



THE SPORTS COLLECTIBLES MARKET **4Q & 2022**

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EXECUTIVE SUMMARY

VOLUME SOLID BUT FADING

For the first time this year, **six-figure sales fell year-over-year, with a 17% drop in Q4**. For much of the year, high-end volume held up amidst market declines, with 2022 six-figure sales actually growing 7%, but that growth tapered as the year went on.

SEVEN-FIGURE ACTIVITY SHINES BRIGHTEST

There was a **20% y/y increase in seven-figure sales** in Q4. The **2022 total was also up 11% over 2021**, confirming anecdotal conjecture that the highest-end of the market was demonstrating the most resilience in volume. The top 50 sales at each auction house grew 9% in aggregate in 2022.

BROAD PAIN ACROSS SPORTS

Outside of vintage-heavy sports like baseball and hockey, there was **nowhere to hide in 2022**. From modern collecting favorites in football and basketball to emerging collecting grounds like F1 and soccer, **drawdowns of 20-40% were common**.

HOT GAME-WORN 2022 COOLS IN 2ND HALF

The top 25 game-worn sales of Q4 were up 29% over Q4 2021, but down 36% from Q3. The **top 25 sales of 2022 were up 121% over 2021**, with the vast majority of that delta coming from the top 5 sales, which took to heights commonly associated with fine art.

VINTAGE LEADS IN 2022, FALTERS IN 4Q

Vintage and Pre-War cards led the way throughout 2022, but **ran out of gas in Q4, with the categories down 11% and 9% respectively**. That was still meaningful outperformance versus modern eras, which lagged dramatically for the quarter and for 2022.

FRACTIONAL MARKETS GRIND LOWER STILL

Fractional issuance effectively halted in the second half of 2022, and fractional **sports cards and sports memorabilia finished the year down 35.9% and 26.7% respectively**.

ECONOMIC BACKGROUND

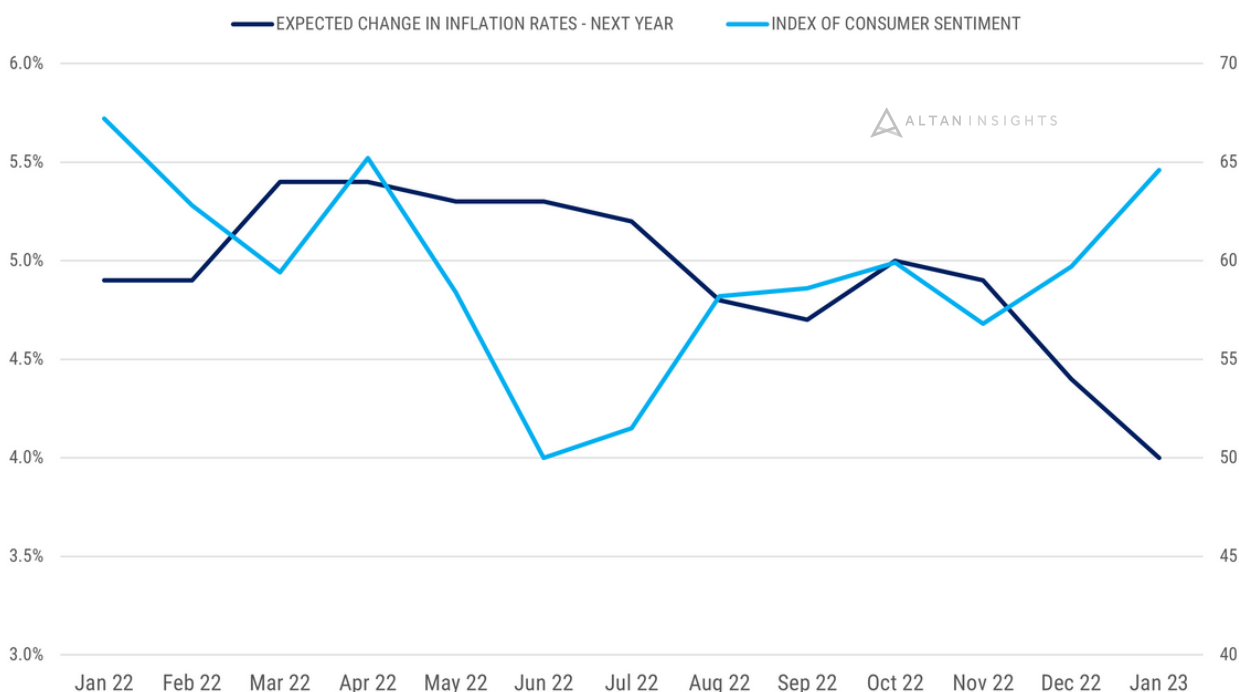
Economic circumstances have improved ever so slightly relative to our reports earlier in the year. There is subtle, growing financial market and consumer confidence that inflation could be subdued in the years to come, with economic data proving more encouraging than not for the moment. However, the Fed has largely refused to acknowledge a potential turnaround, as that acknowledgement could stimulate a market rally and further inflationary conditions. That being the case, monetary policy remains tight and the Fed is intent on it growing tighter, though rate-hiking is set to slow.

Hawkish monetary policy continues to foster consternation around the state of the economy in the year(s) to come. While economic data has remained mostly encouraging, the concern is the persistence of a good news-bad news cycle in which those data points encourage the Fed to remain heavy-handed. The possibility that hawkishness could overstay its economic welcome becomes cause for concern.

What does that set of circumstances mean for the sports collectibles market?

UNIVERSITY OF MICHIGAN SURVEY OF CONSUMERS

Expected Change in Inflation Rates (LHS) VS. Index of Consumer Sentiment (RHS)



ECONOMIC BACKGROUND

Collectible markets of most kinds are in a holding pattern of sorts as the economic situation remains in flux. That holding pattern has seen dollars steadily exit the space over time, as demand is not presently growing, and pure collectors only have so much dry powder to allocate. The first 9 months of 2022 saw an exit of the very most speculative dollars, but as the holding pattern persists, nearly all pockets of the market are feeling the crunch.

While portions of the sports collectibles market (vintage and pre-war assets, for example) had demonstrated a lower correlation to equity markets and other risk assets earlier in 2022, their resilience has waned in the year's latter stages. Those pockets had a longer leash to sustain activity, but slack has largely been absorbed, creating vulnerability.

As we'll additionally discuss, the volume of supply coming to market has not dried up, though there are signs of a slowdown. Auction houses continue to offer significant volume, and the unwavering availability of most cards inspires little urgency for buyers in this environment. It's also noteworthy that supporting the parade of supply to market are sellers that remain willing and eager to divest their assets even in the midst of these unfavorable conditions. Absent a change in those dynamics - unlikely in the short-term as auction houses remain committed to facilitating low friction, high velocity commerce - an improvement to the current supply and demand imbalance seems improbable.

Though data suggests we're potentially turning the corner on inflation in a relatively healthy manner *so far*, the holding pattern may persist until the Fed is prepared to publicly declare victory. The hope is that there's comfort in doing so before economic health has been further sacrificed.

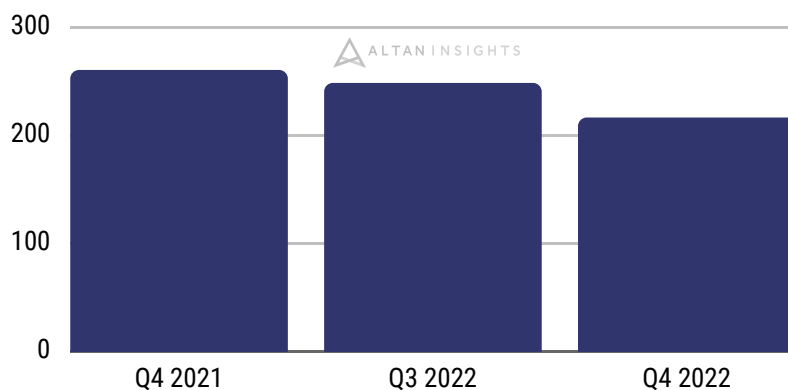
Absent a marked shift in the Fed's tone and course of action, one that results more from a definitive victory over inflation than from economic peril, the path to a swift, short-term reversal in trend is challenging to envision. Furthermore, the Fed's extraordinarily delicate balancing act could be complicated by exogenous factors, namely the debt ceiling and geopolitical risk. The situation is precarious enough on its own, leaving the economy and financial markets unusually vulnerable to those types of shocks. In the past, perhaps that vulnerability wouldn't carry over into collectible markets, but elevated short term correlations across asset classes of various profiles present reason for concern.

AUCTION PERFORMANCE

For much of 2022, despite markets in decline, auction house volume remained resilient, even offering fairly consistent year-over-year growth. The fourth quarter was the first to see market weakness catch up to volumes in earnest, at least relative to the prior year. The volume of six-figure sales fell 17% year-over-year, and there was a 13% quarter-over-quarter drop as well (following up on a 3Q that saw six-figure sales fall 30% Q/Q).

SIX-FIGURE SALES

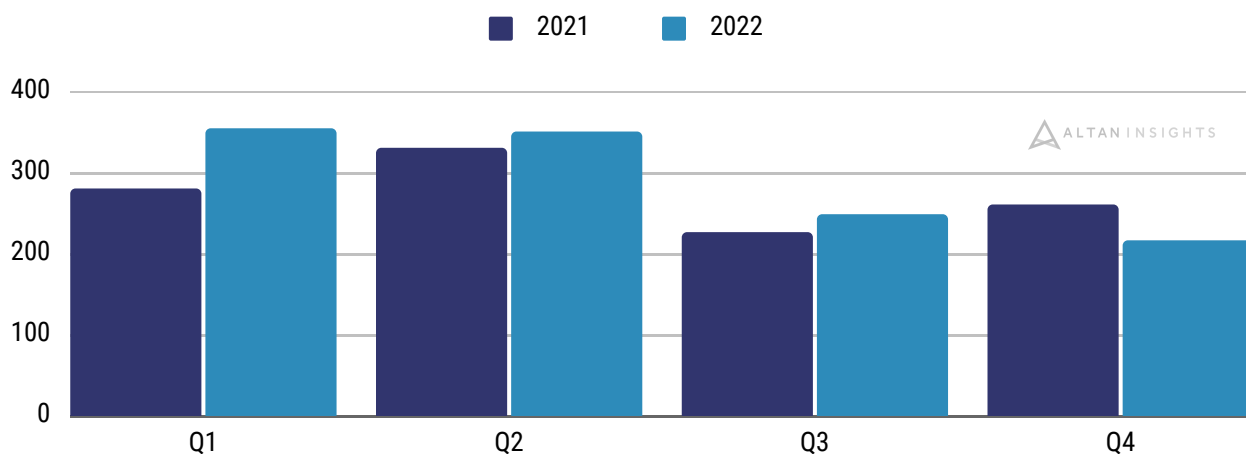
By quarter



For the full year, six-figure sales tracked across houses still grew 6.6%, but the advantage was very heavily weighted towards the front half of the year. After 1Q, which was also the high point for year-over-year growth, each quarter saw quarter-over-quarter declines.

SIX-FIGURE SALES

2021 vs. 2022

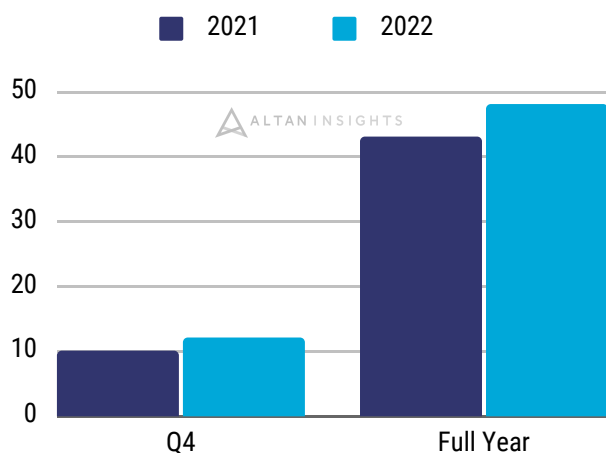


AUCTION PERFORMANCE

Ultra high-end activity remained relatively robust. The fourth quarter saw 12 seven-figure sales, bringing the 2022 total to 48. The 4Q number was up 20% over the same quarter in 2021, while the 2022 total was up 12% over 2021. The stronger performance of seven-figure sales in 2022 relative to six-figure sales matches anecdotal conjecture that the highest-end of the market offered greater resilience (at least in terms of volume) than tiers below. Again, the advantage was accrued mostly in the first half of the year.

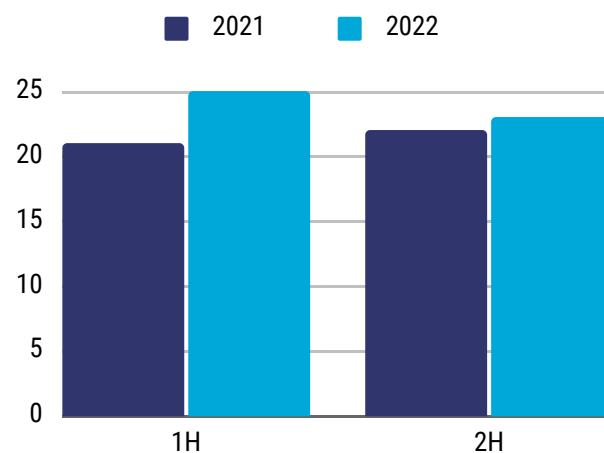
SEVEN-FIGURE SALES

By Quarter



SEVEN-FIGURE SALES

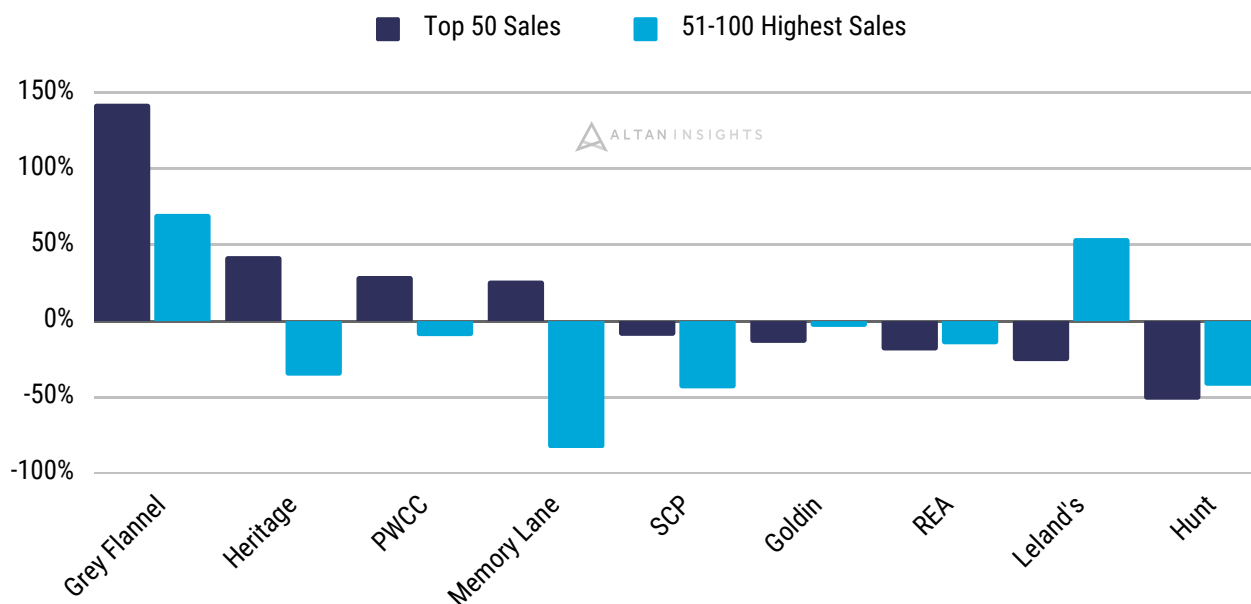
2021 vs. 2022 by half



AUCTION PERFORMANCE

Further confirmation is offered by the top results at auction houses this quarter. In aggregate, those houses that held events in both the fourth quarter of this year and the fourth quarter of last year saw Y/Y changes in their top 50 sales ranging from -51% to +142%. However, in aggregate (summing those top 50 totals), volume was up a modest 4.4% over 4Q21.

Q4 Y/Y CHANGE Top 50 and 51-100 lots



Note: Hunt figures include only Live Auction sales for which data is publicly available, not Internet/Phone Auctions.

When you move down a tier, though, to the 51-100th largest sales at each house, the results change dramatically. In aggregate, those volumes were down 19% year-over-year. This figure removes large outlier sales from the equation altogether. While interest in auctions' very best lots remained steadfast, demand quickly dwindles further down the page.

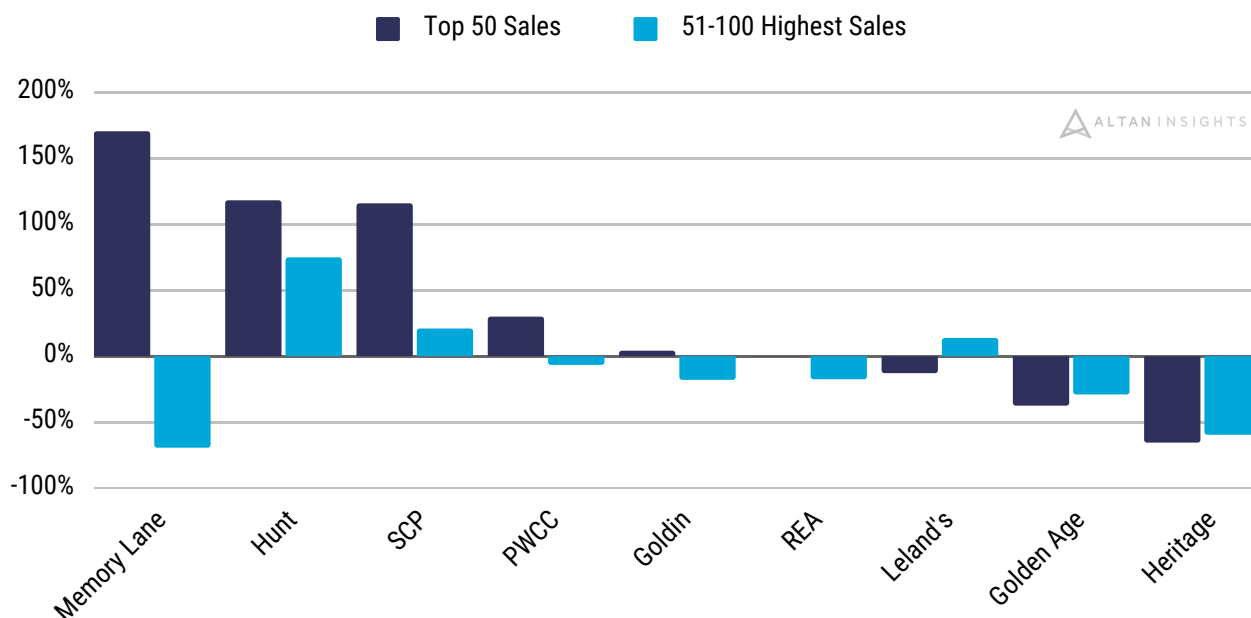
AUCTION PERFORMANCE

The surprising and stark contrast between robust activity and values in rapid decline faded in Q4. Breadth of high-end offerings may have helped to inspire demand and sustain volumes through much of the year, but it seems that fatigue has more broadly taken hold in its final stages, with all but the very best items floundering.

Quarter-over-quarter, the top 50 sales were down 9% in aggregate and the top 51-100 sales were down nearly 24%. These figures provide further confirmation of the schism between the ultra high-end and everything else.

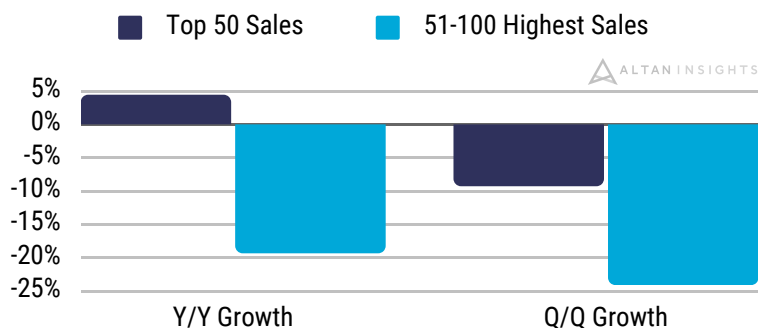
Q4 Q/Q CHANGE

Top 50 and 51-100 lots



AGGREGATE Q4 Y/Y & Q/Q CHANGE

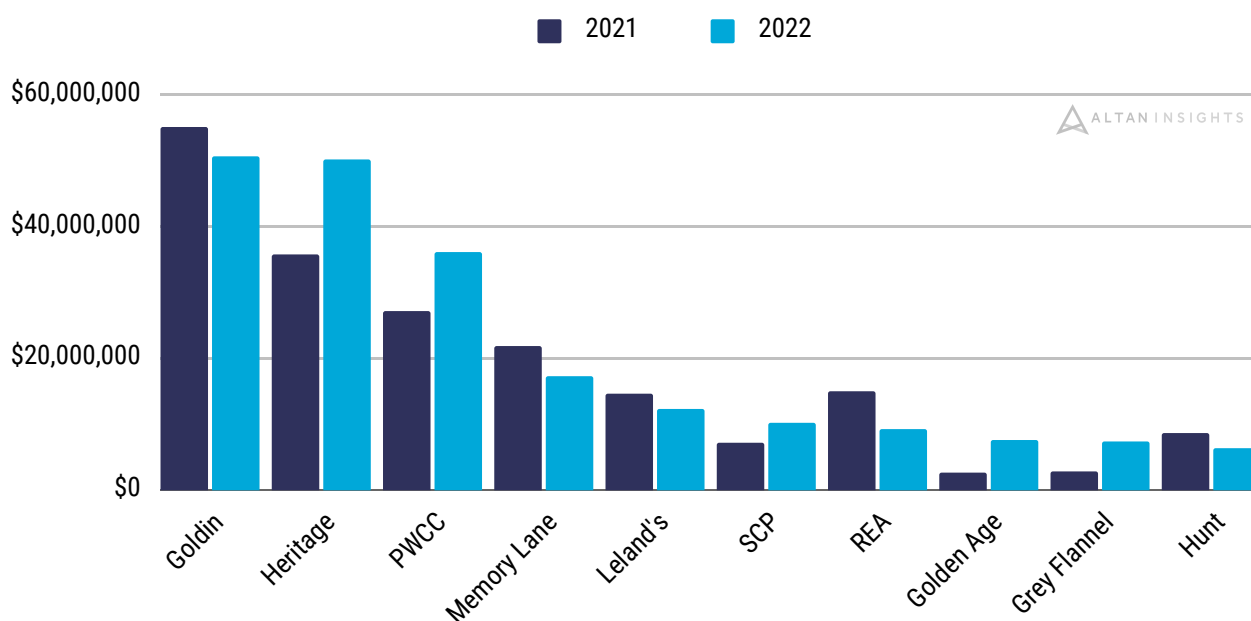
Top 50 and 51-100 Lots



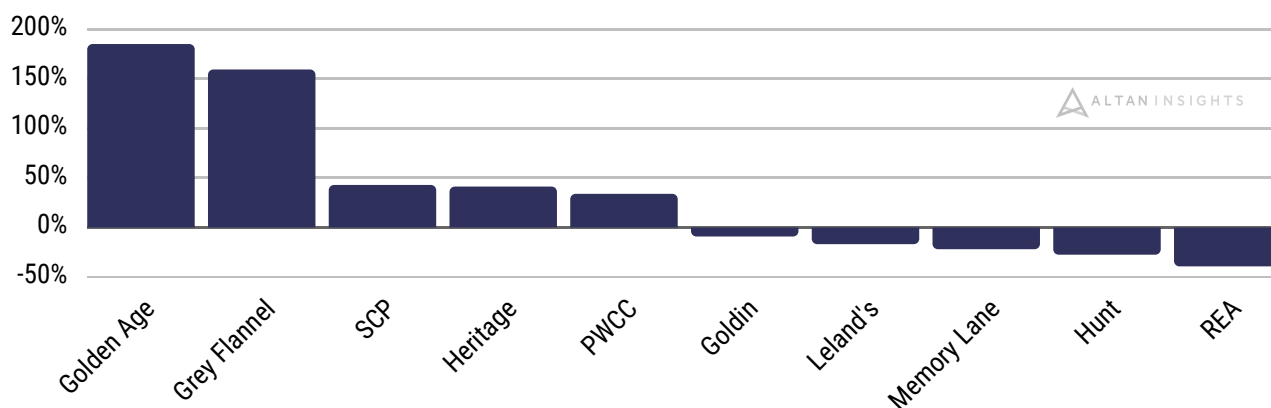
AUCTION PERFORMANCE

If you were to look at each house's top 50 sales over the full year of 2022 and the full year of 2021, in aggregate, 2022 was up 9% over the prior year. The average increase was 35%, as some smaller houses had massive year-over-year gains, while Heritage and PWCC also delivered significantly greater high-end volume than in 2021. Again, the annual strength in volume is interesting given the weakness in values, but it seems the continued presentation of differentiated, ultra high-end supply, especially earlier in the year, held demand captive while auction retreads faltered.

TOP 50 SALES 2021 vs 2022



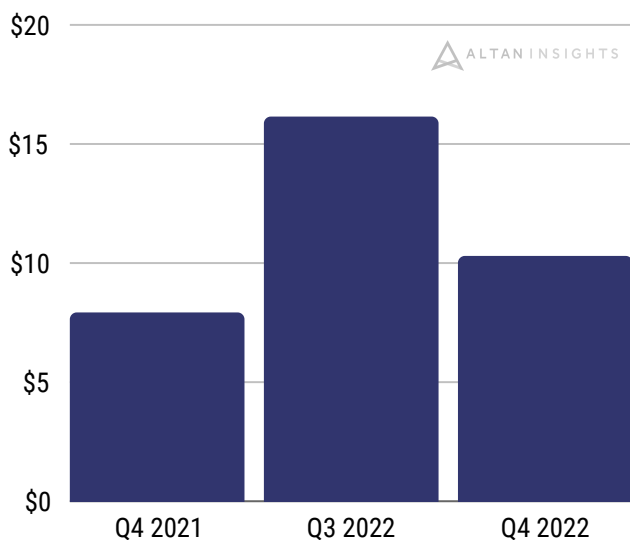
Y/Y GROWTH Top 50 Sales



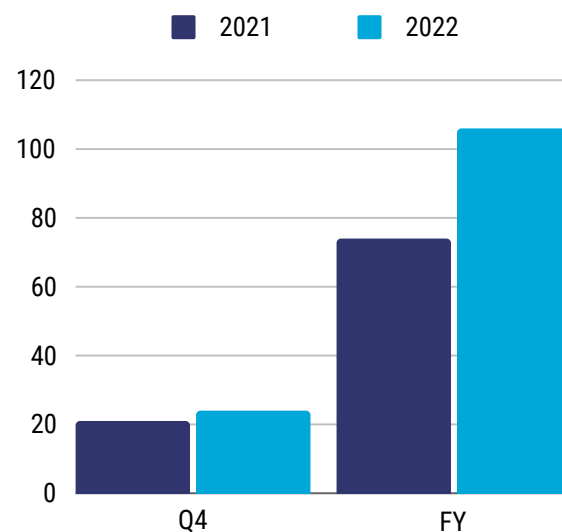
AUCTION PERFORMANCE

Game-worn and game-used memorabilia remained active categories in Q4. The top 25 sales of the quarter were up 29% over the fourth quarter of 2021. Notably though, that total was down 36% from Q3 without a \$10 million Jordan jersey to bolster the tally. The fourth quarter was really without any marquee sale, at least in relative terms: no game-worn/used sale crossed \$2 million in 4Q. Most of that is the result of the supply available, but there were a few candidates, so demand plays a role as well.

TOP 25 GAME-WORN/GAME-USED SALES (\$MM)



SIX-FIGURE GAME-WORN/GAME-USED SALES 2021 VS. 2022

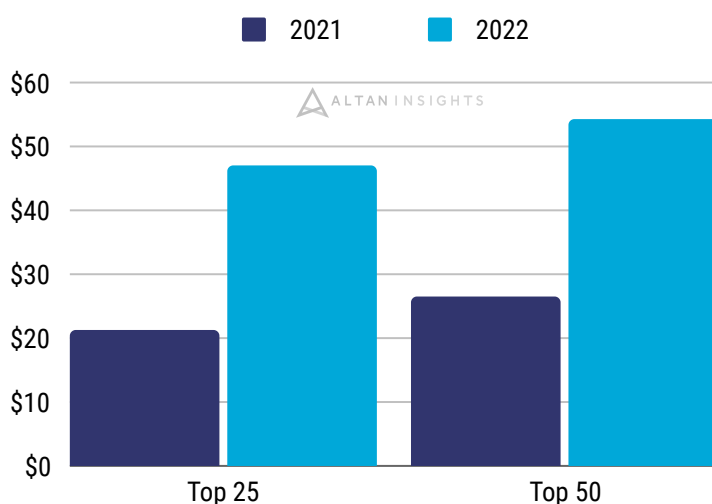


Q4 six-figure game-worn/used sales were up 14% year-over-year and 41% over a less busy but exceedingly top heavy Q3. Overall, for the full year of 2022, six-figure sales in the category climbed 43% over 2021. As is becoming a familiar refrain, most of that advantage was built in the first half.

AUCTION PERFORMANCE

The difference in the top 25 sales of the year was even more significant. In 2022, the top 25 sales in the category totaled just over \$47 million, an increase of 121% over 2021's \$21 million tally. The floor prices of those lists in 2022 and 2021 were \$450k and \$303k respectively.

TOP GAME-WORN/USED SALES BY YEAR (\$M)



\$20 million of the \$26 million delta between 2021 and 2022 comes in just the top 5 sales. 2022 featured three absolutely massive results: the Jordan 1998 Finals Game 1 jersey, the Maradona "Hand of God" jersey, and the "Tiger Slam" irons. Those are generationally important items, sales of which will be difficult to replicate in the years ahead.

Point being: it will take truly special items of incredible caliber to sustain overall growth and likely to stimulate interest at lower tiers. The latter point is particularly important, as available supply of a lower caliber continues to grow and collectors become more discerning.

2023 will start with sales of high caliber LeBron James and Kobe Bryant sales at Sotheby's, which are expected to fetch mid-seven-figure sums.

AUCTION COMPOSITION

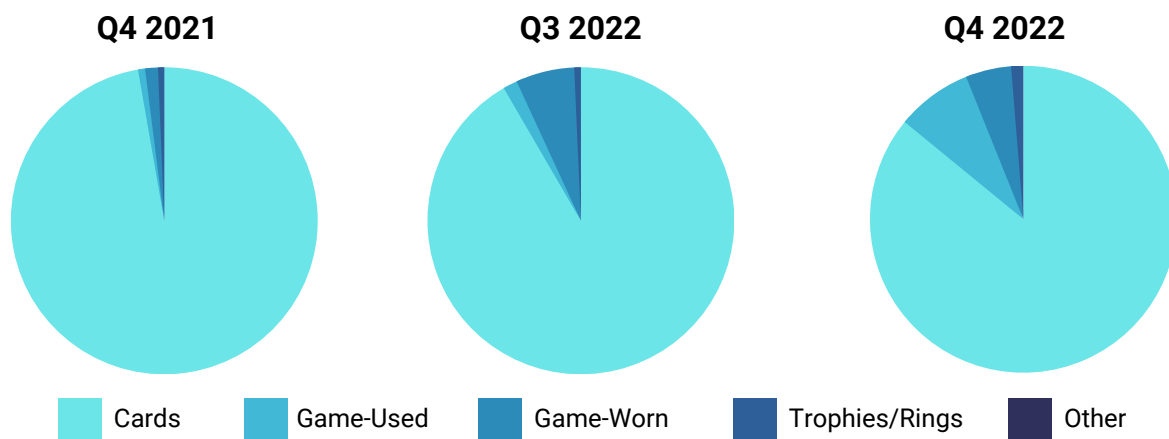
At Goldin, the year long trend continued as cards comprised a significantly lower percentage of the top 100 sales in the fourth quarter than they did in the same quarter a year ago. There was also a healthy uptick in game-worn and game-used items relative to Q3.

Overall shifts at Heritage were extremely tame both year-over-year and quarter-over-quarter. There was, however, a shift from game-worn items a year ago to game-used items this year, primarily due to a \$1.62 million Ty Cobb bat sale, which was the house's most expensive sale in 4Q.

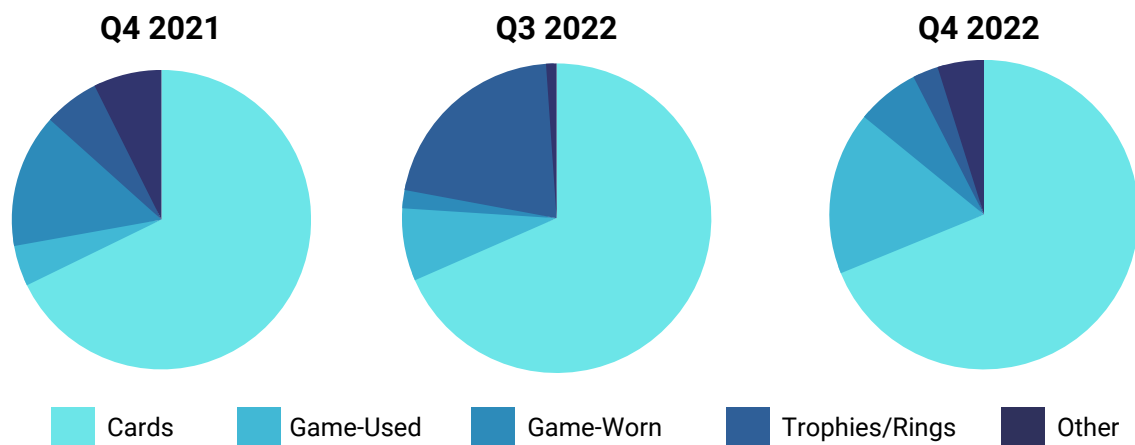
TOP 100 SALES

By category (\$)

GOLDIN



HERITAGE



AUCTION COMPOSITION

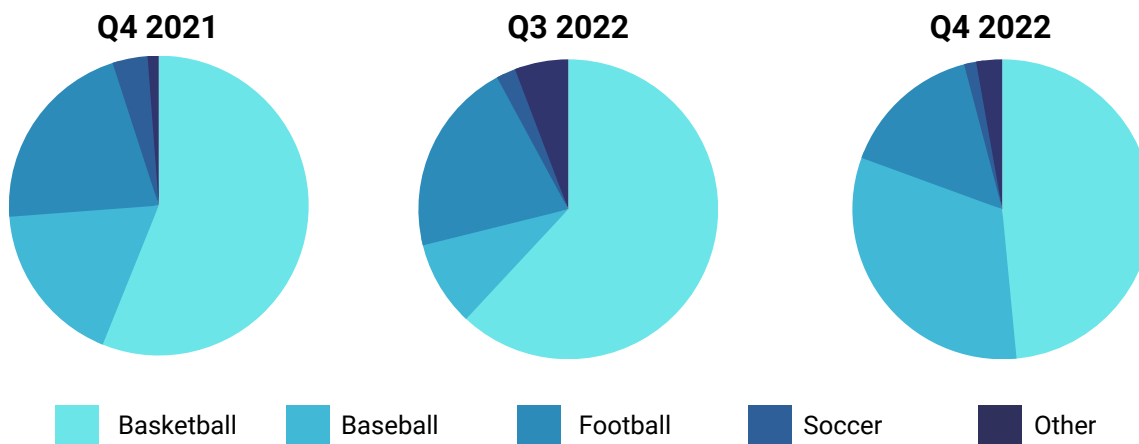
Composition by sport mostly conformed to seasonal norms. Heritage and PWCC saw very little year-over-year movement. Goldin, on the other hand, saw baseball play a significantly larger role in the top 100 at the expense of both basketball and football. That's less a structural shift and more the result of two major sales: a T206 Honus Wagner and the Aaron Judge Record Home Run Ball.

It's also notable that as the World Cup was unfolding, both PWCC and Goldin saw Soccer make up a significantly lesser portion of their top 100 sales. The tournament was ultimately a catalyst prematurely priced in that fizzled with the market when the event came to pass. However, we'd expect Lionel Messi to feature prominently in sales in the coming months.

TOP 100 SALES

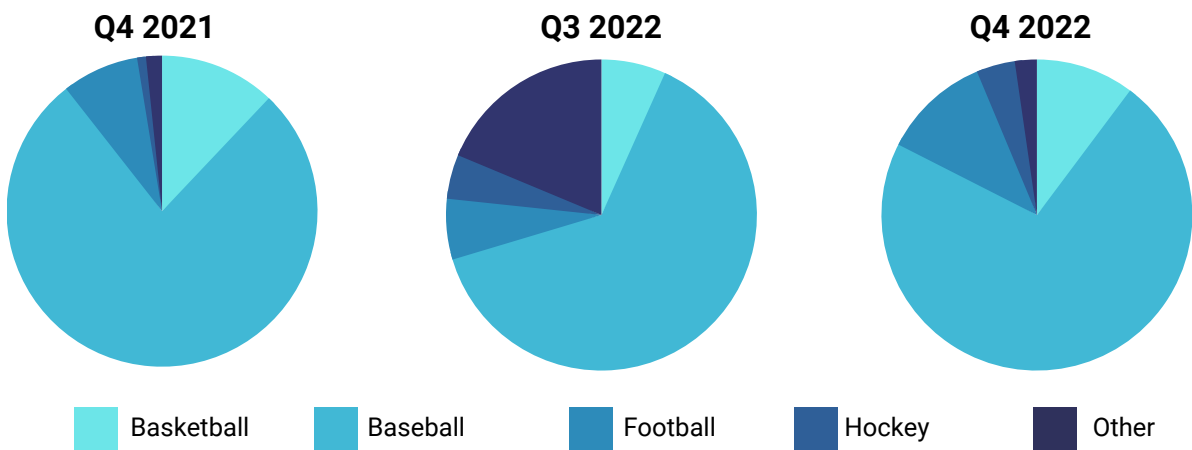
By sport (\$)

GOLDIN

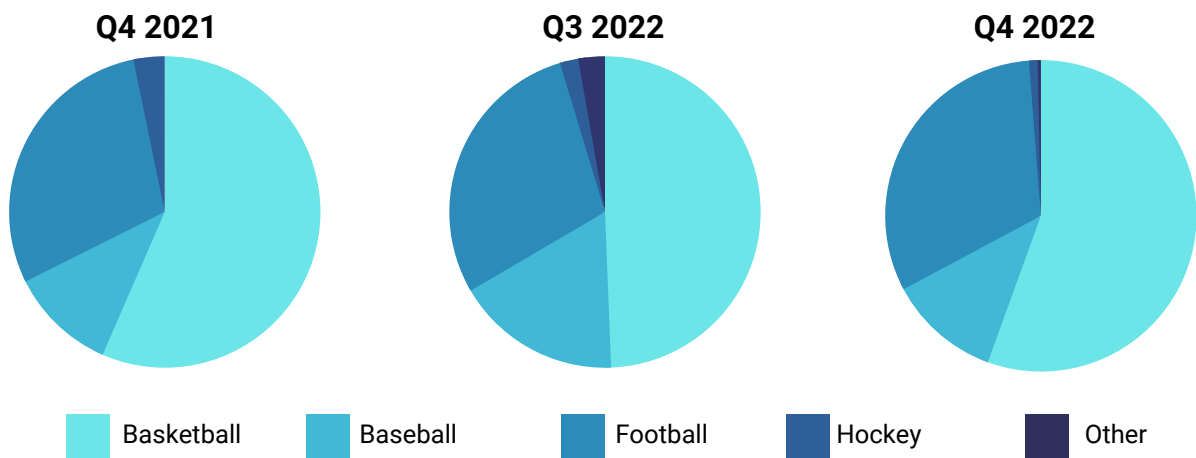


AUCTION COMPOSITION

HERITAGE



PWCC



MARKET PERFORMANCE

If the third quarter represented a market walking a tightrope between stability and more pain, the fourth quarter saw the market plunge definitively towards the “more pain” side of the equation. There were no major records or headline sales to paper over a market on unsteady ground and lift sentiment. With few areas of the market offering refuge, Q4 was a moment of broad and deep decline, where the buying pool shrunk considerably across categories.

The high-end of the market, an outperformer in 2022, surrendered ground to end the year, playing catch-up in performing worse than lower-end segments of the market. Unquestionably, the low-end of the market performed worst for the year, but refuge by dollar value grew more limited as 2022 went on. With grail cards formerly accepted as seven-figure stalwarts finding ever lower levels, the definition of blue-chip is being reconsidered entirely.

INDEX	Q4 PERFORMANCE	2022 PERFORMANCE
 ALTAN INSIGHTS FRACTIONAL SPORTS CARDS	-7.5%	-26.9%
 CL50	-20.2%	-21.4%
 HIGH-END	-22.1%	-22.7%
 LOW-END	-18.7%	-36.0%

MARKET PERFORMANCE

For much of the year, Vintage and Pre-War cards were 2022's silver lining. While their annual performance, particularly in the case of Pre-War, still impresses, the eras finally ran out of steam and immunity in Q4. Still, neither was down nearly as much as the Modern and Ultra-Modern eras. Those categories were of course host to the rampant speculation of younger generations and risk-seeking buyers, and over the course of 2022, many high-end, ever available cards in those eras have reverted back to early 2020 levels.

INDEX	Q4 PERFORMANCE	2022 PERFORMANCE
 PRE-WAR (Pre 1945)	-8.5%	+29.9%
 VINTAGE (1946-1983)	-11.2%	-4.8%
 MODERN (1984-2008)	-27.1%	-32.2%
 ULTRA-MODERN (2009 - Present)	-24.3%	-34.2%

MARKET PERFORMANCE

Performance by sport similarly reflects the dichotomy between eras. Modern and ultra-modern heavy sports like football, basketball, soccer, and racing experienced relatively similar pain, both in Q4 and in 2022. On the flip side, baseball held up well for the year though Q4 was a weaker quarter. Hockey features a strong vintage mix with the likes of Gretzky and Howe, but it also didn't boom nearly as hard as other sports in 2020 and 2021, which insulated it from some of the pain experienced elsewhere in 2022.

	Q4 	Q4 	2022 
BASEBALL	-9.5%	-6.6%	0.1%
BASKETBALL	-25.3%	-14.1%	-34.0%
FOOTBALL	-30.4%	-17.1%	-31.0%
SOCCER	-23.6%	-18.5%	-39.5%
HOCKEY	-4.2%	-5.0%	5.3%
GOLF	-38.2%	N/A	-24.6%
RACING	-27.8%	N/A	-36.6%

*Last 90 days as of 1/1/23

MARKET PERFORMANCE

INDEX	Q4 PERFORMANCE	2022 PERFORMANCE
 ALTAN INSIGHTS FRACTIONAL SPORTS CARDS	-10.7%	-35.9%
 ALTAN INSIGHTS FRACTIONAL SPORTS MEMORABILIA	-6.7%	-26.7%

We'll provide more in-depth analysis of the fractional space later on, but overall, fractional sports cards performed in-line with the market, particularly given a heavy tilt to modern. Meanwhile, sports memorabilia outperformed cards in 2022 and in Q4. While memorabilia headlines, particularly in early-to-mid 2022, certainly helped, it's also important to note that the category started the year from a vastly lower base after failing to take hold with fractional investors in 2021.

RECORD SETTERS

TY COBB MEMORABILIA *All-Time*



HERITAGE
AUCTIONS

1910-14 Game Used Bat

\$1,620,000

WILLIE MAYS JERSEY *All-Time*

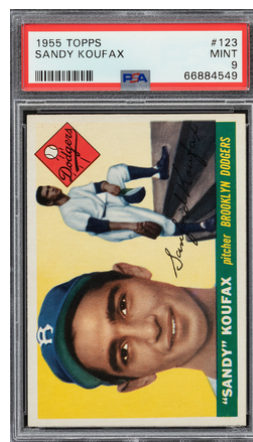


HERITAGE
AUCTIONS

1966 Game Worn Jersey

\$456,000

SANDY KOUFAX CARD *All-Time*



HERITAGE
AUCTIONS

1955 Topps (PSA 9)

\$396,000

CADE CUNNINGHAM CARD *All-Time*



goldin

2021-22 NT Logoman

\$204,000

LAMAR JACKSON CARD *All-Time*



goldin

2018 Panini NFL Shield

\$186,000

GOLF BALL *All-Time*



HERITAGE
AUCTIONS

1996 Tiger Woods Hole-in-One

\$186,000

THE TOP SALES OF 2022

#1

Date: 8/27/22



HERITAGE
AUCTIONS

1952 Topps Mickey Mantle Card

\$12,600,000

#2

Date: 9/15/22



Sotheby's

Michael Jordan Last Dance Jersey

\$10,091,000

#3

Date: 5/4/22



Sotheby's

Diego Maradona World Cup Jersey

\$9,280,000*

#4

Date: 8/4/22



goldin

T-206 Honus Wagner

\$7,250,000

#5

Date: 7/23/22



HERITAGE
AUCTIONS

Muhammad Ali WBC Belt

\$6,180,000

#6

Date: 4/9/22



goldenage

Tiger Woods 'Tiger Slam' Irons

\$5,156,162

MARKET BELLWETHERS

Last Sale of 3Q22

\$174,000

9/24/22



Last Sale of 4Q22

\$168,000

12/15/22

\$51,600

9/24/22



\$31,750

12/24/22

\$222,000

7/16/22



\$168,000

12/15/22

MARKET BELLWETHERS

Last Sale of 3Q22

\$147,466

8/6/22



Last Sale of 4Q22

\$89,769

12/4/22

\$20,400

8/18/22



\$34,800

12/15/22

\$11,700

9/25/22



\$10,202

12/20/22

Note: highest possible grade is chosen that had sales in both the prior and current quarter.

Photo credit (top to bottom): Goldin, PWCC, PWCC

MARKET BELLWETHERS

Last Sale of 3Q22

\$63,000

9/22/22



Last Sale of 4Q22

\$48,300

11/17/22



\$82,800

8/6/22

\$44,400

11/17/22



\$23,386

9/10/22

\$18,600

12/4/22

Note: highest possible grade is chosen that had sales in both the prior and current quarter.

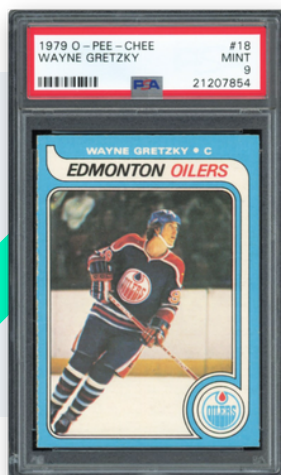
Photo credit (top to bottom): Goldin, Goldin, PWCC

MARKET BELLWETHERS

Last Sale of 3Q22

\$132,000

9/30/22



Last Sale of 4Q22

\$144,000

12/15/22

\$6,000

9/14/22

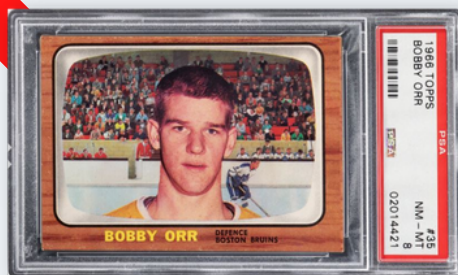


\$5,493

12/7/22

\$52,800

9/22/22



\$31,200

11/17/22

Note: highest possible grade is chosen that had sales in both the prior and current quarter.

Photo credit (top to bottom): Memory Lane, Heritage, Heritage

MARKET BELLWETHERS

Last Sale of 3Q22

\$27,000

7/21/22

Last Sale of 4Q22

\$20,100

12/28/22



\$19,200

8/18/22

\$22,800

12/4/22



\$13,100

8/8/22

\$7,200

12/4/22



Note: highest possible grade is chosen that had sales in both the prior and current quarter.

Photo credit (top to bottom): PWCC, Goldin, Goldin

MARKET BELLWETHERS

Last Sale of 3Q22

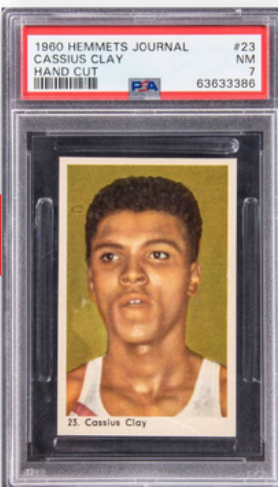
\$6,300

8/28/22

Last Sale of 4Q22

\$3,301

12/22/22



\$38,400

9/22/22

\$25,800

12/18/22

\$24,600

8/28/22

\$10,200

11/26/22

Note: highest possible grade is chosen that had sales in both the prior and current quarter.

Photo credit (top to bottom): Heritage, PWCC, Goldin

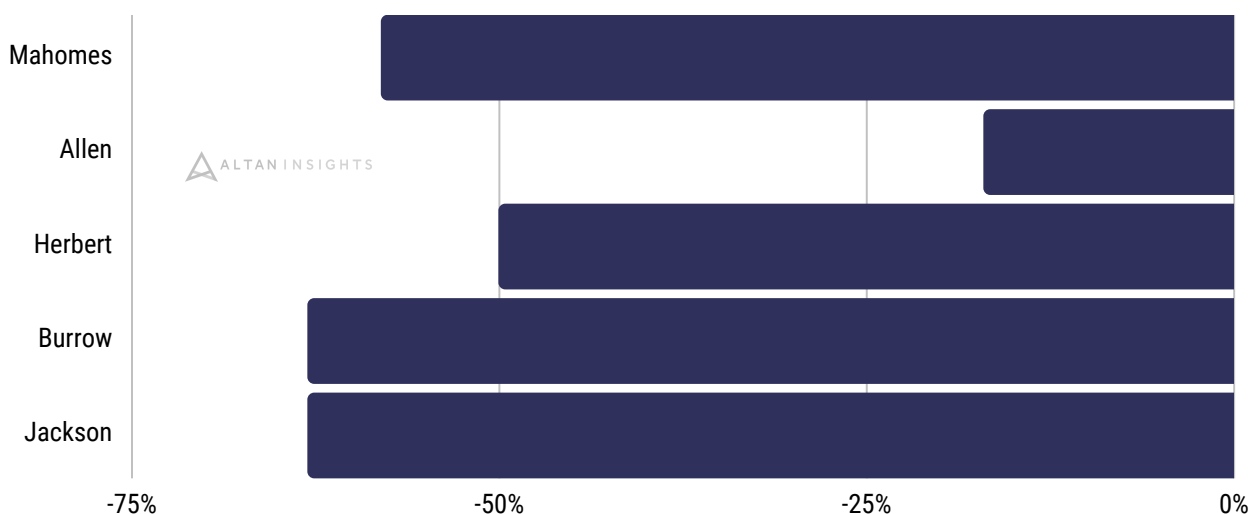
FOOTBALL

In Q4, the NFL card market saw a continued rotation away from the players who had previously realized records in 2021. While Brady, Burrow, and Mahomes headlined the market over the last few quarters, it was Jalen Hurts and Lamar Jackson who realized records in the final months of 2022. Both sales were facilitated at Goldin, as the auction house sold a 2018 Panini National Treasures Shield Lamar Jackson card for \$192,000 and followed with a \$144,000 result for a 2020 Panini Prizm Black Finite Jalen Hurts rookie.

After nearly ten months without a public sale, two PSA 10-graded 2020 National Treasures Joe Burrow cards were sold in December. There are only eight gem mint Burrow rookie patch auto cards in the PSA census and the first sale of the year realized \$210,000 through the PWCC Vault. Less than two weeks later, Goldin sold another PSA 10 Burrow RPA for \$145,200, representing a -31% drop in valuation between the two sales. The BGS 9.5 market has displayed similar rates of volatility in 2022 as Q4 delivered the lowest price point of the year for a Beckett-graded gem mint Burrow RPA. In Q1, PWCC sold two BGS 9.5's for \$156,000 each and the market first showed signs of decline when the auction house realized just \$78,000 for a like-graded copy in May. After there were zero public sales in Q3, Goldin moved a tri-colored RPA in November for \$57,400.

NATIONAL TREASURES RPA /99 (BGS 9.5)

Drawdown from peak - Sorted most valuable to least

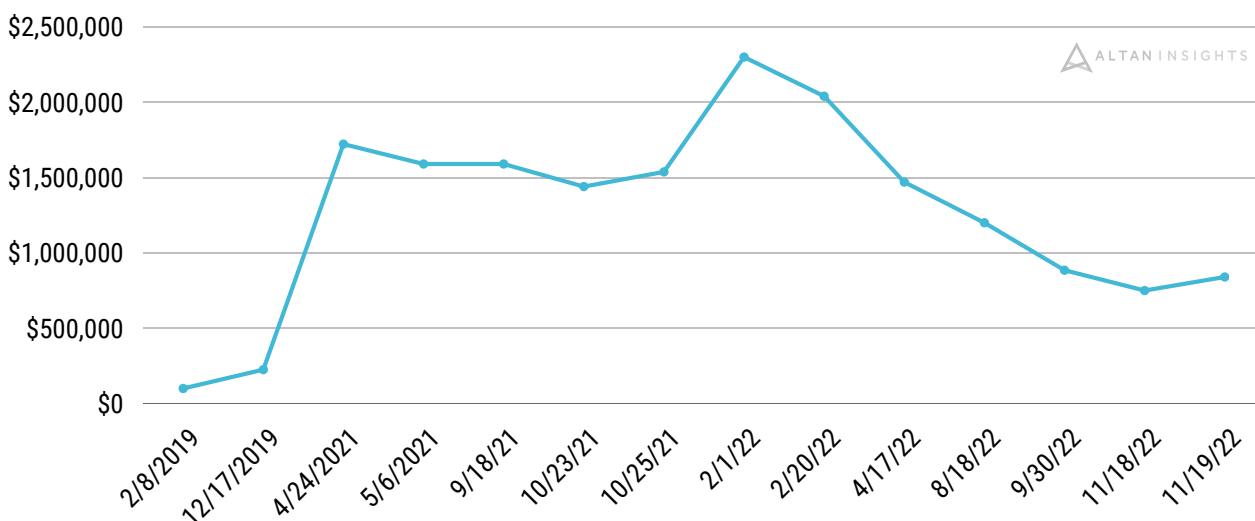


FOOTBALL

The total decline in market value of -63% for the Joe Burrow RPA nearly matched the decrease found within the BGS 8.5 Tom Brady Championship Ticket market. In Q1, PWCC sold a Brady Playoff Contenders card for \$1.47 million which already represented a \$570,000 drop from the card's record. Then, in August, the auction house sold a like-graded card for \$1.2 million. There were three sales in Q4 and all of them fell below seven-figures as the top price reached \$885,000 and the floor fell to \$750,000.

TOM BRADY CHAMPIONSHIP TICKET CARD SALES

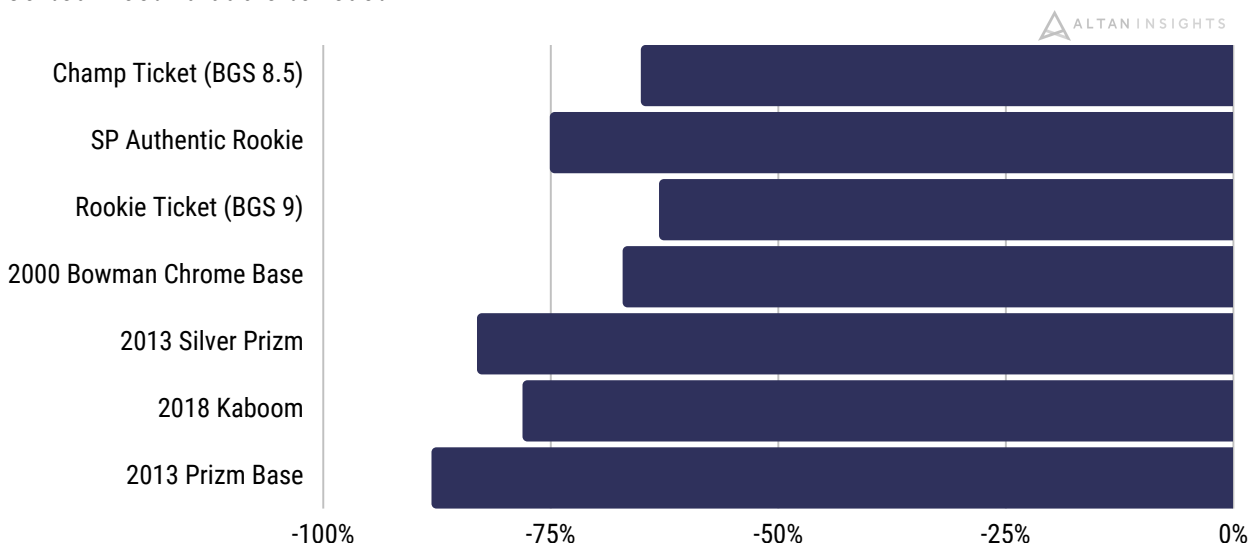
BGS 8.5



NOTABLE TOM BRADY CARDS

Drawdown from peak - PSA 10 unless otherwise noted

Sorted most valuable to least



FOOTBALL

While modern prices were slashed, the returns for 20th-century football cards were only slightly better. In Q4, the 1981 Topps Joe Montana Rookie Card (PSA 10) realized its lowest valuations of the year with an average price of \$50,500 across four sales. For reference, in Q3, the average sale price was \$68,040 and in Q2 the mean stood at \$88,450. Overall, 'Joe Cool' rookie cards experienced a decline of -43% on the year after prices peaked in April at \$114,000. Another flagbearer of early football cardboard, the 1976 Walter Payton Rookie Card (PSA 10) priced above \$110,000 in Q1. The lone gem mint sale in Q4 closed at \$63,000, the lowest result of 2022 for the late Hall of Fame running back.

Major 2022 Moments

- **January.** Goldin opens the year with a new record for any game-worn NFL memorabilia. The item, a Tom Brady-worn Tampa Bay Buccaneers jersey inscribed by Brady with "GOAT", sells for \$480,000 and still stands as the record holder.
- **March.** Leland's sells the football used for Tom Brady's "last" touchdown pass for \$518,628 days before Brady officially announces his unretirement. Leland's voids the sale one month later.
- The list of NFL players who recorded sports card record prices in 1Q22 - 3Q22 included Justin Herbert (\$1.8 million), Trevor Lawrence (\$336,000), Joe Montana (\$114,000), and Daniel Jones (\$56,400)
- Additional NFL-related collectible records set in 2022
 - Sports video game (John Madden Football: \$480,000)
 - Football ticket (Tom Brady NFT debut: \$480,000)
 - Sealed Football Wax (1956 Topps: \$186,000)
 - Kaboom card (Tom Brady Green Kaboom: \$188,400)

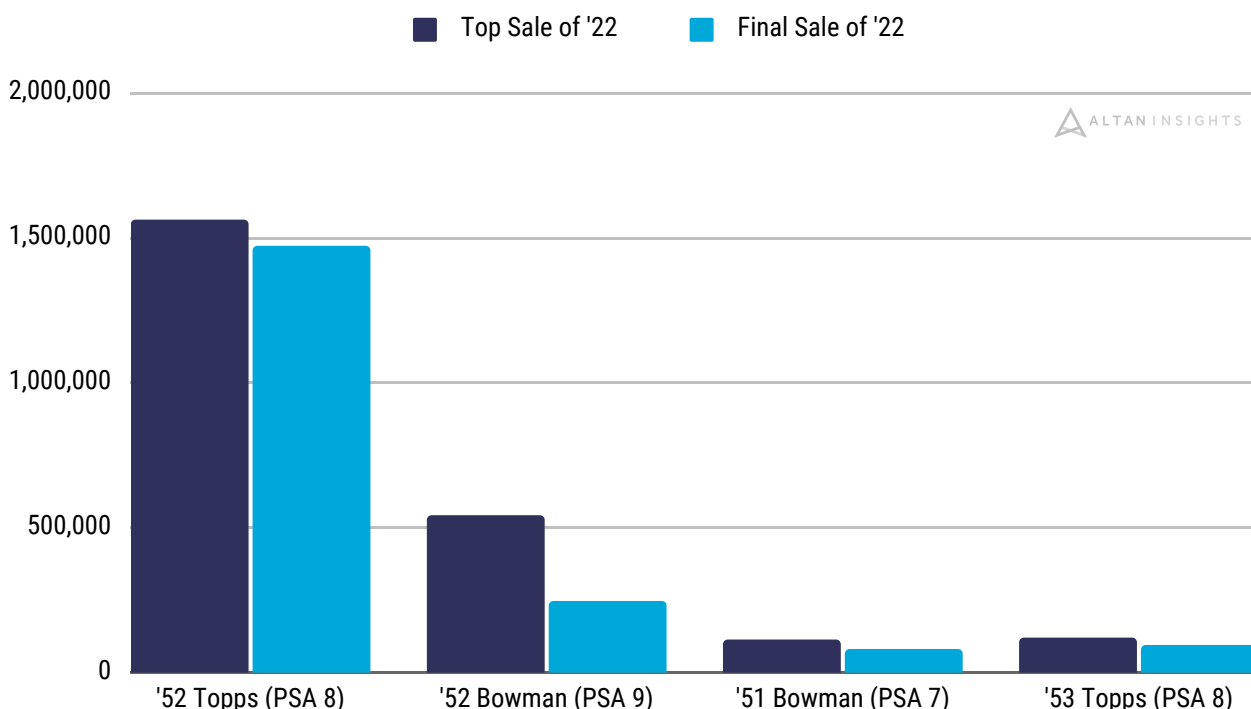
BASEBALL

In the first week of Q4, Aaron Judge hit his 62nd home run of the MLB season and in the twilight of the quarter, the historic baseball became one of the final seven-figure pieces of sports memorabilia sold in 2022.

The home run ball was consigned with Goldin and ultimately realized \$1.5 million to become the most expensive ball sold since Mark McGwire's 70th home run drew \$3 million in 1999. There were multiple pieces of Judge memorabilia sold in Q4 alongside the million-dollar baseball, but none, including a photo-matched jersey from his rookie season, managed to reach six figures.

While Judge was the Q4 headliner, Q3 belonged to Mickey Mantle. Previously, we highlighted the surge in Mantle card valuations in the aftermath of the record-breaking \$12.6 million 1952 Topps sale. While prices for high-grade copies of Mantle's 1952 card remained stable in Q4, valuations for the broader Mantle market displayed signs of weakness heading into 2023. The CardLadder index tracking Mantle cards returned -8% for the quarter while more specifically, cards like the 1960 Topps or 1952 Bowman saw their valuations slashed by at least 45%.

MICKEY MANTLE CARD SALES



BASEBALL

One vintage market positive in Q4 came courtesy of the 1933 Goudey Babe Ruth card. In December, Mile High Auctions sold a PSA 8 for \$483,638, the most ever for a like-graded example. The price increase was short-lived though as the very next day, Memory Lane Auctions sold a different PSA 8 for \$330,000, the lowest auction result for the card in 2022.

In Q4, a PSA mint-graded 1955 Topps Sandy Koufax Rookie Card realized a record price in its only appearance at auction all year; that came on November 18th when Heritage sold a PSA 9 Koufax rookie for \$396,000. The sale occurred exactly one year to the day after the auction house sold a different PSA 9 for \$384,000 in 2021. While the mint Koufax market displayed a slight increase in valuation, the near-mint market stumbled as prices dropped -35% year-over-year, and the final result of 2022, which was \$24,600 via REA, marked the fourth consecutive sale below \$30,000 after prices had previously peaked above \$40,000 in Q1.

Breakout sales within the baseball memorabilia market were limited in Q4, but the strength of demand for top tier artifacts remained on display. In November, Heritage sold a game used and signed Ty Cobb bat dated between 1910-1914 for \$1.62 million. The legendary lumber was photo-matched by Resolution to a pair of images from 1913 and closed as the most expensive baseball memorabilia sold in Q4. That was only one of two seven-figure Cobb bat sales in Q4; Grey Flannel sold a bat dated to his rookie season for \$1.07 million.

Additional standout memorabilia sales:

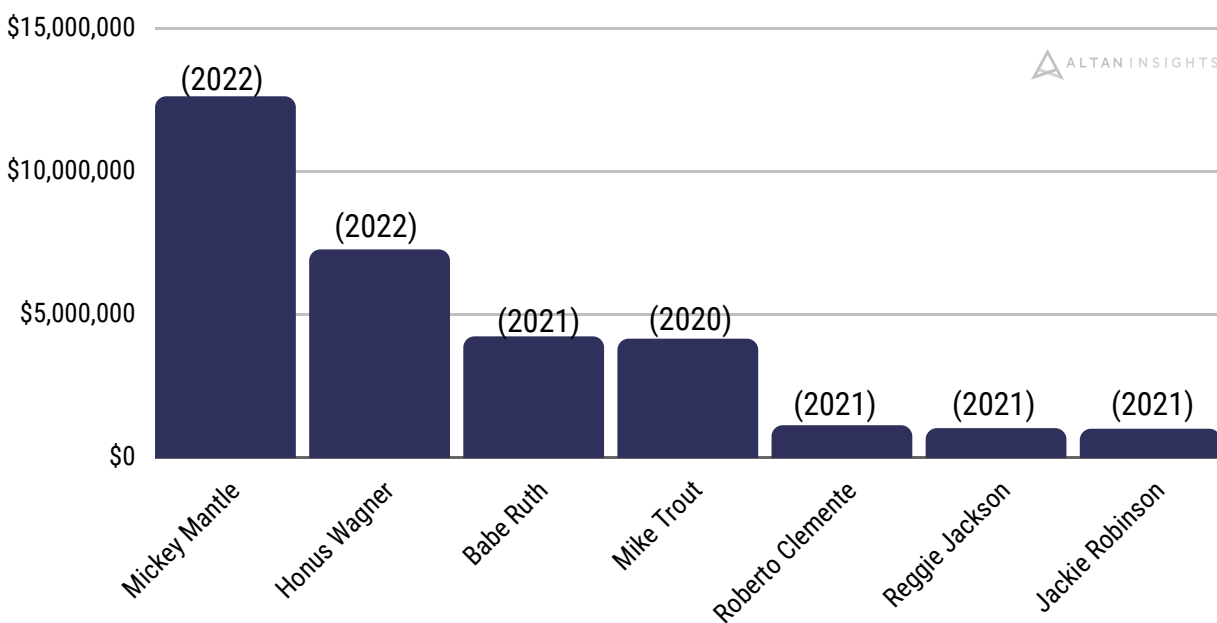
- Hunt sold Babe Ruth's Pro Model glove for a massive \$1.53 million sum
- Heritage set a record for any Willie Mays jersey with a \$456,000 sale of 1966 San Francisco Giants threads
- Grey Flannel sold a Babe Ruth signed baseball for \$357,594, which is the second highest sale of a single-signed baseball

BASEBALL

Major 2022 Moments

- **February.** Heritage Auctions sells more than \$2 million worth of Jackie Robinson cards and memorabilia in a single auction. The sales include a 1946 Baseball Bureau Questionnaire completed by Robinson that realizes \$1.68 million and a ticket stub to Robinson's 1947 MLB debut which hammers at \$480,000. At the same auction, After selling for \$850,000 in 2020, the final Yankees jersey worn by Mickey Mantle more than doubles its last price and becomes the most expensive Mantle jersey ever sold after it reaches \$2.19 million at Heritage
- **August.** In a private transaction brokered by Goldin, the ceiling for the T-206 Honus Wagner is raised as an SGC 2 graded example sells for \$7.25 million. Days later, the sports collectible record book is rewritten with a \$12.6 million sale of an SGC 9.5 1952 Topps Mickey Mantle card via Heritage.
- Additional baseball collectible records set in 2022
 - Baseball bat (1918-22 Babe Ruth bat: \$1,680,000)
 - Unsigned photo (Ty Cobb Type 1: \$516,000)
 - Hank Aaron card (1954 Topps Rookie: \$720,000)

MOST EXPENSIVE CARD BY PLAYER (SALE DATE)



BASKETBALL

In most categories and sports, Q4 was a quarter to forget, and that's especially the case in basketball, where stars retired, active, and rising all saw values soundly pummeled.

The highlight of the quarter was no doubt the arrival of the National Treasures Luka Doncic Rookie Logoman to the auction block at PWCC. The card allegedly changed hands in a private sale at \$4.6 million in March of 2021. Likely surpassing some cynical expectations, Luka's premier card sold for \$3.1 million in November, a decline of nearly 33% since the 2021 sale. For what it's worth, that decline is more muted than the sell-off in Luka's broader market over the same period, which is closer to 40%. The best of the best offer *some* protection...but not enough.

Elsewhere, it's been well documented that numbered Prizm cards of younger NBA stars have suffered in 2022, experiencing some of the swiftest and sharpest correction. Interestingly, it seems that relative to other portions of the market, that bleeding slowed modestly in pockets in Q4. To be clear, they were still down, but in many cases less than the broad market. For example, the PSA 10 Blue Prizms (numbered to 199) of Ja Morant, Zion Williamson, and Jayson Tatum all saw declines of a mere 10-16%. The same card of Luka's was actually up 8% in Q4.

The general trend, though, across low numbered parallels and players, was a low double-digit decline. That's still a double-digit loss, but for a segment of the market that has been so beaten down, it jarringly represents some level of stability.

Major 2022 Moments

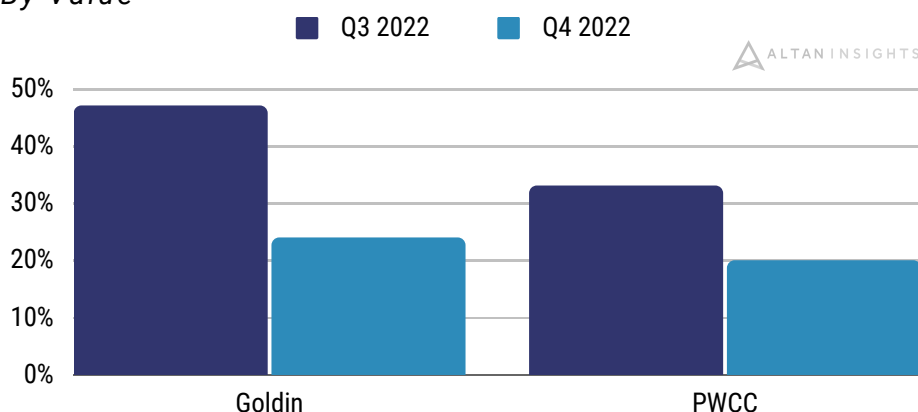
- **June.** After an extensive and well-publicized search for the Flawless LeBron James Triple Logoman, the card sells for \$2,400,000 at Goldin, falling short of some of the wildest expectations.
- **September.** Sotheby's sells Michael Jordan's jersey from Game 1 of the 1998 Finals for \$10,091,000, establishing a new record for any game-worn sports memorabilia.
- **November.** About a year and a half after selling privately for \$4.6 million, Luka Doncic's rookie Logoman card comes to auction at PWCC, selling for \$3,100,000 to the March 2021 seller.

BASKETBALL

It was the quietest quarter in recent memory for Michael Jordan following a Q3 which played host to his \$10 million jersey sale. As is common when the NBA season is in full swing, Jordan sales made up a much smaller percentage of basketball sales at auction. For example, Jordan accounted for 47% of basketball sales in Goldin's top 100 sales in Q3 by value. In Q4, that figure fell to 24%. Similarly, Jordan accounted for 33% of basketball volume in PWCC Premier Auctions in Q3, but only 20% in Q4. Those figures are all essentially right in-line with Q4 2021 levels.

JORDAN VOLUME AS % OF TOP 100 SALES

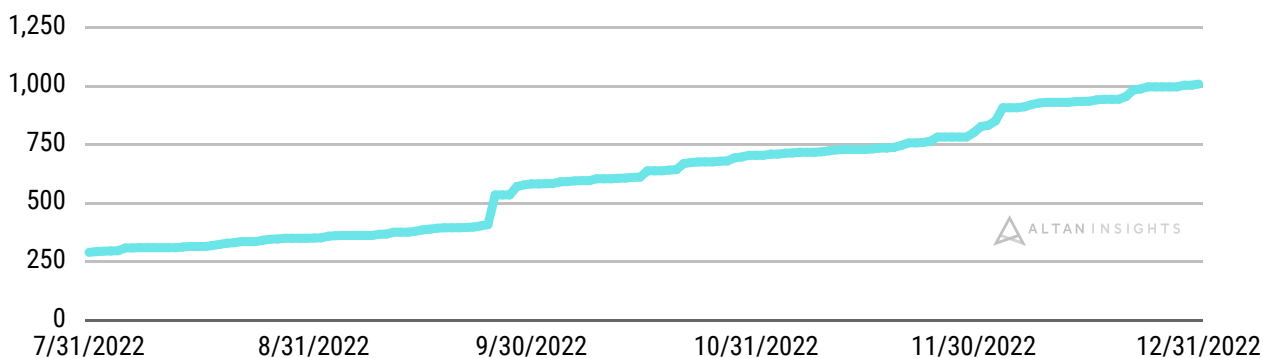
By Value



His 1986 Fleer rookie, graded PSA 10, sold 8 times, less than the 12 in Q3 and roughly in line with Q1 and Q2 quantities. Price activity was more stable but still negative, ending the year slightly lower than it was in Q3 and approximately half of where it was to start 2022. The market for his Star rookie also softened, with the pop-heavy BGS 8.5 particularly battered by 69%. Notably, PSA populations increased dramatically after the service opened its doors to the previously shunned card. Over the course of the quarter, PSA 7s rose from 21 to 32 and PSA 8s rose from 6 to 12 for example.

PSA POPULATION GROWTH - 1984 STAR BASKETBALL

SOURCE: GEMRATE



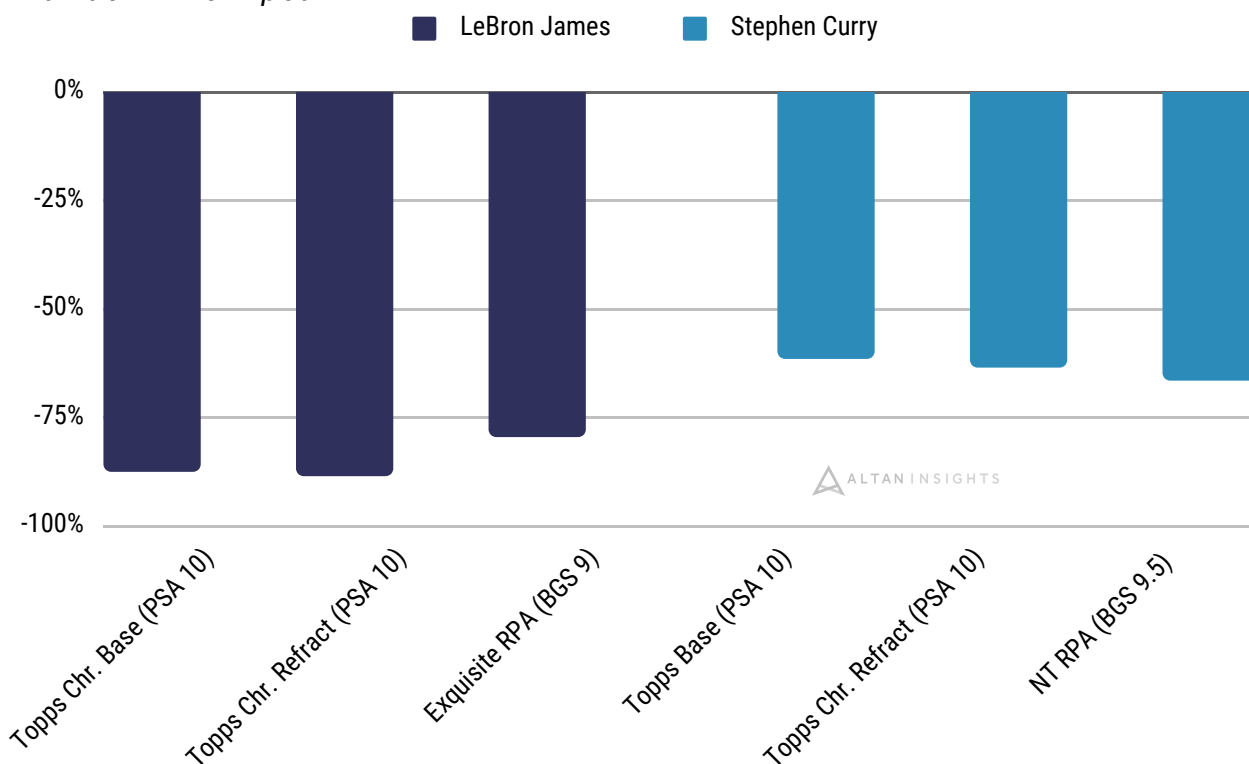
BASKETBALL

The best cards of active legends LeBron James and Stephen Curry, typically auction headliners, remained in freefall to close the year. LeBron's Exquisite RPA sold twice in BGS 9 condition in Q4, skidding from \$1,200,000 in July to \$420,000 by year's end. The card, numbered to 100, sold 9 times in 2022 and 15 times over the last 2 years, perhaps damaging the perception of its rarity. On the plus side, a BGS 9.5 sold in October for the first time since August 2020 and more than doubled that \$1.1 million sale with a result of \$2,400,000 at Goldin. Other grades are more rapidly closing in on that mid-2020 territory, while other key cards like his Topps Chrome Refractor have already broken well below that ground.

The story is similar for Curry - his National Treasures RPA trades for about a third of mid-year levels, and a BGS 9.5 broke below \$200,000 for the first time since July of 2020. His mid-to-upper tier cards haven't taken the same battering as LeBron's, but are still flirting with mid-2020 levels nonetheless. Interestingly, the fall from peak is quite similar whether you're looking at the highest-end cards or base cards.

KEY LEBRON JAMES & STEPHEN CURRY CARDS

Drawdown from peak

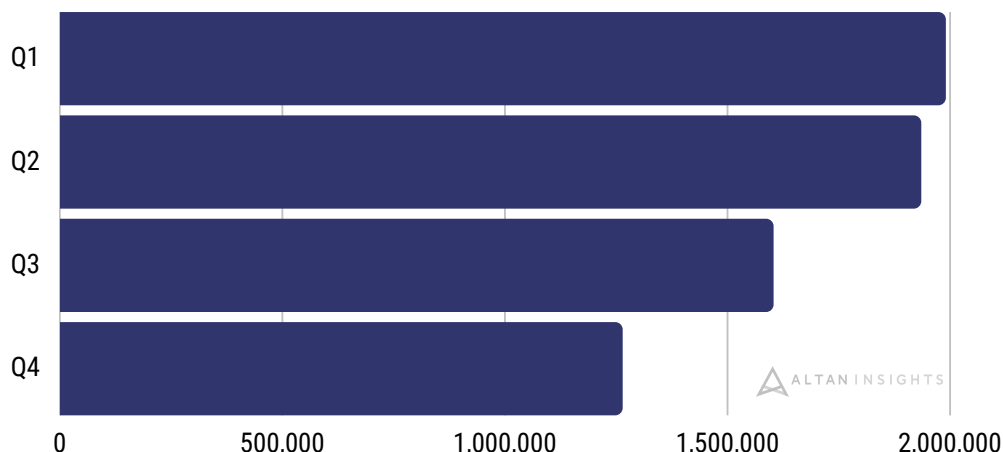


SOCCER

One of the most intriguing possible storylines of the 2022 World Cup played out in full, with Lionel Messi's Argentina winning the tournament, and yet in collecting terms, the event could hardly be categorized as anything but a bust. Speculating soccer bulls had suggested for two years that this event could be a catalyst, but by the time it arrived, that market enthusiasm had fizzled with the rest of the market.

The macro auction numbers largely speak for themselves. PWCC sold \$1,262,400 across 58 soccer lots in Premier Auctions this quarter. Despite the World Cup, that's down 21% from \$1,601,400 over 46 lots in Q3. Q2 saw \$1,933,200 in sales across 47 lots. Stop us if you've heard this before, but Q1 was the peak, with \$1,988,400 across 49 lots.

PWCC PREMIER AUCTION SOCCER VOLUME



With key Messi and Ronaldo cards flailing, the high-end supply wasn't really there for soccer to be a bigger player at auction this quarter. As we noted earlier, relative to the fourth quarter of the prior year, soccer made up a significantly smaller portion of the top 100 sales at both PWCC and Goldin.

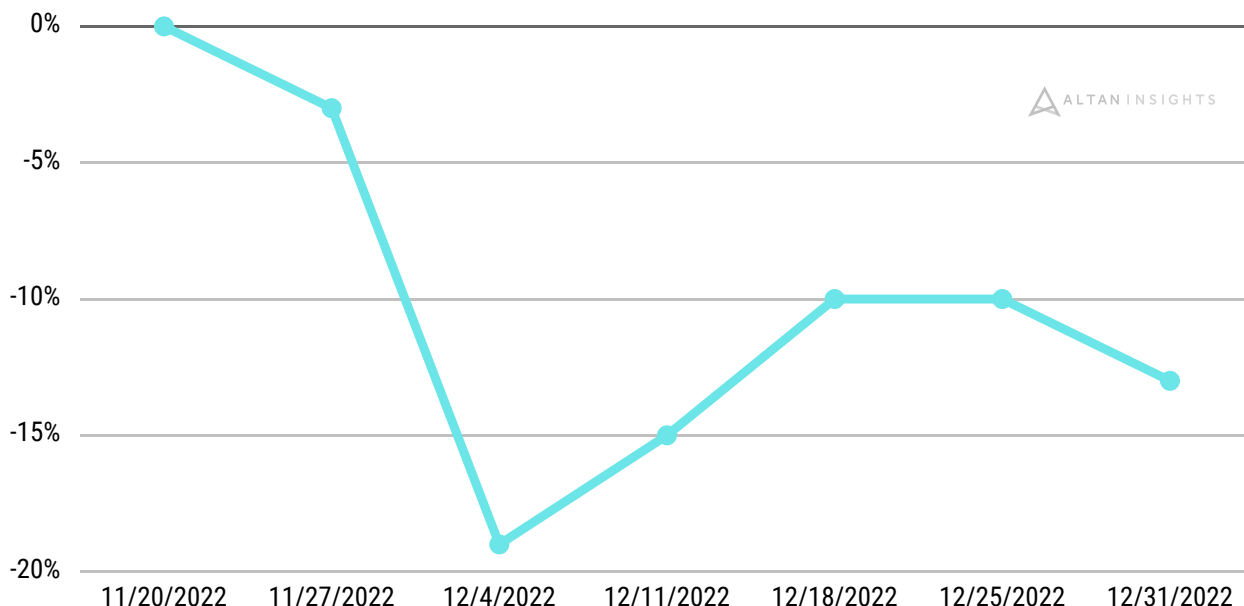
SOCCER

The World Cup began on November 20th. From that date through the end of the year, the Lionel Messi Index tracked by CardLadder actually fell 12.4%. For the full quarter, it was down 16.9%. Now, it's by no means uncommon to see an athlete's market taper off following a big triumph. Usually, though, that's preceded by a build-up in anticipation before a wash of supply comes to market to capitalize, ultimately weighing on prices. Messi's market was down 40-50% on the year heading into the fourth quarter.

The best possible outcome happened for the most important player on the world's biggest stage, and the market could scarcely have cared less.

MESSI CARDLADDER INDEX

Start of world cup onwards



SOCCER

If that's how things went for Messi, you can imagine that the market was even less kind to other players. Mbappe confirmed his absolute superstardom on that global stage; his market plummeted over 20%. Ronaldo floundered on that stage (by his standards) and moved clubs to Saudi Arabia - the drawdown was even worse.

Ultimately, 2022 will likely be best remembered in soccer as the arrival of soccer memorabilia, namely game-worn soccer jerseys. Some of the most intriguing results came from game-worn in Q4, led by a Diego Maradona 1982 World Cup jersey which sold for \$172,000 at Goldin in their World Cup Auction.

The big intrigue, though, would come from AC Memento, which announced World Cup partnerships with Argentina, Spain, and others. That, of course, meant Messi World Cup jerseys would be available, and the shirt from his first half of the opener against Saudi Arabia (a loss in which he scored a penalty) sold for €62,750 a few days later. After that, the platform made the decision given the importance of the jerseys to wait to conduct auctions until they were in AC Memento custody. So, while there are likely more jerseys from Messi's historic run to come, we do not yet know what they are and when they'll be sold. Still, the result for the jersey from the Saudi Arabia game came when it seemed like Argentina could potentially be in trouble - that match did not look like the beginning of a World Cup winning campaign. So, whenever (if?) those jerseys do surface, the bidding will be must-watch.

Major 2022 Moments

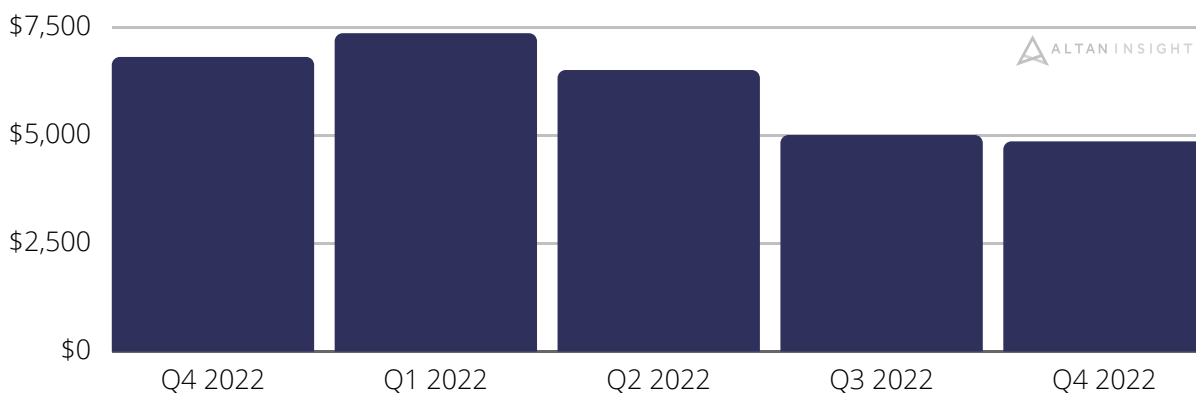
- **January.** Erling Haaland's Unique 1/1 2021-22 Sorare card is auctioned for 265.1 ETH, or \$679k at the time. That's the most expensive sale in the platform's history, and it's also more expensive than any physical Haaland card.
- **February.** Rally shareholders sell one of two PSA 9 Alifabolaget Pele rookie cards for \$1.33 million, a record for any soccer card. They previously rejected a \$437k offer in July and an \$893k offer in November.
- **April.** Sotheby's sells Maradona's "Hand of God" World Cup jersey, worn to score two of the most memorable goals of all time, for £7,142,500 (\$9.3 million), establishing a short-lived record for the most expensive game-worn item ever sold.
- **Also April.** Goldin establishes a record for any Lionel Messi jersey and any Lionel Messi card. Messi's 2017 El Clasico jersey for \$450,000, while his PSA 10 2014 World Cup Gold Prizm sells for \$522,000.

HOCKEY

Heading into the 2022 NHL season, Alexander Ovechkin sat in third on the all-time scoring list with 780 goals. Through the first 43 games of the season, Ovi has 'lit the lamp' 29 times, passing Gordie Howe for sole possession of second place and moving within 85 goals of Wayne Gretzky's record total. The market for Ovechkin's premier rookie card, Upper Deck's signed The Cup Rookie Patch was quiet in Q4, but transaction volume for gem mint copies of his Upper Deck Young Guns card was up nearly 40%.

In total, 25 of the 1,083 PSA 10 graded examples sold in Q4 with an average sale price of \$4,837. That mean is actually lower than the Q3 average of \$4,984 but that doesn't tell the whole story. In December, the average price across seven sales was \$5,302 and the final sale of the year realized \$6,500, the highest price for the card in nearly six months. That makes Ovechkin a rare case of a catalyst actually paying off to some degree in this bear market.

ALEX OVECHKIN UD YOUNG GUNS PSA 10 AVERAGE PRICE



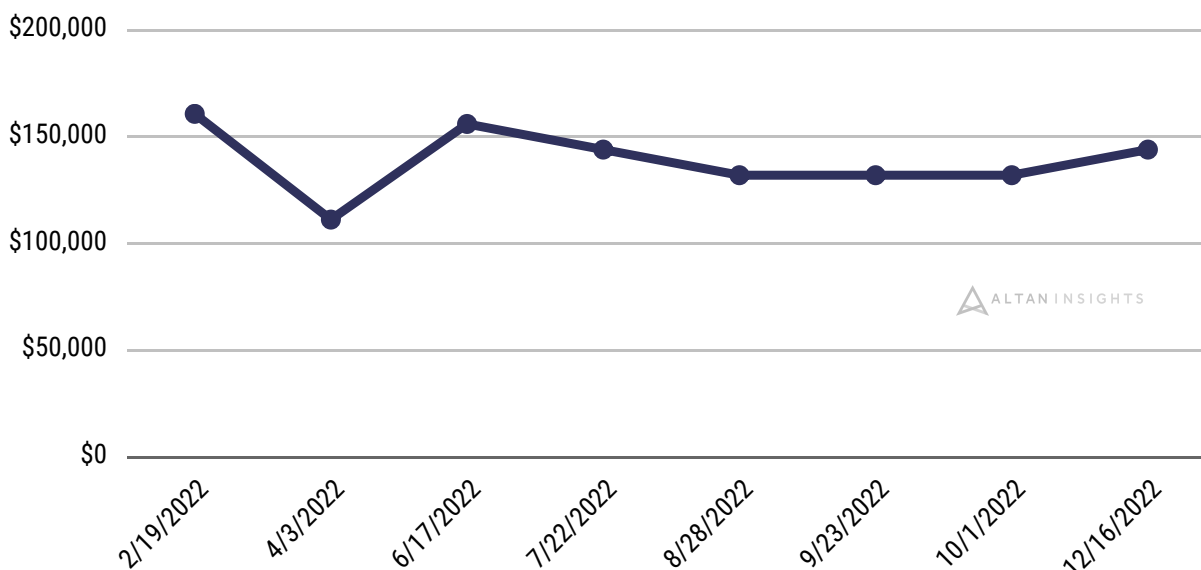
HOCKEY

In a similar fashion, there are volume concerns for Sidney Crosby cards as limited sales hampered any expectations of a valuation surge to begin the season. At the high end of the Crosby market, Goldin sold the only Upper Deck The Cup RPA in Q4, setting a new record for any BGS 9 graded copy with a \$91,800 sale in October. The previous high for a Beckett-graded mint example was \$75,000, realized in May via Heritage Auctions.

While Wayne Gretzky's goal record could be in jeopardy, his 1979 O-Pee-Chee still reigns supreme over the hockey card market. While there were no gem mint sales of American or Canadian rookie cards in Q4, PSA 9 graded copies displayed price stabilization as the year closed, which is somewhat demonstrative of hockey's relative stability. The final sale of 2022 for the mint-graded 1979 O-Pee-Chee Gretzky rookie was \$144,000 at PWCC in December, which marked the highest price paid for the card in five months and the fourth sale above \$140,000 over the last twelve months. Overall, prices for PSA 9 graded copies fell -10.4% on average over the year, down from a starting point of \$160,740. In April 2021, Goldin sold a PSA 9 for \$271,830, which remains the peak for a card that now carries a valuation nearly -50% lower. The American-produced Topps rookie card made headlines in Q3 when Heritage sold a PSA 10 for \$1.2 million. The gem mint market was silent in Q4 but there were three auctions for PSA 9's that averaged \$27,870 and delivered an 18% difference between the first and last sales.

WAYNE GRETZKY 1979 O-PEE-CHEE ROOKIE CARD

PSA 9 PRICES



HOCKEY

Major 2022 Moments

- **February.** Sports magazines see a surge in valuations led by Heritage Auctions' \$30,000 sale of Wayne Gretzky's first cover appearance on a 1981 edition of Sports Illustrated.
- **March.** The modern hockey market realizes a six-figure sale as Goldin sells a 2020-21 Skybox Metal Universe PMG Gold Sidney Crosby card for \$164,400.
- **June.** Wayne Gretzky's last Oilers jersey, worn during the 1988 Stanley Cup, sells for \$1.45 million at Grey Flannel Auctions to become the most expensive hockey jersey ever sold.
- **July.** Heritage Auctions raises the the ceiling for modern hockey cards when they sell a 2015 Upper Deck The Cup Connor McDavid RPA for \$228,000

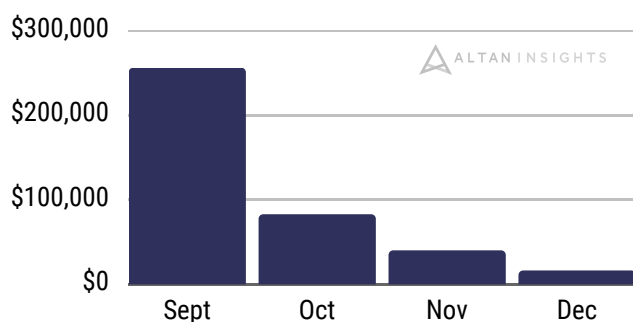
TENNIS

The ascent of Carlos Alcaraz was the story of the third quarter in Tennis, and few will be surprised to see that his card market cooled in Q4. Right at the end of Q3, Goldin sold a PSA 8 copy of Alcaraz's patch autograph card, numbered to 50, for \$32,400. Higher graded copies, a PSA 9 and a BGS 9.5, sold for \$12,000 and \$10,800 respectively in late November.

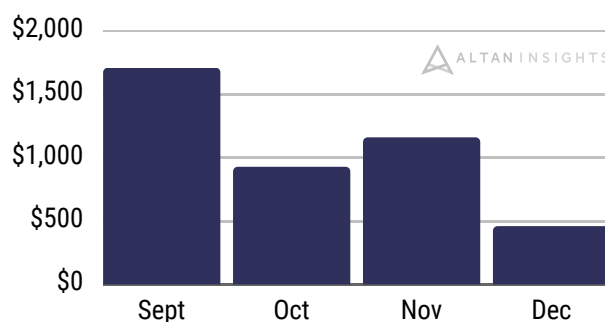
While his card market has reset to slightly more reasonable levels, that's not necessarily a sign of diminished collector confidence in the young Spaniard. A pair of his sneakers, photomatched to the US Open quarterfinal against Jannik Sinner - arguably one of the most memorable matches of the last five years - sold for \$56,400 at Goldin in October. Now attention turns to whether the 19 year-old World #1 can continue to grow his accolades and accomplishments in the years ahead.

He'll need to do so in order to catch the likes of Roger Federer and Rafael Nadal. Higher-end Federer and Nadal cards (the NetPro Elite Glossy /100 for example) were fairly resolute, though their lower end markets fell close to in-line with the modern market.

ALCARAZ NETPRO EBAY VOLUME



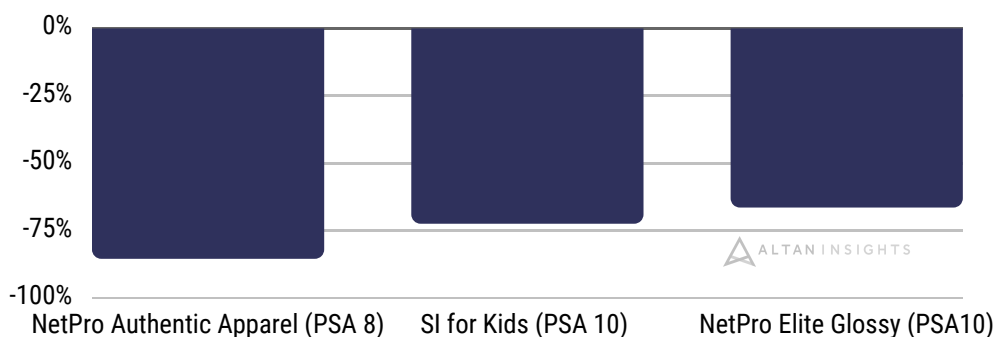
ALCARAZ NETPRO EBAY AVG. PRICE



TENNIS

KEY SERENA WILLIAMS CARDS

Drawdown from peak



The rise of the Serena Williams card market was one of the bigger stories of early 2022, reaching a crescendo in May when Goldin sold Serena's 2003 NetPro Authentic Apparel Signed Rookie Patch Card, graded PSA 8 PSA/DNA 10, for a women's sports card record of \$266,400. The surge in values subsided and reversed by mid-year though, sliding into year end. This is best illustrated by the fact that the very same card which set that record returned to auction in late November and sold for just \$39,600, an 85% decline in six months. At points in 2021, that would've been a women's sports card record, but Serena's market was certainly caught up in the speculative rush of the last two years, with a vastly larger female sports collecting audience priced in too far ahead of schedule.

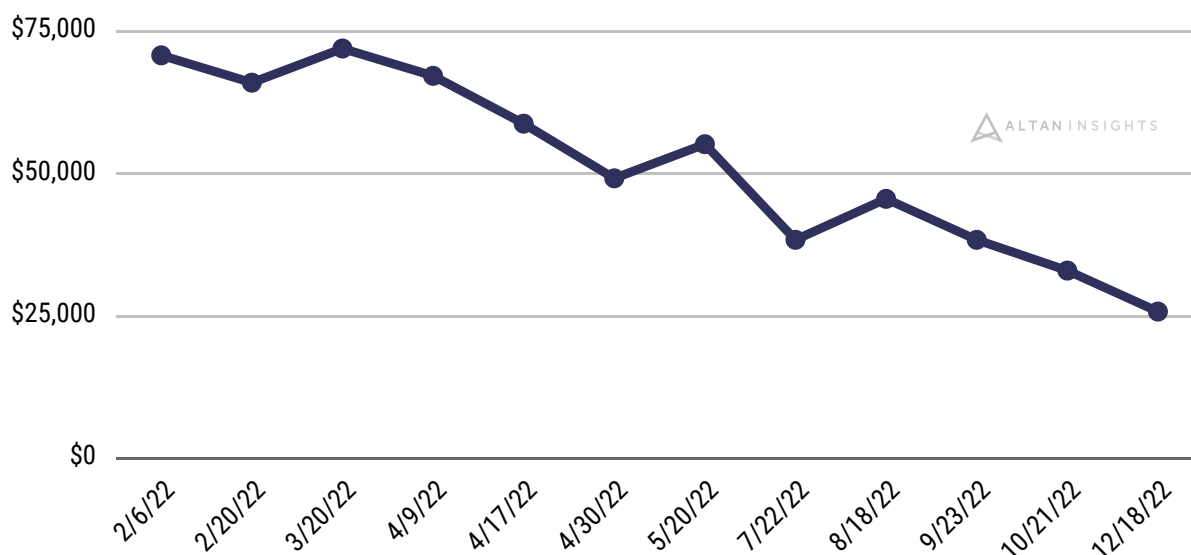
Major 2022 Moments

- **May.** Serena Williams cards completely re-write the record book for female sports cards, increasing the mark from \$43,200 at the start of the year to \$266,400, with several intermediate stops along the way. However, her card market retraces much of that progress and then some during the market decline in the second half.
- **August.** NetPro debuts the first licensed cards of phenom Carlos Alcaraz, releasing them on an a la carte basis, with prices ranging from \$42 to \$3,600. Alcaraz promptly wins the US Open and rises to the World #1 ranking, leading one of his patch autograph cards to sell for \$32,400 at Goldin. Those cards eventually return to a high four, low five-figure range.
- The two most beloved stars of the men's game, Rafael Nadal and Roger Federer, make few waves over the course of 2022, with each of their markets stumbling 40-50%. The softness comes despite Federer's retirement from the sport.

GOLF

There were two public Q4 sales of the premier Tiger Woods rookie card, the PSA 10 graded 2001 SP Authentic Stars Autograph. The average sale price closed at \$29,400 which represents a -38% decline in average value compared to fourth-quarter sales in 2021. Price performance was just as bad for the /100 gold variation, which sold twice in November for \$140,000 and \$116,400. In Q1, the Gold Tiger Auto reached \$240,000 at auction, and in April 2021, the record price for the card was established at Goldin with a \$369,000 sale. In less than two years, the valuation for one of the premier Tiger Woods cards has now dropped more than 68%.

2001 SP AUTHENTIC TIGER WOODS AUTO /900 PSA 10 SALES



GOLF

While golf cards tumbled, the record-breaking year for golf memorabilia continued in Q4. In Q2 and Q3, the all-time golf bag, golf club, and golf ticket records were established. The trend of breakout sales carried into the final months, as Heritage Auctions set a new ceiling for any golf ball with a \$186,000 sale. The signed ball was used by Tiger Woods when he hit a hole-in-one during his first professional tournament at the 1996 Greater Milwaukee Open.

In a year that saw the auction house set a new record for any golf collectible, Golden Age Auctions closed their 2022 season with a six-figure Tiger Woods shirt and a new record for any golf photograph. The Tiger shirt, a red polo from the 2010 Masters Tournament, sold for \$139,349 after last selling at auction in 2016 for \$11,950 in a lot that included Tiger's other three shirts from the tournament. The photograph was a PSA Type 1 image captured at the 1934 Masters Tournament that attracted 55 bids and hammered for \$82,247, easily outpacing the previous golf photo record of \$19,850.

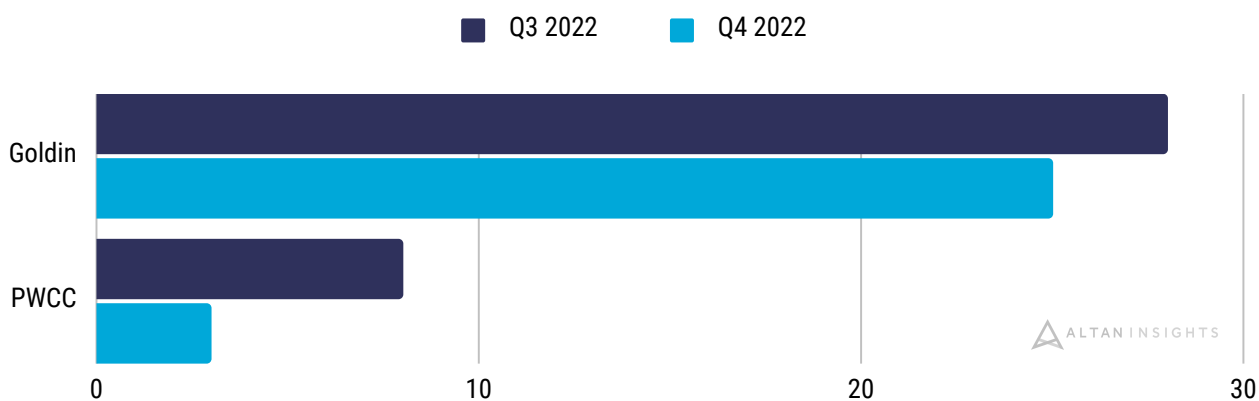
Major 2022 Moments

- **March.** Golden Age sets a record for any golf ticket with a \$600,000 sale of a 1934 signed Masters pass.
- **April.** After debate swirls around their authenticity, the 'Tiger Slam' clubs used by Tiger Woods in four majors between 2000-01 become the most expensive golf collectible ever sold at auction when they realize \$5.2 million at Golden Age. At the same auction, the record for the most expensive Masters gold medal is set with a \$190,373 sale for a medallion awarded to Sam Snead in 1952.
- **September.** Goldin sells a 2005 Tiger Woods tournament-used and signed golf bag for \$391,800 and sets a record for any piece of tournament-used golf memorabilia that isn't a club

FORMULA 1

Auction activity cooled slightly in Formula 1 in Q4. For the second straight quarter, the number of five-figure F1 sales dropped quarter-over-quarter at Goldin, though only from 28 in Q3 to 25 in Q4. Given the decline in values, that's a modest drop, and in last year's Q4, there were just 5 such sales. They also took a step back quarter-over-quarter from 8 to just 3 at PWCC.

FORMULA 1 FIVE-FIGURE SALES



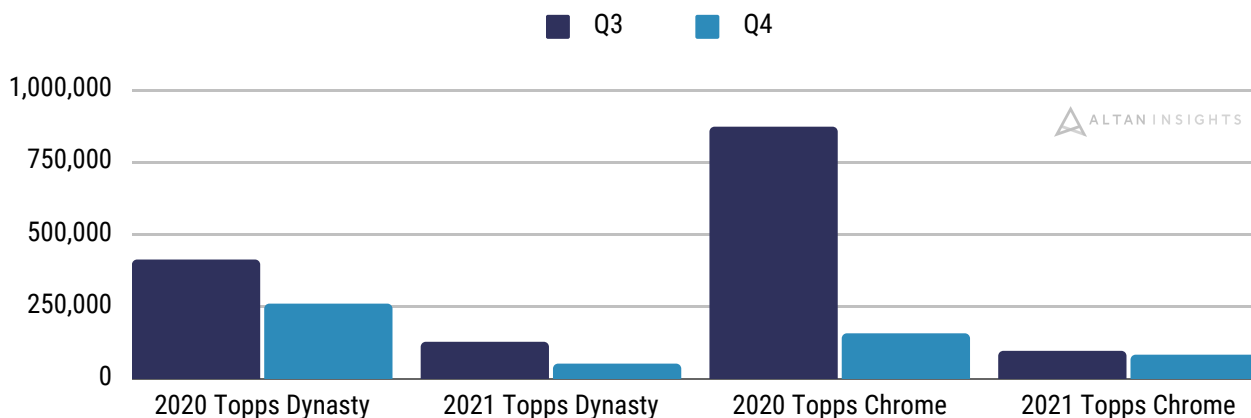
Last quarter at Goldin, there were 94 sales from the 2020 and 2021 Topps Dynasty sets totaling \$536k. In the 4th quarter, there were just 44 such sales totaling \$311k. Interestingly, the average sales prices for both the 2020 and the 2021 sets were up, 26% for the former and 8% for the latter. The average sale price of the 2021 set was just 68% of the 2020 set's this quarter, down from 80% in Q3. There still appears to be relatively robust demand for the patch cards, though there are several cards that have taken a beating relative to mid-2022.

For instance, an ungraded 2020 Hamilton patch auto sold for \$90,000 in May. That same exact card sold for \$43,200 in October. Similar can be said of Verstappen - an ungraded, encased patch auto sold in June for \$34,800, and a very similar card, also from a run of 10 and ungraded, sold for \$16,800 in October. That's an effective halving in both cases.

FORMULA 1

SALES VOLUME BY SET

Goldin



Volume was similarly down in Topps Chrome. Q3 saw 140 sales across 2020 and 2021 sets, totaling \$964k. Q4 featured just 68 sales totaling \$239k, a much lower average sales price with no major marquee sales. Given the lack of 2020 Superfractors or Red Refractors, the average 2020 sales price fell 52%, but it actually picked up 24% for the 2021 set. The quarter featured the \$34,800 sale of Max Verstappen's 2021 Padparadscha 1/1, as well as the \$24,000 sale of Guanyu Zhou's 2021 Superfractor Auto. The lack of standout 2020 sales meant that 2021's ASP was 52% of 2020's this quarter; that's up massively from a mere 20% in 3Q. If you exclude those two standouts though, the average sale from the 2021 set was just above \$700.

FORMULA 1

The top card auction sale of the quarter was the \$43,200 paid for Max Verstappen's 2020 Red Topps Chrome Sapphire card, graded PSA 9. That's far and away the lowest quarterly top sale of the year, with all other quarters finding six-figure territory. Speaking of prior quarters, Q1's top sale (and the F1 record at the time) was the \$312,000 paid for Lewis Hamilton's 2006 Futera Grand Prix card, graded PSA 9. A card of the same grade sold at PWCC in November for just \$36,000, providing another illustration of the boom and bust nature of key cards from more nascent high-end collecting spheres.

It wasn't all bad for F1 this quarter though...if you move away from cardboard. In November, RM Sotheby's sold Michael Schumacher's 2003 World Championship-winning Ferrari for \$14.9 million, doubling the record for any Formula 1 car. The prior record was for another Schumacher Ferrari from 2001, which sold for \$7.5 million in 2017.

Major 2022 Moments

- **March.** Goldin sells a PSA 9 example of Lewis Hamilton's 2006 Futera Grand Prix card for \$312,000, a 6X increase on the prior Formula 1 card record (set in August 2021). By year's end, a PSA 9 trades for \$36,000.
- **May.** Goldin sells Hamilton's 2020 Topps Chrome Superfractor for \$900,000, quickly tripling the prior record.
- **August.** Max Verstappen's 2020 Topps Chrome Superfractor Auto sells for \$534,000 at Goldin, a new record for a Verstappen card (and close to 10X the record for any Formula 1 card entering 2022).
- **November.** RM Sotheby's sells Michael Schumacher's 2003 World Championship-winning Ferrari for \$14.9 million, doubling the record for any Formula 1 car. The still fully functional and incredibly fast car costs only ~17X the most expensive piece of Formula 1 cardboard.

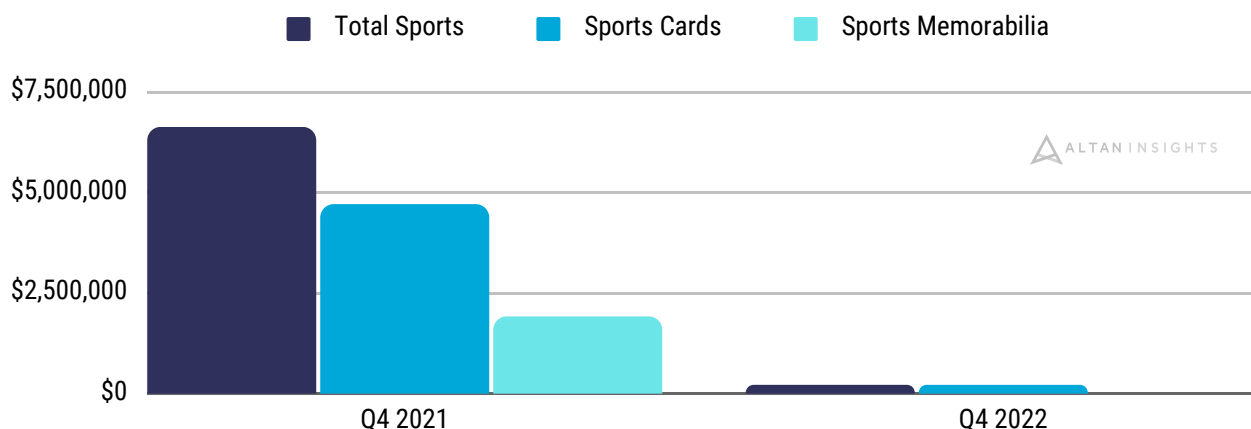
FRACTIONAL IN FOCUS

Headlines & Highlights

Roaring fractional activity in 2021 consistently faded to a whisper over the course of 2022, as broad collectible markets faltered, investor sentiment soured, and already thin liquidity dried up further.

For evidence, observers need look no further than fractional issuance of sports collectible assets. In the fourth quarter of 2021, platforms conducted over \$6.6 million in IPOs across 55 total assets. In the fourth quarter of 2022, there was just one solitary sports IPO, as platforms recognized an inability and an unwillingness of Reg-A investors to absorb additional sports asset supply.

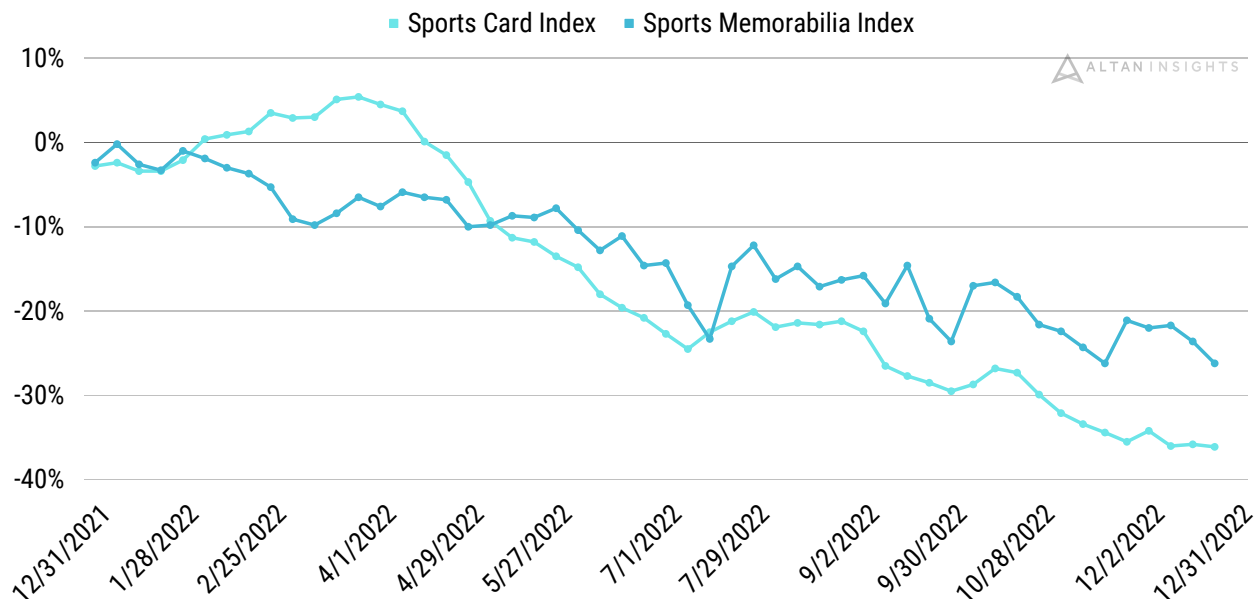
FRACTIONAL SPORTS ISSUANCE



FRACTIONAL IN FOCUS

Headlines & Highlights

ALTAN INSIGHTS FRACTIONAL INDEX PERFORMANCE



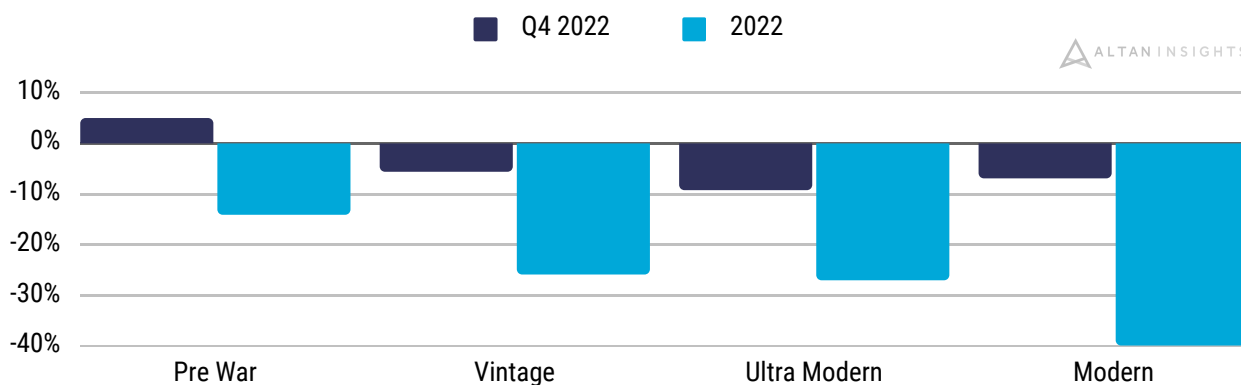
That reticence is demonstrated by performance for the year and for the quarter. The Altan Insights Fractional Sports Card Index dropped 35.9% in 2022, while Sports Memorabilia slid 26.7% from a lower base after underperforming in 2021. The decline from the end of the first quarter onward was relatively steady and consistent as dollars exited the space and disillusion grew.

As was the case in the broader sports collectibles market, there wasn't immense variance across different categories of the market, but there are elements of performance differentiation worth examining.

FRACTIONAL IN FOCUS

Headlines & Highlights

AVERAGE RETURN BY ERA



Pre-War assets remained the strongest performers in Q4, further separating from the pack for 2022. Vintage delivered the second best performance in Q4, finishing essentially flat; its performance lagged non-fractional vintage markets this year, performing in line with Ultra-Modern fractionally. Speaking of Ultra-Modern, it performed worst in Q4, with early year performance setting the category up for correction. Modern also had a quarter to forget to complete a year to forget as by far the worst performing era in 2022.

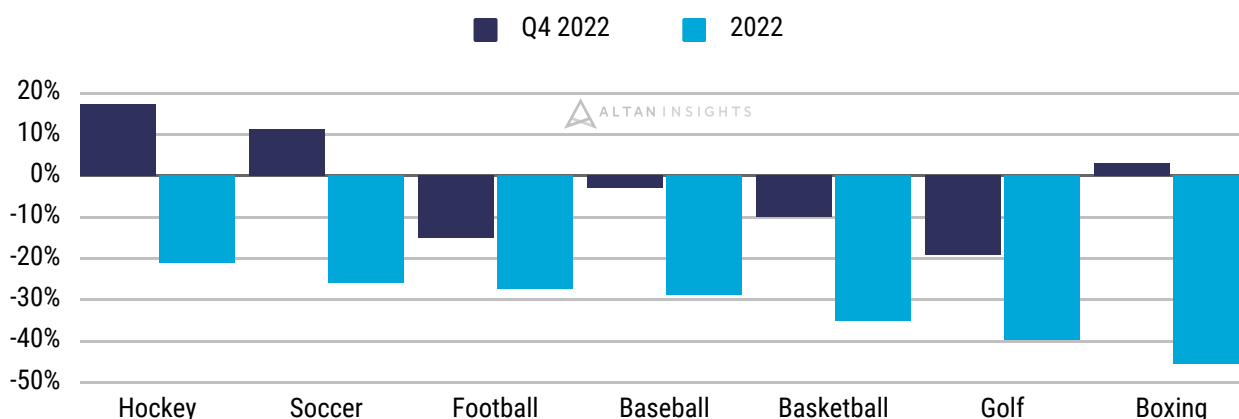
Hockey delivered the best Q4 performance of any sport, led by memorabilia items that rallied considerably from weaker performance earlier in the year. Soccer followed during the World Cup, but the average was significantly lifted by Cristiano Ronaldo's rookie card on Public, which closed Q3 at a very brief low that set the stage for a 242% gain in Q4. Otherwise, performance in the sport was relatively mixed, as Soccer did not perform particularly well in Q4 ex-fractionally despite the World Cup catalyst. Football and Golf performed worst to close the year; negative Football performance was quite broad, while Tiger Woods rookie cards weighed heavily on the Golf category.

FRACTIONAL IN FOCUS

Headlines & Highlights

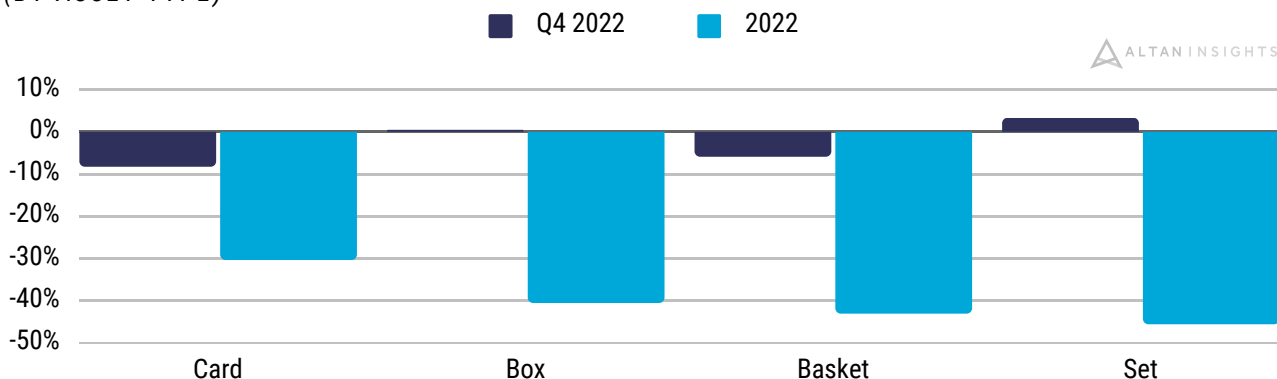
For the year, Hockey finished as the “best” performer, with an average loss of 20%, while Boxing fared worst, with a 45% average loss. Overall though, performance was broadly poor to fairly similar degrees of magnitude.

AVERAGE RETURNS BY SPORT



Individual sports cards performed far better this year than boxes, baskets, and sets. Given the challenges in the market, this was not a year that investors were inclined to confront the relative complexities of multi-asset offerings. Rather, the simplicity of single cards proved a more attractive avenue, though “attractive” is highly relative in this case given the 30% average decline. However, individual cards did perform worst in Q4, indicating that investors may be interested in beginning to kick the tires on potential dislocations in sets and boxes, which both advanced narrowly for the quarter.

AVERAGE CARD RETURN (BY ASSET TYPE)

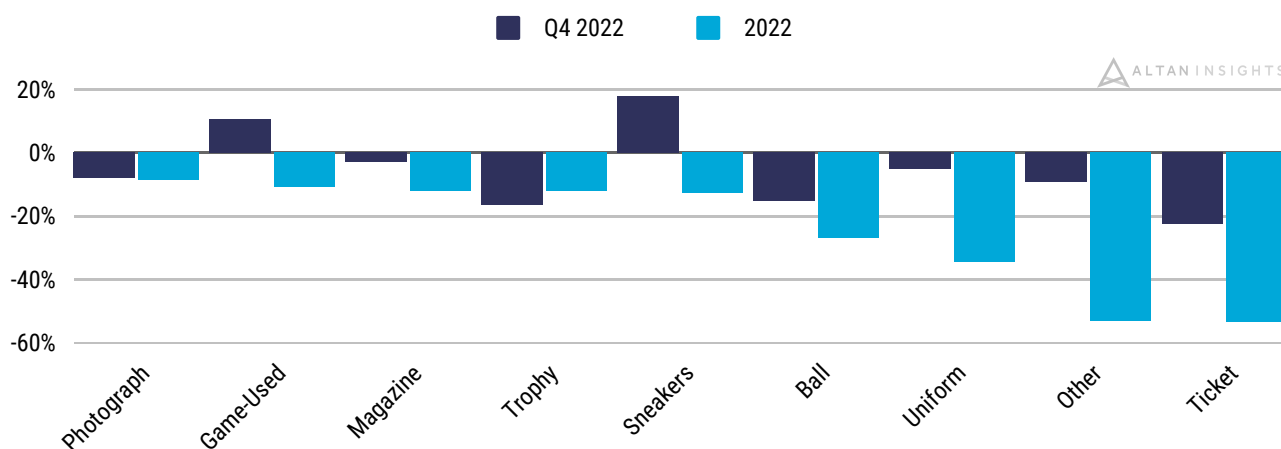


FRACTIONAL IN FOCUS

Headlines & Highlights

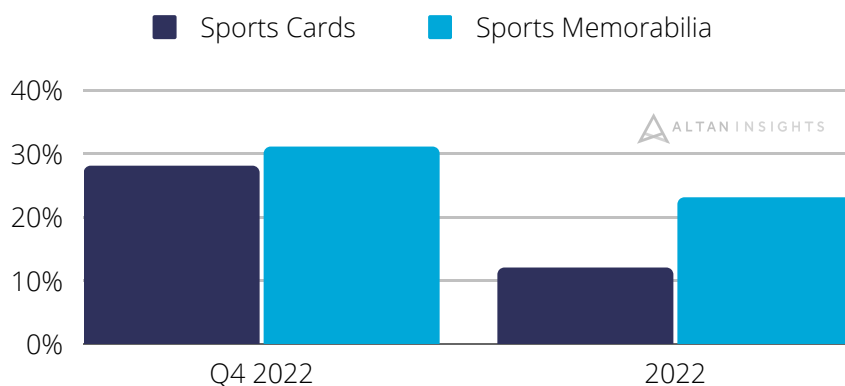
Memorabilia broadly struggled in Q4, though Sneakers and Game-Used provided double-digit positive bright spots. Sneakers benefited from buyout activity for game-used Jordans on Rally. All other categories were down on average for the quarter, with Tickets in particular continuing to plunge. They finished with the worst average 2022 return of -53%, somewhat surprisingly followed by game-worn uniforms at -33%. That category had its relative highlights for the year, but was mostly vulnerable to the same broad weakness experienced elsewhere. Photographs were the best performer of the year, losing just 8% on average.

AVERAGE Q3 MEMORABILIA RETURN (BY ASSET TYPE)



Just under 12% of Sports Card assets trading fractionally delivered positive returns in 2022. That number was 18% at the close of 3Q, meaning more assets fell into negative territory over the course of the fourth quarter. 23% of Sports Memorabilia assets were positive on the year, down from 25% a quarter ago. 28% of Sports Card assets advanced in 4Q, and Sports Memorabilia didn't fare much better at 31%

PERCENT OF ASSETS WITH POSITIVE RETURNS



FRACTIONAL IN FOCUS

Fractional Frontrunners

TOP 5 2022 PERFORMERS

Sports Cards



- | | |
|--|------------|
| 1. 1956 Topps Mickey Mantle
<i>Rally</i> | 94% |
| 2. 2018 National Treasures Josh Allen
<i>Rally</i> | 83% |
| 3. Panini Mega Cracks Lionel Messi
<i>Rally</i> | 50% |
| 4. Prizm Rookie Signatures Luka Doncic
<i>Rally</i> | 47% |
| 5. 1970 Topps Hank Aaron
<i>Rally</i> | 42% |

TOP 5 2022 PERFORMERS

Sports Memorabilia



- | | |
|---|------------|
| 1. Playoff-Worn Jordan XI
<i>Rally</i> | 44% |
| 2. Ruth Gehrig Double Signed Baseball
<i>Collectable</i> | 28% |
| 3. 1985 Signed Jordan I Player Exclusive
<i>Public</i> | 26% |
| 4. Muhammad Ali WBC Belt
<i>Collectable</i> | 24% |
| 5. 1968 Willie Mays Game-Used Bat
<i>Rally</i> | 23% |

TOP 5 2022 PERFORMERS

Bought-Out



- | | |
|---|-------------|
| 1. 2003 NetPro Elite Serena Williams
<i>Otis/Public</i> | 212% |
| 2. National Treasures Giannis Antetokounmpo
<i>Collectable</i> | 109% |
| 3. Flawless Jayson Tatum RPA
<i>Collectable</i> | 105% |
| 4. 2003 Finest LeBron James Refractor
<i>Otis/Public</i> | 72% |
| 5. Babe Ruth Batting Title Bat
<i>Rally</i> | 70% |

FRACTIONAL IN FOCUS

Buyout Activity

BUYOUTS: BY THE NUMBERS

3 Buyout Offers Tabled
3 Buyout Offers Accepted
\$157k in Gross Proceeds
47% Return Since IPO

Given the weakness in markets, buyout activity and liquidity opportunities remain more limited than shareholders would prefer to see. All three offers tabled were accepted, hinting at the eagerness for exit opportunities. Rally sold two pairs of game-worn Michael Jordan sneakers, and on average, 90% of shares voted in favor.

Corey Seager's Orange Refractor Basket was sold off Collectable for \$3,500, well below its \$16,000 IPO, which again, nods to the liquidity starvation.

CORPORATE DEVELOPMENTS

2022 was certainly a slower year than 2021 in terms of startup activity, fundraising, M&A, and product launches, but that doesn't mean it was without its highlights. Here are some of the biggest moves of the year, which could play key roles in forming the years ahead.

Acquisitions:

- **Fanatics** opened the year by officially acquiring Topps in a \$500 million deal in January. The move was long-suspected after Fanatics secured MLB and MLBPA licenses in August of 2021. Fanatics later raised \$1.5B at a \$27B valuation and \$700 million at a \$31B valuation, raising the expectation for further M&A in the collectibles space.
- **Beckett** announced two acquisitions in September: **Due Dilly**, a company using computer vision to provide instant quality assessments and real-time pricing for collectibles, and **NoXX**, billed as an all-in-one platform for card collectors, replete with data and connectivity.
- **eBay** acquired **TCGPlayer** in August for \$295 million, bringing the marketplace and a suite of seller tools in-house, though the company will operate autonomously. TCGPlayer was primarily focused on trading card games until a launch in sports this spring.

Company Launches and Fundraising:

- **Collectors** announced in March that it raised \$100 million in new funding at a \$4.3 billion valuation.
- Trading card platform **Arena Club** launched in September and announced the raise of a further \$10 million in December, bringing the total to \$20 million, with the Series A led by M13.
- **AC Momento** launched its game-worn soccer jersey auction and collection platform in August. The company has raised \$20 million in capital.
- **PWCC** established a \$175 million credit facility led by WhiteHawk Capital Partners for use in its loan and cash advance businesses.

CORPORATE DEVELOPMENTS

Partnership and Product Launches:

- **Fanatics** and **WWE** announced a long-term partnership in March which will include physical, digital, and NFT trading cards.
- Both **Beckett** and **eBay** announced the launch of vaulting services, adding further choices to an already crowded competitive landscape.
- **Christie's** announced the launch of Department X, which will focus on rare collectibles across music, fashion, art, and sports history.
- **Fanatics** and **Topps** announced agreements to produce college football and basketball cards with partnerships including nearly 150 universities and over 200 athlete NIL deals.
- **Sorare** and the **NBA** and **NBAPA** struck a deal to bring NFT-based fantasy sports to NBA fans.
- **Collectable** and **IMG** hosted the first ever **MINT Collective**, presented by **eBay**, a new event for collectors, investors, vendors, and entrepreneurs celebrating the sports collectibles space.

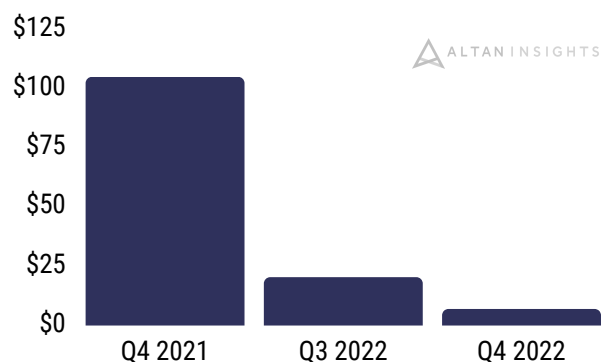
DIGITAL DYNAMICS

Given the broad carnage in both crypto and in the traditional collectibles world, digital sports collectibles have indeed been vulnerable to market weakness. However, the magnitude of weakness is not uniform.

Enthusiasm for the poster child of NFT mania in the sports world, NBA Topshot, continues to recede in rapid fashion. In Q4, volume fell 65% quarter-over-quarter and a staggering 93% year-over-year. The quarterly decline follows a 50% drawdown from Q2 to Q3, underscoring the reality that though the numbers may get smaller, percentage declines need not let up. Unique buyers on the platform numbered 9,414 in December of 2022. In 2021, that figure was 48,829. Finally, big money transactions have all but disappeared from TopShot. Q4 of 2021 saw 134 five-figure sales. In Q4 of 2022, there were just 6 such transactions.

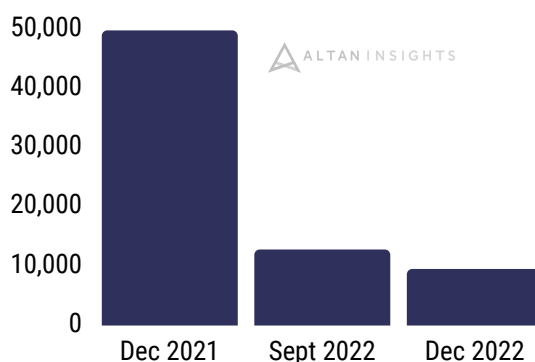
TOPSHOT VOLUME

\$MM



Source: CryptoSlam

TOPSHOT UNIQUE BUYERS



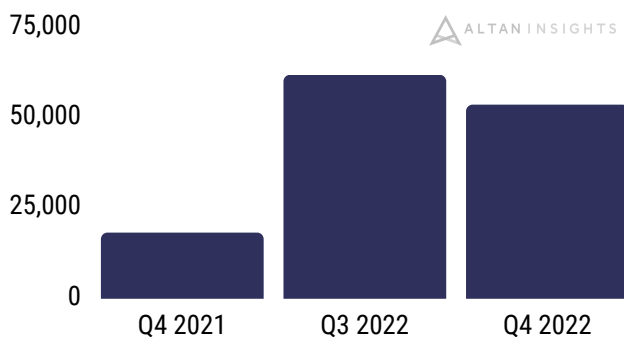
Source: CryptoSlam

Though a newer endeavor, NFL All Day experienced similar struggles to close out the year. The market cap stood at approximately \$84 million at the close of Q3, but has since declined to \$51 million. Unique owners have risen, but only slightly.

DIGITAL DYNAMICS

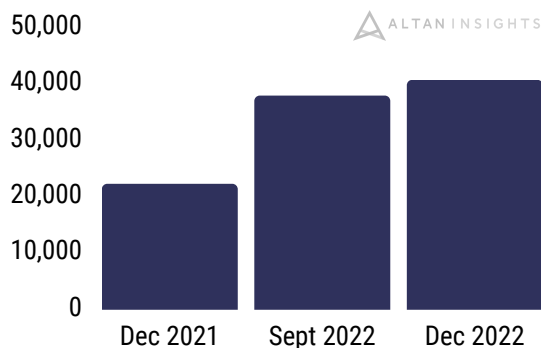
On the other hand, fantasy sports darling Sorare continues to outperform. The platform saw ETH volume hurdle Q4 2021 by 196%. The quarter was not without its troubles though; volume actually declined narrowly quarter-over-quarter, and big-ticket sales were down considerably as well. These dents in the armor come despite the introduction and launch of the platform's NBA game. There were 78 five-figure (USD) sales of single cards in the fourth quarter, and 25 of those came from the NBA. In fact, one of the largest sales on the platform in Q4 was the 48.88 ETH (~\$62k) paid for the first Unique 1/1 Anthony Davis card, trailing only the 82.16 ETH paid for Jude Bellingham's Unique 2021-22 card and the 70.72 ETH paid for Aaron Judge's first Unique card in the midst of his home run success.

SORARE VOLUME (ETH)



Source: CryptoSlam

SORARE UNIQUE BUYERS



Source: CryptoSlam

Panini Blockchain volume increased modestly year-over-year, but unique buyers plummeted 72%, and average transaction size also declined. Quarter-over-quarter, volumes fell just over 6%. Overall, the volume of transactions remains relatively robust, but buyers will have to join the recently reduced fray to fuel growth in overall volumes and in transaction size.

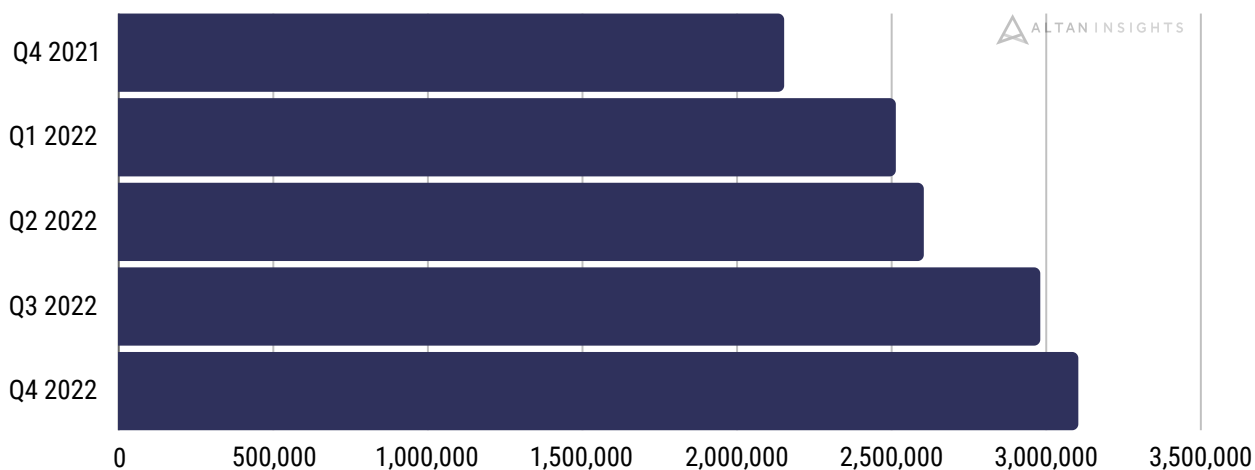
POPULATION GROWTH

With more than 3.1 million graded items in Q4, PSA set yet another company record for total graded items, besting their Q3 total by 4% while outpacing year-over-year totals by more than 44%.

It was the first time in company history that PSA graded more than 3 million items in a quarter. In both October and December, PSA graded at least 1 million items while November fell less than 6,000 items short. In 2022, PSA graded more than 11.2 million items which more than triples the combined annual totals from SGC, Beckett, and CSG.

Trading card games represented 30% of all graded PSA items on the year with sports cards combining for 63%.

PSA TOTAL GRADED ITEMS (VIA GEMRATE)

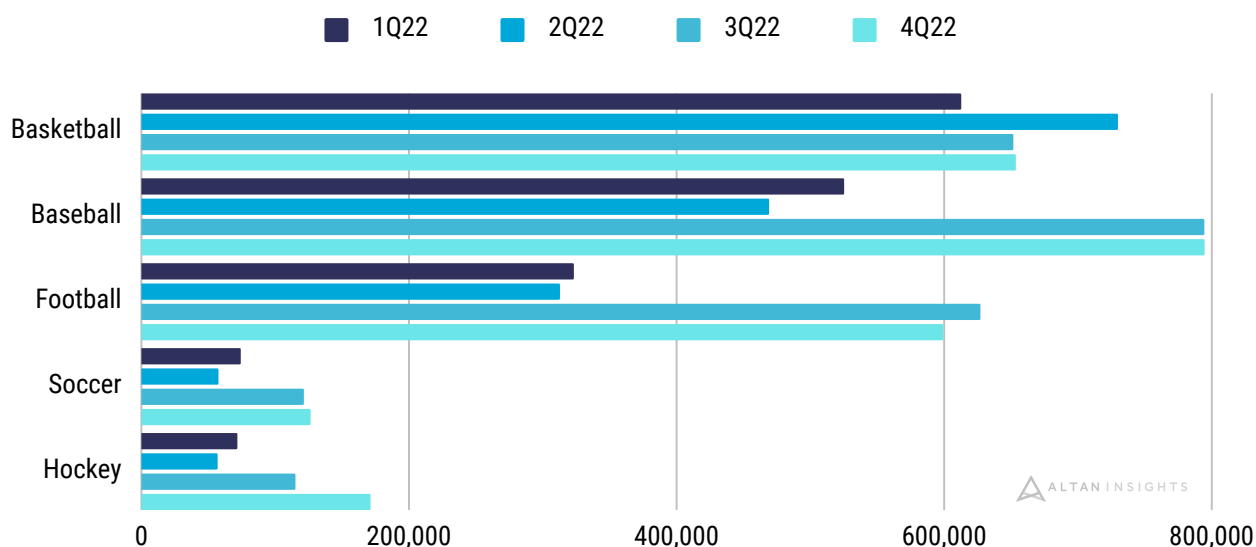


POPULATION GROWTH

For the second straight quarter, baseball was the most graded sport by PSA. Overall in 2022, basketball led with 2.5 million graded cards, while baseball closed with 2.2 million, and football followed with 1.5 million.

At SGC, baseball was the most graded sport with more than 378,000 graded items which beat their totals for football and basketball combined. In a similar trend to PSA, basketball was the most graded sport by Beckett while CSG was led by baseball.

PSA GRADED ITEMS BY SPORT (VIA GEMRATE)





ALTAN INSIGHTS

@altaninsights

| altaninsights.com

Research Team:

Dylan Dittrich, CFA

Head of Research

dylan@altaninsights.com

@dylandittrich

Bradley Calleja

Senior Research Analyst

bradley@altaninsights.com

@bradleycalleja

Keenan Flack

Research Analyst

keenan@altaninsights.com

@keenanflack

For more information, reach us via email at contact@altaninsights.com

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