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Collectibles amid heightened uncertainty and inflation

June 2022 | Thought leadership from Credit Suisse and the world's foremost experts

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Editorial

Since the onset of the COVID pandemic, the world has undergone and is still experiencing major shifts. Inflation has made a pronounced comeback. War in Europe has become a sad reality. A schism between the West and the East is reshaping entire markets and even monetary systems. Economic growth is still resilient, but not assured, so that investors are naturally drawn to stores of value and ways to diversify their assets. When this objective also responds to personal affinities or even passions, as it does for many devoted collectors, demand thrives.

For these reasons, we have chosen this point in time to update our Collectibles report, first launched in 2020. In collaboration with Deloitte Luxembourg, our Credit Suisse investment specialists again associate with leading external experts to carve out key trends in the biggest collectibles categories for the benefit of our clients and explore the rapid developments in non-fungible tokens (NFTs), the new digital collectibles.

We hope that you will find our comprehensive investment views in this report both informative and inspiring, and wish you an enjoyable read.

Axel P. Lehmann
Chairman of the Board of Directors
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Photo left: Mercedes Benz 190 SL by Paolo Mazzetti, courtesy of 1000 Miglia S.r.l.

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Executive summary

After the first edition in 2020, we take a fresh look at recent collectible trends. Collections in small and big ways are the expression of individuals' passions in life. Sometimes, these collections capture multiple generations and give rise to sizable estates of historical value and an opportunity for broader public enjoyment. We are proud to offer a glimpse into the Goodwood collection as a prominent and impressive example in our report. For ultra-high-net-worth individuals, collectibles often represent an integral part of their wealth that deserves care similar to any other assets, financial or not. By their low correlations with other financial assets, collectibles offer significant diversification benefits. In times of elevated uncertainty, whether due to war or to resurgent inflation, they can even provide investors with precious stores of value, building on their real asset properties with prices based on scarcity and societal value.

Nevertheless, collectibles differ from one another as do financial assets. For example, fine art tends to be pro-cyclical – strong when the economy is strong and weak when the economy is weak. In contrast, classic cars are more counter-cyclical. Collectibles also differ in terms of volatility. For example, fine watches and jewelry are classical stores of value with low volatility and limited drawdowns, but also steady low-single-digit returns. Fine art is instead more of a capital growth asset with not only higher average returns, but also substantially higher volatilities, much like highly volatile equities. Fine wines and classic cars are more like bonds and hedge funds, i.e. moderately volatile assets. Of all assets, however, the best risk-reward proposition has so far been in luxury bags.

Throughout the pandemic, collectibles markets have seen a major shift. In-person auctions at first were canceled in 2020, opening the way for a vibrant digital marketplace instead. This in turn added new digitally affine collectors, gave Asian collectors even more access and importance than before, and changed other market structures such as the price range of goods sold. On balance, 2020 ended up being a reasonable year for most collectibles, with returns in the low- to mid-single-digit ranges, and some strong performance in unexpected niche collectibles areas such as luxury bags. Subsequently, as normalcy gradually returned in 2021, in-person events resumed and collector appetite increased strongly. Similar to financial assets, 2021 proved to be a remarkable year for many collectibles.

Despite all its uncertainties, macroeconomic and geopolitical shifts, 2022 started on a strong footing for collectibles, with several record-breaking sales in fine art as well as classic cars. With inflation likely to stay elevated and interest rates set to rise, we do not expect similar positive wealth effects on collectibles as in 2021 and would anticipate slower returns in 2022 than in the previous year overall. We find that Chanel handbags, traditional Chinese works of art and wristwatches offer the best inflation protection, while fine wines, modern and contemporary art, and American and Latin American art tend to suffer in high-inflation regimes. Rising interest rates are not so much of a headwind for collectibles. A number of fine art categories actually perform better in high-interest-rate regimes than in low-interest-rate regimes.

Key trends to follow in 2022 include the further rise of young contemporary artists and African artists, the expanding influence of Asian collectors as well as the new generation and the broadening of digitalization, with non-fungible tokens (NFTs) finding applications in all collectible categories, the metaverse and online buying. Digitalization has also finally conquered the classic car market with the rise of Bring a Trailer (BaT) to become the number one auction house in the biggest world market for cars (the USA) in 2021. With the development of digital transaction platforms, "instant classics" (i.e. nearly new cars with collector value due to a limited series) established themselves as a new trend among collectors.

In jewelry and watches, supply chain disruptions continue to nurture steady growth, while strategic collaborations of iconic brands with high profile personalities add to their narrative and collector attraction. Finally, NFTs have intrigued and divided collectors into both enthusiasts and skeptics. After a craze in the first half of 2021, consolidation then proceeded and a sharp correction ensued. Blockchain and NFTs will continue to offer artists new forms of expression, alternative ownership models and engagement, and a more mature market going forward.

We wish you a pleasant and informative reading.

 Historical performance indications and financial market scenarios are not reliable indicators of future performance.

“Garrowby Hill” by David Hockney; photo by Malcolm Park, Alamy Stock Photo

Risk factors

Historical returns and financial market scenarios are no reliable indicators guarantee of future performance. The price and value of investments mentioned and any income that might accrue could fall or rise or fluctuate. Past performance is not a guide to future performance. If an investment is denominated in a currency other than your base currency, changes in the rate of exchange may have an adverse effect on value, price or income. You should consult with such advisor(s) as you consider necessary to assist you in making these determinations. Investments may have no public market or only a restricted secondary market. Where a secondary market exists, it is not possible to predict the price at which investments will trade in the market or whether such market will be liquid or illiquid.

Risks associated with investments in cryptocurrencies and tokens (such as NFTs) include high volatility (e.g. due to low market capitalisation, speculation and continually changing legal/regulatory frameworks) and various other risks (e.g. loss of access due to technical reasons or fraud etc.). Such investments may not be suitable for all investors. Before deciding to invest in cryptocurrencies or tokens you are advised to carefully consider technical and regulatory developments in this field as well as your investment objectives, level of experience and risk appetite.

If nothing is indicated to the contrary, all figures are unaudited. To the extent this document contains statements about future performance, such statements are forward looking and subject to a number of risks and uncertainties. Predictions, forecasts, projections and other outcomes described or implied in forward-looking statements may not be achieved. To the extent this document contains statements about past performance, simulations and forecasts are not a reliable indication of future performance. Significant losses are always possible.

Goodwood House by The Duke of Richmond

Collecting: A multi-generational passion

Interview with The Duke of Richmond and Richard Grindy, Director of Art of the Goodwood Group

The seat of the Dukes of Richmond for over three centuries, Goodwood is England's greatest sporting estate and a living testimony of a perpetuated passion for sports, arts, precious collections, landscaping and more. The sharing of this rich heritage with a larger public (mirroring both the family's experiences as well as historical events) is an inherent part of keeping the collections and the estate firmly anchored in the passage of time. We are privileged to share an exclusive interview by Credit Suisse's Nannette Hechler-Fayd'herbe with Charles, the 11th Duke of Richmond, and Richard Grindy, Director of Art at the Goodwood Group on the highly successful multi-generational collector experience, motivation and approach of an illustrious family.

Nannette Hechler-Fayd'herbe: Your Grace, can you give us an overview of Goodwood, its collections, and your personal passions? How does Goodwood keep it all alive?

Charles Richmond: Goodwood has been the family home of the Dukes of Richmond since 1697, ever since the first Duke came to enjoy the foxhunting with the famous Charlton Hunt. The Goodwood collection has been formed by the family over the last 300 years, particularly by the second and third Dukes on their Grand Tour. The Grand Tour (visiting Europe's great cities across the continent) was seen as a rite of passage for young noblemen at the time, providing education and exposure to fashionable society. The Grand Tour is said to have marked the second Duke by igniting his passion for art and encouraging his first purchases of paintings, art commissions and architectural projects.

The Goodwood collection hence features artwork spanning multiple centuries. My own passion is photography, both as a photographer and a collector of important experimental photographs from the mid-20th century, which have brought a contemporary addition to the Goodwood collection. My love and fascination with classic cars and the mechanical history they capture is also well known. The key to keeping a collection alive in my view is to foster and make room for the addition of the contemporary passions of multiple generations.

Collecting started from a very early time in the history and lineage of your illustrious family and has prevailed until now. Can you share with us some examples of special friendships entertained by your ancestors with particular artists of their time?

The second Duke of Richmond commissioned Canaletto to paint two famous views of London from Richmond House in Whitehall. Canaletto was a Venetian painter famous for his city views of Venice. The third Duke in turn commissioned George Stubbs, an up-and-coming young artist who would become England's most famous horse

The third Duke of Richmond with the “Charlton Hunt” by George Stubbs, 1759–60

“Racehorses Exercising” by George Stubbs, 1759–60 painter, to paint three sporting scenes on the estate. He also commissioned an extensive tea, coffee and dessert service from Sèvres when he was the English ambassador to France. These are good examples of contemporary motivations or particular circumstances related to the Dukes' lives that took part in forming a historical collection.

Your own special passion is photography, with a successful career as a photographer and your own collection of photographs by famous 20th century photographers. Can you tell us a bit more about this?

My own photographer work goes back to the 1960s. Initially I started with portraits. In the 1970s I worked a lot on reportage photography. Later in the 1980s I experimented with still life and special effects in advertising photography. More recently, my focus was devoted to landscape photography. I use digital photography to produce highly evocative, impressionistic and abstract works that push the boundaries of traditional photography. As a collector, I collect work that I really admire. It is often very experimental, often taken without a camera, and always pictures that I wish I had taken myself.

Charles Henry Gordon-Lennox, 11th Duke of Richmond, is the Chairman of the Goodwood Group of Companies in West Sussex in the United Kingdom. He is the founder of the Goodwood Festival of Speed and the Goodwood Revival, and is president of the British Automobile Racing Club. As custodian of Goodwood, his role is to preserve and foster the Estate for future generations. Under his former name of Charles March (he was Earl of March before he inherited the title of Duke of Richmond from his father), he is a globally respected photographer, who has exhibited in various countries and published a book.

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The key to keeping a collection alive in my view is to foster and make room for the addition of the contemporary passions of multiple generations

Richard Grindy is the Director of Art at the Goodwood Group, having joined The Goodwood Estate in June 2019 to develop relationships between the Estate and the art industry. His primary role is overseeing the development and launch of the Goodwood Art Foundation, scheduled to open in spring 2024.

As building collections has been a feature over centuries and spanning multiple generations, what has been passed on from generation to generation and adapted over the years?

Each generation has added to the Goodwood collection depending on their own personal passions and interests. Many of those related to the sports they enjoyed with their family and friends (such as horses, hunting, racing, aviation, etc.). Sports have hence clearly been a common thread through several generations as has been a strong family sense. There is, for example, an extensive portrait collection of the various members of the family.

Richard, as the Goodwood collection has grown over the years, there has always been an emphasis on bringing art to the broader audience. One of the Goodwood Group's projects is the new Art Foundation. Can you tell us about its scope and size?

Richard Grindy: Our ambition is to become one of the leading, if not "the" leading destination in the United Kingdom for visitors to experience a world-renowned art program with support from a selection of the world's most important galleries. The annual exhibitions will be innovative, ground-breaking and forward thinking, showing only the very best, carefully curated artworks. The foundation will reflect Goodwood's reputation for excellence, inspiration and unique experiences, and will be aligned closely with the Goodwood Education Trust.

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> The desire to work with the very best experts in their fields and ensure that visitors have an exceptional experience are key to everything that Goodwood does

The project is being supported by the very best people in the industry. Our curator, Ann Gallagher OBE, until recently a Director of Collections at Tate, has secured a globally renowned artist for the Foundation's opening exhibition. Acclaimed landscape architect Dan Pearson is re-imagining the landscape and grounds, enabling our guests to experience art and nature in a carefully considered, beautiful environment.

All this will be supported by a comprehensive education program in association with our established Goodwood Education Trust. Designed to encourage curiosity and deep engagement, the education program will welcome a diverse range of children, young people and abilities, providing hands-on experiences and thought-provoking opportunities to explore both art and the natural landscape.

What is the family's influence on the Foundation? What do you appreciate most as an art professional with the launch of the Foundation?

The family and their values will be central to the Foundation. The desire to work with the very best experts in their fields and ensure that visitors have an exceptional experience are key to everything that Goodwood does. The Duke understands that setting up the Foundation is about creating something not just for the current generation, but to ensure it has longevity for many generations to come. The Duchess of Richmond is very passionate about gardens and the therapeutic benefits of the natural environment, and has been closely involved in the landscaping element of the project.

What I really appreciate is the unique opportunity to work with such a talented group of experts in their fields. Goodwood is renowned for its expertise in hospitality and creating brilliant experiences. This, coupled with the vision of our curator Ann Gallagher and landscape architect Dan Pearson, will present an opportunity to create a truly unique, world-class location to engage with the very best contemporary artworks in a stunning natural environment.

What are the biggest risks with a collection as large as the Goodwood estate?

The usual risks – fire, theft and water damage! Sadly, we aren't immune to any of these, as we have seen in the last few years. The collection needs constant attention and conservation, which requires huge amounts of time and specialists to ensure the collection remains available for generations to come.

View of Whitehall from Richmond House by Canaletto, commissioned by the second Duke of Richmond

Tapestry Drawing Room at Goodwood House

Part of the tea service commissioned from Sèvres by the third Duke of Richmond

Is there a collectible you would not want to have in the Art Foundation? Is there modern art in the Goodwood collection?

We would never say never to a piece of artwork so long as it provides engagement and education to as wide an audience as possible. That being said, we would not want to have anything that unduly causes offence! We have one or two pieces of modern art in the collection, but essentially it is the historic collection formed over the generations. The new Art Foundation will instead enable Goodwood to showcase and potentially commission the very best in contemporary art.

Your Grace, what do you think about non-fungible tokens (NFTs) and some of the current digital trends?

Charles Richmond: I think it's a fascinating area and one that I don't profess to understand completely! I expect it's something my son will be more focused on than I will be! I have always been open to new ideas and advances in technology, and embracing technology is something we try to do in many areas of the estate. The Future Lab section within Festival of Speed is an area that has been particularly popular with our visitors over the years for instance.

Finally, Your Grace, how will the new generation project the family history going forward? Does sustainability play a role?

A generational collection is by its very nature sustainable, passing from one generation to the next without disposing of anything. Sustainability is one of our key focuses on the Estate as we are aware that we are looking after it (and trying to improve it) for many generations to come and the planet itself. We have developed a sustainability policy applied to all business units of the Estate, which includes the safeguard of our natural capital, a positive climate action, an effective use of water, waste management and a positive social impact.

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The Goodwood Estate

Goodwood is a historic estate located in West Sussex just north of Chichester. For over three hundred years, the Dukes of Richmond have always welcomed their friends and guests to share in their love of sport. Horseracing, motor racing, golf, flying, shooting and cricket have all been introduced by enthusiastic family members. It is home to three of the biggest sporting events in the world: the Festival of Speed, the Qatar Goodwood Festival and the Goodwood Revival.

Goodwood's 12,000 acre property is home to one of the largest lowland organic farms in England, a famous Battle of Britain airfield, a historic racecourse and motor circuit, two golf courses and one of the oldest cricket grounds in the country, all centered around the magnificent Goodwood House.

Goodwood House is home to one of the country's finest family art collections, including the work of Stubbs, Lawrence, and Canaletto, set in rooms featuring some of the finest English and French furniture,18th century Sèvres porcelain, historic Gobelins tapestries (a gift from France's King Louis XV to the third Duke of Richmond during his time as British Ambassador in Paris) and more. Goodwood is also one of a few great private houses to employ a full-time curator, with exhibits related to architecture, decorative and applied art, and fine art catering to visitors with a broad range of historical, artistic and domestic interests.

https://www.goodwood.com/media-centre/who-we-are/

Nannette Hechler-Fayd'herbe is Chief Investment Officer for the EMEA region and Global Head Economics & Research of Credit Suisse. She has been with Credit Suisse since 1999, originally joining the group as the Head of Swiss Fixed Income and Credit Research at CSFB. She is a long-standing member of the Global Investment Committee and previously was a board member of the Credit Suisse Pension Fund Switzerland for several years and a board member of the International Capital Markets Association. She is now serving on the boards of the Department of Economics of the University of Zurich and the Institute of Economics of the University of St Gallen.

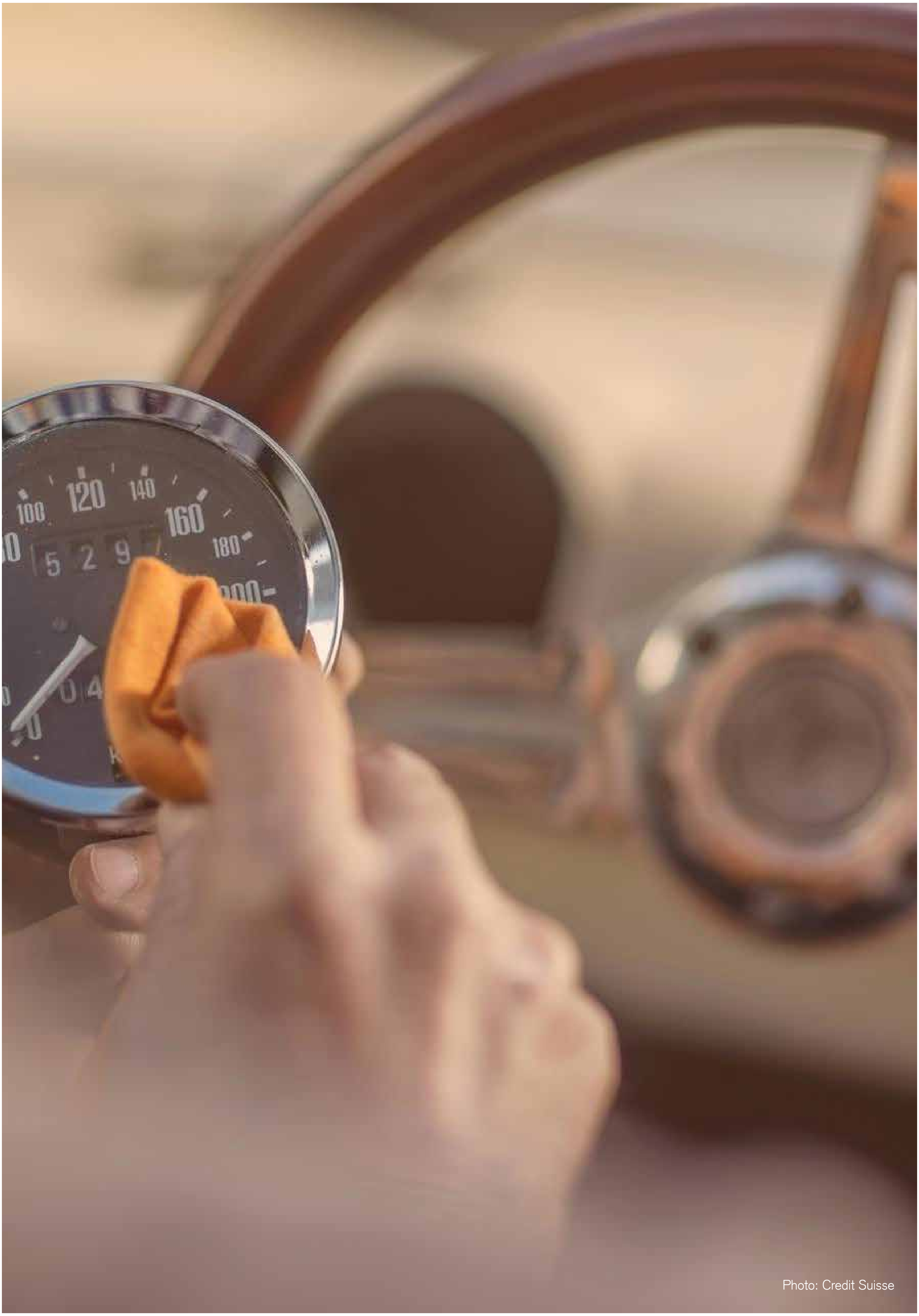


Photo: Credit Suisse

Collectibles: Facts and figures

Nannette Hechler-Fayd'herbe, Adriano Picinati di Torcello

As the world economy rebounded from the COVID-19 recession in 2021, so did collectibles, with only few exceptions. Rising levels of wealth held by high-wealth groups and an increase in ultra-high-net-worth individuals (UHNWIs) bode well for collectibles, along with collectors' pent-up demand and the expansion of a new, younger and more global customer base through online sales. This article summarizes key performance trends, comparing them to historical as well as traditional asset returns, and analyzes their sensitivity to inflation, rate increases and growth strength in the current post-COVID environment.

Strong 2021 performance after a disrupted 2020

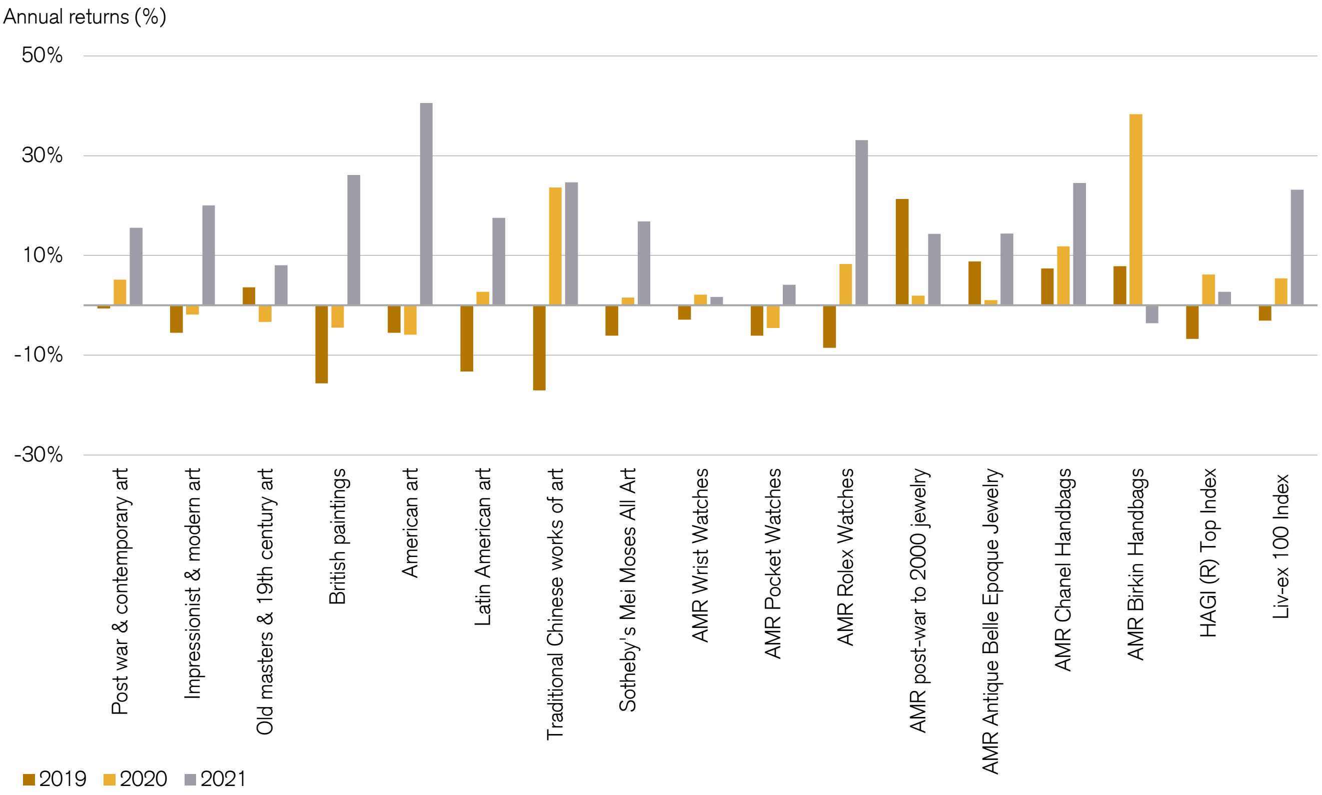
While 2020 was a difficult year in terms of collectibles transactions and sales volumes, the actual returns on collectibles sold were reasonably good (see **Figure 1**). For example, classic cars returned on average 6.2%, fine wines were up 5.4%, wristwatches and jewelry saw moderate single-digit returns on average (although Rolex collector watches outperformed by +8%). Luxury handbags rose more strongly (+11.8% for Chanel bags and +38% for Hermes Birkin bags) – in contrast to a more disparate year for fine art (+2% according to the Sotheby's Mei Moses All Art Index). While impressionist and modern art, old masters, British paintings and American art all recorded moderately negative returns in 2020, contemporary art and Latin American art were modestly up. Traditional Chinese works of art in turn stood out with an impressive +24% in 2020.

Despite the pandemic, total global wealth continued to rise throughout 2020 and 2021, owing to intervention and support by governments as well as greater savings due to restrictions on consumption, travel and activities. The re-opening of economies and social activities saw collectors' pent-up demand matched with quality sales and improved sentiment, thus leading to a veritable boom in collectibles in 2021. Both sales and performance rebounded strongly on average, but with large differences across collectibles and even within collectible categories.

"The re-opening of economies and social activities saw collectors' pent-up demand matched with quality sales and improved sentiment

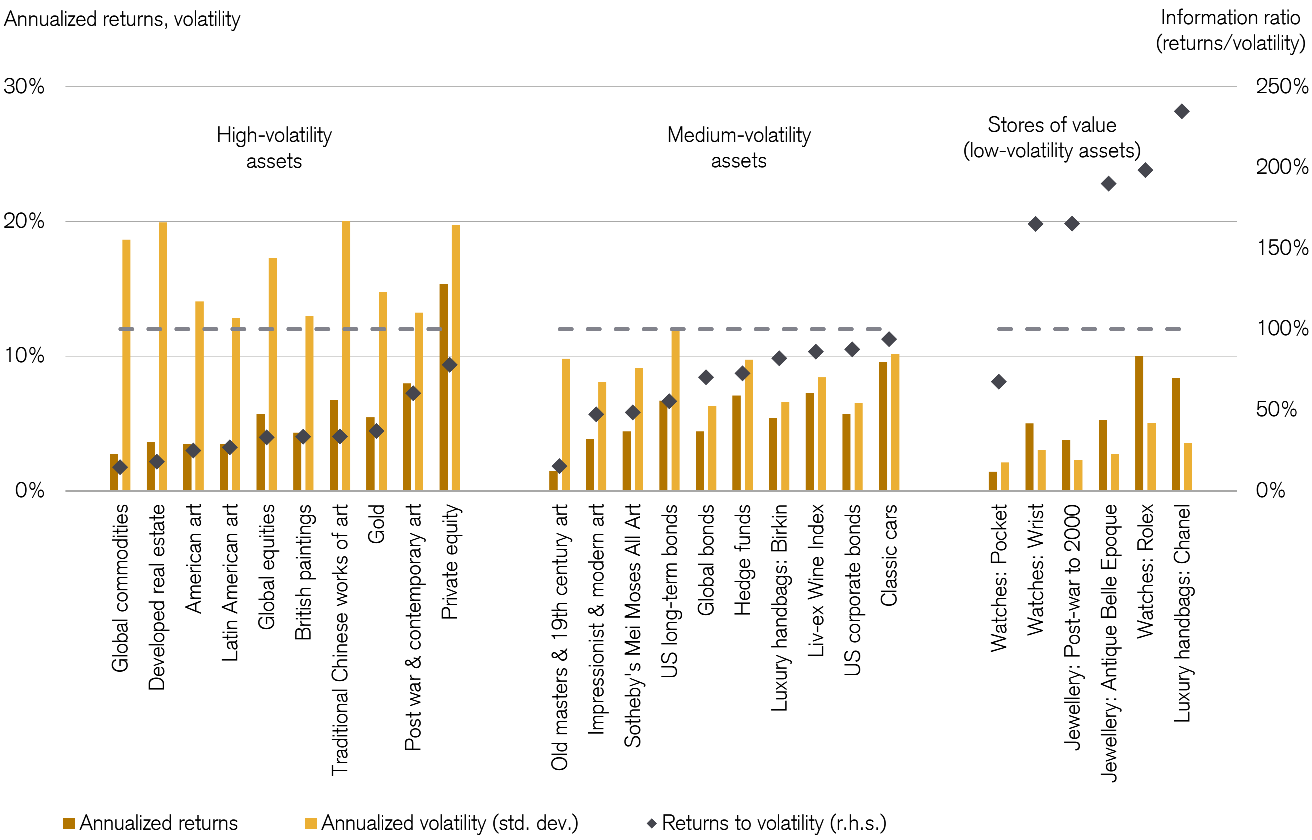
Historical performance indications and financial market scenarios are not reliable indicators of future performance.

Figure 1: Selected collectible annual returns 2019–21*



* Fine wines: Liv-ex 100 Index; Classic cars: HAGI ® Top Index
Source: Liv-ex, AMR, Sotheby's Mei Moses, HAGI, Credit Suisse

Figure 2: Collectibles and traditional assets by risk-reward categories



Source: AMR, Sotheby's Mei Moses, HAGI, Liv-ex, The BLOOMBERG PROFESSIONAL™ service, Credit Suisse

 Historical performance indications and financial market scenarios are not reliable indicators of future performance.

Within watches, for example, Rolex's annual returns rose by 33%. Chanel handbags rose by 24.5% (likely boosted by the scarcity of Lagerfeld-designed bags) and standing in stark contrast to Birkin bags (–3.6%). Fine art rebounded by +17% according to the Sotheby's Mei Moses All Art index, with American art rising by 41%, while British paintings and traditional Chinese art were both up by about 25%. Only classic cars trailed the other categories with a modest 2% increase according to the Historic Automobile Group International (HAGI) index, but this masks the impressive results in iconic cars as highlighted in the article on classic cars in this report.

Collectibles and their asset properties

Collectibles can be classified like financial assets into:

- Store of value assets (low risk, low volatility and in general mid-single-digit returns) more geared toward capital preservation investment strategies. Stores of value are relatively safe assets with generally slow, but steady, value appreciation and are appropriate for shorter investment horizons.
- Capital growth assets (medium-to-high risk) are more geared to capital growth investment strategies. These assets would generally have higher volatility and be riskier, but in return come with faster average returns allowing investors to grow their capital. These would generally require longer investment horizons.

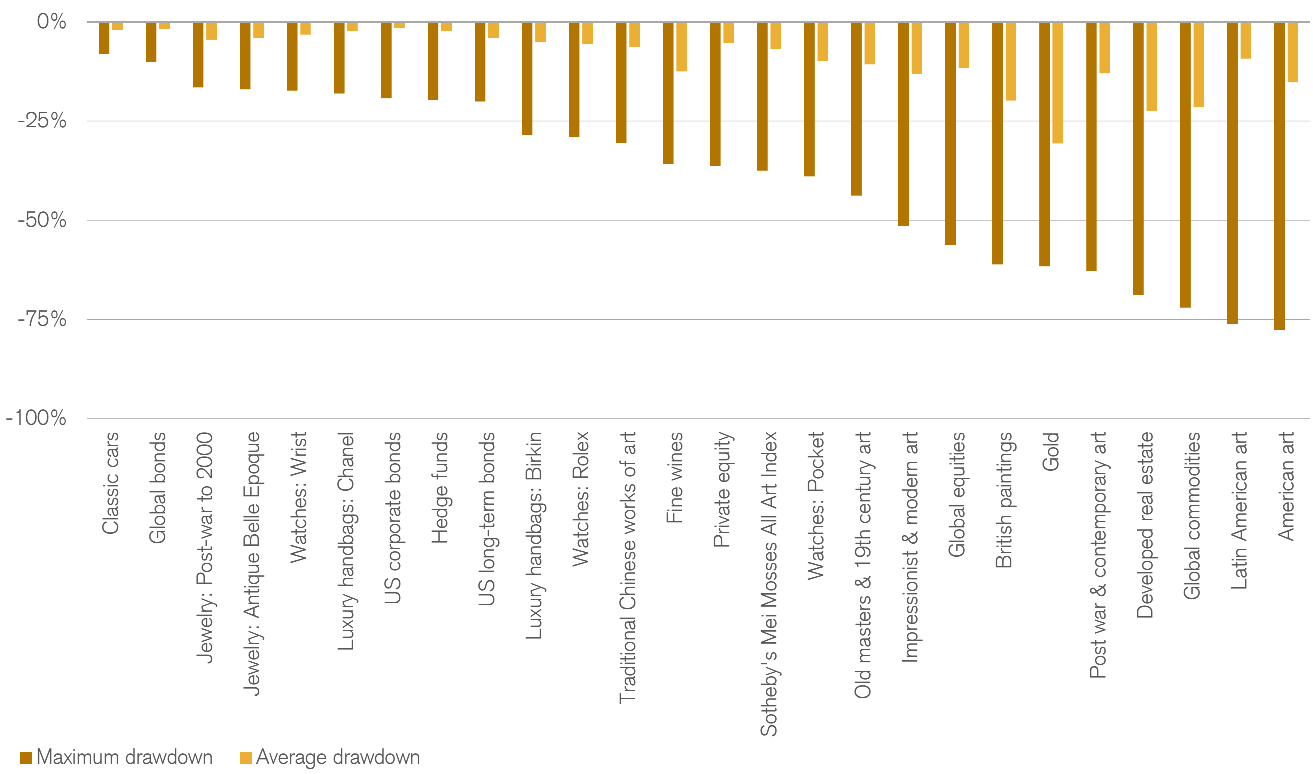
Stores of value

Watches and jewelry as well as handbags (especially Chanel handbags) are clearly standing out as stores of value with low volatility (between 2.5% and 5% annually) and low drawdowns[1] (see **Figures 2 and 3**). With the exception of pocket watches, their annual returns are 4.5%–6.5%. Their information ratio (which puts returns in relation to volatility and is thus reflective of the risk-reward) is impressive, with values exceeding 100%, i.e. average returns systematically outpacing fluctuation ranges. Particularly noteworthy are Rolex watches and Chanel handbags, with very strong information ratios of 200% or higher. This means that the average annual return of 10% for Rolex watches for example is double the usual fluctuation range of 5%.

1. Drawdowns measure the decline of an asset value from its previous high-water mark.

Figure 3: Drawdowns of collectibles

Decline from peak index levels over the full sample available for each index



Source: AMR, Sotheby's Mei Moses, HAGI, Liv-ex, The BLOOMBERG PROFESSIONAL™ service, Credit Suisse

Table 1: Correlations of collectibles, full sample available for each index

	Global equities	Global bonds	Developed real estate	Global commodities	Gold	Hedge funds	Private equity
Watches	-1%	–4%	0%	8%	5%	3%	16%
Jewelry	–4%	–5%	–4%	–2%	–1%	–3%	10%
Luxury handbags	–7%	9%	–5%	–2%	8%	–8%	–5%
Fine wines	23%	0%	21%	22%	13%	29%	30%
Classic cars	0%	–7%	–7%	6%	–13%	–6%	–3%
All Art	9%	–18%	13%	44%	21%	12%	34%

Source: Credit Suisse

Lagerfeld-designed Chanel handbags are likely to continue benefiting from the scarcity effect in the next few years, in our view, but the brand's broader evolution in luxury handbags will be determined by the ability to sustain collectors' excitement going forward. Hermes Birkin bags, in contrast to Chanel bags, have had higher volatility, more comparable to that of global bonds or hedge funds among financial assets, but a better risk-reward than the latter. Within stores of value, pocket watches are the clear underperformer, with a much less compelling information ratio than usual (below 100%). This might be explained by a narrower demand than for wristwatches due to a smaller collector group.

Moderately volatile capital growth assets
Among risk assets with moderate volatility, we count fine art in aggregate, fine wines and classic cars. Their volatility is high-single-digit to 10%. Their drawdowns are moderate (with the exception of classic cars, which tend to have small drawdowns, similar to those of typical stores of value among collectibles). Their information ratio is between 50% and 100%. This means that average returns do not fully compensate for the standard price fluctuations, implying longer required investment horizons. They compare to bonds and hedge funds among financial assets. As with pocket watches in the previous category, Old Masters & 19th century Art stand out as the underperformers among moderate risk collectibles, with much lower returns than fine art on aggregate. Impressionist and modern art are instead quite representative of the mainstream art risk-reward with information ratios of around 50%.

High volatility capital growth assets
American and Latin American art, British paintings and traditional Chinese works of art are all displaying double-digit volatility, between 10% and 20% annually, with mid- to high-single-digit returns and information ratios of below 50%. Moreover, their drawdowns are large. They compare to highly volatile equities like emerging market equities or commodities among financial assets, whereas private equity has similar volatility, but much better returns, thereby displaying a superior risk-reward. High volatility capital growth assets therefore require the longest of all investment horizons to absorb the high volatilities.

By their correlations (**Table 1**), most collectibles offer diversification to traditional financial assets such as bonds and equities (i.e. a low correlation). Private equity shows the highest correlation, which possibly reflects the illiquidity premium commanded by both asset classes.
Of all the categories, wine is the most pro-cyclical collectible, whereas cars have a negative correlation with most assets, showing some counter-cyclical properties.

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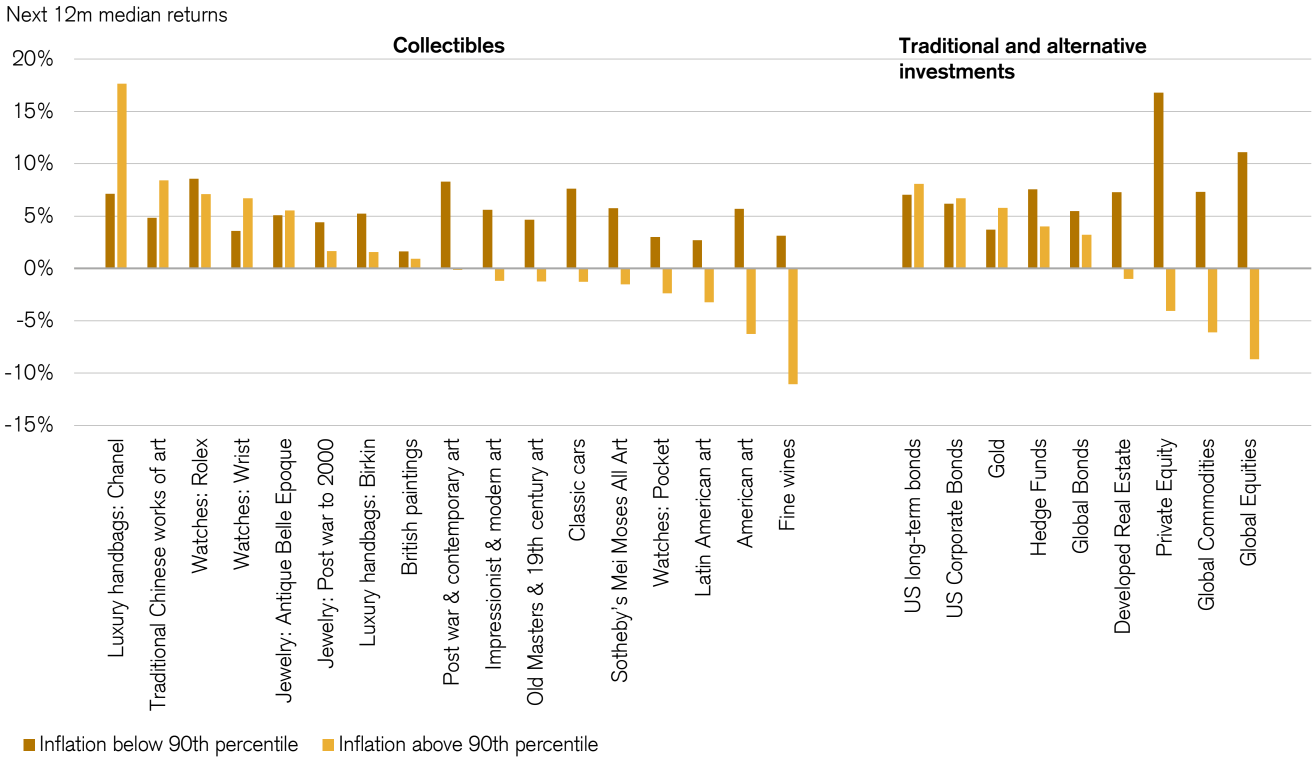
> By their correlations, most collectibles offer diversification to traditional financial assets such as bonds and equities

 Historical performance indications and financial market scenarios are not reliable indicators of future performance.

Figure 4: Performance in extreme and normal inflation regimes



Note: 90th percentile inflation (US CPI YoY change) = 3.5% over 1994–2022
Source: AMR, Sotheby's Mei Moses, HAGI, Liv-ex, The BLOOMBERG PROFESSIONAL™ service, Credit Suisse

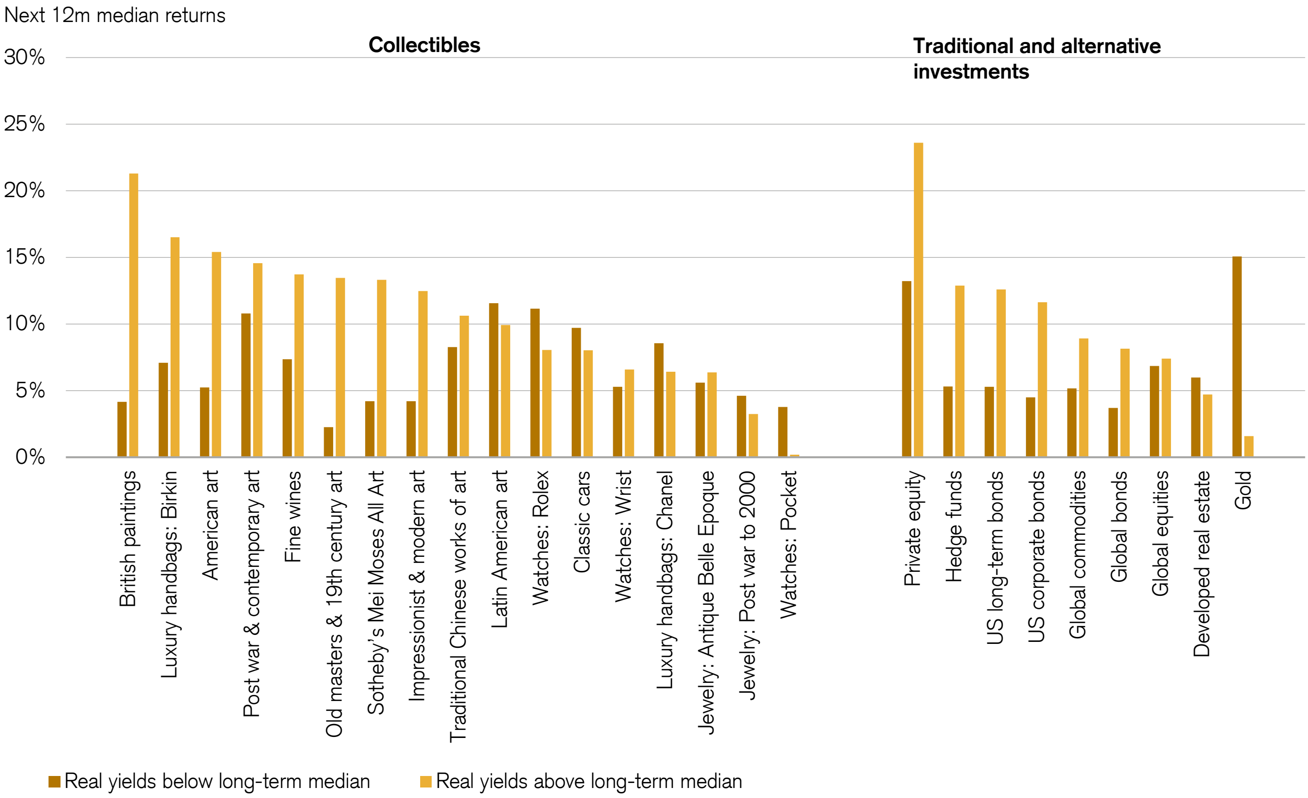
Inflation, interest rate and growth sensitivities

As 2022 is marked by a transition to a more elevated inflation regime and higher interest rates, it is relevant to evaluate the sensitivity of the various collectibles to inflation and interest rates (see **Figures 4 and 5**). The best inflation protection (as measured by performance in extreme inflation periods) is offered by Chanel handbags, followed by traditional Chinese works of art and wristwatches, in particular Rolex. Most vulnerable to more elevated inflation regimes are fine wines, and American and Latin American art. Conversely, classic cars and post war & contemporary art do best in low or normal inflation times. Rolex watches appear to be the ideal inflation all-weather stores of value.

For 2022, Credit Suisse estimates global inflation at 6.5%, which is about double the pre-COVID rate of inflation and can be qualified as above the 90th percentile since 1994, but not as an extreme inflation environment. Additionally, we would estimate that the expected monetary tightening pursued by many central banks to fight inflation is successful in bringing back inflation to lower levels. For 2023, we expect global and US inflation will average around 3.8%, which is lower than 2022, but still consistent with the 90th percentile inflation in the 2010–22 period. While real assets offer some protection against inflation, past history suggests that American and Latin American art as well as fine wines could experience some headwinds.

As US 10-year Treasury yields have broken through 3% for the first time in many years in April 2022, we also test the vulnerability of collectibles to different real bond yield regimes. Median US real yields over the period from 1976 to 2022 have been 2.2%. We contrast collectibles returns in the 12 months that follow periods when real yields are above this median and when they are below. We find most collectibles hold their ground well in higher-yield regimes, sometimes delivering better returns in the subsequent 12 months than when real yields are low. The contrast between returns in low and high real yield regimes is particularly stark for fine wines and fine art (various categories of artworks) as measured by the Liv-ex and Sotheby's Mei Moses art index returns. The same holds for Hermes Birkin bags, which deliver higher returns in high real yield regimes than in low real yield periods. Instead, classic cars and Rolex watches do better in low yield regimes.

Figure 5: Performance in high and low interest rate regimes



Source: AMR, Sotheby's Mei Moses, HAGI, Liv-ex, The BLOOMBERG PROFESSIONAL™ service, Credit Suisse

Finally, as investors wonder how collectibles weather the business cycle, the most pro-cyclical collectible by far is fine art, which is highly dependent on the business cycle as **Figure 6** demonstrates. When purchasing managers' indexes (PMIs)[2] are below their long-term average, this tends to induce even negative returns in the following 12 months in practically all art categories except post war & contemporary art, which is much lower than when PMIs are above their long-term average (52.9 since 1998), but still positive. Traditional Chinese works of art and other collectible asset classes are less sensitive to the business cycle. Chanel handbags and classic cars can even be considered as counter-cyclical. Their returns are higher in periods following below-average PMI levels than in those following above-average PMIs.

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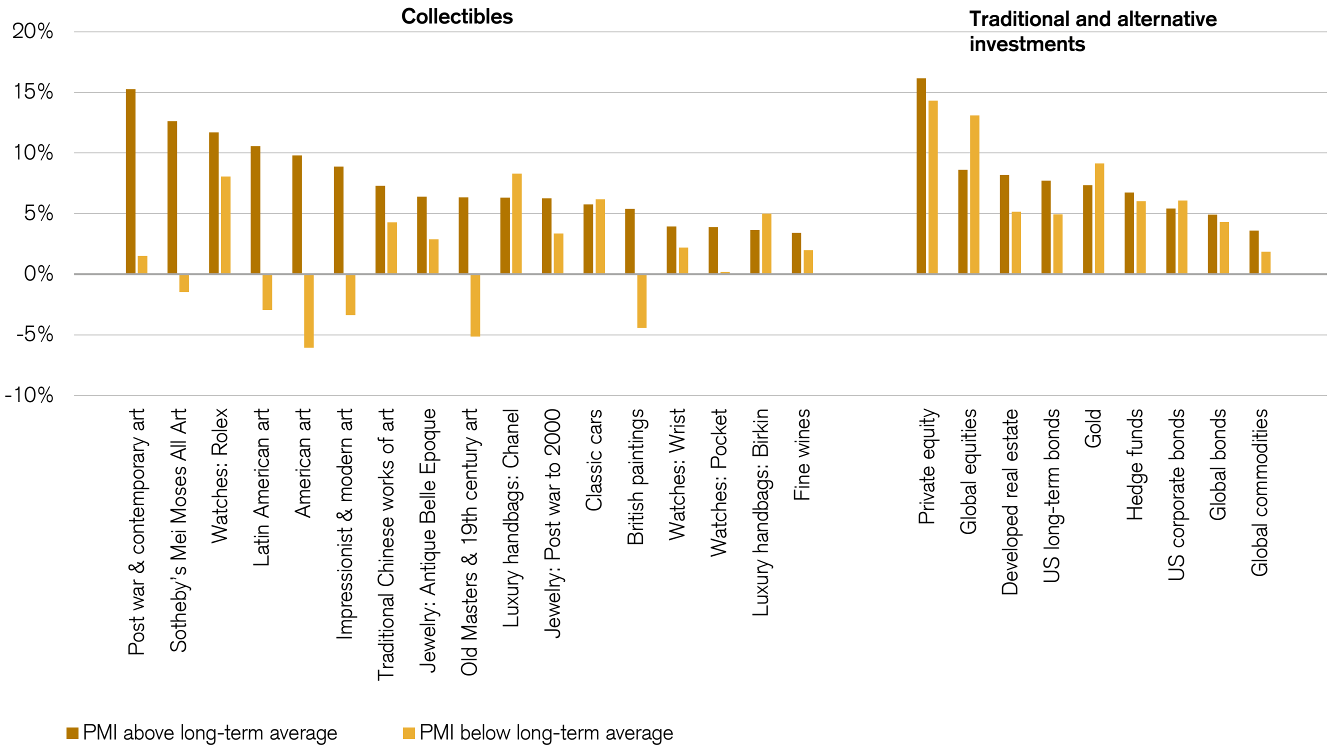
2. PMIs are leading indicators of future economic growth. Levels above 50 indicate economic expansion, levels under 50 economic contraction. The long-term average global PMI is around 52.9 which means there is more often than not an economic expansion.

 Historical performance indications and financial market scenarios are not reliable indicators of future performance.

Figure 6: Collectibles in the business cycle

Next 12m median returns



Source: Credit Suisse

Q1 2022 and outlook

For 2022, we had expected a transitional year with above potential growth, still elevated inflation and tighter monetary policy. That outlook boded reasonably well for collectibles since they are relatively insensitive to yield increases, offer varying degrees of inflation protection and benefit from good economic backdrops. Now, however, the world altogether seems uncertain since the Russia-Ukraine war has begun.

Russian collectors do not represent a large share of collectibles markets compared to Americans, Western Europeans and Asians. So the sanctions on Russia are unlikely to have any direct impact on the collectibles market. Indirectly, however, the rapid rise of central bank rates in response to elevated inflation will likely cool the global economy and limit wealth expansion, which then often translates into a delayed compression of returns in collectibles. Fine wines should hold up well in the transition to higher yields. Stores of value like watches and jewelry are likely to act as safe havens as they usually do in uncertain times.

The sharp supply shortages in fine stones only add scarcity value to the asset class and it is likely to end up outperforming. Fine art, especially contemporary art, has been volatile and is sensitive to demand from collectors in Asia and Europe, where the macroeconomic footing is no longer as robust as in 2021. Europe is most directly affected by the war in Ukraine and will see reduced growth rates, higher inflation, weaker consumer sentiment and growth in wealth. China in turn is at grips with a real estate market correction, which is also not favorable to consumer sentiment.

Christie's Auction House, New York; photo by Patti McConville, Alamy Stock Photo

Fine art: Passion unfrozen

Georgina Adam, Adriano Picinati di Torcello

Since October 2020, when the first Credit Suisse Research Institute Collectibles report was released, the world has gone through successive COVID-19 waves, an economic and financial rollercoaster, and a near standstill of all social activities for a year. In the meantime, the world is transitioning as it rebuilds from a pandemic, endures geopolitical wars and balances climate priorities. Some parts of the world have returned to a certain "normality" while others, in particular China, are experiencing a worsening COVID-19 situation. One of the many dramatic consequences of the pandemic is the surge in inflation, also exacerbated by the geopolitical tensions following the Russian invasion of Ukraine. In that context, this section looks at art market developments over the last 18 months and elaborates on some of the 2022 trends that should be relevant for existing and new art collectors.

2021: Resilience and transformational change

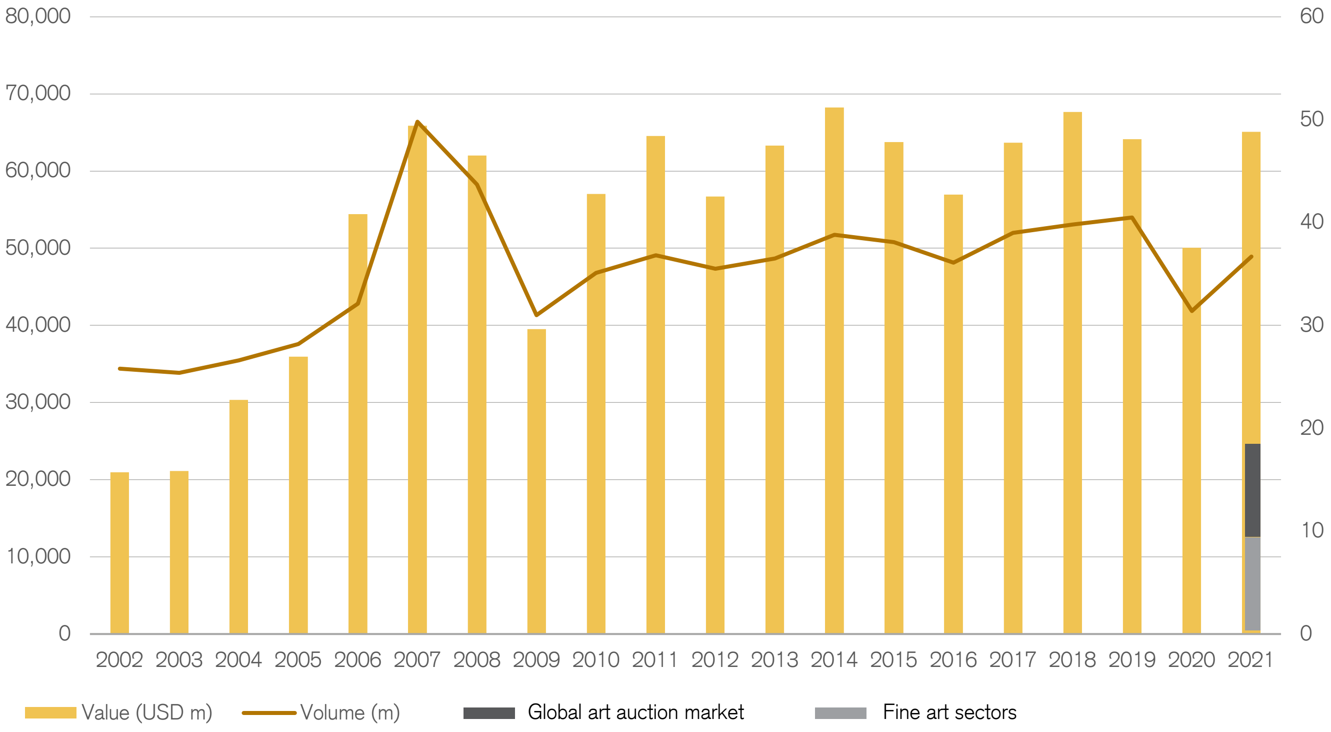
Despite the severe disruption caused by the COVID-19 pandemic, 2021 marks a period of transformational change in the art market, creating more resilient and innovative business models across the sector and placing the market on a better footing for future growth, as well as making collectors' lives more intense due to the rapid increase in the pace of change. Overall, 2021 was a good year for the art market, notably in the second half, with two stellar collections offered in New York. One was the Cox collection of Impressionist works at Christie's on 11 November, which raised USD 332 million. The other was Part One (the first half) of the Macklowe collection of modern art held at Sotheby's on 15 November, which raised USD 676 million – the highest-ever sale total in the firm's history. Both collections – Cox and Macklowe – carried guarantees.

Sotheby's reported a record USD 7.3 billion in sales in 2021, while Christie's reported USD 7.1 billion. The remarkable results from both houses were most likely helped by the wealth creation that took place in 2021 – with Forbes reporting a record number of billionaires (2,755, 660 more than the previous year with a total net wealth of USD 13.1 trillion). The strong results equally reflected pent-up spending as well as the quality of the works of art in the Cox and Macklowe sales.

Some key numbers

In 2022, The Art Basel and UBS Global Art Market Report compiled by economist Dr. Clare McAndrew for the Art Basel fair group and UBS assessed the value of the art market in 2021 at USD 65.1 billion (see **Figure 1)**, representing a 29% increase over an admittedly weak year in 2020 (valued at USD 50 billion).

Figure 1: Value and volume of transactions in the global art market*



Exchange rate EUR/USD year-end 2021; *Global Art Market = fine and decorative art and antiques
Source : Tefaf art market report, The international Art Market 2007–2009; The Art Basel and UBS Global Art Market Report (2022), Deloitte Luxembourg

This was above the USD 64.1 billion made in 2019, but still below the record year of 2014. Recovery has been heavily skewed in favor of major auction houses and the very top-level dealers trading in a relatively small number of remarkably high-priced pieces with an even denser concentration on fewer artists[1].

If New York remains the world art capital for auction sales by Christie's, Sotheby's and Phillips, we note that London is losing market share year after year. According to ArtTactic, London's market share decreased to 16.6% from 22.7% in 2020[2]. However, London auction sales in Q1 2022 bounced back to the 2019 level. Hong Kong SAR has become the second most important hub for the largest auction houses, but the question is whether Shanghai could take over and become the new Asian art market hub.

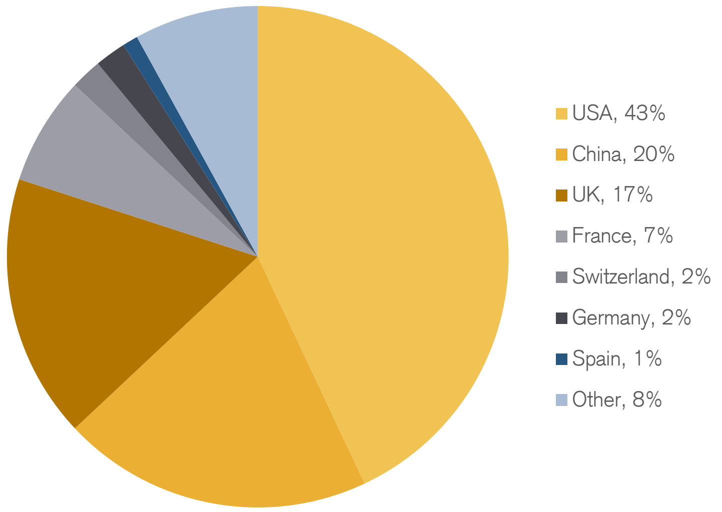
1.TAN Art Dealer Survey, 2022, by Amy Shaw, Art Basel / UBS Report: "Global Art Market bounces back to above pre-pandemic levels but recovery is uneven," The Art Newspaper, March 2022.
2. ArtTactic: RawFacts Auction Review 2021.

> “
> # I don't think that current strong results reflect taste, they reflect economics
> # – Dirk Boll

In continental Europe, Paris is gaining market share and, according to Artprice[3], exceeded USD 1 billion for the first time at auction in 2021. In addition, it is now home to the new flagship art fair, Paris+, managed by the international art fair Art Basel, owned by the Swiss-based MCH Group, and will replace the FIAC international contemporary art fair in October.

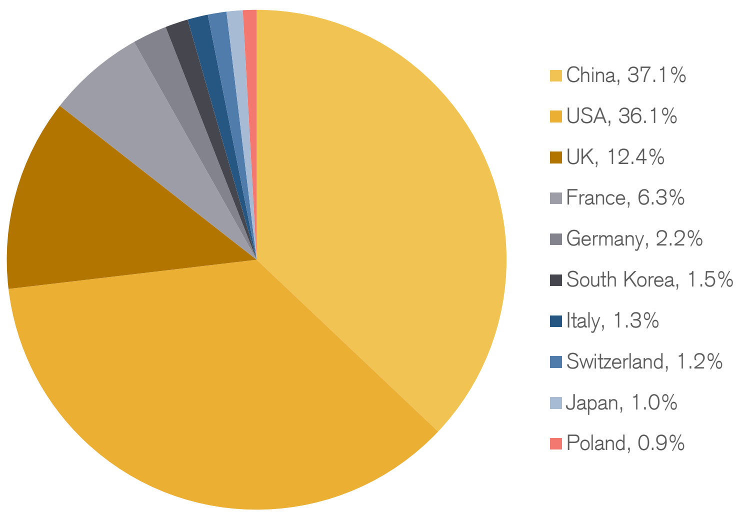
3. artprice.com: The Art Market Report in 2021.

Figure 2: Global art market share by value in 2021



Source: Arts Economics (2022), The Art Basel and UBS Global Art Market Report (2022)

Figure 3: Top ten countries by fine art and non-fungible token (NFT) auctions in 2021



Source: artprice.com:The Art Market Report in 2021

China has once again reached the top position in the global national ranking in terms of art auction dynamism, demonstrating its "serious competitor" status to the United States. Nevertheless, the USA remains the biggest market by far (see **Figure 2**).

According to Dirk Boll, president of Christie's Europe, Middle East, Russia, and India (EMERI), "There is a lot of money around, cheap money, and people need to find places to put it, I don't think that current strong results reflect taste, they reflect economics. At present, collecting interest and investment interest is in African artists and female artists." [4]

Key trends in 2021

1. Post-war and contemporary art auction sales[5] had their strongest year at USD 4.14 billion (up 35.7% from 2020), and higher than the previous peak of USD 4.13 billion in 2019. The success of this category is seen in the new sale formats dedicated to art created in the 21st century being introduced last year (source ArtTactic).

2. Impressionist and modern art auction sales[6] rose in 2021: The introduction of Impressionist and modern artists in non-traditional formats was key to the success of the sector, with a marquee sale dedicated to Picasso in Las Vegas and the first sale of Van Gogh in Hong Kong SAR. In 2021, sales of Impressionist and Modern Art increased to USD 3.44 billion, higher than the previous peak of USD 3.29 billion in 2018 (source ArtTactic).

3. Old masters (OMs) experienced a year of contrast: According to Christie's Dirk Boll, "The Old Masters market is rather difficult, lacking fresh blood, new collectors and supply. Investors in Asia are much less interested than in later periods. Another problem with OMs is that more people are investing and using the financial industry tools, but this is more difficult for OMs because boiling them down to analytics is much more difficult – they just don't work as well for OMs whereas they do work for the decorative arts, for instance Sèvres or Meissen – these works are more comparable and traceable."

In March 2022, visual-arts magazine ARTnews reported that Christie's generated USD 141 million from Old Masters auction sales globally. According to ARTnews, "Prior to the pandemic, the Old Masters category at auction was growing stale, but as of late, efforts to spotlight paintings

4. See "Acknowledgments" on page 70.
5. Auction sales (physical, online-only and hybrid sales) at Sotheby's, Christie's and Phillips in 2021.
6. Auction sales (physical, online-only and hybrid sales) at Sotheby's, Christie's and Phillips in 2021.

by big-name artists like Botticelli and Rembrandt have given the category a boost. Though sales of top Old Masters paintings typically occur via private sales, auction houses began bringing trophy works to their marquee evening sales to entice buyers during the pandemic." The house is now aiming to expand following the appointment of Andrew Fletcher as Christie's global head of the house's Old Masters department after nearly two decades at Sotheby's, where he most recently served as head of the Old Masters painting department in Europe.

Instead, for Mari-Claudia Jiménez, Sotheby's Chairman, Managing Director and Worldwide Head of Business Development, Global Fine Arts, "Old Masters had an extraordinary year."[7] This was certainly based on the sale of Botticelli's Portrait of a Young Man Holding a Roundel for USD 92.2 million in December 2021. Total Old Masters sales were USD 115 million, with the Botticelli representing the bulk of the total, while 13 of the 37 lots were bought in.

4. The dramatic increase in Asian investment is set to continue: According to Dirk Boll, "In Christie's first half year figures, 39% of the lots went to Asian bidders. So, you can imagine that to win 39%, an enormous amount of the underbidding is Asian, I guess that in some fields half of the market is Asian-driven nowadays. For the past ten years Impressionist prices have been stabilized by Asian interest, and it seems that Asian taste has changed in the same way that American taste changed between 1990 and 2000 or 2005. That was when the predominant buying went contemporary – a new generation of American buyers came, and their interest was classic modern, or they went directly to contemporary. Now Asian interest is showing the same trend with strong interest for artists like Jean-Michel Basquiat, Pablo Picasso, Gerhard Richter, Adrian Ghenie and Roy Lichtenstein. Everything has accelerated so fast. One lesson from the Macklowe sale is that Asian buying now seems to be where Americans were for classic modern."

According to Mari-Claudia Jiménez, "At Sotheby's, Asian buying represented USD 1.3 billion, and 43% of all bidders were Asian. It represents 1/3 of all our bids, we couldn't do without Asia. An example is Giacometti's Le Nez, which was bought by Justin Sun (Chinese American crypto investor and founder of Tron). Bidding from Asia has increased by 60% since 2019. When we say Asia we mainly mean greater China, but Japan also has some key collectors. We are expecting to see more and more Asian buying. For the Macklowe sale registrants came from 25 countries; Asians bid on Willem de Kooning's "Untitled XXXIII," Agnes Martin's "Untitled #44," Mark Rothko's "No. 7," and Gerhard Richter's "Sammler Mit Hund." Investment is also a motivation with, for example, Justin Sun, who plans to fractionalize his acquisition."

5. Online sales continued to expand in 2021: According to The Art Basel and UBS Global Art Market Report (2022), as to be expected with the return to more in-person events, growth in online sales dipped 5% last year, but grew overall by 7%, fetching an estimated USD 13.3 billion. Auction houses are continuing to benefit from their digital presence. Total online-only sales came to USD 1.35 billion in 2021, up from USD 1.05 billion in 2020 and USD 168.2 million in 2019, and accounting for 10.7% of total auction sales for Sotheby's, Christie's and Phillips[8]. Photography and prints have been particularly successful in this new online environment according to Artprice.

6. Non-fungible tokens (NFTs) have become an alternative art market channel (see focus article on non-fungible tokens, page 62). NFTs first appeared in 2014 with the first known art NFT, "Quantum." Since then, the technology has experienced a remarkable rise, although the value and volume fell back in Q1 2022.

The volume of sales of NFTs reached USD 23 billion in 2021, with big stars from Hollywood such as Paris Hilton, Eminem, Justin Bieber and Stephen Curry joining in buying and creating NFTs. Art-related NFTs are most likely the biggest disruptors of the art world of 2021, with notably the sale of Beeple's collage, "Everydays: The first 5000 days," at Christie's for USD 69 million and positioning Mike Winkelmann – the digital artist known as Beeple – among the top three most valuable living artists.

The Art Basel and UBS Global Art Market Report reveals that the market for art-related NFTs expanded more than one hundred-fold in 2021 to reach USD 2.6 billion, with even greater growth in collectibles such as CryptoPunks and Bored Apes to USD 8.6 billion. Art-related NFTs have created a new global "digital art and collectibles" market that was non-existent in the past or only accessible to a select few. It has allowed digital creators and artists to monetize their work and talent in a new and different way, and to potentially redefine the concept of ownership. NFTs bring predefined scarcity to digital content – they allow ownership and rights of use to be demonstrated for any piece of digital content by assigning the content a specific, non-duplicable identifier that is recorded on a distributed database or blockchain. However, concerns over NFTs have become evident in recent

7. See "Acknowledgments" on page 70.

8. ArtTactic Rawfacts 2022.

The Macklowe Collection At Sotheby's in London; photo by Tristan Fewings, Getty Images

months, such as "wash trading" (artificially increasing the value of an item by being on both sides of the transaction), security, intellectual property theft, taxes, scams, money laundering, data storage, etc.

7. Private collections boosted revenue in Q4 2021: Auction sales in the fourth quarter were fueled by the many offerings of private collections worldwide. In November 2021, the long-awaited Macklowe collection at Sotheby's and the Cox collection at Christie's together brought in over USD 1 billion or 40% of the New York marquee sales revenue. In total, 189 private collections brought USD 2.3 billion in 2021, the highest ever number and value of private collections in the annual results at the top three auction houses according to art research company Pi-Ex Ltd.

8. African artists experienced a record year: Demand for works by African artists and artists of African descent showed considerable dynamism in 2021 – Jean-Michel Basquiat became the second most successful artist in the world, after Picasso. For the first time, five major Basquiat works were sold in Hong Kong SAR[9]. According to ArtTactic, auction sales of Modern and Contemporary African artists surged by 44.1% in 2021, from USD 50.2 million in 2020 to USD 72.4 million last year. This is the highest total ever for the African Modern and Contemporary auction market, fueled by strong interest in a young generation of African artists. Average prices increased by 20.4% and the market saw 19.7% more lots coming to the market in 2021.

9. Interest in very new art and decorative arts has grown significantly: According to Dirk Boll, "With the so-called wet paint, meaning the most recent art, we have seen that collectors want art that reflects the world they live in – it's now a boom, but again it's also much about the economic boom." For Mari-Claudia Jiménez, "The market is incredibly hot and fueled by tech wealth. Buyers today want art that speaks to them and their time. But we also have seen interest in the decorative arts, with top collectors thinking outside painting."

9. Artprice 2021 Global Art Market Report: Main trends and key figures | MarketScreener.

10. Total attendance in the top one hundred museums in 2021 was up 31% to 71 million visitors from 54 million in 2020, but far below the 230 million visitors at the top hundred museums in 2019 according to The Art Newspaper's 2021 Visitor Figures survey.

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At Sotheby's, Asian buying represented USD 1.3 billion, and 43% of all bidders were Asian...we couldn't do without Asia – Mari-Claudia Jiménez

Auction houses and NFTs

According to Mari-Claudia Jiménez, “We sold USD 100 million in NFTs only starting in April, we will continue to expand this sector, and bring more traditional art into it. This is a big shift, Sotheby's has a Metaverse and Web3 – we are looking at more entertainment and sports outlets for NFTs.”

According to Dirk Boll, “NFTs: most people don't know that the NFT is a certificate for a digital artwork. And in most legislations the legal aspect isn't clear yet. So everything is about trust in the platform. The market is totally linked to crypto – buyers are looking for channels to turn crypto into fiat because they have to pay energy bills – the energy suppliers are not accepting crypto. I think the real barrier is the vendor accepting crypto. Many collectors and investors are savvy business people and they follow trends. They might say that allowing Christie's to accept crypto will push up the price. However, 99.9% of our clients want to trade in fiat currencies. The volatility is a problem, and it only works if cryptos are going up.”

According to ArtTactic, a small group of NFT artists account for more than half of total sales value. At present the data suggest the majority of sales value is generated by a small number of artists. Between February 2020 and late September 2021, a total of USD 185 million or 55% of total primary and secondary market sales value on the online auction platform Nifty Gateway had been raised by only the top 5% of artists presented through the platform (16 artists in total). Overall, the top 25% of artists account for almost 90% of total sales value (80 artists raising total sales of USD 288.3 million). While the lack of diversity is problematic, it can also represent an opportunity: only 16% are women, with 73% of artists coming from the USA, Canada or Britain. Fifty-five percent of the artists are from Generation Y (people born between 1980 and the mid-1990s).

While the first boom in NFTs was largely focused around NFT art by individual artists, the recent boom in crypto collectibles, such as Crypto Punks and Bored Ape Yacht Club (BAYC), suggests that collecting habits are moving toward a different type of NFT project focused on code-generated art (algorithmic art) aimed at generating communities of followers, buyers and investors. Although the art itself might not carry the same level of importance for outsiders, the combination of uniqueness, ownership, gamification, and storytelling is fueling sales of this type of digital collectible among a new generation of collectors and investors[10].

Recently, Yuga Labs, the inventors of Bored Ape Yacht Club (the fifth-largest NFT collection by all-time volume of USD 1.41 billion), bought the intellectual property rights of Crypto Punks and Meebits from Larva Labs. They went on to distribute the commercial rights to the owners of the NFTs through so-called CC0 (Creative Commons Licenses). Yuga Labs raised USD 450 million in seed funding led by venture fund “a16z crypto,” giving the company a USD 4 billion valuation and illustrating that NFTs are here to stay[11].

10. ArtTactic: Contemporary Art Market Confidence Report, February 2022.
11. CV VC Global Report 2022.

“Peupliers au bord de l’Epte” by Claude Monet; photo by amer ghazzal, Alamy Stock Photo

The average value of digital art from the most popular artists sold at auction in 2021[12] was:

- Beeple, USD 49.2 million
- Yuga Labs, USD 4.6 million
- Dmitri Cherniak, USD 2.7 million
- Mad Dog Jones, USD 2.2 million
- Larva Labs, USD 2.1 million
- Mitchell F. Chan, USD 1.5 million
- Kevin McCoy, USD 1.5 million
- Rare Pepe, USD 1.3 million
- Don Diablo, USD 0.93 million
- Refik Anadol, USD 0.63 million

Museums have also started to test NFTs. Among the larger museums, the Uffizi in Florence sold an NFT-authenticated digital rendition of Michelangelo’s “Doni Tondo” (1504–1506) and the Hermitage Museum in Saint Petersburg has auctioned copies of some of its most renowned masterpieces as NFTs. Recently, the British Museum started offering NFTs of Hokusai artworks. Among others, ICA Miami acquired a Cryptopunk NFT, while the Whitworth art gallery in Manchester sold a limited edition based on William Blake’s “The Ancient of Days” (1827). But these have been exceptions rather than the rule.

12. AMR (based on sales by Bonhams, Christie’s, Phillips and Sotheby’s) **dappradar.com Sales at auction. NFT Art - All You Need To Know (knightfrank.com)

First results of Q1 2022

The art market seems to be returning to normal in 2022, with a tendency not to cancel or postpone art shows, art fairs and festivals. Galleries, art fairs and biennials are reopening, and auction consignors have regained confidence throughout 2021, although consolidation may lie ahead in the next update of the ArtTactic sentiment index as was already starting to become visible toward the end of 2021.

1. Strong London results signal confidence in the market, despite geopolitical uncertainty: The March marquee sales in London kicked off the 2022 season on a positive note, despite the heightened geopolitical uncertainty created by Russia's invasion of Ukraine. Across five London evening sales of Impressionist, Modern and Contemporary art, Sotheby's, Christie's and Phillips raised GBP 400.7 million. These sales were up 68% from March 2021 and are the best-performing March sales since the market peak in 2018.

2. The New Art or NextGen auction boom continues: The demand for NextGen artists presses on unabated. Christie's, Sotheby's and Phillips are setting many new auction records for NextGen artists. Christie's began with new auction records for Victor Man and Angel Otero. Sotheby's recent sale and new format, "The Now," set new records in London in March for young artists as Flora Yukhnovich, Jadé Fadojutimi, Rachel Jones, Shara Hughes, Hilary Pecis and Robert Nava, with prices rising – some to ten times their estimate. Phillips saw the auction debut of Lauren Quin and Doron Langberg, as well as a new world auction record for Issy Wood.

3. Marquee sales were supported by a record level of financial guarantees for the five London Marquee Evening Sales: Guaranteed sales (based on hammer price) accounted for 64% of the overall sales total, up from 33% in March last year. The number of guaranteed lots also rose from 27 last year to 55 lots, with the average price of guaranteed lots also at its highest level signaling the importance of guarantees in securing higher-value consignments in the current market. Although the overall level of guarantees reached a new peak in March 2022, the average estimated returns on the guarantees have dropped to just 3% in March 2022, compared to 24.6% for the same period last year. This was the weakest performance level for guarantees in the March auctions since 2017, which raises the risks.

4. Surrealist artists asserted their importance in the March auctions in London. Sotheby's set a record for a Magritte painting with the GBP 51.5 million sale of "L'empire des lumières." Christie's traditional "Art of the Surreal" sale in February/March contributed heavily to the overall total for Surrealist artists, achieving GBP 33.5 million.

5. Gender inequality remains, but the gap is shrinking: The gender imbalance in the auction market has always been problematic, but sales in recent years have seen an improvement in the ratio of female artists. However, this season saw only one female artist in the top 25 lots. Overall, 14.5% of the lots were by female artists, accounting for only 7% of the total sales value (up from 11% and 3%, respectively, compared to March 2021). Phillips had the strongest presence of female artists, where they accounted for 30% of the lots offered.

Outlook for the art market

The art market has shown a remarkable ability to recover from the depths of the 2020 pandemic. But are we just seeing a temporary market boom or are we witnessing something more permanent supported by increasing disposable wealth?

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> We can expect the global art market to continue benefiting from major ongoing transformations

Among the main risks to watch this year are the economic impacts of the war in Ukraine and the sanctions, the evolution of inflation and real interest rates and their influence on art returns, and the weakening of stock markets at the beginning of Q2 2022. According to the recently published Citi Global Perspectives & Solutions (Citi GPS) report, with the persistence of negative real rates over the coming decade very possible and given the inverse relationship between art performance and real interest rates, the art market may be able to register further positive real returns. The sanctions on Russian oligarchs should have a minimal effect on the art market at large according to Katya Kazakina, senior reporter at Artnet, as their influence was dwindling long before the war[13].

13. Russian Mega-Collectors Are Now Shut Out of the Art Market. But Their Influence Was Dwindling Long Before the War | Artnet News.

One concern remains the possibility of a boycott of the Russian-owned Phillips auction house, despite the owners speaking out against the invasion. Phillips is owned by Mercury Group, which is Russia's largest luxury-goods company, owned by Russian entrepreneurs Leonid Fridlyand and Leonid Strunin. Sotheby's, Christie's and Bonhams announced in March that their Russian art auctions planned in June in London will not take place in response to the war in Ukraine.

The Fine Art Group predicts that global auction sales are likely to fall below 2021 results by value and a price correction should manifest in the ultra-contemporary auction category (artists born after 1974). However, we can expect the global art market to continue benefiting from major ongoing transformations such as new communities, new ways of doing business, new art and collectibles categories, new auction house formats, gallery spaces opening up, new artists, a new generation of collectors and continued strength in private sales at the major auction houses.

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This year's New York May sales confirmed a solid art market with buyers willing to pay top prices

This year's New York May sales confirmed a solid art market with buyers willing to pay top prices, especially for the ultra-high end of the market, and thus continuing the trend already set during last year's November sales, also for young artists (under 45 years old) such as Shara Hughes, Ewa Juszkiewicz, Hilary Pecis, Nicolas Party, Issy Wood, Rashid Johnson, Anna Weyant, Christina Quarles, Jennifer Packer, Lucy Bull, Avery Singer, Virgil Abloh, Matthew Wong and Adrian Ghenie, according to ArtTactic. The two stand-out weeks of New York marquee evening sales in May pushed the running total for various spring sales at Sotheby's, Christie's and Phillips to over USD 2.5 billion according to Scott Reyburn, London-based journalist who writes about the art world for the New York Times and The Art Newspaper.

Some of the records set were:

- New York's May marquee evening auction sales at Christie's, Sotheby's and Phillips reached an all-time high at 1.5% above the previous peak in May 2018 based on the ArtTactic May 2022 Marquee Evening Auction Sales report.
- Andy Warhol's "Shot Sage Blue Marilyn" sold for USD 195 million, including the buyer's premium at Christie's. The price is the second-highest paid at auction for an artwork (the highest being Christie's sale of Leonardo da Vinci's Salvator Mundi in 2017 for USD 450.3 million) and the best result achieved for a post-war artwork.
- The total sales price of USD 922.2 million for the Macklowe collection made it the most valuable private art collection ever sold at auction in history.
- Phillips set an all-time record with its biggest-ever sale thanks to Basquiat's 1982 "Untitled," which originally sold in 2004 for USD 4.5 million and then again for USD 57.3 million 12 years later before achieving USD 85 million in May.

The importance of single-owner collections well illustrates the wealth transfer taking place. Within 12 months, the Macklowe collection, the Collection of Thomas and Doris Ammann, the Collection of Anne H. Bass, the Cox Collection, and the Collection of Rosalind Gersten Jacobs and Melvin Jacobs generated over USD 2 billion (including buyers' premiums) of trade at public auctions, according to Pi-Ex Art Market Research.

A word of caution, however, is that the art world is not immune to external shocks, but tends to lag by 6–12 months, and that the art market is dependent on supply. We are thus unlikely to have such richness as Cox, Macklowe, Bass, etc., every year.

For collectors focusing on the fast-changing art market landscape, new tax and anti-money laundering laws and regulations aimed at improving transparency deserve a careful watch. Art owners should consult their advisers to assess the potential impact of new rules on their individual situations. There is no "one size fits all" approach, and any program should be based on the results of the particular collector's or family office's risk assessment.

Georgina Adam is a journalist and author who has covered the global art market for the last 30 years. She is a contributor to the Financial Times and editor-at-large for The Art Newspaper. She is a member of the International Association of Art Critics, of The International Art Market Studies Association and is the author of Big Bucks: The Explosion of the Art Market in the 21st Century and Dark Side of the Boom, the Excesses of the Art Market in the 21st Century (Lund Humphries, 2014 and 2018).

Collectors would also be well advised to pay attention to rising logistics costs and to understand the mechanism of irrevocable bids (IRB) at the major auction houses to secure art works. Collectors of NFTs will need to carefully plan for aspects such as the tax and non-tax issues involved in transferring ownership and control of art NFTs, the income taxation of art NFT transactions, gifting NFTs and planning the sale of NFTs either individually or as a collection. And the NFT market remains plagued by theft (notably the popular Bored Ape Yacht Club tokens).

Trends to follow in 2022

1. Momentum behind young contemporary artists (under 45 years old) should continue as a new generation of buyers make their presence felt[14].

2. We are witnessing a continued shift to the East, with new art market hubs emerging in Asia such as Seoul, which has become the new destination for the Frieze Art Fair and numerous blue chip western galleries. Tokyo is also a possible contender, as the Japanese government is in the process of creating a more favorable tax regime for the art market, hoping to boost Japan's role as an alternative Asian art market hub.

14. Global Art Market Outlook ArtTactic Jan 2022.

3. Asian clients are rapidly entering the international art market and the demand for Western blue chip artists is on the increase. The partnership of Phillips with Poly Auction over the last couple of years seems to be driving mainland Chinese buyers toward the international art market[15].

4. Technology and innovation will continue to transform the art world and to drive increased efficiency, growth and engagement. With the development of Web 3.0., the next generation of internet, decentralized finance (DeFi) is emerging and the art world is seeing the increased use of blockchain and tokenization aimed at creating greater liquidity, new types of art investment such as fractional ownership products, new financing mechanisms, new ownership models and a broader collector base, etc.

5. More NFT art sales can be expected: Five predictions from the Fine Art Group:

- NFTs will remain prominent in top-tier auction house sales, with major investments in standalone departments destined to take their place alongside the more established departments in terms of revenue, visibility and prestige.
- NFTs will achieve comparable global auction sales at Christie's, Sotheby's and Phillips, without a single auction lot surpassing the result of Beeple's "Everydays, the first 5,000 days" (2021).
- Professionals from the traditional fine art market, especially auction houses, will migrate to dedicated NFT businesses.
- Several high profile NFT start-ups in the fine art market will close as quickly as they opened.
- One digitally native NFT company will open a permanent physical presence in a major art market hub before the end of the year, aiming to provide some of the experiential, real world trappings of the traditional fine art business.

6. The Metaverse[16] is an emerging new frontier that creates new routes for collectors, especially for the members of Generation Z, the "digital natives" who spent an average of eight hours per day on screens in 2020. While no-one can predict exactly how this rapidly growing digital universe will shape up, the opportunities it presents are exciting for artists, galleries, collectors and museums.

15. Global Art Market Outlook ArtTactic Jan 2022.
16. Virtual worlds using augmented reality and the internet (see focus article on non-fungible tokens, page 62).

7. More people are seeing the benefit of art as a viable form of alternative investment as they look to art as a value-preserving asset to diversify their portfolios and hedge against inflation, crashes and volatility, and as they seek proper wealth management solutions to serve passion assets.

8. Online buying is set to expand: While the technology is not new, it will likely become more popular among emerging art collectors and dealers who will be buying art at online auctions or via different digital marketplaces.

9. Interest in African artists will continue: 70% of experts surveyed in ArtTactic's Global Art Market Outlook 2022 expressed a positive view on the African art market.

10. We should see increased support for climate solutions: Many of the world's leading auction houses, galleries and museums reaffirmed their commitment to carbon neutrality. Christie's pledges to be net zero by 2030, while the Gallery Climate Coalition, a voluntary group of London-based gallerists and professionals working in the commercial arts sector, is seeking "to facilitate a reduction of the sector's carbon emissions by at least 50% by 2030."

The art insurance sector also works with clients to lower carbon footprints; and more and more artists are drawing people's attention to environmental issues. Not only do painters use sustainable art supplies, but they are also willing to foster a healthy attitude toward the environment.

Museums are also taking steps to reduce their carbon footprint.' Gitte Ørskou, the director of Moderna Museet in Sweden, told The Art Newspaper in November 2021: "We ask ourselves if we should ship artworks, what we should print and how we can serve more sustainable food in the restaurants."

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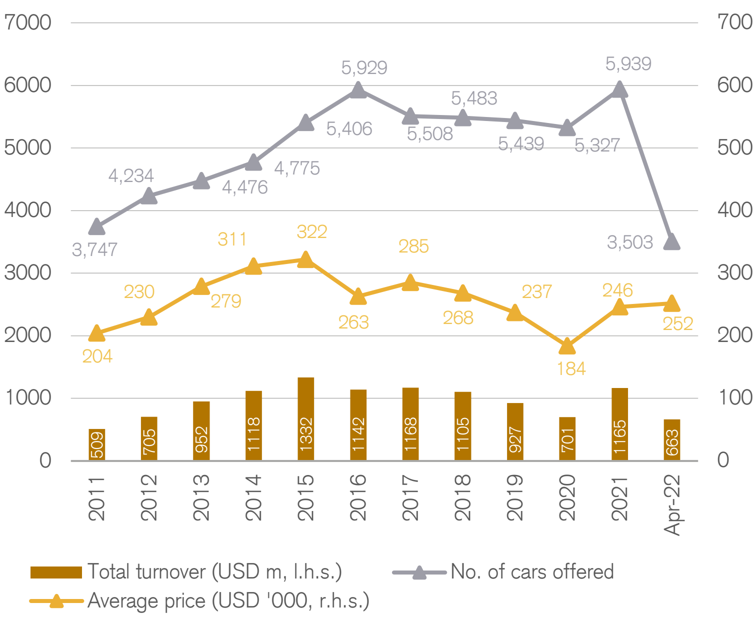
Concorso d’Eleganza di Villa d’Este, courtesy of BMW Group Classic

Classic cars: On a highway to the future

Adolfo Orsi, Jr.

Coming out of the pandemic, the classic car market not only strongly recovered, but also accelerated a ground-breaking transformation with new digital auction platforms gaining important market share, new categories of cars becoming "instant classics" and new collectors joining the classic car market. Collecting cars is often presented as an investment, but for the majority of the collectors, it is first and foremost a passion that takes them to international, national or local events, and to which they dedicate a significant part of their free time toward the maintenance or restoration of their cars. It is rare that true collectors sell one of their cars – normally, their collections only grow in quality and quantity. As a result, the classic car market, although subject to positive and negative trends like other collectibles, tends to be more anti-cyclical than others.

Figure 1: Annual auction turnover (USD)



Source: Classic Car Auction Yearbook database by Adolfo Orsi, Historica Selecta

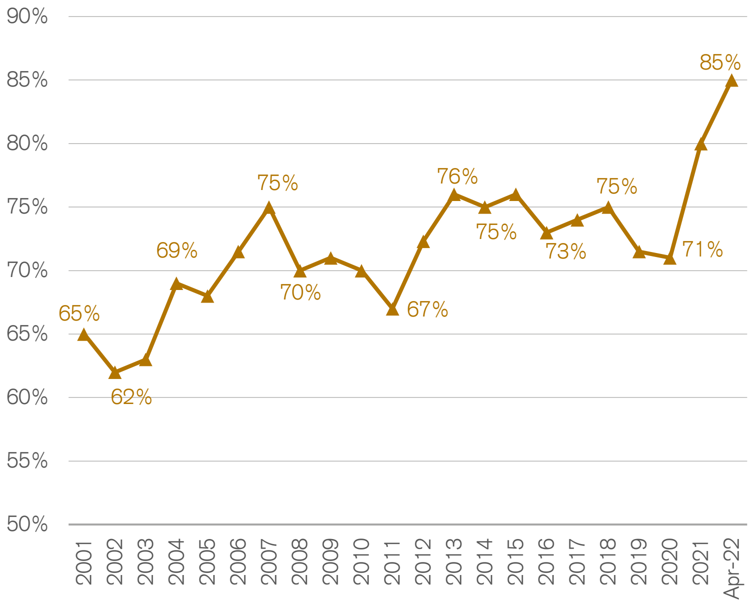
The classic car market from 2020 to 2022

Figure 1 shows the yearly total turnover of classic car auctions (which represent around 20%–25% of total market sales), where we can see a strong increase in classic car prices in 2014 and 2015 peaking in 2016, whereafter prices started to decrease at the same time as total turnover (it is less evident in the turnover because, in the meantime, the number of cars offered has increased). Another important indicator for the auction market is the sell-through rate (number of cars offered to number of cars sold), where, for the last 20 years, a 70% rate was considered fair, and 75% good (see **Figure 2**).

In both charts, the 2019 numbers show a weak market in search of a new level – all key market indicators (turnover, average value and sell-through rate) were lower than the year before. In 2020, the market was affected by the COVID-19 pandemic, which led to the cancellation of the vast majority of classic car events, such as fairs, meetings, Concours d'Elégances and consequently most of the auctions that are often organized during these events. As a result, turnover in 2020 turned out to be the lowest of the last nine years. At the same time, pent-up demand may have prompted collectors, both new and established, to finally purchase the car of their dreams or enhance their collections as the market began to normalize.

This not only led to a growth of online sales, but, when the Pebble Beach Concours d'Elégance and the various auctions were held live again in Monterey (California) – always the most important events of the season – total turnover in the classic car market started to strongly recover. The results of these auctions were higher than the most optimistic expectations, notwithstanding the ban to enter the USA for foreign visitors. Turnover in 2021 returned to over USD 1 billion, the average price was up 35% and the sell-through rate rose to over 80%, which was a stand-out result. The 2021 Top Lot was the 1995 McLaren F1, the 3-seater streetcar, offered in the Gooding sale in Monterey and sold at USD 20,465,000, which is a record price for this model.

Figure 2: Sell-through rate from April 2001 to April 2022



Source: Classic Car Auction Yearbook database by Adolfo Orsi, Historica Selecta

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Turnover in 2021 returned to over USD 1 billion, the average price was up 35% and the sell-through rate rose to over 80%

In the first four months of 2022, the most significant auctions have been the 11-day Mecum mega auction in Kissimmee (Florida), the Barrett-Jackson mega auction in Scottsdale (Arizona) together with the RM-Sotheby's and Bonhams in the same city in January; the RM and Bonhams sales in Paris in February; the RM, Gooding and Bonhams in Amelia Island (Florida) and the Artcurial sale during Retromobile in Paris in March; and the Bonhams sale in Goodwood in April. Market results for the first four months of 2022 year-on-year show a 118% increase in total turnover, a 65% increase in the number of cars offered, a 14% increase in the average price and a stunning 86% sell-through rate – the highest since 2011 and the highest ever recorded.

The two periods are not 100% comparable as, in February 2021, Retromobile in Paris was canceled and consequently their auctions did not take place. The auctions in Amelia Island were delayed until May and internet-based sales organized by new players (see details below) started changing the market.

The Top Lot for the first three months of 2022 was the Talbot-Lago T150C SS "Goutte d'eau" by Figoni & Falaschi, which brought in USD 13,425,000 in the Gooding auction in Amelia Island, making it the most valuable French automobile ever sold at auction. The last Amelia auctions confirmed the strength of the US market, with a total turnover of over USD 127 million and a 90% sell-through rate, with world record figures for many models. Therefore, it would appear that the market strongly rebounded as the world emerged out of the pandemic.

 Historical performance indications and financial market scenarios are not reliable indicators of future performance.

1938 Talbot-Lago T150 SS Teardrop Coupe by Mathieu Heurtault; courtesy of Gooding & Company

Transformational changes

From 2019 to date, however, the classic car market and the auction scene have gone through a transformational change leading to a market that is very different now compared to the pre-COVID years.

Today the classic car market is made up of:
1. Traditional auction houses (such as Mecum and Barrett-Jackson in the USA and many other regional companies in Europe and the UK), which still organize only old-style live auctions.
2. Other traditional auction houses (such as RM-Sotheby's, Bonhams, Gooding, Artcurial), which organize both live and internet auctions, with a cost of around 10% for both the seller and the buyer.
3. Dedicated internet platforms, such as Bring a Trailer (BaT) and PCARMarket in the USA, Collecting Cars and The Market (in the UK and Europe). BaT charges a USD 99 fee to the seller and a 5% commission to the buyer, with a maximum of USD 5,000. These auctions have very different rules and represent a significant shift from the "old" auctions as they are much cheaper and more transparent.

The real "game changer" in the last two years was BaT, which surprisingly became the most important auction house in the field in 2021. BaT started as a platform for enthusiasts in California – the US state with the most fuel consumers in the USA and by far the biggest classic car market in the world – which certainly gave the platform the necessary catalyst to grow. BaT's 2020 turnover was USD 398 million. In 2021, its turnover was USD 828 million (+108%), beating Mecum (USD 578 million) and nearly doubling RM-Sotheby's turnover (USD 407 million), the two most important traditional auction houses in the field. In the first quarter of 2022, BaT's turnover was around USD 322 million, of which roughly USD 97 million of sales were cars sold for over USD 200,000.

BaT offers around 100 lots every day (mostly cars, but also some motorcycles and special parts) and the selection goes from USD 3,000 used cars (mostly without a reserve) to multi-million-dollar cars (mostly with a reserve). BaT gives users the opportunity to make comments visible to all subscribers, to ask sellers questions in addition to the car-fax reports that state if the car was involved in a crash or other insurance reimbursement cases, thereby increasing bidders' trust and confidence. Two actual bidders are always requested (no "chandelier" (phantom) bidding to conceal a reserve price). If a car is offered with a reserve and a second bidder is lacking, the bidding stops and the car is not sold.

After the sale, BaT puts the highest bidder in touch with the seller and often the deal is concluded in this manner.

While old-style classic car collectors often hold the view that BaT is only good for new or modern cars, where the condition of the cars can be seen from photos without the need for an expert assessment of the vehicle's authenticity and condition, BaT also offered (and sold) multi-million-dollar pre-war cars in the first months of 2022, such as a 1927 Mercedes-Benz 680S Sport for USD 2.8 million and a 1930 Mercedes Benz 770K four-door cabriolet by Voll & Ruhrbeck for USD 2,555,555 – BaT's highest sales for the period (and during its short history). BaT has also offered and sold classic cars from the fifties and sixties like the Mercedes-Benz 300SL "Gullwing" and Roadster, the Ferrari 365 GTB/4 "Daytona," Ferrari Dinos, Aston Martins, and not only American "muscle cars" as is sometimes portrayed. This shows that there are online buyers with ample financial resources, and that sellers now know about it, which will likely establish BaT even more as an online portal.

Like many other activities, the passion for classic cars can now be pursued comfortably from home and online 24/7, 365 days a year. It is as easy today to purchase a collector car online as it is to purchase an airline ticket. This revolution has taken place in the space of only 24 months, accelerated by COVID-19, which has helped to establish auction houses with low commissions.

Instant classics, the Porsche-Ferrari leadership and generational changes

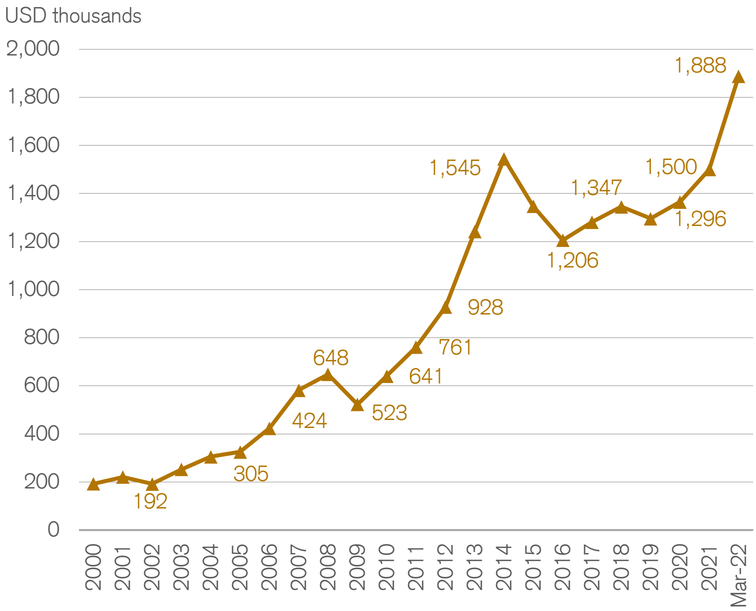
We are increasingly seeing descriptions of cars such as the "1,300-Kilometer 1987 Porsche 959 Konfort," "250-Mile 2005 Porsche Carrera GT" or "50-Mile 2019 Ford GT Carbon series" and "850-mile 2012 Lexus LFA." Naturally, purchasing nearly new cars at auction does not require any deep check of authenticity or condition – 100+ photos and, most of the time, a video are enough to illustrate the car. Many "instant classics" are offered today on internet platforms, taking advantage of the low commissions. Whereas, in the past, a new car leaving a dealer's showroom instantly depreciated by 15%–20% at minimum, today they may increase in value, e.g. if they are limited-production cars.

Increasingly, buyers of special cars do not actually drive the cars and enjoy them, but regard them exclusively as investments or stores of value to be sold and converted into cash again over relatively short periods. Some manufacturers (Bugatti, Ferrari and Porsche) have understood this trend and market "special edition cars" every year in limited numbers offered to a selected group of their faithful "platinum" customers. Being on a "lucky few" list gives buyers the option to purchase a new "special edition." If they decline, there is a waiting list of other eager customers prepared to step in.

Investor sentiment driving this niche of the market

The market for older cars is in general very strong, but selective: iconic cars like the Mercedes-Benz 300SL "Gullwing," the Ferrari 288, F40, F50, Enzo and La Ferrari, Lamborghini Miura, Porsche Carrera GT and 959 have all achieved record prices recently. Less requested, and hence with more stable prices, are other models of the same brands like the Ferrari 365 GTB/4 "Daytona" or Porsche 911 RS 2.7. The value increase in the medium term can be illustrated by the average prices (final price including buyer's commission) reached at auction by two iconic models, the Mercedes 300SL "Gullwing" and the Ferrari F40 (see **Figures 3 and 4**).

Figure 3: Average prices for Mercedes 300 SL Gullwing

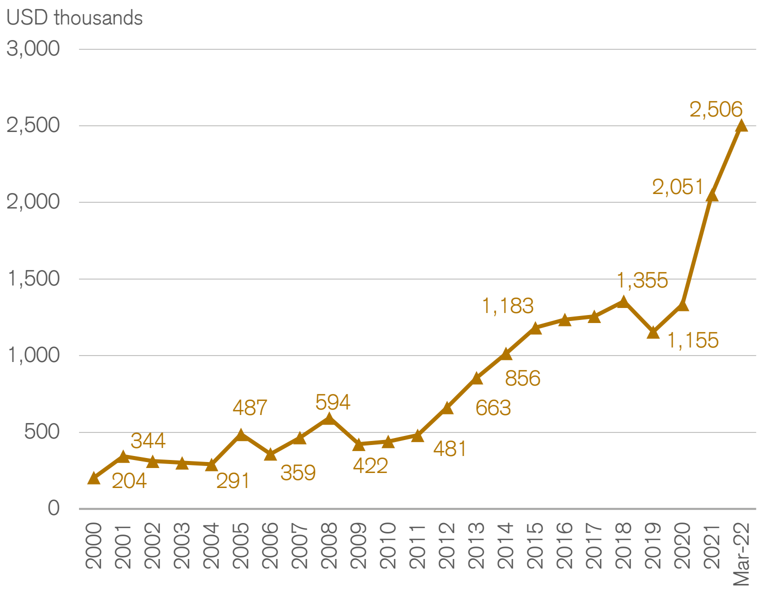


Source: Classic Car Auction Yearbook database by Adolfo Orsi, Historica Selecta

 Historical performance indications and financial market scenarios are not reliable indicators of future performance.

Mercedes 300 SL Gullwing by ddimcars, Alamy Stock Photo

Figure 4: Average prices for Ferrari F40



Source: Classic Car Auction Yearbook database by Adolfo Orsi, Historica Selecta

> “Increasingly, buyers of special cars do not actually drive the cars and enjoy them, but regard them exclusively as investments or stores of value

Ferrari F40 by Goddard New Era, Alamy Stock Photo

Ferrari cars have been the trendsetter for years, with a weighting of around 30% in the total turnover of key classic car auctions. In 2021, the company's weighting decreased to 20% of total turnover, while the weighting of Porsche cars increased. In the first quarter of 2022 (including the BaT sales, where Porsche is present with many more cars than Ferrari), the German manufacturer continues to lead. Younger collectors are purchasing younger cars. This generational change is normal because the first classic car in collectors' lives is generally the car of their dreams as teenagers. Looking at the number and weighting of the cars younger than 20 years offered at auction, the percentage of the cars built in the last 20 years has increased in the last decade to peak in the first quarter of 2022. Whether this is a structural effect of changing demographics or the result of short-term investors will become clearer with the passage of time.

Geographical distribution and intermediaries

Since 2020, there has not been any major change in the country distribution of classic collectors. The publication "Key" by TCCT (The Classic Car Trust) compiles a list of the "Top 100 Collectors" in the world. In the 2021 listing, 17 of the largest 20 classic car collectors are from the United States. The USA is not only the most important market, but also the most active. Europeans and the UK are trailing. The current geopolitical events are unlikely to change this distribution greatly. The number of Russian collectors is very low. China, in turn, is the second-biggest market worldwide for very exclusive new cars, but the classic car market is still practically non-existent there. Notwithstanding the expectation of changes in the "status" of classic cars in China (still considered to be used cars and therefore impossible to import and drive on Chinese roads), there have not been any new developments in the last few months.

As in the past, the sale of the rarest and most expensive cars still remains generally the domain of big reputable live auction houses and brokers. Among recent noteworthy developments, Hagerty, the most important US insurance company specialized in classic vehicles, debuted as a publicly traded company on Wall Street in December 2021. Since then, Hagerty has acquired some of the most important US events, such as the Amelia Island, Detroit and Greenwich Concours d'Elégances and the California Mille. Also in December, a group of former RM-Sotheby's executive managers announced the launch of a new collector car auction company, Broad Arrow Group. Soon after that, they announced a joint venture with Hagerty for a new auction to be held at the Monterey Jet Center next August. The Monterey week is thus likely to see plenty of sales and the key auction houses have already consigned some very important cars for the event.

More recently, the 1955 Mercedes-Benz 300 SLR Uhlenhaut Coupé sold at an RM-Sotheby's auction in Germany to a private collector for a record EUR 135 million (USD 142.9 million) in May, making it the most valuable car ever sold.

Non-fungible tokens (NFTs) are also making their appearance in the classic car market. For example, Lamborghini and INVNT Group collaborated in February this year to offer the world's first one-of-one NFT ever to be auctioned with a physical super sports car (the last Lamborghini Aventador LP 780-4 Ultimae Coupé ever produced). The NFT was a 1:1 video produced by media artist Krista Kim and music producer Steve Aoki with a digital replica of the physical car for use in the Metaverse, e.g. racing games. The sale was hosted in a dedicated online auction by RM Sotheby's and sold for USD 1.6 million.

Adolfo Orsi is a historian of Italian motorsport, noted collector car expert, specialist in authenticity and staunch advocate of preservation. He has coordinated and overseen the restoration of some of the most significant Italian cars ever produced. He has curated numerous historical exhibitions and, for the past 28 years, co-authored the Classic Car Auction Yearbook, a historical reference book sponsored by Credit Suisse that provides an in-depth and unique analysis of top international auction sales. He has also served as Chief Class Judge of the FIVA Award at the Pebble Beach Concours d'Elégance since its inception in 1999 and has been Chief Judge of the Ferrari 60th and 70th, Lamborghini 50th and Maserati 100th Concours.

The future of classic cars

Europe is moving to electric mobility. Today, most of the new cars are safe and silent, with advanced driver aids and assistance. While they are means of transportation, they may not arouse the kind of feeling sought by passionate drivers. Together with the rarity of classic cars, this may increasingly drive a younger generation of collectors toward analogue cars with turbo chargers, manual gearboxes and roaring V8 or V12 engines to experience the same kind of pleasure felt by mid-20th century drivers with the sounds and smells of authentic, adrenaline-inducing motoring.

The Fédération Internationale des Véhicules Anciens (FIVA) is the international federation that groups all the national historic vehicle clubs with the aim of protecting, preserving and promoting "the use of yesterday's vehicles on today's roads." In 2021, FIVA's Worldwide Historic Vehicle Survey of classic car users found that historic vehicles are used on average 15 times a year and the average distance traveled per annum is around 1,400 km.

Therefore, while classic cars clearly do not meet any prevailing sustainability criterion, the percentage of total emissions they generate is negligible. Moreover, in the future, carbon-neutral eFuels (also called synthetic fuels), which are made by mixing hydrogen derived from renewable sources typically with carbon dioxide and have already been tested in racing cars, could solve pollution issues and also permit the use of classic cars in strictly regulated countries, allowing a broader public to enjoy the sight of a historic vehicle on the road and the nostalgia of the old days.

Photo: Credit Suisse

Fine wines: A liquid alternative

Philipp Schwander[1]

With an estimated USD 5 billion in sales per year, the market for fine wines remains a significant collectibles category. Both COVID and inflation fueled price increases for certain wines. Investment-grade wines, like other collectibles, require specialist knowledge – going beyond mere financial expertise – to deliver economic success. This overview examines some of the key elements that need to be taken into account from an insider's perspective.

Fine wines at a glance

Table 1 shows the share of the individual growing regions/countries over the last ten years in the fine wines market according to Liv-ex wine exchange. The weight of the once undisputed leader, Bordeaux, has declined over the years, while Burgundy, Italy and Champagne have emerged as serious challengers.

Figure 1 overleaf shows the development of different wine regions in comparison with the MSCI World and the gold price (all in GBP, January 2004 to April 2022, and indicating the annual average increase in value over the whole period).

1. This article is an updated version of the first edition in 2020.

Table 1: Share of value of selected wine regions and countries

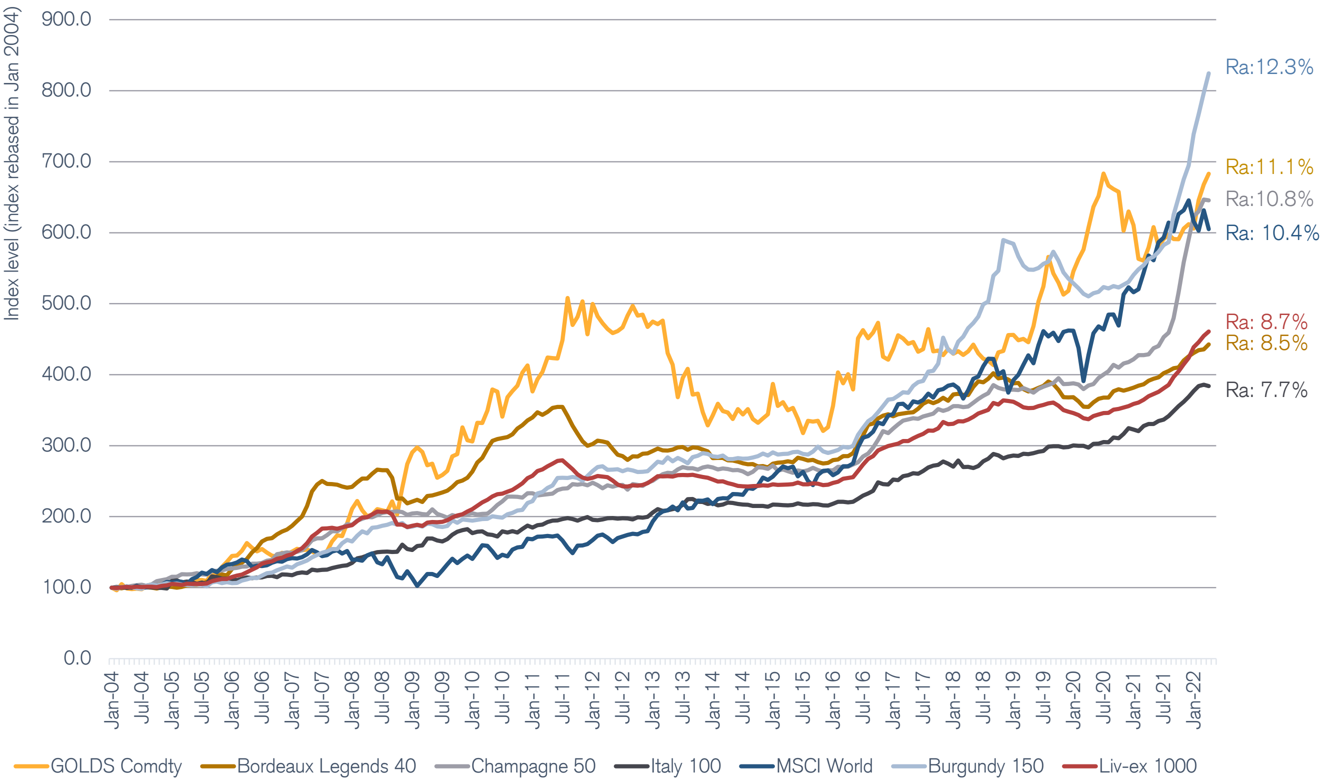
	2010	2015	2019	2020	2021	2022*
Bordeaux	96%	75%	55%	42%	39%	33%
Burgundy	1%	6%	20%	18%	21%	25%
Champagne	1%	6%	9%	9%	8%	12%
Italy	1%	2%	3%	3%	5%	5%
Rhône	0%	2%	2%	7%	8%	8%
California	1%	7%	9%	15%	15%	13%

* As of March 22; source: Liv-ex

Fine wines have experienced two price surges recently: the first was caused by the COVID pandemic, and the second has been the unusually high inflation since January 2022. Burgundy did particularly well in terms of its price development, having enjoyed an unprecedented boom in recent years (12.3% p.a.). From January 2021, the Burgundy Index even outperformed the price of gold (11.1% p.a.).

However, it remains to be seen how long the sometimes surreal high prices will be able to hold up. Rare vintage champagnes have long been underestimated and their prices have accelerated considerably. Prices here have risen between 30% and 40% in the last two years. The development of Bordeaux wines, shown in the Liv-ex index with an annual price increase of 8.5% (in GBP), was more restrained. It is noteworthy that wine is generally subject to less pronounced fluctuations than the financial markets, i.e. equities (cf. 2008–09). This is certainly also related to the comparatively small quantities traded and also to the fact that these wines are collectors' items. Until about 2008, the fine wine market appeared to be a treasure trove for shrewd investors. From around 2009 onward, the internet and globalization then allowed producers to better explore the possibilities of the market. Owing to the higher level of market transparency, they now often earned a considerable part of the profit expected from the secondary market through significantly higher initial selling prices.

Figure 1: Liv-ex sub-indices vs. Gold and MSCI World (January 2004 to May 2022, in GBP)



* Developments in this graph are in GBP and can therefore differ from previous illustrations in the publication due to the currency effect.
Source: Liv-ex, The BLOOMBERG PROFESSIONAL™ service

It is nevertheless very important for the potential wine investor to realize that investing in shares is probably the better, less-problematic business. The traded quantities of top Burgundies (e.g. Burgundy 150) are simply too small to be meaningful, despite showing excellent results in the graph above. It is more or less impossible to source these sought-after Burgundies in reasonable, correctly stored quantities and thus generate a commensurate return. A serious wine investor would be looking for a far better spread than a huge percentage increase in the value of just a few bottles of rare wines. In order to obtain a better perspective, it is therefore essential to compare the Liv-ex 1000 index, which is much more diversified, with the MSCI World. According to this metric, anyone who invested in shares in January 2004 earned 31.3% more than those people who invested in wine – despite the dramatic upheavals during the financial crisis.

Moreover, the chart does not take into account the real sales prices of wines, which are often lower than the stated market prices. Compared to shares, wine involves physically investing in a product that must be stored, insured and, if necessary, transported. Also, counterfeit wines are a problem. In addition, an investor will only be able to sell particularly rare wines at the market price. Especially in auctions, less sought-after products are often sold at significantly lower prices, resulting in a substantial bid-ask spread of often around 25%. Furthermore, unlike most financial products, wine does not last forever. Currency fluctuations and taxes also play a crucial role (see corresponding section). Therefore, anyone not interested in wine per se can achieve the same goal more safely and efficiently with other investments. On the other hand, if we use owner-occupied residential property as an analogy, wine lovers may wish to invest part of their wealth in wine. A good example in this respect is the English model of the wine dealer who is responsible for the procurement, storage and subsequent sale of the wine.

 Historical performance indications and financial market scenarios are not reliable indicators of future performance.

Qualitative prerequisites for investing in wine

When analyzing which wines are worth investing in, it is often only prices or the potential appreciation in value that are considered. In fact, investors face serious risks if they only take these aspects into account. It is also important to pay attention to the following criteria:

Storage and transport of the wines to be purchased

High-quality collectors' wines are only lightly filtered and are therefore less microbiologically stable. For example, populations of yeast and lactic acid bacteria may still be in the wine and could have adverse effects (e.g. premature aging or turbidity) at a high storage temperature. The most acclaimed wines, however, are often resold in international trade and sometimes go on an odyssey with less-than-advantageous transport conditions. The ideal storage temperature is between 11 and 14 degrees Celsius – and above all it has to be fairly constant – with a humidity of 68%–72% (not more than 80% or the labels will be affected, and not less than 60% or the corks will dry out and shrinkage may occur), and it is recommended to keep bottles in their original case (e.g. a six-bottle wooden box). Hence, proper storage including insurance can cost between USD 1.50 and USD 2.50 per bottle per year.

Choosing wines that can age

In addition to choosing the right wine, the ability of a wine to age is fundamental when investing. For a wine to age and improve, there are many subtle factors involved and the period of aging for a variety of wines is often very different from the widely accepted guidelines. At the moment, Italian wines are popular because they are still attractive in terms of price. The focus is on wines from Tuscany and Piedmont. Unfortunately, however, many wines from these two regions (even famous estates) never last as long as the great Bordeaux. Many Brunello di Montalcino should not be stored for much longer than 15 years, with the same applying to Barolo and some of the "Super Tuscans" with Bordeaux grape varieties. If these wines are purchased young and stored under the correct conditions, there is a low risk of them deteriorating. The problem is the purchase of older vintages where continuing to store them can be risky.

Burgundies are better suited to longer storage than Italian wines. However, their low tannin content and fragile structure make them much more vulnerable to poor storage than Bordeaux wines. When buying expensive Burgundies, it is essential to know how the previous owners stored them and especially how and how often the wines were transported. The more previous owners and movements, the higher the risk.

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In addition to choosing the right wine, the ability of a wine to age is fundamental when investing

Counterfeit wines

Experts estimate that around 20% of the most famous wines are counterfeit. This is an extraordinary figure. There have been considerably more sales of wine legends like Cheval Blanc 1947 or Petrus 1961 than have ever been produced. Wine fraud is particularly widespread in the Far East. The counterfeiting of older vintages is not that difficult because the labels are quite simple from a printing aspect and easy to reproduce. Likewise, there are wines that come in their original bottles, but have been refilled (the internet is full of offers for empty bottles of famous wines). The lack of knowledge of many collectors also allows for widespread wine fraud. In 2014, for example, in the biggest wine scandal to date, Rudy Kurniawan was found guilty of selling some forged wines with an estimated value of USD 100 million. Many of these wines are still in the cellars of collectors. The problem is somewhat similar to the art forger Beltracchi, from whom some of his "originals" from famous painters still exist. It is therefore essential to consult an expert when thinking about purchasing particularly rare and sought-after wines. Investors should also keep in mind that internet auctions or auctions by disreputable vendors are often used to dispose of poorly stored or counterfeit wines.

Natural wines

Organic and biodynamic wines are becoming increasingly popular in high-quality estates. There are also more and more so-called "natural wines" (not a legally protected term), whose advocates aim to offer an alternative to the so-called "industrial wines" with products that are as natural and unprocessed as possible. Some of these wines are highly sought-after and fetch considerable sums. The production of such wines requires expertise and appropriate technical equipment, otherwise they can quickly spoil. There is also another often-concealed problem that affects organic winegrowers in particular: it has unfortunately become fashionable these days to produce wine with the lowest possible sulfur content. Sulfur has been used since ancient times in the form of sulfur dioxide (SO_2) for disinfecting containers and, above all, against browning (oxidation) of the wine. The SO_2 binds the oxygen and thus prevents oxidation and the development of bacteria and wild yeasts. Unsulfured or weakly sulfurized wines age quickly and can result in oxidative faults. Regrettably, many producers ignore this important technicality and do not use enough sulfur, with the result that their wines are much less long-lasting. A less serious problem today is the cork-like taste (goût de moisi) in older vintages attributable to chloroanisole from wine cellars, which forced some famous producers (including Bordeaux) to completely renovate their cellars.

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Organic and biodynamic wines are becoming increasingly popular in high-quality estates

Currencies and taxes
A leading rarities dealer from Switzerland summed it up – up until 2008, he made considerable profits with his portfolio of rare wines. Between 2008 and the end of May 2022, the euro lost 38% of its value against the Swiss franc and 15% against the dollar. On the other hand, the English market, which is very important for the wine trade, benefited in particular from the weak pound (minus 44%) and was able to generate excellent warehouse sales and returns as a result. Hence people who build up large-scale wine portfolios should consider the longer-term development of their chosen currencies.

Taxes and legislative changes can have a significant impact on a wine investment. When New York changed the regulations in 1994 to allow wine auctions, the US share of the fine wine market rose. In 2008, the tax on wines was abolished in Hong Kong SAR, which led to the city becoming the most important Asian wine hub. The 25% tariff introduced in October 2019 by the USA on EU wines with less than 14% alcohol led to a plunge in exports in the countries concerned (France, Spain, Germany and the UK). Conversely, Italy, which was exempt from the tax, benefited from particularly strong demand. After tariffs were lifted in March 2021, sales of French wines accelerated again as US traders replenished their depleted stocks.

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Taxes and legislative changes can have a significant impact on a wine investment

Reviews by wine critics
Robert Parker in the USA was one of the world’s most influential wine critics for many years. If he gave a wine a high score, it would have a significant effect on the sales price. His ratings were an exceptional sales promotion, especially for Bordeaux wines. Wines with a maximum note of 100 “Parker Points” are still highly sought after by collectors. However, 100 points have often been awarded in barrel tastings, only to be later corrected downward (e.g. Bordeaux vintage 2000). Parker sold his magazine, the Wine Advocate, in 2012 and completely withdrew from wine reviews in 2019. Besides the Wine Advocate, which has since been published by various specialists, the most influential wine critics currently appear to be the journalists Neal Martin and Antonio Galloni (both from Vinous magazine) who often prefer less powerful, more elegant wines than Robert Parker, who had a preference for more powerful wines. This trend toward more elegant wines can

Château Margaux; photo by Philipp Schwander

be seen worldwide. Allen Meadows for Burgundy and Jancis Robinson are also highly respected wine critics. However, since critics who provide good reviews are cited more often and receive more publicity, it is not surprising that we have been seeing far more top notes for some time now and the sales effect of wine scores has been diluted. The 100-point rating system nevertheless still seems to be gaining ground internationally. Overall, it can be seen that the influence of ratings has decreased, with a trend toward the well-known, long-established brands.

Lucky numbers and other figures

For Chinese buyers, not only the quality of the vintage, but also lucky numbers can influence an investment. According to long-time China insider Urs Buchmann, CS Vice-Chairman Greater China, the years 2019, 2018, 2016 and 2011 are considered to be especially promising. In contrast, 2015 and 2014 vintages are held in less esteem. No doubt, another special year was the turn of the millennium (2000).

The most important regions and their wines

A common mistake is that, when choosing wines, people tend to opt for personal preferences. There are many excellent wines in the fine wine market that are not in demand and are therefore unsuitable for investment purposes. The following section discusses the most sought-after wine regions and producers to consider when investing in fine wine, regardless of whether they are really convincing in terms of quality. The list is not exhaustive and is constantly changing, and also includes some of the vintages from the respective regions that might appeal most to collectors. In general, more and more wines are being bought outside of Bordeaux as an investment. In this regard – alongside Burgundy – Champagne, Italy and California deserve special mention. When it comes to investments, China's influence should not be underestimated. Prices would come under pressure if China does not buy wine (e.g. in Australia).

Bordeaux

Bordeaux is still the benchmark and is the most important and, above all, reliable region for wine investments. Overall, Bordeaux wines are the easiest to store, the brands are well known, production is large-scale and market penetration is strong. En primeur (wine futures) prices spiked for the first time with the 1996 vintage, followed by further price hikes with the 2000, 2005 and 2009 vintages. People who invested in the outstanding 2009 and 2010 vintages have lost money to date because the producers' offer prices were far too high. In 2011, prices peaked due to unprecedented demand from China. In July 2012, the Chinese government cracked down on gifts to government officials for the first time. The demand for expensive Bordeaux collapsed because of this, among other things, and investors increasingly turned to Burgundy and other regions. The excellent 2019 vintage was offered at very attractive prices and luckily provided a much-needed boost to the market. The subscription prices were 15%–30% lower than the previous year, but have already increased again by between 20% and 30%. The falling away of the US punitive tariffs in March 2021 led to a massive surge in demand for Bordeaux and many older vintages that were still held in stock were able to be sold.

By watching the market closely, investors can also discover and profit from a number of wineries in the short term, even if they are not important brands. For example, prices for Château Les Carmes Haut-Brion doubled in 2016. In the meantime, the quality of some of the "Super Seconds" is often now on a par with the Premiers Crus, but the prices are very attractive. In the long term, it has proven successful to invest in old well-known brands. "New" wines like Valandraud, Quintus or Magrez Fombrauge generally do not perform well. Overall, the Bordeaux market recovered, although the price increases were restrained compared to Burgundy and Champagne. Investors in Bordeaux could also consider buying large bottles if possible as the difference in price is relatively modest, but the potential increase in value is significantly higher than with 75 cl bottles. The 2021 Primeurs are being offered at prices similar to the significantly better 2020 vintage so that they are not suitable as an investment.

Most important brands: Lafite-Rothschild, Mouton-Rothschild, Margaux, Latour, Haut-Brion, Petrus, La Mission Haut-Brion, Cheval Blanc, Ausone and, in small quantities, Lafleur and Le Pin.

Recommended more recent vintages: 2020, 2019, 2018, 2016, 2015, 2010, 2009, 2005 and 2000.

Burgundy

The rise in the prices for Burgundy is staggering – in 2013, Sotheby's accounted for 26% of all wine and spirit sales, in 2021 this was 46% compared to only 22% for Bordeaux. The prices of the most sought-after Burgundy wines have risen by another 40%–50% in the last two years. This small wine region is home to the world's most sought-after and expensive wines. The choice of producer and vintage are all decisive and the quantities produced are tiny, which makes the area especially interesting for collectors. Red wines from 1999 onward are likely to be more ageworthy, while wines of previous vintages are sometimes more difficult to store. Nevertheless, caution is also required with younger wines! Many producers are extremely reluctant to add sulfur to their wines, which has a negative effect on storability. White burgundy is even more problematic as pre-mature aging ("premox" or premature oxidation) created huge problems. For example, "premox" created huge problems for vintages between 1995 and 2013, possibly due to a lack of sulfur in the wines.

A storage temperature between 11 and 14 degrees Celsius is much more important for Burgundies as they are particularly sensitive to excessively high temperatures. When buying Burgundies, it is important to pay attention to how they will be transported as well as their previous storage conditions. However, unless they are purchased directly from a producer or importer, Burgundies are a risky investment at the moment in view of a potential market correction. For example, a single 75 cl bottle of Musigny Leroy 2015 currently costs EUR 105,000. The wines of Domaine de la Romanée Conti are still most in demand, followed closely by Domaine Leroy, Liger-Belair and Armand Rousseau. Even so, it is difficult to find reasonable quantities of these domains in the secondary market. Now incredibly high prices are causing buyers to turn to other Burgundy producers who just a few years ago were fairly unknown to a wider group of buyers. For example, wines from the second-class appellation Haut Côtes de Nuits from Domaine Bizot already cost several thousand euros per bottle! Overall, burgundies are more in tune with contemporary tastes with their smoother, less bulky character. For example, they are also much better suited to Chinese cuisine than Bordeaux.

Most important brands: Red – Domaine de la Romanée Conti, Domaine Leroy, Comte Liger-Belair, Armand Rousseau, Roumier, Sylvain Cathiard, Dujac, Méo-Camuzet, Emmanuel Rouget, de Vogüé. White – Domaine Leflaive, Coche Dury, Domaine Roulot, Pierre-Yves Colin-Morey.

Recommended more recent red wine vintages: 2020, 2019, 2018, 2016, 2015, 2012, 2010, 2009, 2005, 2002, 1999.

Château Haut-Bailly wine cellar; photo by Philipp Schwander

Champagne
Prices of the vintage champagnes from the fine wine market have risen strongly. They were significantly undervalued for a long time: only recently the average price for twelve bottles of first-class champagne was GBP 1,500. The average price for the highest-quality Bordeaux is GBP 7,000 and for Burgundies even as much as GBP 15,000. Roederer “Cristal” is currently between GBP 2,000 and 3,500. Together with Burgundy, Champagne is now one of the “best performers" with prices having risen between 30% and 40% in the last two years. While high-quality grower champagnes are gaining more market share in direct sales, well-known brands from the bigger houses with their fine cuvées such as Dom Pérignon, Roederer “Cristal” and Krug Vintage continue to dominate the secondary market. Interestingly, the other well-known sparkling wine regions from all over the world do not play a role here. Clearly, collectors are discovering the appeal of mature, high-quality vintage champagne – a phenomenon that was previously only widespread in the United Kingdom.

Some first-rate marketing (e.g. at Dom Pérignon), a worldwide sales network and the high level of brand awareness (even among laymen) is also having a positive effect. “Dom Pérignon” is the undisputed market leader, despite the company producing a gigantic estimated 11 million bottles per year – production of Louis Roederer “Cristal” is much lower at probably around 0.7 million bottles. The tiny Champagne house of Salon has seen its best performance in recent years. On the Liv-ex trading platform, the price of Salon 2002 rose 80% in 2021, while Cristal Rosé, Taittinger Comtes de Champagne and Krug 2000 also gained over 50%. The best grower champagnes (e.g. Agrapart, Egly-Ouriet), are also becoming increasingly popular, as are high-quality rosé champagnes. Sales in the USA reportedly increased by over 200% in 2021.

Most important brands: Moët & Chandon “Dom Pérignon,” Louis Roederer “Cristal,” Salon, Krug Vintage and Clos du Mesnil, Bollinger “Grande Année” and “R.D.,” Pol Roger “Sir Winston Churchill,” Taittinger “Comtes de Champagne,” Jacques Selosse Vintage.

Recommended more recent vintages: 2012, 2008, 2004, 2002 and 1996.

The Rhône
Thanks to Robert Parker, the Rhone has become one of the world's most prestigious wine regions. The wines mostly have a good storage life (some modern vinified Châteauneuf wines mature faster) and represent solid value in an international context. There are also particularly good white wines – but collectors should focus on the red wines of the northern Rhone. With a few exceptions, the performance of the southern Rhône (Châteauneuf-du-Pape) has not been particularly convincing. The exception is Château Rayas – this Châteauneuf-du-Pape has become a cult wine and its prices have risen the most of all Rhône wines. Although Beaucastel is popular and well-known, production has been greatly expanded and demand has declined somewhat.

Recommended producers for northern Rhône: Guigal, Chapoutier, Jean-Louis Chave, Jaboulet Aîné.

Recommended producers for southern Rhône: Rayas, Henri Bonneau, Beaucastel "Hommage Jacques Perrin."

Recommended vintages for northern Rhône: 2019, 2016, 2010, 2009, 2007, 1999, 1990.

Recommended vintages for southern Rhône: 2019, 2018, 2016, 2010, 2007, 2005, 1998.

Tuscany
Italian wines are increasingly growing in demand, especially those from Tuscany. The region can be compared to some extent with Bordeaux because the concept is often similar to Bordeaux wine chateaus with Bordeaux grape varieties (Bolgheri). The entry prices are relatively low, but, compared to the Bordeaux, the wines (with some exceptions) do not last very long. Sassicaia has the dominant position with its 2016 vintage also contributing to the increase in demand. Masseto is increasingly becoming a cult wine, although prices for the "normal" Ornellaia have not increased any further; the demand for Brunello producers is also somewhat subdued. Biondi-Santi wines come in very different qualities (although the quality should become more stable under the new owner). Production at Sassicaia and Tignanello is high at 0.4 million bottles per year each, but this should not have any negative effects on Sassicaia as the brand currently belongs to the most sought-after Italian wines. Here the aim would be to buy younger vintages so as to leave some room to maneuver, since experience has shown that the wines do not keep as well as Bordeaux.

Most important brands: Sassicaia, Masseto, Ornellaia, Tignanello, Brunello di Montalcino Case Basse, Biondi-Santi, Solaia, Fontodi Flaccianello, Pergole Torte, Le Macchiole Messorio, Tua Rita Redigaffi.

Recommended more recent vintages: 2016, 2015, 2013, 2010, 2006 and 2004.

Piedmont
If Tuscany is more like Bordeaux in concept, Piedmont resembles Burgundy. The dominant grape variety among the most expensive wines is Nebbiolo, the quantities produced are often very small (between 5,000 and 10,000 bottles). Like the wines from Tuscany, the most famous wines from Piedmont – especially Barolo and Barbaresco – have been in great demand for years, and the price increases are sometimes enormous. Collectors who can buy directly from the producer from the past can look forward to a potentially solid return. Contrary to popular belief, the newer vintages of Barolo and Barbaresco do not always age well. Hence investors need to be careful when choosing and should probably buy the wines young to avoid emergency sales. Although prices are already high, they have increased again.

Most important brands: Bruno Giacosa, Gaja, Giacomo Conterno, Sandrone, Aldo Conterno, Vietti, Bartolo Mascarello, Giuseppe Rinaldi, Roberto Voerzio, Comm. G.B. Burlotto.

Recommended more recent vintages: 2016, 2013, 2010, 2004.

California
The trend in prices for the most sought-after Napa Valley wines over the last 20 years is simply astounding, along with some compelling marketing. Some wines are already so high in price (e.g. Screaming Eagle) that we are likely to see a market correction at some point. Moreover, not all wines mature the same, with some examples of prominent names aging prematurely. Heitz has been underestimated for years and, unlike some of its more acclaimed competitors, can be stored over a longer period of time. Recently, prices for older vintages in particular have increased significantly (1960–1980). However, the market seems to be mainly in the USA, while demand in Europe is much more restrained.

Most important brands: Screaming Eagle, Harlan, Colgin, Dominus, Opus One, Heitz Martha's Vineyard, Ridge Monte Bello, Abreu, Phelps Insignia, Shafer Hillside Select, Kapcsándy, Scarecrow.

Recommended more recent vintages: 2016, 2015, 2013, 2012, 2010, 2007, 2002 and 2001.

 Historical performance indications and financial market scenarios are not reliable indicators of future performance.

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Bordeaux is still the benchmark and is the most important and, above all, reliable region for wine investments

Philipp Schwander MW has been in the wine trade for almost 40 years. His first professional experience with fine wine was tasting Bordeaux “en primeur” from barrel in 1982. Fourteen years later, while working as the head buyer for the fine wine importer Martel, he passed the world’s strictest wine exam to become Switzerland’s first Master of Wine. After ten years at Martel he was made CEO of the Zurich-based company Reichmuth, which at this time was one of the largest importers of Cru Classé Bordeaux in the country. In 2003, he founded Selection Schwander and his company is now one of the major wine merchants in Switzerland. He has his own vineyard in Priorat in northern Spain, where he produces a wine called Sobre Todo, which has received critical acclaim. He is an honorary member of the Austrian Wine Academy and writes regularly for the Neue Zürcher Zeitung and other publications on the subject of wine.

Countries and regions currently not in demand

With the exception of Egon Müller, investing in sweet wines of any kind, e.g. Sauternes, is not worthwhile, although the prices are attractive and they age well if stored correctly.

Latin America and South Africa have also not shown any interest to date. Fine red wines from Spain (Vega Sicilia and Pingus) and Australia (Penfold’s “Grange” and Henschke “Hill of Grace”) are also not particularly profitable for the investor, although a variety of outstanding wines are being produced. Exports of Australian wine have been badly affected by the imposition of high tariffs from China on bottled wine – including any fine wines – to mainland China since November 2020 (exports to China, including Hong Kong SAR, fell 79% in value in the year up to end-March 2022), which is another example of the potential risks when investing in wine.

Investors should keep an eye on how German wines like Riesling and Pinot Noir are developing (e.g. Keller G-Max), not least because the concept is very similar to that of Burgundy and the available quantities are limited.


The Sakura Diamond; photo by ANTHONY WALLACE/AFP via Getty Images

Watches and jewelry: Tested stores of value

Sonia Fazlali-Zadeh

For most ultra-high-net-worth individuals (UHNWIs), fine jewelry and fine watches constitute a part of their assets. Both are an investment category to clients, borne out of rarity or sometimes even from a cultural and historical significance. They can signify social status or be a medium for self-expression; they can also act as a physical marker for rites of passage and landmark moments in people's lives. Importantly, besides being an important tool through the ages in the ritual of gift-giving, they also represent a store of value in times of great uncertainty. No other asset category has so many different purposes or fulfills so many of our social needs, placing jewelry and watch collecting firmly as an enduring and important category in any contemporary discussion of wealth. The jewelry and watches industry, like most other sectors, was not left unscathed by COVID-19. For example, supply shortages due to mine closures led to significant price increases for gems. However, new trends emerging prior to the pandemic are now gaining momentum, such as an enhanced sustainability focus by the industry, increasing Asian demand, the association of content and collaborations with iconic brands, and digitalization.

Diamonds: Supported by supply shortages and Asian demand

Although the initial impact of the COVID-19 pandemic was a drop in diamond prices, a relatively quick recovery unfolded, especially for higher-carat weights and top-quality stones, followed by a steady increase in prices from late 2021 to 2022. Mine closures during 2019–21, a consequence of the pandemic, have created a shortage in rough diamonds at a time of sustained retail demand. The combined closures of key mines such as Ekati and Renard in Canada, Aikkal, Zarya and Verkhne-Munskoye in Russia and Liqhobong and Mothae in Lesotho resulted in lost production of an estimated four million carats in 2020 alone, further exacerbated by the production decline at the Venetia mine in South Africa and the permanent closure of the Argyle mine in Australia. Although diamond production has now resumed in 2022 and is expected to reach over 120 million carats this year, industry specialists say that it is unlikely to reach pre-pandemic levels within the next five years.

Evgeny Agureev, Deputy CEO of Russian diamond mining company Alrosa said in January that the company did not anticipate any sizable recovery in the rough diamond supply in the next 5–10 years as the industry lacks new discoveries. Since that statement, Alrosa (which supplies almost 30% of the world's diamonds) has been placed under sanctions due to the war in Ukraine, thus further impacting rough supply. Developments at Alrosa will be all the more relevant in 2022 as it is the first mining company to sell investment fancy colored diamonds directly to high-net-worth clients and had planned to extend the arrangement beyond Russia this year – a radical new move that bypasses traditional professional tenders in favor of partnerships with banks. These plans may now have to be put on hold. Moreover, Alrosa has suspended its membership in the World Diamond Council or the Responsible Jewellery Council (after many key groups such as Richemont, LVMH and Kering withdrew their memberships in protest), which will have a further impact on the company's position and voice in the global market. The UK has also imposed a 35% import duty on all precious and semi-precious gemstones and metals from Russia and Belarus. However, with the possibility of Russia's state gem depository buying diamonds from Alrosa, and since India, Israel and the Emirates have continued relations thus far, it remains to be seen what the full effect of the Western sanctions will be.

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> ## The disruption in the diamond market may also cause an increase in demand for colored gemstones

Either way, the situation has once again highlighted the question of origin and traceability (initially raised due to illegal conflict diamonds being used to fund conflicts in war-torn areas, particularly in Africa). The disruption in the diamond market may also cause an increase in demand for colored gemstones, especially the big three: emeralds, rubies and sapphires. In the trade fairs this year, quality and not price has been the main driver for sales, with very good quality stones achieving very strong prices. Origin remains a strong price factor, with Kashmir sapphires, Burmese rubies and Colombian emeralds still selling at a significant premium. High-quality stones have also seen steady growth in prices over the past few years. The price increase of diamonds is likely to persist, in our view, not only due to production issues, but also because of the increased costs of logistics, a reduction in stockpiles and supply chain issues – all longer-term consequences of the pandemic. Inflation is also affecting the market, together with elevated demand, especially for the larger and higher-quality stones that we mostly see in this asset class when it comes to collectibles in wealth. With regard to sales of rough diamonds earlier this year, Richard Duffy, the CEO of Petra Diamonds said that “demand spanned the entire spectrum of rough assortments and sizes, with a notable increase in the price of larger stones – particularly the white D-colors, for which Cullinan is renowned, as well as fancy colored diamonds.” Additionally, in the past it would take several months for changes in the rough market to trickle into the wholesale and retail markets, but today's market moves much faster with an almost simultaneous and relational price increase for polished diamonds to rough.

Looking at natural fancy colored diamonds, although prices have remained stable recently, it is important to note that, over the past decade, growth in the price of fancy colored diamonds was approximately 77% overall and 116% for pink diamonds specifically, or 500% since 2000. With the closure of the Argyle mine, which was producing 90% of the world's pink diamonds by volume, we can expect to see prices for this rarest color of diamonds (pinks and reds) continue to rise. Even if another deposit of pink diamond-bearing ore were to be discovered today, it would take ten years on average for a mine to proceed from discovery to production. We also see the importance of fancy colored diamonds reflected in the auction sales last year. Christie's Magnificent Jewels auction in Hong Kong SAR in May 2021 saw a new auction record set with the sale of “The Sakura” – a 15.81 carat Fancy Vivid Purple Pink Internally Flawless diamond – the largest purple pink diamond sold at auction for USD 29.3 million, beating “The Spirit of the Rose” (14.83 carats), which sold for USD 26.6 million the year before.

Another notable pink diamond, “The Sweet Heart” – a Fancy Vivid Pink of 4.19 carats – sold for USD 6.5 million in the same auction. According to Vickie Sek, Chairman of Christie's Jewellery Asia Pacific, “strong sell-through rates and exceptional prices achieved for top quality colored diamonds and gemstones reflect a robust market demand.” Christie's December 2021 Magnificent Jewels sale in New York also saw the strongest results for its fancy colored

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The De Beers Cullinan Blue diamond; photo by Sipa USA, Alamy Stock Photo

diamond lots, with the top lot of the sale being a Fancy Vivid Yellow Vs2 clarity diamond of 70.19 carats, which sold for USD 2.85 million. We saw a similar theme with Sotheby's selling a Fancy Intense Blue Vs2 6.11 carat diamond for just under USD 8 million in December 2021 and the "Sienna Star" a 73.11 carat Fancy Vivid Yellow Vs2 diamond for USD 3.4 million at its June 2021 sale.

The importance given to fancy colored diamonds and perhaps the belief in their continued strong place in the market has seen a shift to single-lot auctions side by side with large exceptional-quality colorless diamonds, as seen with the July 2021 sale of "The Key 10138" (a 101.38 carat diamond) in Hong Kong SAR for USD 12.3 million, the February 2022 sale of "The Enigma" (a 555.55 carat Fancy Black Diamond) in London for USD 4.3 million and the April 2022 sale of the "De Beers Cullinan Blue" (a Fancy Vivid Blue Internally Flawless 15.10 carat diamond) for USD 57.5 million. "The Red Cross Diamond, the 205.07 carat Fancy Intense yellow diamond sold for CHF 14,181,250 (USD14.3 million) at Christie's Magnificent Jewels sale on 11 May in Geneva. Another clear shift in the market can be seen with sales of these top-quality stones increasingly taking place in Hong Kong SAR and New York, a shift that aligns with the growth of the Asian market in many collectibles including fine jewelry and watches.

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The Asian market represents around 45% of all branded fine jewelry and 50% of fine watch sales

Although it was in play before the start of the pandemic, the growth of the Asian market for collectibles has gained momentum. According to a June 2021 McKinsey report ("The State of Fashion: Watches and Jewellery"), the Asian market represents around 45% of all branded fine jewelry and 50% of fine watch sales. This is due to several factors: China is seeing the highest growth in ultra-high-net-worth and affluent individuals, while India's middle class has grown 10%, together with an expansion of internationally branded retailers compared to domestic retailers. According to the report, "the number of households in Asia with incomes above USD 70,000 is expected to almost triple by 2025."

Moreover, we see retailers expanding into lower-tier cities in China, thus increasing the number of potential new clients. The decrease in international travel during the pandemic also resulted in a shift toward developing domestic retail and a corresponding increase in domestic purchases for both fine jewelry and luxury watches. High import duties and taxes have also led to the success of duty-free zones, such as the island of Hainan, which saw sales increase by 84% in 2021 to USD 7.9 billion. So how are brands competing to get a share of the market?

Branded jewelry: Asia, digital, content and collaborations

Branded jewelry continues to perform well in terms of vintage and antique pieces as well as new pieces. McKinsey's expects a compound annual growth rate for branded fine jewelry of 8%–12% from 2019 to 2025, and an increase in market share from 18% to 25%–30%, attributing 10%–14% of this growth to the expansion of the Asian market. Big brand names such as Van Cleef & Arpels, Cartier (especially vintage) and Bulgari are enjoying continued success due to brand heritage, enduring appeal and consumer confidence. They have iconic designs and historical and cultural significance that contributes to their success at auctions and retail, e.g. the iconic design of Van Cleef & Arpels' "Mystery-Set" jewels, which brought in a total of USD 54.97 million at Christie's Magnificent Jewels sale in December 2021, the Cartier "Tutti-Frutti" Art Deco bracelet, which sold at Sotheby's New York in April 2020 for USD 1.34 million or the Elizabeth Taylor jewels, which fetched USD 116 million in 2011, reflecting all the cultural glamour of Hollywood at its highest point. Certain designs have enduring appeal such as Bulgari's "Serpenti," Van Cleef & Arpel's "Zip" necklaces and Cartier's "Panthers" – all instantly recognizable and desired. Smaller brands such as JAR jewelry have kept a firm foothold, partly due to their extreme exclusivity.

However, we are seeing the biggest squeeze at the mid-market level, with changes in part due to the pandemic. In China, since only 15% of domestic fine jewelry is branded, there is potential for either growth or decline in the face of international brands.

While branded jewelry enjoys significantly higher price points than unbranded pieces, the difference needs to be increasingly justified. Moreover, with an increase in consumer preference for branded jewelry comes increased competition to win customers who are aligning with brands that best reflect their point of view and self-image. Additionally, as travel opens up again after the pandemic, there are customers who will buy internationally branded jewelry in order to feel part of a global group, as wearing an iconic piece of Van Cleef & Arpels or Cartier jewelry instantly binds them to a social group irrespective of culture, borders or distance. What the pandemic highlighted most of all with the closure of physical retail was just how far, compared to other luxury items, fine jewelry had fallen behind with regard to investing in e-commerce and digitalization, and developing marketing to build and retain customer loyalty and interaction.

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> ## Branded jewelry continues to perform well in terms of vintage and antique pieces as well as new pieces

What we have seen this past year and will continue to see for the foreseeable future is the development of content for brands, such as legends, stories and myths about jewels, personalization and the use of social media, influencers, podcasting and digital platforms to recreate the luxury and magic of high-end

The Enigma Black Diamond; photo by Sipa USA, Alamy Stock Photo

physical retail in the online world. This includes creating personalization, whether in the form of personalized offers, bespoke items or personal touches when buying online, or the use of technology such as apps to create the "customer journey" and augmented reality to enable consumers to "try on" jewelry in virtual showrooms. Even the auction houses are jumping on the bandwagon – in 2020, we saw them wake up to the importance of increased online presence, with Christie's reporting a 143% increase in online sales and Sotheby's reporting 92% of the lots sold in 2020 were from online buyers, and both auction houses benefiting from increased global audiences and access to a younger demographic. Last year, Sotheby's went a step further with its Geneva Magnificent Jewels and Noble Jewels sale, teaming up with augmented reality platform Poplar Studio to create an Instagram filter allowing followers to virtually "try on" a historic royal tiara against a 360 degree backdrop of the Palazzina di Caccia di Stupinigi in Turin (the former royal hunting lodge for the House of Savoy to which the tiara once belonged). A third of the tiaras at auction in the past five years have been purchased by Asian buyers, with continued demand resulting in a significant increase of tiaras coming to auction.

Brands have also been using technology to build on customer confidence and therefore loyalty; for example, with the development of "T Mark" diamonds by Chow Tai Fook providing an authentication service using blockchain technology to provide their clients with digital diamond grading reports. Another technological tool that auction houses have taken to is the acceptance of cryptocurrency for purchasing, which has the added benefit of appealing to a new generation of buyers with (relatively) quickly acquired disposable income. Cryptocurrency was accepted in the recent single-lot auction of "The Enigma" by Sotheby's. The diamond was bought by crypto entrepreneur Richard Heart who renamed it "Hex.com" after his cryptocurrency company. He commented that part of its appeal was the fact that the diamond, with its 55 facets and 555.55 carats, was symbolically significant as 5,555 days is the maximum number of days a Hex stake can be locked up for. It comes back to symbolism and story for brands, and how they will shape their future in the industry. In March this year, Dior unveiled its "Montaigne" diamond, purchased directly from the Ekapa Kimberley mine. The Fancy Intense Yellow VVs2 diamond was cut to exactly 88.88 carats to symbolize the

Rafael Nadal's Richard Mille watch; photo by DPPI Media, Alamy Stock Photo

jewelry house's eight workshops on eight floors in the Eighth arrondissement of Paris, founded on 8 October, and refers to the new "En Huit" collection ("huit" meaning "eight" in French), thus tying heritage, symbolism and story neatly into one stone. Chaumet has used advanced technology to create a new cut of diamond with 88 facets and a new hexagonal shape that fits perfectly with its "Bee My Love" collection. It calls the new diamond cut the "Taille Impératrice" after its "oldest" client Napoleon Bonaparte's wife, the Empress Josephine – again a link to brand heritage, story, romance and emotion.

Iconic watches: Brand heritage, narrative, innovation and collaborations

In the watch world, the importance of brand has never been more important, with the main growth being in the luxury and ultra-luxury brands. The space for premium/mid-market watches in the industry has been squeezed by both the shift toward pre-owned watches and growth in the smartwatch market. Luxury and ultra-luxury brands are leading the way, using brand heritage, brand narrative and innovation to grow their consumer base.

Richard Mille was set up as a brand for an innovative leap focused on developing techniques borrowed from motor racing and aeronautics, and has led to some of the most impressive watchmaking technology available, securing them a place at the top of the pyramid because high-end watch buyers were directly looking at the quality of their movements. The highly recognizable design and distinctive appearance of the watches also appeal to customers, representing as one commentator put it, "a visual secret nod to belonging to the millionaire's club."

Moreover, many of the top brands have used collaborations to increase their appeal, such as Richard Mille with high-profile personalities such as Rafael Nadal, Felipe Massa and John Malkovich. In addition to collaborations, we have seen brands turn toward customization and exclusivity to grow their presence. For example, the brand Atelier Akrivia's sophisticated watchmaking and collaboration with celebrated watch casemaker Jean-Pierre Hagmann sees fewer than 30 watches produced a year and only one ever offered at auction, which sold for CHF 360,000 (roughly USD 360,000) at Christie's in 2019. Hublot is using new materials and digital technology to offer a personalization touch to its watches that appeals to consumers wanting to customize their own watch functionalities, specifically with Hublot's "Big Bang" smartwatch.

Brands in the watch world are also understanding the need to engage more directly with consumers, with the pandemic having had two direct consequences in this respect: first, more brands are moving to direct-to-consumer sales instead of multi-brand retailers, and, second, we are seeing more non-physical store client relationships and interactions. In addition, there has been a shift to turn physical spaces into experiences rather than straightforward retail spaces, as seen for example with the "AP Houses" by Audemars Piguet. The AP Houses are more like private members' clubs where clients can meet for breakfast and enjoy a private members' club atmosphere. The closure of many watchmaking houses during the pandemic has also led brands to realize that they can be more in control of volumes to create exclusivity and that they no longer need to rely on the "limited edition" tag that was used almost to excess in the previous decade.

Sustainability: A key focus of the industry

The upward trend in consumer preferences for sustainability is another driving force affecting the fine jewelry market. With the younger demographic of consumers and the generational shift, the issue of sustainability has been steadily coming to the foreground. Consumers are asking for increased transparency, traceability and responsibility toward both environmental and social issues, with the focus on social impact, environmental preservation, carbon footprints and conflict-free supply chains. DeBeers have recently launched "CarbonVault," a project that would see them potentially becoming a carbon-neutral company by using kimberlite rock to absorb CO2. The diamond industry has shifted from important yet limited safeguards such as the Kimberley Process Certification Scheme toward establishing a fully integrated supply chain from mining to cutting and polishing the stones, as seen in the Canadian mines. This ensures that even if parcels are mixed and rough stones of the same size are mixed, there is an absolute guarantee of how ethical a stone is as it has been within a contained chain the whole time. In 2020, Tiffany & Co started laser-engraving a serial number onto their diamonds that shows clients the entire journey of stones via their Diamond Craft Journey initiative. Alrosa is using sophisticated nano-marking to imprint a mark into the crystal structure of rough diamonds at source to enable their journey to be tracked and to promote both traceability and transparency within the industry.

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The upward trend in consumer preferences for sustainability is another driving force affecting the fine jewelry market

With colored gemstones, we are seeing a trend toward international buyers once again returning to local source markets and small-scale mining. On the other hand, large mining corporations now place considerable emphasis on the social benefits of their operations as well as the care they take in restoring the environment when mines are shut down, as well as the environmental impact during operations. Proceeds from mining are reinvested into the community to build schools and hospitals, and to create jobs, as seen in Botswana. One of the most harmful types of mining for the environment is gold mining and, as concerns about sustainability have gained momentum, we have seen a corresponding increase in designers and retailers moving toward the use of fairmined and fairtrade gold (e.g. Ana Khouri) or recycled gold (e.g. Monique Pean), or turning toward social issues such as Pippa Small's collection made by Syrian refugees trained in goldsmithing. It seems that consumers, especially in Europe, are willing to pay a premium for items that tick the sustainability box. Lab-grown diamonds have yet to be mentioned; however, for now they do not seem to be the greener option since they require significant amounts of energy to create and lack the socioeconomic benefits that mining companies have worked to ensure in modern-day mining. Despite the divergence of laboratory and natural diamonds, this year could see lab-grown diamonds gain more traction in the fashion category or see increased demand owing to the decrease in the supply of natural diamonds resulting from the pandemic.

We are also seeing a move toward gender equality – a move long overdue in the industry – which, for example, saw the appointment of Naseem Lahri as the first woman to become managing director of Botswana's Karowe mine in 2018, and who last year announced the recovery of a 1,174 carat diamond calling it "history in the making" (these huge rough diamonds represent another future trend toward x-ray technology, where, previously, the mechanized crushing of ore-bearing rock could potentially break large diamonds). At the end of last year, the Responsible Jewellery Council issued a report on gender equality calling for immediate and collective action on the issue of gender equality within the industry. We are also seeing brands such as De Beers learning to speak to an increasingly gender-fluid audience and erasing gender-identity lines, e.g. with its advertising campaign and appointment of Chinese pop star Cai Xukun as its brand ambassador. In watches, the need for gender fluidity has been apparent for a while now and continues to grow. While some brands are still making very feminine watches with smaller case sizes, mother-of-pearl dials, gemstones and colors, an obvious shift in consumer preferences has highlighted that women not only enjoy wearing larger dials and what has hitherto been considered more "masculine" styles, but that men also enjoy wearing gem-set watches – we are increasingly seeing unisex models being released with the lines between gender in terms of style becoming ever more fluid.

Patek Philippe Nautilus; photo by Steven Ferdman, Shutterstock

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One cannot ignore the market for pre-owned watches, which has become one of the fastest-growing sectors

The watch world has also been in tune with the growing importance of sustainability for consumers and environmental impact, such as Ulysse Nardin's use of recycled plastic to address the issue of plastic pollution in the oceans, specifically using decommissioned fishing nets to create polyamide pellets to be used in watch cases or straps, such as in the "Diver X" collection. Other brands are also increasingly looking at using new materials to create watch cases that move away from traditional gold or steel, such as titanium, TPT (thin ply technology) carbon fiber and ceramic.

Finally, one cannot ignore the market for pre-owned watches, which has become one of the fastest-growing sectors. While it is currently dominated by the digital marketplace, we are seeing brands re-aligning to gain a share of the pre-owned market, such as Richard Mille with its Ninety Mount Street boutique for pre-owned watches or Audemars Piguet offering a buy-back service. Last year, Christie's broke its own record for online watch sales three times, with totals of USD 5,592,000, USD 5,878,537 and USD 7.7 million in October, November and December, respectively. Moreover, Christie's acknowledged an increase in both the value offered online with the average price of a watch sold online increasing by over 50%, and an increase in the sell rate. There were also 11 new record prices achieved for watches in 2020, with eight of them for Patek Philippe watches.

Patek Philippe continued to be one of the most successful watches in the pre-owned market, with its brand history, successful marketing as an heirloom piece, exquisite watchmaking (each individual part of the watch is hand finished) and iconic design fueling demand. The "Nautilus 5711 Blue Dial" has earned impressive returns for owners over the past few years and, at the beginning of this year, the company confirmed that the model would be discontinued, which suggests there will be a stronger pre-owned market for this watch going forward. The exclusivity in acquiring some modern watches has also fueled the pre-owned market for watches like the Rolex sports models – meaning that many Rolex owners are opting to put a higher secondhand market value on new watches than new replacement value because the pre-owned market prices are higher due to their immediate availability.

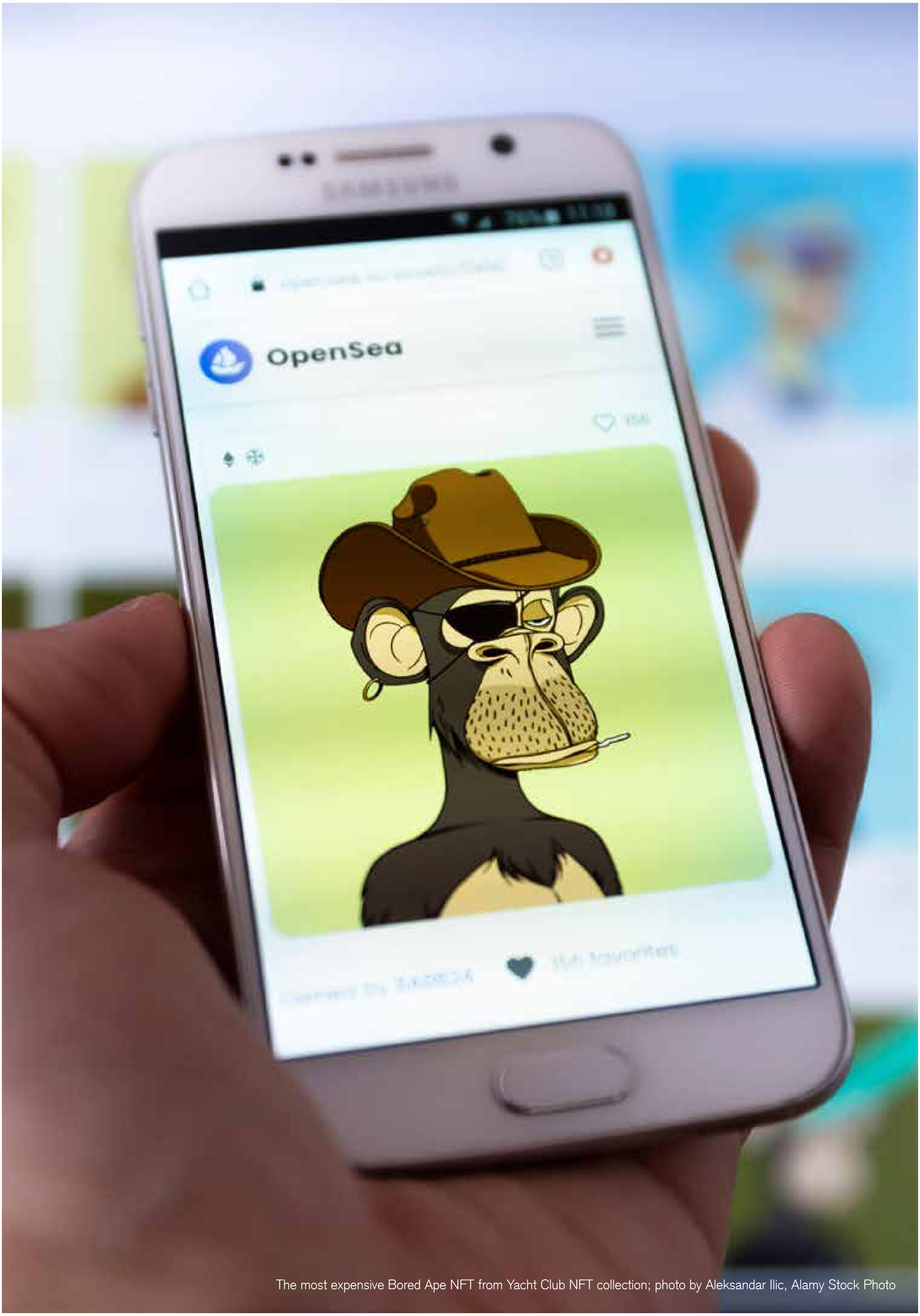
Sonia Fazlali–Zadeh is a jewelry and watches specialist at global independent art advisory and appraisal group Gurr Johns, based in Pall Mall, London, in the UK, providing strategic guidance and market intelligence for all tangible personal property.

Vintage watches can also provide a strong investment platform, but invariably one needs more information and education as to what constitutes an investment piece, as well as how to spot fakes and "assembled" watches (watches made of genuine parts, but not genuine per se). Moreover, an important factor to consider is the condition of the watch. However, an excellent condition is not as straightforward as it sounds, as originality is paramount – if the watch is in excellent condition because it has recently been polished or had any part of it restored, that would in fact make it less valuable than the same watch with original parts in a worse condition – an honest patina (the natural changing color of the dial), scratches, nicks and fading that have resulted from the age of the watch can actually enhance its desirability.

Looking after your assets

Collecting jewelry and watches is an exciting and enjoyable journey, but one that does need some upkeep in terms of looking after your assets and managing risk. Watches need special attention: automatic watches are best kept on watch winders in the safe and not just flat on a shelf, if worn they need to be serviced, but care needs to be taken with vintage watches as some parts can be replaced, polished or changed to "better the service" of the watch, but actually devalue it by losing its authenticity, patina and originality. If a watch is serviced, it needs to be resealed and pressure tested to keep its water resistance. A side note here is that "water resistant" does not mean "waterproof," so a watch that is water resistant should be worn with care and not submerged in any way in water. It is also important to assess the strap and clasp – replacing a worn strap or a loose clasp is significantly cheaper than repairing a watch that has fallen off the wrist.

Fine jewelry also needs to be checked regularly to ensure the claws holding the gemstones are secure as well as any clasps or fittings. The silk for pearls can rot or stretch and become weak, and certain gemstones need to be stored in very specific conditions in order not to deteriorate, such as opals, kunzite, quartz, pearls and emeralds to name a few. Finally, keeping your paperwork in order – whether it is the safe-keeping of certificates for watches, diamonds and gemstones, or having regular valuations – is as important as ever for protecting the value of your asset. Regular valuations of jewelry and watches will reduce your risk of being underinsured, especially where their markets have seen significant growth.



The most expensive Bored Ape NFT from Yacht Club NFT collection; photo by Aleksandar Ilic, Alamy Stock Photo

Special focus: Non-fungible tokens (NFTs)

Gauthier Zuppinger

The year 2021 witnessed the rise of a new class of collectibles – digital collectibles – more broadly known as non-fungible tokens or NFTs. This article reviews key categories among NFTs and the state of the market. After a stabilization phase in early 2022, we expect the NFT sector to continue growing in diversity and popularity, albeit with a more fundamental basis as opposed to the past year's speculative growth.

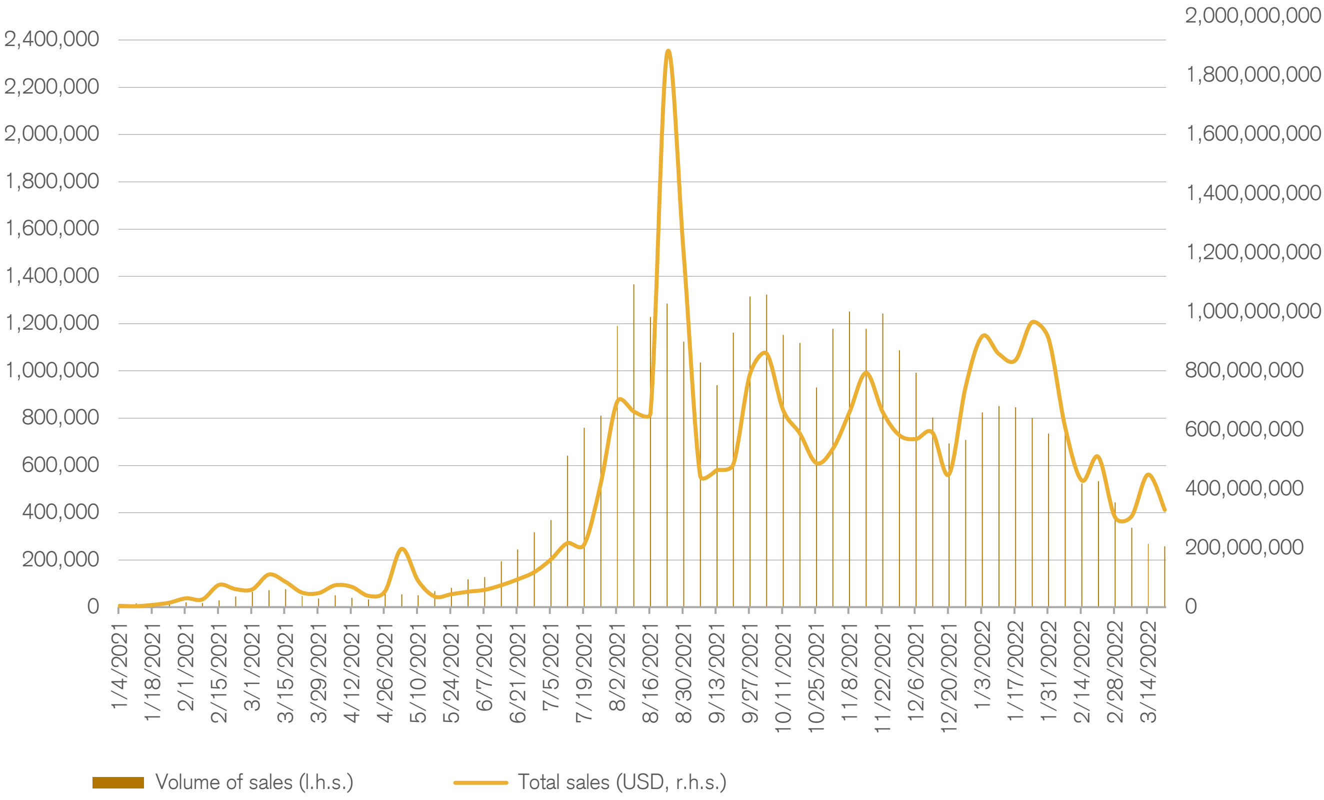
The NFT market

There are five categories of NFTs: crypto art, collectibles, gaming, metaverses and utilities. The biggest category per total outstanding volume in US dollars is the collectibles category, representing USD 8.47 billion as of end-2021 according to industry data tracker NonFungible.com. Collectibles include avatars, animals, aliens or any other type of digital items with the aim of being collected and used for video games or forming part of a community. The sports segment makes up a large part of collectibles. For example, famous football clubs tokenize their players' cards, which can be used in interactive football games.

Gaming NFTs come next with a total outstanding volume of USD 5.17 billion. Examples of NFTs used for gaming purposes are weapons or equipment for role playing games (RPGs), or unique skins for weapons or characters. Art comes in third place, with NFTs created around artistic projects. For example, the famous crypto artwork by Beeples – "Everydays: The first 5000 Days" – sold at Christie's for USD 69 million in March 2021. Metaverses and utilities are smaller markets each valued at about half a billion US dollars. Metaverses are a set of interconnected virtual worlds, where NFTs represent mainly virtual "land" in this segment, but also wearables and accessories to personalize avatars in these worlds. Utilities cover different digital useables like domain names or concert tickets or badges as well as access codes to exclusive content.

> "The biggest category per total outstanding volume in US dollars is the collectibles category, representing USD 8.47 billion as of end-2021

Figure 1: Total volume and value of NFT sales per week



Source: NonFungible.com

The most liquid of all NFTs in terms of the number of owners, wallets and number of sales is by far the gaming segment. The average price of a gaming NFT is around USD 200 according to NonFungible.com. The most expensive segments are art and metaverse tokens with average prices of around USD 3,500. The key enabling blockchains are Ethereum (about 3/4 of all NFT transactions) and Ronin (about 1/5 of all transactions) followed by Flow and Immutable X.

Sales numbers have also declined steadily since the end of the Q3 2021, reaching approximately 250,000 sales per week down from more than a million transactions per week for most of 2021. Collectibles or social media profile pictures (PFPs) were the only NFTs still on the rise, despite the relative saturation of the market in the second half of 2021 (see **Figure 1**).

Cooling off after strong growth in 2021

With a total volume of nearly USD 17 billion in the first quarter of 2022 for nearly USD 8 billion in qualified volume, the NFT market experienced a stabilization phase in early 2022 after rapid growth in 2021.

Although end-Q1 2022 volume has largely declined from the peaks of August/September 2021, it remains very high compared to Q1 2021, with average volume close to USD 600 million per week. The drop from USD 1 billion in sales at the beginning of the year to USD 300 million (see **Figure 1**) is explained in particular by a drop in speculative investors and a climate of global geopolitical uncertainty, which translated into a decline in interest in NFTs.

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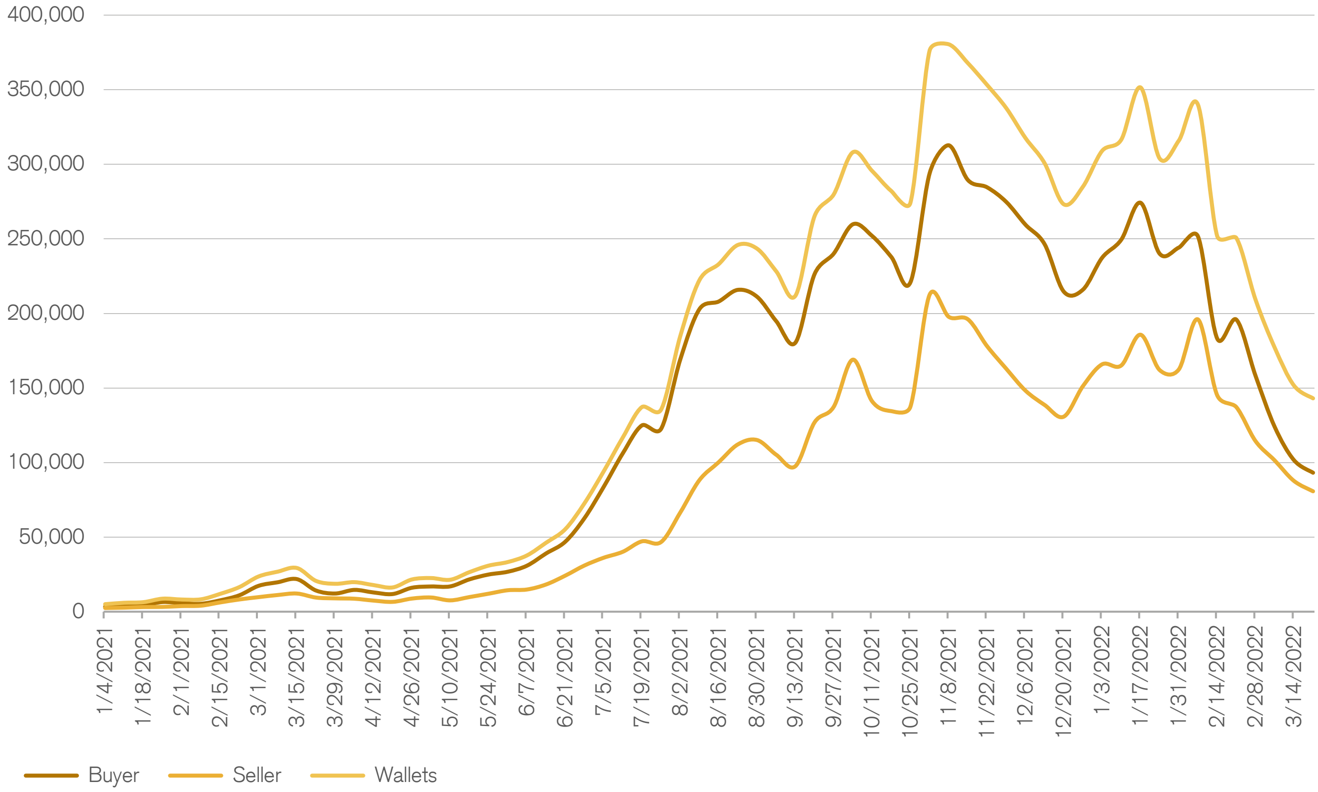
> **The NFT market experienced a stabilization phase in early 2022 after rapid growth in 2021**

Figure 2: Active wallets, buyers and sellers



Source: NonFungible.com

The Bored Ape Yacht Club in particular has become the benchmark for collectibles, with a volume of more than USD 1.2 billion traded in the first quarter. Bored Ape Yacht Club is one of the most iconic collection of NFTs. This collection of 10,000 profile pictures representing drawn apes is the flagship of the collectibles segment. Dozens of stars from around the world own a Bored Ape Yacht Club NFT and advertise it. CryptoPunks (a collection of 10,000 algorithmically generated tokenized and pixelated art images) is now third in the rankings with just USD 349 million traded.

The Axie Infinity phenomenon (Axie Infinity is a game centering around digital creature NFTs that can be purchased in the marketplace or “bred” in-game) also seems to have lost steam, following the slowdown in the play-to-earn model (where players can earn in-game cryptocurrencies by completing challenges in the game) in the second half of 2021, and more recently the historic Ronin blockchain hack where hackers stole USD 540 million from the Ronin cryptocurrency and NFT platform (the majority of which was owned by customers who won digital coins playing Axie Infinity).

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Fluctuations in the two major segments – metaverses and collectibles – are quite significant

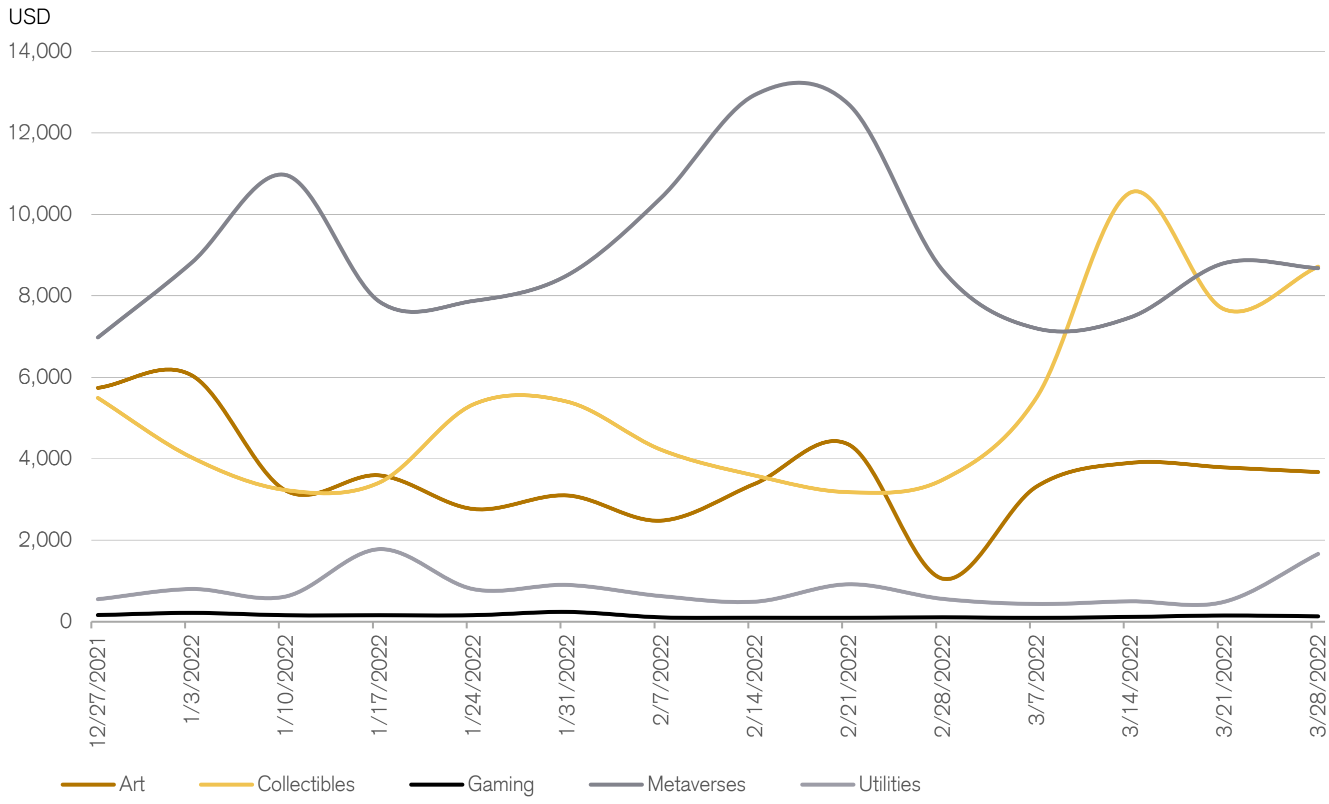
Non Fungible Token Exhibition at HOFA Gallery; photo by Chris J. Ratcliffe/Bloomberg via Getty Images

New metaverse projects are relatively small in terms of volumes traded compared to those of established projects like The Sandbox (USD 141 million) or Decentraland (USD 62 million). If we look at the average prices per segment, we observe that the fluctuations in the two major segments – metaverses and collectibles – are quite significant (see **Figure 3**). The metaverses peaked at nearly USD 13,000 in mid-February 2022 before falling back to USD 9,000 at the end of the quarter, which remains well above the average price at the start of the year at USD 6,900 on average for a metaverse plot. On the other hand, collectibles surged in a matter of weeks, going from an average price of USD 3,500 to over USD 10,500 in mid-March. This can be explained by the interest around collectibles, and specifically the new trendy collections (Azuki, Invisible Friends…) where the assets were quickly traded for over USD 10,000 each.

From the point of view of active wallets, a decline can be observed over the last few months, with a floor at 150,000 active wallets at the end of the quarter (see **Figure 2**). It should be noted, however, that this floor remains well above the number of active wallets over the same period last year (around 14,000 active wallets in Q1 2021). The number of buying wallets is still higher than the volume of selling wallets, which remains a sign of good health and growth in the industry despite the relative slowdown in the markets. However, the convergence of the buying and selling curves at the end of the quarter needs to be monitored closely going forward.

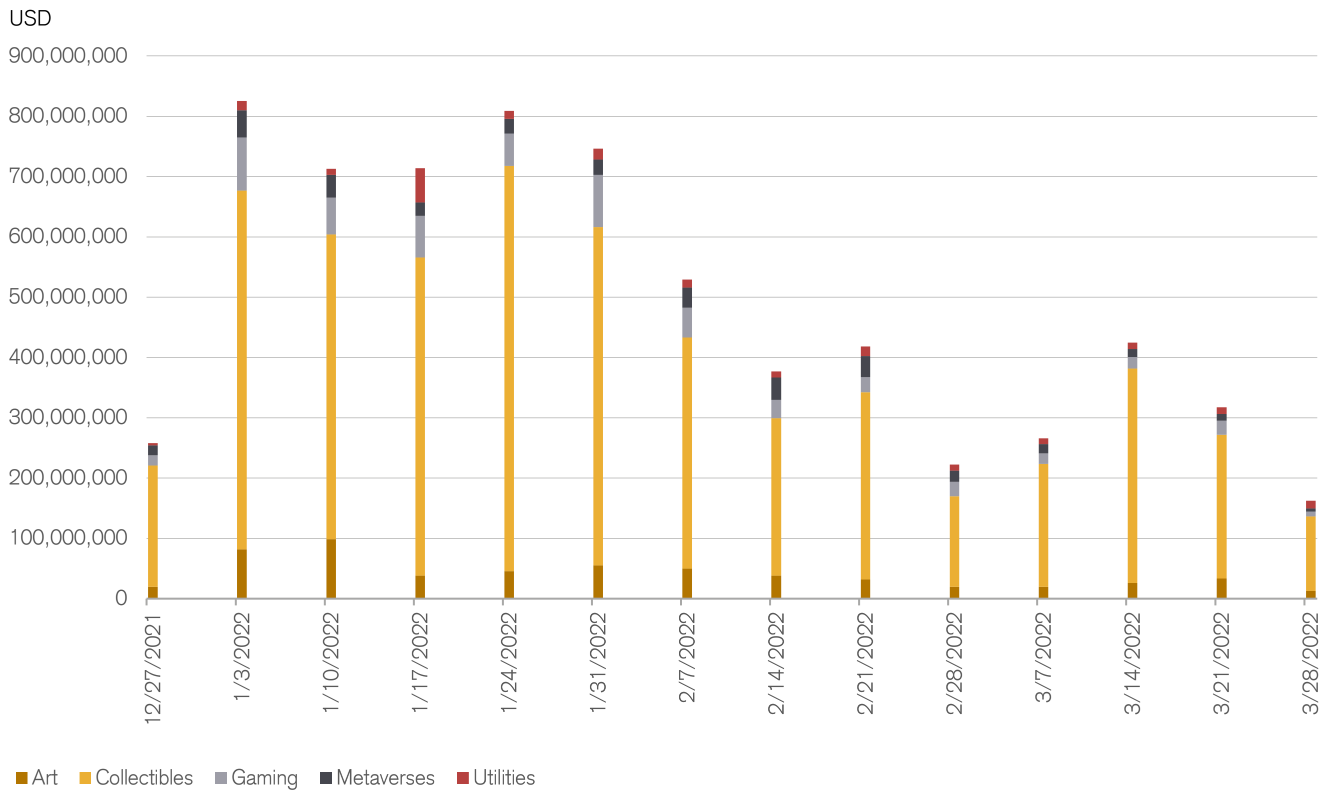
The weekly volume by segment is largely dominated by the collectibles segment (see **Figure 4**). At the end of the first quarter, collectibles represented up to 87% of NFT market activity, largely due to the rise of projects such as Bored Ape Yacht Club, Azuki, Invisible Friends, Doodles, CloneX, CyberBrokers and so on. Metaverses represented just under 5% of activity in Q1 2022, while art represented around 6% of volume. Quarterly volumes and their distribution per quarter can fluctuate significantly from one quarter to the next.

Figure 3: Average price per NFT category



Source: NonFungible.com

Figure 4: Distribution of weekly USD volume per segment



Source: NonFungible.com

Auction houses and NFTs

Traditional auction houses (Christie's, Sotheby's and Phillips) have made a remarkable entry into the crypto art market. These three auction houses now represent almost 10% of crypto art sales. Furthermore, metaverse engagement by auction houses like Sotheby's, for example, is growing considerably. Apart from digital art, Sotheby's distinguishes luxury and rare objects, as well as sport, luxury and fashion among its NFTs.

Gauthier Zuppinger is the Chief Operating Officer and co-founder of NFT market data and analysis platform NonFungible.com. Established in 2018 to initially track real-time transactions of Decentraland, the company now gathers historical NFT transaction data from all NFT markets and runs a full Ethereum node to display market metrics and decentralized asset transactions in real time for NFT investors and enthusiasts.

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Traditional auction houses (Christie's, Sotheby's and Phillips) have made a remarkable entry into the crypto art market

Outlook

Like many other collectibles, NFTs benefit from a general increase in wealth, strong investor sentiment and ample liquidity. The year 2022 started with a more challenging backdrop than 2021. The Russia-Ukraine war has unleashed a stagflationary shock for a number of economies that generally speaking translates into weaker investor sentiment. Central banks are tightening monetary policy and withdrawing liquidity. The tech sector altogether is challenged.

Investors should therefore expect a temporary consolidation in the NFT sector. Eventually, however, the trend toward metaverses and the exploration of these platforms for business and entertainment should continue to move forward with a more fundamental basis rather than the past year's speculative growth.

The generational demographic transition from baby boomers to new generations more attuned to digital assets, social media, gaming and other online activities, will likely see NFTs continue to grow.

As in traditional collectibles, where Asian demand has played catch-up with the rest of the world due to the fast pace of wealth creation in this region, we expect Asian users and collectors to shape much of coming trends in digital assets. China and India represent the bulk of the world's population and the penetration of e-commerce (especially in China) is much higher than in other regions. This may well lay the foundation for an increasing engagement and growth of metaverses by this region going forward, with Asian-oriented collectibles (including sports), games and utilities.

More difficult international relations in the wake of the current Russia-Ukraine crisis could also accelerate and enhance digital business and transactions, leading to a spread of NFTs.

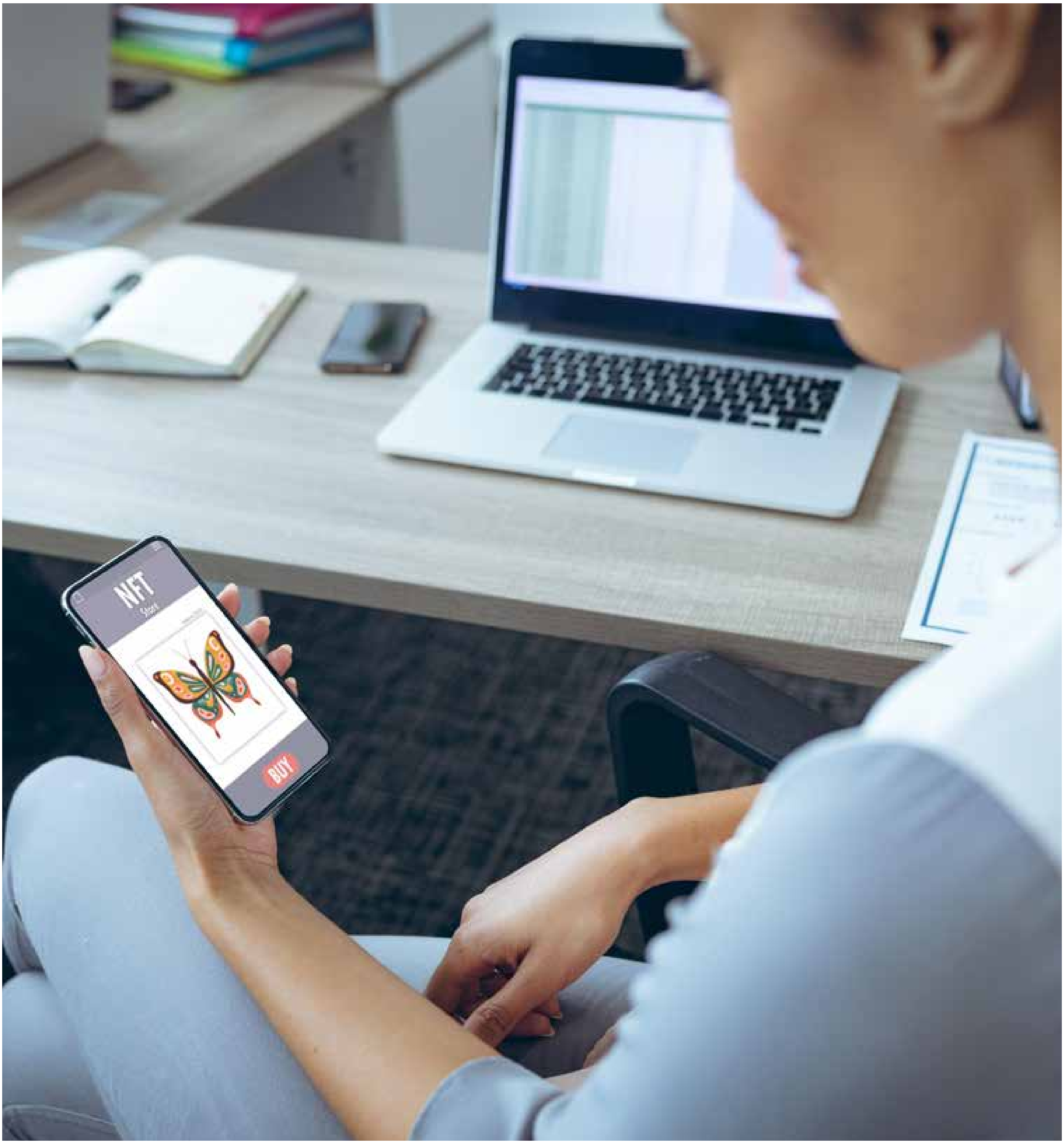

Photo by VectorFusionArt, Alamy Stock Photo

Acknowledgments

Special thanks goes to the following specialists, completing our report with their valuable expertise and insights shared:

Prof. Dr. Dirk Boll studied law and wrote his PhD thesis on distribution systems for art and the legal framework of the international art market. He joined Christie's in 1998. Following several positions in Germany, Switzerland and London, he took over the position of President Christie's EMEA (Europe & UK, Middle East & Africa) in 2017. He also lectures at the University of Hamburg on the subject of Art Management. He is a regular contributor to various daily papers and international magazines, and has published several books on the international art markets.

Mari-Claudia Jiménez joined Sotheby's in 2016 and in 2021 became Chairman, Managing Director and Worldwide Head of Business Development, Global Fine Arts. In her current role, Mari-Claudia leads Sotheby's growing client and business development activities globally, using her extensive experience in the field as a principal deal maker and driver of major estate and single-owner collections. A thought leader at the intersection of art and law, Mari-Claudia is a frequent speaker on a variety of issues affecting the art and auction market and has been featured in numerous international publications such as CNN, the New York Times, The Guardian, Forbes, and The Financial Times, among others, and in 2019 was featured in People Magazine in Español as one of the "25 Most Powerful Women of 2019" (25 Mujeres Más Poderosas del 2019).

Jamie Ritchie became Head of Sotheby's global wine business in May 2016. He joined Sotheby's in London in 1990 and was responsible for launching Sotheby's wine auctions in New York in 1994 and Hong Kong in 2009. More recently, he was responsible for launching Sotheby's Wine, a retail store and online wine business, becoming the only major global auctioneer offering fine wines at retail. He is one of the world's leading wine auctioneers and has presided over many record-breaking auctions, including The Cellar of William I Koch. Sotheby's Wine's annual worldwide sales in 2019 significantly exceeded USD 100 million for the second consecutive year, led by a 20% increase in auction sales to a total of USD 118 million – the highest-ever annual total in Sotheby's history.

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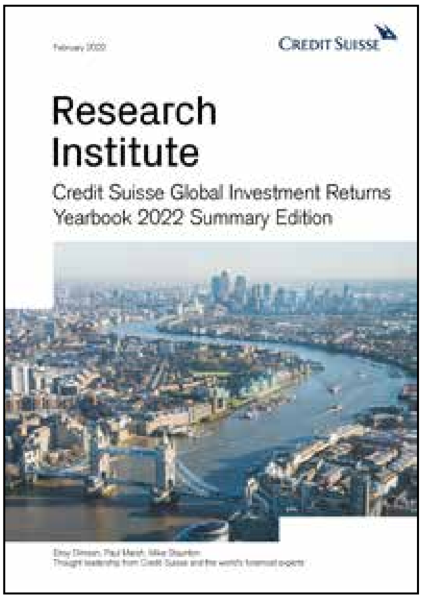

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