trends in the numbers of dollar millionaires in different regions offer some interesting contrasts. China started this century with the same number of millionaires as Africa and India (at around 30,000 to 45,000), however its growth rate has since far exceeded the growth in these regions. Numbers in Africa have grown by a factor of four (to 126,000) and in India, by a factor of six (to 185,000), both significantly faster than the global average, but

nowhere near China, with its current population of 1.3 million dollar millionaires, which is over four times both of these regions combined.

Credit Suisse predict that the number of dollar millionaires will rise by a further 46% over the next five years, bringing the total to over 49 million, while millionaire net wealth is also projected to increase by just over 8% annually. Despite its economic slowdown, China remains the region most likely to see the largest increase, with the number of millionaires expected to advance to close to 2.2 million.

4.7 Ultra-High Net Worth Individuals (UHNWIs)
One of the main drivers in the wealth expansion of millionaires in the US and worldwide over the last few years has been the pace of growth of ultra-high net worth wealth, which has been far outstripping the rates of increases in general wealth.

UHNWIS MADE UP JUST 1% OF THE POPULATION OF GLOBAL HNWIS BUT ACCOUNTED FOR 35% OF THEIR WEALTH AND HAVE EXPERIENCED THE FASTEST EXPANSION OF WEALTH

This segment of UHNWIs³⁵ made up just 1% of the population of global HNWIs at the end of 2014, but accounted for 35% of their wealth and has experienced the fastest expansion of wealth. The Asia Pacific region advanced the most, with China and India driving growth (increasing by 22% and 31% respectively over the year). In the UHNWI segment, Latin America accounts for the largest share of global wealth (at 31%, versus 22% for Asia- Pacific and 23% for North America). However the poor performance of Brazil and Latin America overall meant that the wealth growth of this segment has been stagnant in recent years (declining 0.1% annually), which in turn constrained the aggregate figures to a lower trajectory.

UHNWIs are a key group for the art market with estimates that they account for over 20% of spending across all luxury industries, despite their tiny number.³⁶

Estimates of the wealth and population within this highest segment differ depending on how

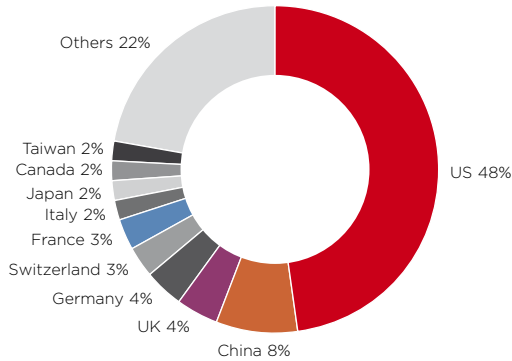
wealth is defined, causing some differences in population and wealth estimates between sources. Using data from Credit Suisse, which was the only consistent source for 2015, and includes non-financial assets, there were an estimated 123,838 individuals whose personal wealth exceeded \$50 million, a slight drop of 4% in number year-on-year, again with some of the expected influence of currencies. It is interesting to note however that the numbers with wealth in excess of \$500 million actually increased (by 5%), while the number of dollar billionaires (those with wealth in excess of \$1 billion) increased by 7%.

While Europe and North America saw declines in the UHNWI population in this segment year-on-year, China advanced by 25% and India by 17%. Again, despite the declines, all regions except for Latin America saw a gain in the billionaire population, again indicating the top pulling further away even within this higher bracket.

THE UHNWI SEGMENT ACCOUNTS FOR UP TO 38% OF THE SPENDING IN THE ART MARKET

³⁵ According to data from Cap Gemini and RBC Wealth Management (2015) the ultra-high net worth individual (UHNWI) segment is defined as those with more than \$30 million of investable assets.
³⁶ Estimates from Wealth-X in 2014.

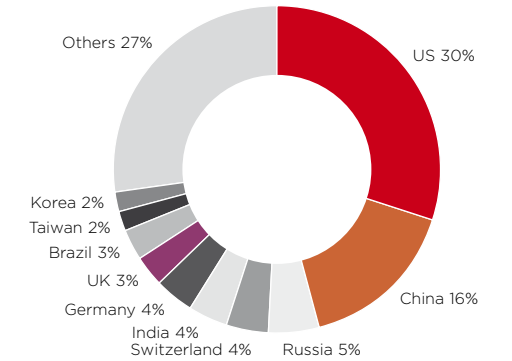
Figure 4h Share of Global UHNW Population (Wealth > \$50 million)



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Wealth-X also carried out research on UHNWIs in 2014 (which they defined as those with wealth in excess of \$30 million worldwide), and estimated that these wealthiest individuals each spend somewhere in the region of \$1.1 million per year on luxury goods and services. Although Wealth-X did not publish the population numbers for 2015, assuming this group also declined in number slightly (by 4% annually), their combined spending would amount to \$223 billion, with around 11% of that (or \$25 billion) on art. If this is an accurate

Figure 4i Share of Global Billionaire Population (Wealth > \$1 billion)



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finding, it would imply that the UHNWI segment accounts for 38% of spending in the art market.

4.8 HNWIs and their Allocation to Art and Antiques

Research has suggested that HNWIs generally allocate an average of up to 10% to so-called investments of passion, although this proportion varies widely between individuals and countries.³⁷ In 2014, the most popular of these were jewellery, gems, and watches, with a 29% allocation, while

³⁷ This term is used in the annual World Wealth Reports from Cap Gemini and RBC Wealth Management and refers to investments in art, antiques, collectibles, sports investments, jewellery and gems and others. The allocations to investments of passion were not updated in their data for 2015, therefore allocations refer to 2014 findings.

art was ranked the third most popular, with a share of 17%, down from a peak of 25% in 2008. The highest allocation to art was in Europe (19%), versus 15% in Latin America and Asia Pacific and 17% in North America.

Antiques and collectibles, which includes coins and wine, was the second most popular category worldwide in 2014 (at 21%), close to double its level of 12% in 2008. The highest allocation in this segment was in North America (at 23%), versus just 16% in Japan.

It is interesting to note some of the different purchasing habits of HNWIs when it comes to investments of passion. Cap Gemini and RBC Wealth Management (2015) report that the use of credit in HNW portfolios is widespread, averaging around 18% as a percentage of assets (over \$10 trillion). Regionally, the highest use in 2015 was by those HNWIs from Latin America and Asia-Pacific (excluding Japan which has by far the lowest

credit usage of all regions), and also by younger and wealthier (with wealth over \$20 million) HNWIs. Their *Global HNW Insights Survey 2015* indicated that while the most common reasons cited for holding credit were investments (40% of those surveyed) and property (22%), 9% or 1.3 million HNWIs held credit to finance purchases of investments of passion.

Using some simple and conservative assumptions, based on these findings it can be estimated that over 503,000 HNWIs used credit to finance purchases in the art market in 2015 of art, antiques and collectibles.

The level of credit used and the amount allocated to investments of passion varies considerably between regions. Table 4h shows that while the Japanese hold the lowest amount of credit overall, they are by far the most likely to use that credit to finance passion assets. The table, with the same set of conservative assumptions,³⁸ projects

OVER 503,000 HNWIS USED CREDIT TO FINANCE PURCHASES IN THE ART MARKET IN 2015 OF ART, ANTIQUES AND COLLECTIBLES

³⁸ We assume an average credit holding per HNWl of 17.8% of assets as reported by Cap Gemini / RBC Wealth Management. While 9% of those HNWIs used their credit for purchases of investment of passion, we conservatively estimate that they only allocated 10% of their total credit to these purchases. We then assume that the allocations between the segments of investments of passion were stable year-on-year and applied to these credit purchases.

Table 4h Estimated Credit Allocations by Region in 2015

	Asia Pacific	Europe	Japan	Latin America	Middle East and Africa	North America
HNWIs using credit for investments of passion	3.5%	4.9%	30.9%	2.3%	2.0%	5.7%
Credit levels (% of assets)	25.5%	20.4%	9.3%	28.6%	25.4%	13.9%
Art Purchases on credit (\$bn)	\$1.4	\$2.5	\$2.8	\$0.7	\$0.2	\$2.1
Antiques/ collectibles purchases on credit (\$bn)	\$1.8	\$2.9	\$2.8	\$1.0	\$0.3	\$3.0
Total (\$bn)	\$3.2	\$5.4	\$5.6	\$1.7	\$0.4	\$5.1

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a total potential credit spend across the regions of \$21.5 billion. If jewellery, gems and watches were included, this would rise to \$38.6 billion. This implies that at least 33% of art market sales in 2015 were purchased on credit by HNWIs.

4.9 Art Buyers: Survey Results

While macro-economic analysis of the global and national distribution of wealth can give indications on expenditure within the art market, surveys can provide some deeper insights. Art collectors are a central part of any analysis of the art market, however aggregating meaningful data on them is difficult as the group represents a wide range of individuals, institutions and companies, that vary

in terms of their location, backgrounds and goals. Surveys carried out to date are subject to many biases and can only hope to provide a descriptive snapshot of a small subset of the population of collectors at a point in time. However some useful general information on buyers can be extracted from the surveys of dealers and auction houses conducted by Arts Economics in 2015.

In 2015, dealers reported that their average number of buyers was 87³⁹ with a median of 40 (down from 50 in 2014). For second-tier auction houses this figure was considerably higher, with an average of around 2,295 (down 34% on the average reported in 2014).

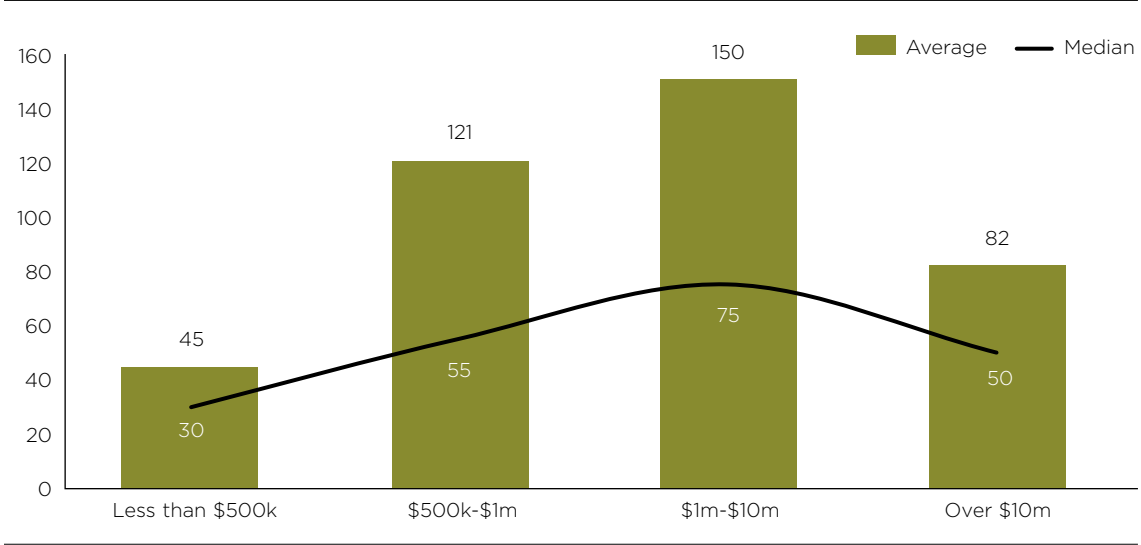
³⁹ This average omits one outlier variable of 10,000.



It is interesting to note that the survey revealed that the higher a dealer's turnover, the less clients they tended to have. The average number of buyers rose for dealers as their turnover rose up to a certain level, but then past around \$10 million, the numbers of buyers began again to decline. This fits with some of the anecdotal evidence from dealers that those at the higher end deal with a narrower group of buyers (and artists).

Across all levels of turnover the average number of works purchased from dealers in 2015 was two per buyer. The widest range in number of works per buyer was in the lowest segment of turnover (less than \$500,000), which ranged from an average of one to 22, whereas the highest segment (over \$10 million) ranged only between one and six.

Figure 4j Number of Buyers by Dealer Sales Turnover in 2015



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Dealers reported that their sales in 2015 were fairly evenly split between new and older buyers. On average in 2015 buyers that were new to the dealer in the last year accounted for 34% of their total buyers, (up 4% on 2014). 39% were buyers who had been clients for one to five years (up 1%), while longer-term buyers of over five years dropped 5%, to 27%.

These results were relatively stable across sectors, although in fine art, and particularly in Contemporary art, newer buyers represented a slightly higher share (at 35% and 37% respectively). In contrast those working in the decorative arts had slightly less new buyers at 31%, with the largest segment being those who had been buying for one to five years (36%).

For second-tier auction houses, the share of new buyers dropped considerably year-to-year, falling 16% to 27%. Buyers who had been clients for between one to five years were the largest group (at 40%), and those of a longer duration of over five years were around a third of their client base on average.

As in previous years, by far the largest share of both dealer and auction sales went to private collectors. In the dealer sector, on average, 72% of sales made in 2015 were to private collectors (up

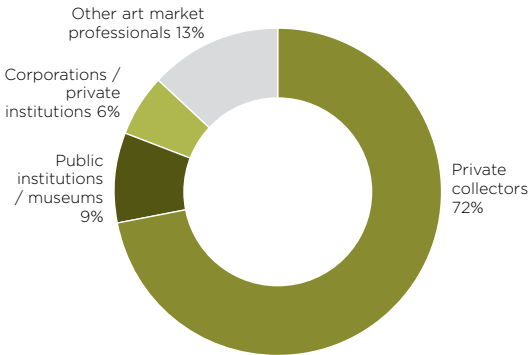
2% year-on-year), while sales to other members of the art trade were also significant at 13% (down 3%). Sales to museums and other public institutions were 9%, (1% down on 2014), while corporate sales were again the smallest portion.

While sales to private individuals also dominated the second-tier auction sector, art market professionals constituted a much larger segment, reflecting the role of dealers as agents for private buyers, as well as working on their own account. The share of sales to private collectors rose 11% year-on-year to 64%, while those to art market professionals fell 13%.

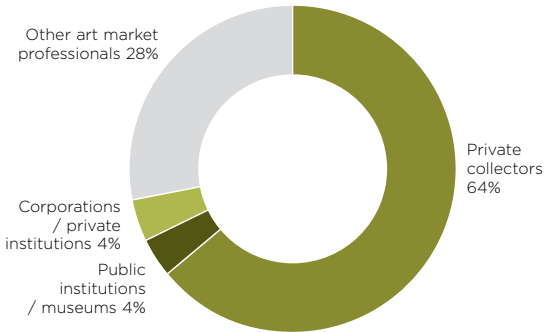
72% OF DEALER SALES IN 2015 WERE TO PRIVATE COLLECTORS, WHILE SALES TO OTHER MEMBERS OF THE ART TRADE WERE ALSO SIGNIFICANT AT 13%

Figure 4k Market Share of Sales by Buyer Group

i. Dealers



ii. Second-Tier Auction Houses



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In terms of buyer nationalities, local buyers are still the most important part of most dealers' businesses. The share of sales to local buyers in 2015 on average was 61%, versus 39% to international buyers. This share did vary somewhat depending on the turnover of dealers, at least at the extremes: larger dealers, with turnovers in excess of \$10 million for example, reported a higher proportion of international buyers (at around 60%), while those with turnovers of less than \$500,000 averaged around 30%. There were also regional variations, with

dealers in the US selling more locally (76%) than those in Europe (for example, the UK, at 49%). This was consistent with the findings of the surveys in 2014.

While the aggregate share of local sales was stable year-on-year, it has declined somewhat over time (from 72% in 2010), which indicates that some dealers have had to pursue a more internationally focused business model, selling through fairs and online to reach a more geographically diverse buyer base.

Local buyers were also reported to account for the majority (78% on average) of sales in the second-tier auction houses (up 16% on 2014). The nationalities of overseas buyers covered Europe, the US, China and other parts of Asia. While buyers from the US and Asia were an important part of many of the auction houses' businesses, some businesses in Europe reported a greater level of trade with neighbouring countries in the EU. For the largest top-tier houses with multinational operations, expenditure by buyers at auction is now fairly evenly spread between the US, Europe and Asia. While US buyers tended to represent a slightly larger share on average, their margin has decreased considerably over the last ten years, particularly with the increased importance of Chinese and Asian buyers.

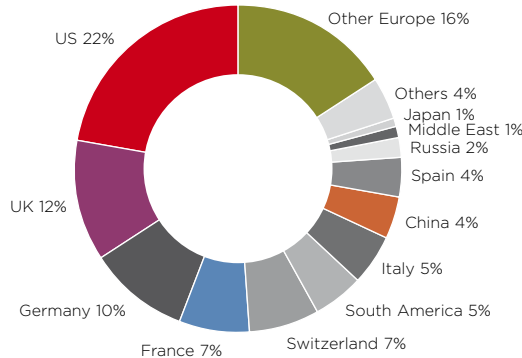
Buyers from dealers were fairly widely spread in 2015, although European and US buyers dominated the sample, with a share of 60% and 22% respectively. As in previous years, the nationality of buyers varied depending on the location and nature of the respondent's business,

and many dealers in Europe or Asia transacted more with buyers in neighbouring countries. This was particularly the case with businesses with lower turnovers, where shipping costs and other expenses may have proved an obstacle to wider global reach. However it is likely that historical, cultural and political ties also play an important role. Dealers from Spain, for example, have mostly European buyers, but also a large number from South and Central America.

In terms of individual countries, the US was the most important source of buyers overall in terms of the aggregate numbers, and was cited as being in the top three buyer nationalities by 59% of dealers. The UK was the second, as it had been in 2014.

The challenge most frequently cited by all dealers that they will face over the next five years is the need to find new buyers. This difficulty has been exacerbated, according to some dealers, by the increasingly narrow focus of some of the newer collectors on a more limited range of artists and works.

Figure 4I Most Important Nationalities for Dealers in 2015



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The top private collectors are based in various locations around the world. *ARTnews* has published a list of the Top 200 Collectors annually since 1990, which allows some comparisons of their changing whereabouts over time. A consistent feature of the group, despite its changing makeup, has been that the largest collectors globally are in the US. In 2015, just over half of the top 200 collectors were primarily based in the US, up 2% on 2014. The US share has declined slightly over ten years, falling by 3% since

2005, making room for the growing number from China and other parts of Asia. Nonetheless the share of US collectors in the list has only fallen 6% since 1990, underlining the importance of the US for high-end buyers.

The changing impact of Asian collectors is notable. In 1990, 18 of the top 200 collectors were Asian, predominantly Japanese. By 2005, this had fallen to just three. However in 2015 it had risen again to 20, or 10% of the total. More than half of the top Asian collectors are from China and Taiwan, but other nationalities are also represented including Japan, Indonesia and Malaysia.

In the wider luxury industries Chinese spenders remain the fastest growing national group, accounting for over 30% of the total expenditure on luxury goods in 2015, with their spending up 35% in the last five years, despite the slowdown in the economy.⁴⁰ While Chinese buyers have increased their expenditure in the international art market, many dealers and auction houses now take a more qualified view of the much anticipated impact of these new buyers. While the number of millionaires continues to increase, the development of the middle classes will also be key to their influence on international business in the art trade.

⁴⁰ Bain and Company (2015) *Bain Luxury Spring Update 2015*.

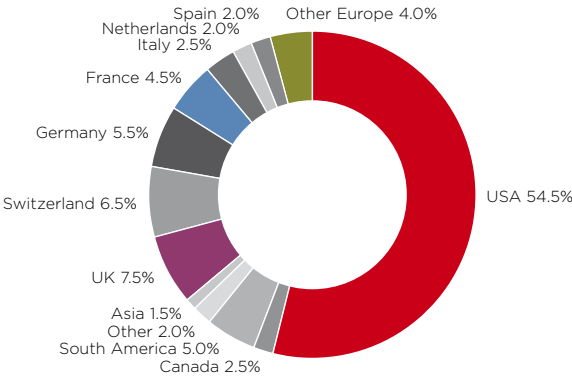


In the art market and in global wealth over the last five years, the top 1% has increasingly pulled away from the bottom 99%. Although this has buoyed aggregate sales, the top 1% is by definition a small group, which poses risks for the future. While

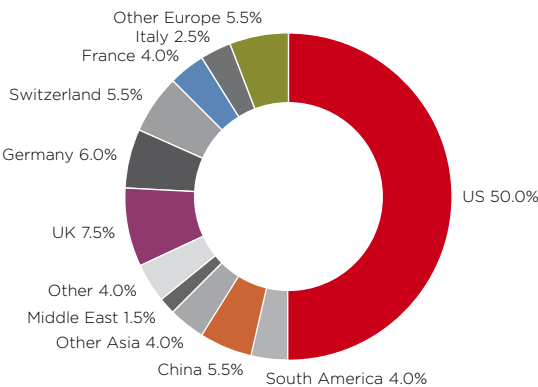
the spending patterns of the wealthiest 1% has undoubtedly influenced the performance of many art markets in terms of aggregate sales values, spending in the middle and upper middle classes will also be critical for future growth.

Figure 4m Location of Top 200 Collectors

a. 2005



b. 2015



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CHAPTER 5

ECONOMIC IMPACT



ECONOMIC IMPACT

Key Findings

- In 2015 there were just over 310,400 businesses operating in the global art and antiques market with a combined employment of 2.9 million.
- There were over 2.5 million people employed worldwide in the gallery and dealer sector in about 296,270 businesses.
- The auction sector was made up of over 14,135 businesses in 2015, employing an estimated 326,288 people.
- The global art trade spent an estimated \$17.8 billion on a range of external support services directly linked to their businesses, with spending increasing 3% year-on-year despite the decline in sales in the art market. This supported a further 330,353 jobs.
- Advertising and marketing was the highest area of spending at just under \$4.1 billion (23% of the total). Expenditure on art fairs, which is only incurred by dealers, was the second largest item of expenditure at \$3.8 billion, representing 21% of the total, up 3% on 2014.

It is estimated that in 2015, there were just over 310,400 businesses operating in the global art and antiques market. With a small number of exceptions, most of these are small businesses (both in terms of employees and turnover)⁴¹. Together they provide employment for an estimated 2.8 million people.

The estimates of global art market sales are necessarily conservative and are based only on measurable data from auction sales and dealer polling. At \$64 billion in 2015, despite its thousands of businesses, turnover in the art market is on par with a global multinational company such as Google.⁴² However the art market has a much greater impact on the global economy in proportion to its revenues, through its contribution to high-level employment, fiscal budgets, knowledge and specialist skill development and its valuable support of a range of high value ancillary industries. Besides these direct contributions, the art market also makes a very significant impact on critical industries such as tourism, by enhancing a nation’s cultural value and attractiveness and promoting high value cultural travel and tourism. These economic

contributions all come alongside the less quantifiable benefits and positive external effects that the market generates in nurturing a nation’s cultural value and ultimately its social progress and development. Many of these benefits are non-private in nature, such as national prestige and international recognition, and exist for national populations whether or not individuals ever visit an exhibition or take part directly in the art market.

5.1 Employment

Dealer Sector Employment

In 2015, it is estimated that there were over 2.5 million people employed worldwide in the gallery and dealer sector in about 296,270 businesses.

Most art and antique dealers are small to medium sized enterprises, and the average number of employees per business, based on the global survey in 2015, was eight people, with a median of five, both stable on 2014. Businesses ranged from sole traders to those with up to 150 employees. Many (80%) of the galleries with 40 employees or more were based in multiple national locations.

⁴¹ A small business is defined as one with turnover less than €10 million and staff headcount of less than 50 (in Europe by Europa), and in the US, for art dealers, with a turnover less than \$7.5 million (by the US Small Business Administration).
⁴² Google’s revenues for 2015 were \$75 billion.

Table 5a Number of Businesses in the Art and Antiques Market 2015⁴³

Country	Auction	Dealer	Total
Austria	70	960	1,030
Belgium	80	2,301	2,381
Denmark	74	1,837	1,911
France	362	7,432	7,794
Germany	239	5,179	5,418
Ireland	54	526	580
Italy	137	6,101	6,238
Netherlands	167	3,548	3,715
Spain	115	2,355	2,470
Sweden	204	1,259	1,463
UK	924	6,657	7,581
EU Total	2,815	46,645	49,460
Switzerland	47	1,280	1,327
US	4,410	69,233	73,643
China	430	32,630	33,060
Japan	15	8,005	8,020
Singapore	24	427	451
Rest of World	6,395	138,050	144,445
Global Total	14,136	296,270	310,406

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IN 2015, THERE WERE JUST OVER 310,400 BUSINESSES OPERATING IN THE GLOBAL ART AND ANTIQUES MARKET

⁴³ This table is based on an extensive search of all listings, directories and databases for 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 mainly sell posters, reproductions and craft works have been excluded, as have antique restoration companies. Figures are compiled from art specific directories as well as general business sources such as national golden pages, therefore changes year-on-year can reflect changes in listings and classifications as much as businesses openings and closures. The numbers of businesses are therefore meant as a broad guide only and may underestimate the totals in some countries given a number of small businesses will not feature in listings. The figures in the table are also recorded per business outlet rather than by company.



Around 20% of the total businesses surveyed were sole traders or in a partnerships of just two people. A similar share (19%) employed more than ten people, and just 8% employed more than 20.

Fine art dealers tended to employ larger numbers, with an average of nine (and ten for Contemporary dealers), as against five in the decorative art and antiques sector. The average for generalist dealers or those who mixed sales of fine and decorative art and antiques was also five.

There were also some differences in averages between countries. Excluding multi-national businesses, the average number of employees in the US and UK was close to the global average (nine in the US and seven in the UK), while in some of the mid-sized markets averages were similar (seven in France) or larger (ten in Germany and Switzerland). As in previous years, the newer art markets tended to have higher numbers employed (with 14 in China and 15 in Brazil), while in some smaller markets in Europe averages were lower, for example three in Spain and four in Italy, Austria and the Netherlands.

The majority of businesses (67%) kept their numbers employed stable year-on-year, 26% increased the numbers employed (on average by two people), while 7% experienced a decline in employment.

The gender balanced in the dealer sector leaned more towards females in 2015, with women making up 55% of the workforce, up 4% on 2014. This is in contrast to gender ratios in the wider labour force in most countries, which tend to favour male participation (for example the US reported 47% females in employment in 2015 and in the EU, 46%).⁴⁴

Most working in the sector (83%) were employed full-time (up 8% on 2014) with just 17% in part-time or temporary positions. This is slightly higher than many national averages, such as 27% part-time in the UK, 19% in France and 22% in the US.

Dealers tend to be very well educated with a high level of formal, third-level qualifications. In 2015, 77% of those employed in the dealer sector globally held a university or third level qualification, up 4% on 2014. These education levels are much higher than the general labour force in most countries. For example those holding third level qualifications in the US was just 28% and it averaged 33% across the EU's 28 member states in 2015. As in 2014, the highest shares of qualified employees in the dealer sector were China, the US and France, averaging 90% of those employed or more.

⁴⁴ General labour market data for the US is from the US Bureau of Labour Statistics and based on the civilian labour force aged over 16 years in 2015. Data for the EU is from the Eurostat Labour Force Survey.

Auction Sector Employment

The auction sector was made up of 14,136 businesses in 2015, employing an estimated 326,228 people.

The top-tier houses consist of a small number of national and multi-national global enterprises such as Christie's and Sotheby's, while the second and lower tiers are mid-sized and smaller companies mainly operating locally.

In 2015, the largest top-tier auction houses employed between 300 and 2,400 people worldwide, and all reported numbers either remaining stable year-on-year or increasing. In those companies with multi-national operations, employment in the US and UK dominated in 2015, with a joint share of 74% of total employees on average. Others tend to be nationally based with 90% or more of their employees in their primary location.

In the second-tier, the average number employed in the auction sector was 23. A majority (55%) of those responding to the survey in 2015 reported that their numbers employed had increased in 2015 (by an average of two people), 43% had remained stable, and just 2% had seen a decline.

As in 2014, the top-tier auction sector tended to be female dominated, with 63% female employees in 2015, up 3% year-on-year. The second-tier was gender balanced on average, with 50% females (up 2% on the survey in 2014). Again, both of these sectors showed a higher level of female participation than the average in the general labour force of most regions.

Most of those employed in the auction sector in 2015 worked full-time, with just 11% in part-time or temporary positions (down 1% year-on-year). Part-time work was higher in the second-tier houses, with an average of 26%, up 1% on 2014.

Employees in the auction sector as a whole also tend to be well educated. In the top-tier auction houses. The share of employees with a university degree or equivalent tertiary level qualification has been reported at over 90% in recent years. In the second-tier houses, on average, 65% of those employed held third level qualifications, up 7% on 2014, and again considerably higher than the general labour force in most regions.

Table 5b Estimated Numbers Employed in the Art and Antiques Market 2015

Country	Dealer	Auction	Total
Austria	3,840	1,610	5,450
Belgium	9,204	1,840	11,044
Denmark	9,185	1,702	10,887
France	52,024	8,326	60,350
Germany	46,611	5,497	52,108
Ireland	2,104	1,242	3,346
Italy	24,404	3,151	27,555
Netherlands	14,192	3,841	18,033
Spain	7,065	2,645	9,710
Sweden	3,777	4,692	8,469
UK	46,599	23,037	69,636
EU Total	292,104	66,530	358,634
Switzerland	12,800	1081	13,881
US	623,097	103,845	726,942
China	456,820	6,790	463,610
Japan	48,030	345	48,375
Singapore	3,416	552	3,968
Rest of World	1,104,400	147,085	1,251,485
Global Total	2,540,667	326,228	2,866,895

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TOGETHER, AUCTION HOUSES AND DEALERS PROVIDED EMPLOYMENT FOR AN ESTIMATED 2.9 MILLION PEOPLE IN 2015

5.2 Ancillary Economic Impact

Besides its direct contribution to employment in auction houses and galleries, the art market also creates significant revenue and jobs in a number of ancillary industries and support services it uses. It is estimated that it spent \$17.8 billion on a range of external support services directly linked to art businesses in 2015. Despite the decline in sales in the art market, external spending increased by 3% year-on-year.

Figure 5a breaks down the spending between different industries and services. The largest area of expenditure, as it has been for the last several years, was advertising and marketing at just under \$4.1 billion (23% of the total). Auction houses accounted for 73% of this spending in 2015, and this is by far their largest area of external expenditure (at 40% of their expenditure total). However, despite it remaining the largest segment,

auction houses and dealers in 2015 reduced their total expenditure on advertising and marketing year-on-year by 8% and 9% respectively.

Art fairs accounted for the second largest item of expenditure at \$3.8 billion, representing 21% of the total, up 3% on 2014. This is only incurred by the dealer sector and has been expanding year-on-year. 2015 represented the second year of double-digit increases, with expenditure rising 18% year-on-year, and art fairs accounting for 37% of total external spending by dealers (up 4% on 2014).

The next highest area of aggregate expenditure was on hospitality and travel totalling \$2.2 billion, or 12% of the total. This declined by 13% in 2015, due to a decline in auction house expenditure.

Most other areas of expenditure increased in 2015. Spending on IT went up by 12%, the bulk of

THE ART TRADE SPENT \$17.8 BILLION ON A RANGE OF EXTERNAL SUPPORT SERVICES DIRECTLY LINKED TO ART BUSINESSES IN 2015

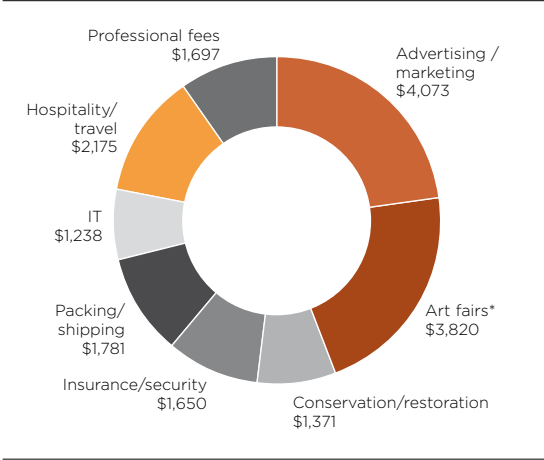
which was attributable to auction houses (which saw a rise of 20% year-on-year). Investment in IT remains a relatively small (7%) share of total external expenditure, but it has risen by 70% over the last five years. For both dealers and second-tier auction houses, around 40% of their spending on IT in 2015 was on third party online costs.

Expenditure on packing and shipping also increased 10%, mostly attributable to dealers, who spent 33% more than in the previous year, whereas auction houses reported a moderate decline. The costs of transporting works is a key challenge reported by dealers, particularly as their attendance at fairs has increased over the last ten years, and this element now accounts for 9% of their total external expenditure.

Professional fees, which includes lawyers, auditors, banking and other services, also rose a substantial

16% in 2015. Dealers and auction houses had very different patterns of spending however, with expenditure in the auction sector rising 66%, while dealers reported a 19% drop.

Figure 5a Spending by the Global Art Trade on Selected Ancillary Services (2015, Million US Dollars)



© Arts Economics (2016) *Spending by dealers only

Table 5c examines ancillary expenditure by the global art and antiques trade, and the employment it generates. In 2015, based on average sales per employee in a range of similar service industries, it is estimated that this expenditure supported 330,353 jobs in ancillary industries.

Besides the direct economic contribution of art businesses and support services, the art trade also has many positive links to other sectors such as other cultural industries, tourism and finance. The importance of the art market in promoting tourism has been well established. In 2015, the World Travel and Tourism Council estimated that the travel and tourism industry, including the jobs it indirectly supports, contributed as much as \$7.9 trillion to world GDP, supporting 282 million jobs. It is estimated that cultural tourism accounts for up to 40% of total tourism revenues, which would equate to this sector contributing to close to 5% of the world's GDP.

The art market and cultural industries play a key role in promoting cities as destinations for cultural tourism and hence indirectly support

jobs, revenues and fiscal contributions that are generated for national economies. The art market also attracts high value inbound tourism through events such as art fairs, major auction sales and exhibitions. These events bring a surge of wealthy visitors into a city, spending much more than average tourists. In the UK for example, trade shows and exhibitions were found to generate five times the revenue of sporting events, and spending on cultural attractions was found to be the fourth largest item of expenditure for inbound tourists, next to accommodation, food and travel costs.⁴⁵

Therefore, despite its relatively small size, the art and antiques market punches above its weight in terms of economic impact, both in terms of the number of jobs generated directly or in ancillary industries and also their quality. The art market itself is populated by a highly skilled and educated labour force and its support services are most often highly specialized, niche industries that have developed specifically around the art market and, in many cases, would find it hard to survive without it.

⁴⁵ Tourism Alliance (2015) *UK Tourism Statistics 2015*. From www.tourismalliance.com

Table 5c Ancillary Expenditure and Employment Generated in 2015

Services	Expenditure (\$m)	Employment Generated
Advertising / marketing	\$4,073.1	75,747
Art Fairs	\$3,819.5	70,864
Conservation and restoration	\$1,371.1	25,753
Insurance and security	\$1,650.4	30,530
Packing and shipping	\$1,781.3	33,183
IT	\$1,238.3	23,512
Hospitality and travel	\$2,175.3	40,403
Professional fees	\$1,697.0	30,363
Total	\$17,806.0	330,353

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APPENDIX



APPENDIX: A NOTE ON DATA SOURCES

Due to the complex nature of the art and antiques market, information presented in this report comes from a wide range of sources. All of the data is gathered and analysed directly by **Arts Economics** from dealers, auction houses, art and antique collectors, art price databases, financial and economic databases, industry experts and others involved in the art trade and its ancillary services.

Some of the key data sources are listed in this Appendix. This is not a full list of those used and does not provide a detailed explanation of the methodological approaches taken. However for more specific information or any queries on data or methodology, please feel free to contact Dr. Clare McAndrew, clare@artseconomics.com.

Auction Data

Auction data used in this report comes from four main sources:

1. Artnet

The main supplier of global auction data is Artnet, which is the most reliable, transparent and comprehensive global archive of auction results in this sector. The Artnet Price Database has over 10 million auction results spanning over

31 years, including a total of over 1,700 auction houses and over 320,000 artists. Every lot is catalogued, translated, and edited by professional, multilingual specialists to ensure data accuracy and correct categorization. Since 2013, Artnet has been working with the China Association of Auctioneers (CAA) to better screen auction houses from Mainland China and only covers data from auction houses that have passed the CAA's annual evaluation.

The fine art database includes original paintings, sculptures, works on paper, photographs, prints and multiples, design and other media. Original paintings, sculptures, works on paper, photographs, prints and multiples, and other media with a known artist must have a minimum estimate of \$500 to be included. Artists with a qualified name, or artists known only by their initials, nationality, or period, or others that can not be specifically identified require a \$2,000 estimate for inclusion.

Artnet's decorative database includes furniture, silver, porcelain, ceramics, glass, rugs, carpets, clocks, books, jewellery, watches, and other decorative art objects. Similarly lots must have a minimum estimate of \$500 to be included.



2. AMMA

Both fine and decorative auction data for the Chinese art market is supplied by AMMA (Art Market Monitor of Artron). Artron.net was founded in 2000 as an interactive online community devoted to Chinese works of art. AMMA is a subsidiary of the Artron Group and conducts independent research, monitoring and analysis of the Chinese art market. It has the most comprehensive and reliable available database on the Chinese art market. The Artron Chinese Artwork Database has recorded 5.3 million results from over 23,000 sales from over 1,000 auction houses since the first art auction in China in 1993, and makes 600,000 additions to the database annually. The company supplies data-processing services, art appraisal and other price consulting services as well as holding information on around 35,000 artists, over 14,000 art institutions and 4,000 galleries.

3. Auction Houses Published Results

Arts Economics collects data directly from the published auction results and press releases of auction houses around the world.

4. Auction House Survey

Arts Economics distributes two surveys in the auction sector: a top-tier survey of the top 20 auction houses worldwide plus a second-tier survey of around 500 national second-tier auction houses.

Dealer Data

To compile data on the dealer sector, Arts Economics conducted an anonymous online survey of approximately 6,000 dealers from the US, Europe, Asia, Africa and South America in 2015. The survey was supplemented by a series of interviews with dealers in different sectors and countries and some important insights can be gained from these. Response rates varied between countries and sectors, but on aggregate came to approximately 14%.

Ideally to analyse 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 art dealers associations around the world, those exhibiting at art fairs, and some lists compiled with the help of experts in particular national markets. While the survey revealed dealers with a wide range of levels of turnover, by the nature of the sampling process, it is skewed towards the middle to higher end of the market and does not account for the very many small businesses, consultants and other agents in the market which do not belong to associations or exhibit at fairs. It is also possible that it excludes some of the highest level dealers who do not respond to the survey.

As has been the case for the last two years, in 2015 the survey was conducted in Mainland China both through the online survey and through in person interviews with more than 20 art galleries in Beijing. A series of supplementary interviews were also conducted with dealers around the world.

Trade Data

The two main databases used for international cross-border trade data are:

1. The UN Comtrade Database

The United Nations Commodity Trade Statistics Database (UN Comtrade) contains detailed imports and exports statistics reported by statistical authorities of around 200 countries, with data from the early 1960s to the most recent year. The database is continuously updated, however most countries statistics are only available with a lag of 12 to 18 months.

2. Eurostat

Eurostat is the statistical office of the European Union. Its international trade statistics track the value and quantity of goods traded between EU member states (intra-EU trade) and between member states and non-EU countries (extra-EU trade). Since customs formalities between member states were removed, data on intra-EU

trade is collected via Intrastat. In the Intrastat system, data is collected directly from trade operators, which send a monthly declaration to the relevant national statistical administration. These statistical authorities also collect extra-EU trade statistics from the relevant customs authorities each month, although reporting to Eurostat varies between Member States with lags of one to 18 months.

Online Data Sources

The research on the online sector was informed in part by a survey of about 50 online businesses selling art and antiques in 2015. This was supplemented by interviews with those working in the online art space, collectors and other experts.

The two main databases used for web analytics were Alexa and Similar Web. There are many sources available and these two are commonly used and have amongst the widest coverage. There are weak spots in all of the web analytics databases due mainly to lack of coverage in certain areas, and small samples which lead to various limitations and inaccuracies. The data should therefore be only treated as a relative view of the companies presented at a point in time. Other data was taken directly from social media sites, including Facebook, Instagram and Twitter.

Secondary Sources

The report uses a large number of secondary sources (that are cited in the report). Some key sources used for data in the report included:

- The IMF World Economic Outlook (Database)
- Merrill Lynch and Capgemini World Wealth Reports (various years)
- Credit Suisse Global Wealth Databook (various years)
- The World Wealth and Income Database

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