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WHISKY INTELLIGENCE REPORT

Contents

Contributing Members

Executive Summary

Whisky is Treading Water

Who Performed Best in the Secondary

The Dalmore: A Quarterly Deep Dive

Industry Interview

Disclaimer



	4
	6
	12
Market?	26
	32
	36
	40

Contributing Members

Whisky Intelligence



Duncan McFadzean

Head of Food & Drink

Duncan is Noble & Co's Head of Food & Drink. He has led work for The Borders Distillery, Adelphi, The Macallan, Compass Box, Innis & Gunn and Rare Whisky 101 amongst others. Prior to Noble & Co, Duncan had 10 years as a sell-side equity research analyst for Merrill Lynch and various fund management firms.



Susi Crawford

Head of Corporate Finance

Susi is Noble & Co's Head of Corporate Finance and has worked on a number of transactions in the whisky industry including The Borders Distillery. Prior to Noble & Co, Susi was a finance lawyer working for Clifford Chance, Deutsche Bank and Goldman Sachs in London and in Dubai.



Will Hartop

Corporate Finance Analyst

Will is an experienced corporate finance analyst at Noble & Co, working on transactions across a wide range of sectors including food & drink and renewables. He has been involved on projects for The Borders Distillery and The Macallan. He has been involved in all of the Whisky Intelligence Reports to date.



Steven Coates

CEO

Steven co-founded Brainnwave seven years ago aiming to improve the quality and speed of decision making in business by bringing together cloud technologies and thought leadership in AI and Data science. He previously spend 20 years as a consultant at top firms Accenture and The Boston Consulting Group.



Tim Hurst Chief Data Scientist

Tim leads the Data Science team at Brainnwave. With a PhD in applied mathematical modelling, he moved towards statistical analysis and now works in related areas. He can create and apply state-of-the-art machine learning techniques to our clients' data, helping them understand its predictive and analytic potential.



Anne Braae Data Scientist

Anne is a data scientist with a PhD in molecular genetics and bioinformatics with experience analysing large gene therapy datasets in the biotech industry. With interest in geospatial data, she moved to Brainnwave to solve problems using data from a range of industries to help provide valuable insights for our clients.



Image credit: Sotheby's (The Macallan 56 Year Old Albert Watson)

Executive Summary

Fine and Rare whisky at auction is treading water as volumes rise but pricing falls. In our third report looking at the market, we identify the leading price brackets, regions and brands. This quarter, our deep dive brand is The Dalmore.



Image credit: Sotheby's (The Glenturret Uaine 1987)

The economic turmoil of 2022 is fading from the minds of those in financial markets. This is despite climbing inflation and rising interest rates. There's less fear of the macro climate, leading to stock markets rising around the world.

Meanwhile, in the auction world of fine and rare whisky we're seeing a meaningful recovery in volumes in 2023. Prices for bottles in the secondary market are continuing, on average, to trend down, leaving the overall market largely flat in value terms thanks to the volume increases seen at the same time. If rates peak, we anticipate recovery in pricing as the year progresses.

The Overview

By price bracket, volume strength at the lower price point (£100-£1,000) continues. Whereas at the higher end (£10,000 to £100,000) volumes are down by 44%. We believe that this is partly because collectors and investors are holding back bottles given the weaker pricing environment.

Regionally, Speyside remains strong and has gained market share over the last 12 months, as has Campbeltown. Highlands and Islay lost a meaningful share, while the Lowlands held relatively steady (-0.5%). However, the only region to see an average price increase was the Lowlands (+24%).

There were a number of notable new releases in the period such as The Macallan Folio 7, Glenfarclas 50 year old, The Glenturret Eight Decades and Highland Park 52 Year Old. Two notable auctions in April and May were The Macallan in Lalique Six Pillars Collection, which sold for £500,000 and the Bowmore Arc-52 The Mokume Edition which sold for £225,000.

We look at the top ten performance of the brands by volume, value, average price and growth rates. Laphroaig and Rosebank stand out in this period, but The Macallan not only continues to lead but has extended its lead over Springbank on value transacted so that it is now over four

times the Campbeltown brand. We are delighted to welcome Italian auction house Aste Bolaffi as a data provider to this report.

Brand Deep Dive

In this report, we look closely into The Dalmore. Another of the prestige brands within a small peer group, the quality of the brand and the heritage of the brand leave The Dalmore well positioned. We look at volatility, volume analysis by bottle and average price. The Dalmore is not yet leading the average price charts but with its ability to release exceptionally rare bottles, such as the 62 Year Olds that sold for £286,000 in May 2022, it has a price range that many would envy.

for the whisky market at auction remains uncertain. Higher-end auctions are still achieving good prices but pricing else-

The future direction of pricing

where has softened materially. Will the rising volume we're seeing mean that a supply overhang clears and pricing tightens, at the same time as the macro environment turns for the better? Time will tell.

Slàinte Mhath

Duncan McFadzean Head of Food & Drink Noble & Co

Steven Coates CEO Brainnwave

NOBJE & CO

INVESTMENT BANKING WITH A MODERN TWIST

nobleandcompany.com

Noble & Co is a boutique Scottish advisory firm, providing intelligent and creative advice to companies during key financial and corporate milestones. We specialise in equity fund raising at scale, debt advisory, and research.

With focus on six sectors - Food & Drink, Energy & Power, Technology, Financial Services, Sustainability and Infrastructure - we work with a range of market-leading clients on a number of the country's most ambitious projects. Distilling Insight. Informed decisions, every time.

Brainnwave's decision intelligence, paired with the latest technology and data science offerings, results in efficient problem solving and confident decision making.

We use our intelligence platform, Mosaic, to give clients access to the most distilled data-driven insights, allowing them to harness the power they need to make the most informed decisions.

Every single time.





Whisky is Treading Water

Economic indicators have continued to stabilise, albeit with the next major trend not yet clear. Financial markets are assuming the worst has passed and that we are close to or at the peak of rising interest rates. Fine and rare whisky has shown strength in volumes in our dataset, but both categories continued to trend down in average price. We anticipate this will continue until the supply overhang clears.

In our last report we highlighted the decline in whisky prices. However, we noted that many of the macro indicators were stable to positive, which may lead to a more benign environment for whisky through the rest of 2023. We're encouraged to see this trend is registering in the data for bottle sales at auction. With volumes now rising, might this be the beginning of a more buoyant market?

Volumes Rising, Prices Falling

Since our last report, inflation seems to have peaked but it's not yet significantly fallen at a consumer price level. Commodi- up as people feel more confities and energy prices have fallen materially but it is only in recent days that this has begun to be felt by the end buyer. Interest rates, which will lag inflation up and down, have continued to rise. The full effect of this has not yet hit borrowers thanks to fixed-rate mortgages. The cost of living remains high and wage increases are lagging inflation.

Financial markets suggest the worst has passed. The NASDAQ index, arguably one of the best indicators of appetite for risk in the main markets, is up 19% since its December 2022 low. more changeable market over The FTSE 100, is up more than 36% since 2020, rising by 9% since September 2022. It's estimated rates will plateau, or not rise too much from here, before flatter in April. beginning to fall.

What does this mean for whisky and other luxury assets? We would expect to see ongoing pressures in the mid-priced range, with volumes picking dent about the future, but pricing remaining flattish until the supply overhang clears.

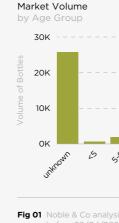
In this report, we look at the last 12 months, as well as the year-to-date ("ytd") performance to the end of April 2023. Overall, we have seen a flatter market for whisky at auction. Our whisky index started the year at a value of 180.17 and has risen to just 180.80. The total auctioned value ytd is down 6.5% on the same period last year, but up 27% on the same period in 2021, reflecting the the last year. The meaningful weakness in Q3 and Q4 2022 was followed by a stronger January-March 2023 and then

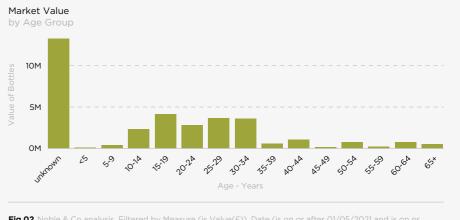
GLENDRONACH AGED 50 YEARS

Image credit: Sotheby's (The GlenDronach 50 Year Old 1971)

Average prices per bottle at auction have continued to trend down and reached £475 in April versus £597 for April 2022, a decline of 20%. Volumes of bottles traded have trended up. The last 12 months saw volumes up by 25% on the 12 months prior to that, but the ytd figures show 2023 up by 9% on 2022. The normal seasonal trends are being evidenced, of a very slow January ('dry January) and then stronger February, March and

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auction have continued to trend
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auction house sales in May.
April this year was stronger
than March (+10%), whereas
last year April was down 3% on
March 2022.





Our Predictions

Next quarter we anticipate the auction house sales will drive higher average values as typically happens in this season of the year, and auction houses will see strong results, especially with more limited editions. The ongoing volume strength at the lower end of the market, which we discuss later, we expect will continue.

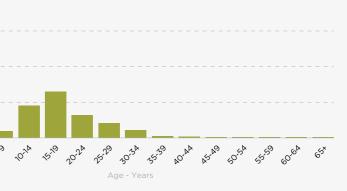


Fig 01 Noble & Co analysis. Filtered by Measure (is Volume), Date (is on or after 01/05/2021 and is on or before 30/04/2023)

Fig 02 Noble & Co analysis. Filtered by Measure (is Value(£)), Date (is on or after 01/05/2021 and is on or before 30/04/2023)

Our dataset's age profile highlights the focus of the volumes in the 10 to 24 years old range, with limited focus on sub-10year-old whiskies. No-age-statement whiskies remain a material part of the volume of the market. The same chart by value shows the premium customers paid for older and rarer whiskies.



Image credit: Sotheby's (The Dalmore 48 Year Old Luminary No. 1)

Analysis by Price Segment -The Average Price Over the Last 12 Months is falling

£100-£1,000: Volumes Continue to Rise Strongly. Volume strength is what stands out in the £100-£1,000 range. Interestingly the average price at auction is down by 8% over the year and down 2% since the start of 2023 (continuing the flatter market trend).

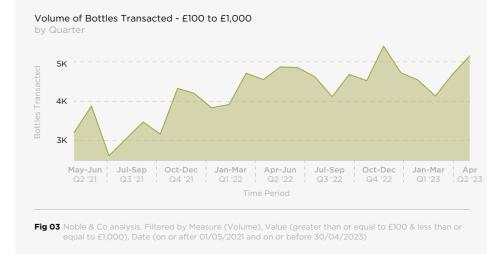
£1000-£10,000: prices are in

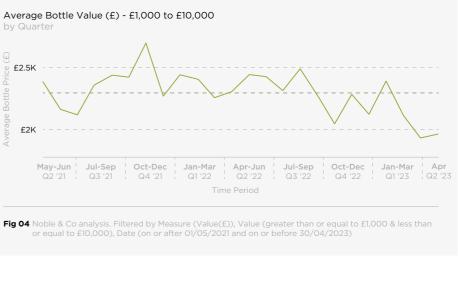
decline. In this segment, the average price has fallen by 15% over the year with most of the decline in August to October and then from January to March 2023. Year to date the average price is down by 18%, but it rallied marginally in April, +1.5%. The Macallan dominates this segment, with the number of bottles sold being over seven times the nearest brand, Springbank.

£10,000-£100,000: Limited Supply and Weaker Prices. In the higher priced segment, average

prices were down by 27% year on year and down 1% year to date. It's important to note that the mix of bottles sold, due to lower volumes, plays a material part. Volumes of bottles sold were down by a significant 45% year to date versus the same period in 2022. We believe this to be a combination of reserve prices not being met and also new supply not coming to market.

Over £100,000: There were no bottles in our dataset in the 2023 year-to-date period that sold for over £100,000. However, Bowmore did achieve an exceptional £225,000 for its Arc-52 The Mokume Edition after the data cut-off date but prior to publication. The Macallan Reach also sold at auction for a price of £180,000 via Whisky Auctioneer, following the cut-off date for this report.







Analysis of Performance by Region

Region	Perce volur (12 m
Speyside	45%
Islay	20%
Highland	15.5%
Campbeltown	16.5%
Lowland	3%

Source: Noble & Co Analysis

Instead, there is volatility within a range and Islay whiskies seem to consistently bounce between the range.

Highland: The region has seen prices continue to depreciate. Although an average price of £1,076 was realised in May 2022, this was an outlier and prices since April 2021 have averaged between £286 and £515, with the region currently trading at the lower end of this range (£321 in April 2023). Consistently across our reports, we have noted that Highland whiskies seem less in demand (in general) by collectors and investors. The one bright light is that monthly volumes are up by 19% since January, versus down by 9% in the same period last year.

Campbeltown: Following from a decline in volumes transacted between November and January, the region has seen a strong bounce (+109%) in bottles traded per month from January to April.



Image credit: Sotheby's (Highland Park 50 Year Old)

Analysis by Region

Speyside: A region continuing to take market share from the others, volumes in April were up by 28% on 12 months prior and up by 88% on two years prior. Although average prices are falling, they still remain materially above the other regions - largely as a result of the premium price The Macallan bottles trade for. Value transacted is largely flat as a result of the volume growth

being offset by the average price decline.

Islay: Average prices have been on the slide since November 2021 and took another lurch down over the last 12 months. Monthly volumes have fallen by 2% since January, compared to -1% in the same period last year. Since January 2021, there is no discernible consistent volume trend.



Although a large part is seasonal, it is similar to last year's seasonal uplift (+121%) in what was an exceptionally strong year for Campbeltown whiskies. Average prices have fallen sharply from the £620 achieved in March 2022 to an average of £322 year to date. The region continues to make headlines for all the plans of upcoming new distilleries such as R&B Distillers at Machrihanish, Brave New Spirits at Machrihanish, North Star Spirits with its Dal Riata distillery as well as two other planned distillery openings that Noble & Co is aware of.

Lowland: Volumes fell sharply from September to February. This was the opposite pattern from 12 months prior, but it then bounced back sharply through March and April, reaching levels last seen in October 2022. Average prices are up by 48% since January, although absolute volumes of bottles remain the lowest of all the regions.



Image credit: Sotheby's (Bowmore Arc-52 The Mokume Edition)

New releases

There has been a range of fascinating new releases this year to date but there was also the highly unusual and celebrated event of the Coronation in the UK, for which a number of distillers launched special edition bottles to mark the occasion.

The Macallan announced the release of the Folio 7. the 7th bottle in its Archival series. The series marks historic advertising campaigns in print and on-screen from the 1970s to the 1990s. Available initially by ballot, the bottles retail at £350. The bottles are for sale in the MALTDAQ store for £1,125 at the time of writing.

The Glenturret launched their collection The Glenturret Eight Decades, in collaboration with Lalique and American artist James Turrell. Bottles from this collection will sell for £80,000 per bottle and the bottles include

whisky that was distilled in the years between 1987 and 1998.

The Glenrothes launched "The 42", a 42-year-old, the second oldest whisky it has ever released. There are 1,134 bottles available for sale.

Bladnoch released The Dragon Series, based on the Dragon fractal curve in mathematics. The series includes five bottles.

Diageo launched its 2023 Distillers Edition, a collection of six single malts, including bottles from Lagavulin, Talisker, Oban, Cragganmore, Glenkinchie and Dalwhinnie.

Highland Park has released a 54-year-old single malt that retails at £39,000. The bottle marks the upcoming 225th anniversary of the distillery.

Loch Lomond released a 54-yearold single malt whisky, in a crystal decanter.

66 The Macallan continued to dominate the average value per bottle transacted where there were more than ten bottles sold **J**

Glenfarclas released a 50-year- old whisky are being released old, with a limited 836 bottles, to celebrate John Grant. Chairman of the business and his five decades in the industry. The family has owned the distillery since 1865, which is an incredible achievement. It will retail for £9,000.

The Macallan announced the return of its Colour Collection to Global Travel Retail, with more details to come later in the year.

The Doddie Weir Foundation released a whisky, in partnership with Ardnamurchan Distillery, in memory of the rugby legend. The 327 bottles sold out within 30 minutes.

The King's Coronation itself led to new releases

a "Private Collection from Glen Grant Distillery", distilled in 1948, the year of King Charles's birth. Only 281 bottles of the 74-year-

Gordon & Macphail launched

and are for sale at £25,000.

Bladnoch, which was re-opened by King Charles in 2019 (as Prince Charles), released a limited-edition bottling of a King's Cask, with 289 bottles.

Balmoral Estate partnered with Royal Lochnagar to release an 18-year-old single malt to mark the occasion. Retailing at £360, at the time of writing they are on sale at the MALTDAQ store for £1,436.

Notable auctions in the period and upcoming

In May, we saw the auction of The Legacy Collection by Sotheby's in New York. This lot included 142 bottles of Scotch. American and Japanese whisk(e)y.

Bottles in the lot included The Dalmore and The Balvenie, and the highlight of the lot was an extensive collection (56 bottles)



Highest Average Value (£)

The Macallan 25 YO (Anniversary Malt '58) Springbank 27 YO (Countdown Collection) Rosebank 21 YO (Roses Edition Enchantment) Rosebank 21 YO (Enchantment 6th Edition) Springbank 25 YO (Limited Edition 2014)

Fig O6 Noble & Co analysis. Filtered by Count of Vo

£180,000 - significantly above the retail price for the bottle and remains one of the few bottles that is capable of clearing the £100,000 price point.

Later in the year The Distillers charity event, the "One of One" auction will take place and we are anticipating an exceptionally strong auction again after 2021's +£2.4m was raised in one evening. This auction has bottles for sale that will never be released again. This includes the Bowmore Onyx 51-year-old 1970 and the Talisker Cask of Distinction 1978.

Bottle Highlights of the Period

During the period in question (01/01/2023-30/04/2023), The Macallan continued to domi-

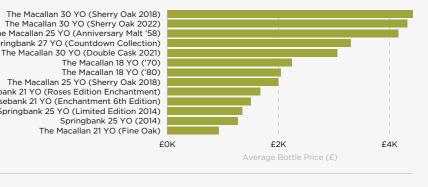


of Fine & Rare, dating back to the 1920s and including the exceptionally rare 1957 bottling. The expected lot value was \$1.9m.

In April 2023, Sotheby's also realised a £500,000 sale for 'Lalique in Six Pillars". The price achieved was an increase of 10% on a similar sale in September 2022. The bottles include rare and over-50-year-old single malt whisky in individual crystal decanters.

Bowmore and Aston Martin sold an 'Arc-52 The Mokume Edition' decanter of 52-year-old single malt whisky to Sotheby's for its May 26th Auction. The sale price achieved was £225,000.

Whisky Auctioneer announced a lot of The Reach, the famous 81-year-old The Macallan. The highest bid was £201,000 but failed to meet the reserve price. We understand that the bottle was re-auctioned and sold for



nate the average value per bottle transacted where there were more than ten bottles sold in the period, with eight of the top fourteen bottles sold. The bottles with the greatest volatility included Glenfarclas 1974 25 Year Old, The Macallan 10 Year Old sherry oak, Glenfarclas 21 Year Old, Laphroaig 10 Year Old cask strength and Springbank 1972 21 Year Old. Seven of the top ten bottles by value transacted in the period were The Macallan, with the other three being Springbank. When it comes to volume transacted, five of the top ten were Springbank and two were from The Macallan. The Macallan 30 Year Old sherry oak 2018 release remains the bottle with the highest value transacted over the period.

Top 10 **Brands**

By Volume

by Distilleries The Macallar

30/04/2023)

Distillery	Bottles Sold Jan - Apr 2022	Bottles Sold Jan - Apr 2023	% Change
The Macallan	4,277	6,943	62%
Springbank	2,732	3,500	28%
Ardbeg	1,255	1,113	-11%
Bowmore	885	826	-7%
Bruichladdich	421	545	29%
GlenAllachie	377	479	27%
Lagavulin	444	427	-4%
Glendronach	370	391	6%
Arran	441	359	-19%
Laphroaig	301	359	19%

Source: Noble & Co analysis | Note: For the period January 01 to April 30

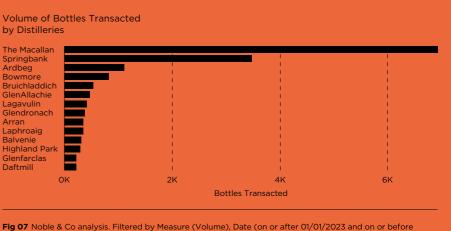
Some trends in performance them as the second and third remain the same as in previous quarters. The Macallan still has a strong lead, and is followed by **Top Brands by Value** Bowmore and Springbank as the other two names seeing the Despite a fall in average price most value transacted.

Top Brands by Volume

The Macallan remains the market leader by a long way. Springbank and Ardbeg's recent strategy of product releases have

Who Performed **Best in the** Secondary **Market?**

The year-to-date performance in the secondary market has seen a mixed bag of performance. The Macallan continues to lead the market but like most brands saw average prices decline versus the period a year ago. We continue to look at volume, value and price for the brands and assess the top ten in each category. Closed distilleries and independent bottlers are included also.



placed players.

realised, The Macallan is over four times the value transacted in the secondary market versus the nearest other brand - a gap that has increased. Laphroaig and GlenAllachie also delivered strong performances within the period.

Top 10 **Brands** by Value

Top 10

Brands by

Per Bottle

Average Price

Distillery	Value Transacted (£) Jan - Apr 2022	Value Transacted (£) Jan - Apr 2023	% Change
The Macallan	£4,200,124	£4,888,183	16%
Springbank	£1,305,749	£1,152,709	-12%
Bowmore	£662,173	£381,222	-42%
Ardbeg	£439,143	£356,729	-19%
Rosebank	£164,929	£171,041	4%
Laphroaig	£103,404	£154,501	49%
Glendronach	£144,629	£153,148	6%
Lagavulin	£155,902	£143,106	-8%
Balvenie	£200,683	£140,362	-30%
GlenAllachie	£101,758	£136,061	34%

Top 10 Fastest Growing by Volume

Distillery
The Dalmore
Benromach
The Macallan
Dailuaine
Glen Keith
Tamdhu
Deanston
Glenturret
Speyside
Talisker



Source: Noble & Co analysis | Note: For the period January 01 to April 30

Distillery	Average Price (£) Jan - Apr 2022	Average Price (£) Jan - Apr 2023	% Change
Rosebank	£1,385.96	£1,266.97	-9%
The Macallan	£982.03	£704.04	-28%
Bowmore	£748.22	£461.53	-38%
Balvenie	£570.12	£433.22	-24%
Laphroaig	£343.53	£430.37	25%
Glendronach	£390.89	£391.68	0%
Lagavulin	£351.13	£335.14	-5%
Springbank	£477.95	£329.35	-31%
Ardbeg	£349.91	£320.51	-8%
GlenAllachie	£269.92	£284.05	-5%

Source: Noble & Co analysis | Note: For the period January 01 to April 30

Top Brands by Average Price Per Bottle

For this analysis, we looked at the top ten brands by value transacted and what their average price was during the period between January to April and how it had moved for each brand. The table is ranked from highest average price in 2023 ytd to lowest average price in 2023 ytd. Only two of the ten

saw average prices increase - as ever, this is always as much about the supply to the market from owners and the brand timing of new releases, as it is about the market conditions.

Fastest Growing by Volume

Which distilleries grew fastest? For those that sold more than ten bottles, the standouts were The Dalmore, The Macallan and Benromach.

Bottles Sold Jan - Apr 2022	Bottles Sold Jan - Apr 2023	% Change
91	192	111%
26	44	69%
4,277	6,943	62%
19	29	53%
12	18	50%
90	132	47%
20	29	45%
52	74	42%
102	138	35%
113	151	34%

Source: Noble & Co analysis | Note: For the period January 01 to April 30

Image credit: Sotheby's (The Dalmore 50 Year Old Crystal Decanter)

Top 10 Increase in Value

Distillery	Value Transacted (£) Jan - Apr 2022	Value Transacted (£) Jan - Apr 2023	% Change
Dailuaine	£4,883.20	£10,806.88	121%
Tamdhu	£18,654.72	£33,209.24	78%
Aberlour	£11,016.32	£19,318.88	75%
Loch Lomond	£1,909.60	£3,343.20	75%
Glenturret	£15,497.68	£24,993.47	61%
Clynelish	£45,757.60	£73,257.63	60%
Laphroaig	£103,403.70	£154,501.30	49%
Scapa	£8,976.80	£13,053.60	45%
Longmorn	£11,572.32	£16,567.64	43%
GlenAllachie	£101,758.10	£136,061.20	34%

Source: Noble & Co analysis | Note: For the period January 01 to April 30

Top Increase in Value

The greatest increase in absolute value transacted goes to Laphroaig and GlenAllachie, with Dailuaine taking the fastest % growth spot in the table.

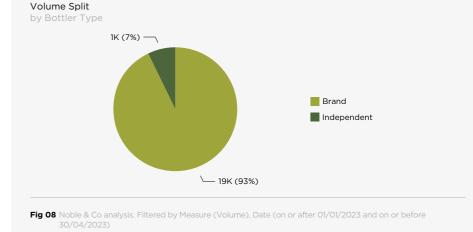
Route to Market

Year to date the independent bottlers were only 7% of bottles sold, a surprising result given the amount of commentary on the independent bottler releases. Independent Bottlers also only accounted for 5% of the value year to date - hence a lower average price than Original Bottlers.

Rosebank recently celebrated the commissioning of its boiler at the distillery, ahead of its reopening. It is unclear whether the current trends in the market of higher prices and volumes for its bottles are as a result of the distillery acquiring older stock in the secondary market, investors anticipating the re-opening or additional supply ahead of the opening. Either way, Rosebank leads the league for the closed distilleries, as well as one of the highest average prices overall.

Top Closed Distilleries

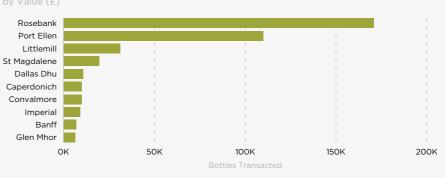
by Volume



Top 10 Closed Distilleries



Top 10 Closed Distilleries by Value (£)



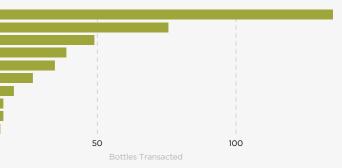


Fig 09 Noble & Co analysis. Filtered by Measure (Volume), Date (on or after 01/01/2023 and on or before 30/04/2023), Distillery Status (Demolished or Mothballed)

Fig 10 Noble & Co analysis. Filtered by Measure (Value (£)), Date (on or after 01/01/2023 and on or before 30/04/2023), Distillery Status (Demolished or Mothballed)

The Dalmore: A Quarterly Deep Dive

The Dalmore is one of the prestige brands in the secondary market for fine and rare whisky. With a long heritage story, a key personality in Richard Paterson as well as the backing of a global drinks brand in Emperador, the brand is well positioned for the next decade.

A focus on aged brands has led to a higher average price than many, interspersed with exceptional six figure prices for rare bottles. The 12 Year Old and 18 Year Old are the volume plays.

History of Dalmore

Noble & Co

Dalmore distillery was founded in 1839 by Alexander Matheson, of the Jardine Matheson trading empire. The Mackenzie family took over the distillery in 1878 and it remained family owned until 1960.

Whyte & Mackay, who are now part of Emperador, acquired the distillery and have built it into one of the strongest primary market luxury brands out there. Located on the Cromarty Firth, just North of the Black Isle, from where The Dalmore sources its Barley for production.

The distillery is currently closed to visitors as it is undergoing refurbishment. The distillery is famous for Master Distiller Richard Paterson who for over 50 years delivered a highly regarded single malt. As of 2016 Richard Paterson passed The Dalmore torch to Master Whisky Maker Gregg Glass.

G Bladnoch released the Dragon series, based on the Dragon fractal curve in mathematics. The series includes five bottles.**JJ**

The Dalmore Product Range

The Dalmore's portfolio has a similar profile to other luxury spirits brands, whereas their additional limited releases and collections are unique to The Dalmore. The key age statement bottles for The Dalmore are the 12 Year Old, 15 Year Old, 18 Year Old and the 21 Year Old, forming part of the Principal Collection - The Dalmore core range. The Principal Collection is completed by three no-age statement ("NAS") whiskies -Port Wood Reserve; Cigar Malt Reserve; King Alexander III.

The Dalmore also has a strong travel retail presence with The Ensemble Collection (The Trio, The Quartet and The Quintet) and a travel retail exclusive King Alexander III.

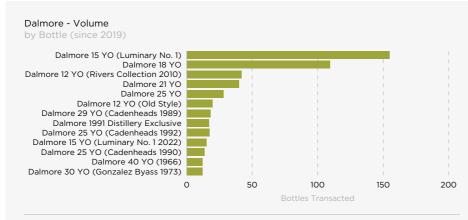
At the upper end of age statement whiskies, The Dalmore has the Aged and Rare collection with 25, 28 and 30 Year Old.

There are also very rare releases such as The Luminary Collection, a set of three bottles first released in Q4 2022 and crafted in a partnership with the V&A Museum. "The Rare", a 48 year old single malt within the Luminary Collection series was released as just three bottles. The Collectible series within the Luminary Collection is 15,000 bottles.

The Decades Collection – which is a series of 6 crystal decanters with single malt distilled across the decades (1951, 1967, 1979, 1980, 1995 and 2000) – was another highlight for The Dalmore and a record breaking performance at action - \$1.1m was paid for the collection in October 2021.

The Dalmore Performance

In the secondary market The Dalmore lags significantly in volume versus the market leaders. It has a price range similar to The Macallan. Most aged Noble & Co





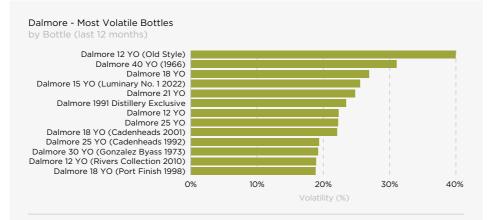


Fig 12 Noble & Co analysis. Count Volume (greater than or equal to 10), Date (on or after 01/01/2019)

bottles traded at over £100 are between 10 and 29 years old, reflecting the mix of the 12, 15, 18 and 21 year olds within the core portfolio. NAS whiskies are also frequently traded on the secondary market.

Comparing 2019 to 2022, annual volumes at auction in our dataset have fallen by 25% and the average price is down by 59%. However, this masks high volatility in both with volumes down

in 2020, up in 2021 and down in once again 2022. Average prices fell in 2020 and 2021 but rose again in 2022. One high value sale could potentially move the average price in a year by 100%, such is the top end of the price range for The Dalmore.

Year to date volumes are up by 111%. Average prices have, with the rest of the market, continued to trend down.

Dalmore - Highest Average Value (£)

Dalmore 30 YO (Gonzalez Byass 1973) Dalmore 1991 Distillery Exclusive Dalmore 15 YO (Luminary No. 1 2022) Dalmore 15 YO (Luminary No. 1) Dalmore 20 YO (Port Finish 1996) Dalmore 25 YO (Cadenheads 1990) Dalmore 29 YO (Cadenheads 1989) Dalmore 18 YO (Port Finish 1998)

Average Price per Bottle

The chart excludes bottles where there were less than 10 bottles sold in the period. The all-time high for a single bottle from The Dalmore was achieved in May 2022, with a sale of The Cromarty 62 year old which sold for £286,000 and at the same time The Mackenzie 62 year old sold for the same price. This was more than double the previous held record. Across our entire dataset, the average price realised was £691. Over the last 12 months that figure was £1258, or if the top two sales are excluded £355!

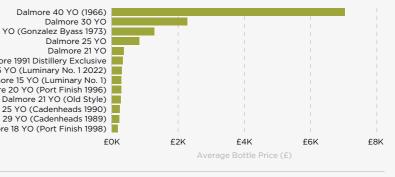


Fig 13 Noble & Co analysis. Count Volume (greater than or equal to 10), Date (on or after 01/01/2019)

Conclusion

We believe that The Dalmore will remain a top brand in its market. The release strategy and pricing seem to be reinforcing a desire to remain a lower volume luxury player, but we expect volumes to rise over time. Whyte & Mackay owner Emperador announced in May 2023 that it plans to invest \$125m into its whisky business. The Dalmore is well placed to benefit from an owner with significant capital to deploy. While lagging The Macallan in distilling capacity, it still looks well placed to be a prestige brand within the sector at auction.

Industry Interview with Craig Gardner



Q: What's your name and what role do you have in the whisky industry?

A: My name is Craig Gardner and I am Deputy General Manager at Scotch Whisky Auctions. I'm responsible for the day-to-day running of the business and also work with our bottle authenticity and valuations teams.

Q: How did first get into the whisky industry?

A: My academic background is in historical research and more specifically the study of Scottish material culture and ancient artefacts. After finishing my studies, I was on the lookout for a museum role where I could utilise these skills. A position became available here at Scotch Whisky Auctions which offered me the opportunity to combine my love of whisky with the research skills gained from my university training and I haven't looked back since.

Q: What can you currently see happening in the whisky auction market?

A: There are always peaks and troughs in any market but the auction market has been thriving for a number of years now. Certain regions have gained prominence recently, with the most notable perhaps being Campbeltown. We have also seen steady growth for rarer Japanese whiskies and high-end The Macallan releases remain a favourite amongst many investors. In general, the market is in rude health and this shows no signs of abating.

Q: What has been the most notable moment of the whisky at auction year to date?

At the tail end of 2022 we broke our record hammer price for a single lot, selling three bottles of The Macallan Red Collection for a combined total of £200,000.

66 The influx of foreign investors from the Far **East and the United** States has been key to the growth of the whisky auction market **J**

Q: What are you most looking forward to in the market for the remainder of 2023?

A: We are about to auction a rare bottle from the wreck of the SS Politician, the doomed cargo ship which was the inspiration for the 1949 classic film 'Whisky Galore'. Lots like this always pique my interest as they keenly demonstrate the intersection between history, whisky and Scottish material culture.

More generally, the influx of foreign investors from the Far East and the United States has been key to the growth of the whisky auction market in the last decade and we hope to see this strong growth maintained throughout 2023.

Insights Into the Data Methodology

How We Collected Data

Data Collection

Brainnwave collected the data through APIs, file transfer and direct gathering with the express consent of the data providers. The data includes transactions that mostly happened at auction within the UK and some that happened in overseas locations, particularly Hong Kong. The data goes back as far as 2010, but not all data providers gave data back to 2010. The data was collated up to 30th April 2023 and the majority of the analysis refers to the time period from 1st January 2023 to 30th April 2023. The recorded price includes the sale total, auction fees, and VAT. Brainnwave secured data from the main auction houses as well as a meaningful proportion of the auction sites. However, we do not have a dataset covering 100% of the fine and rare whisky market transacted at auction. We believe that this is a representative sample, but there is always the possibility that there could be meaningful trend differences when 100% of the market is analysed.

Data Cleansing and Analysis

Brainnwave gathered new data for the period January 1st 2023 to April 30th 2023. This was 38,054 bottles and 37,240 auction lots, which accounted for 761,080 data points. The total all-time dataset now includes 650,312 bottles, 638,500 auction lots and 13,006,000 datapoints. There were 34,050 single malt Scotch bottles in the period January 1st 2023 to April 30th 2023.

The data was cleansed and filtered by whisky type, geography, auction source, age, bottle size, region, brand, bottler, price of the auction, distillery, distillery status, date of the auction, edition, and number of items in the auction lot. Single malt casks were not reviewed for this analysis. This involved negative screening for certain key words and phrases and excluding these, followed by spot checks and manual checks where possible given sample sizes.

The data analysis and visualisation tools used enable the review of data at a single transaction level and gave us sight of the raw data behind the filters. The full dataset does include blended scotch transactions but we excluded these from our analysis. Transactions of whisky from other countries were excluded, where identifiable. We used the approved data to define the whisky indices.

The majority of the analysis has focused on bottles sold as single bottles, not as part of collections (as it is complex to attribute value to any one bottle within a collection sold as a group). We have focused on 70cl bottles (700ml) and 75cl bottles (750ml) as these account for the vast majority of transactions and the standard size bottles in most markets.

Sources of data included Bonhams, JustWhisky, Maltdaq, Prestige Whisky Auction, Scotch Whisky Auctions, Sotheby's, Speyside Whisky Auctions, Wyatt Trading and Aste Bolaffi. Not all sources provide data for the same time period and therefore in general the data analysed is either restricted to a shorter time period, or for longer analysis, to a subset of the auction sources.

We assessed the single malt Scotch whisky market with bottles selling for over £100 at auction. The figure of £100 is an arbitrary one and was chosen by Noble & Co. Volume, value and average prices paid can be skewed by a number of factors.

Value may change over a period because the mix of what is being sold is changing, or there is a temporary release of more supply, or the timing of major auctions.

Volume for a particular brand may increase because a collector released one large amount of stock, or there is a key brand announcement. Volumes refer to the number of bottles sold. We focus on auction lots of single bottles, rather than including multiple bottle lots, where attribution of value per bottle is more complex and less reliable. However, Brainnwave analysis has shown that multiple bottle lots only account for 3% of auction volumes.

Average prices paid can move based on currencies, taxation, fees and gaming of auctions by collectors. Prices taken were the winning bid in pounds and any reference to 'value' for a bottle or bottles relate to those winning prices.

When value is considered in this report it is taken to mean the amount paid by the buyer to acquire the bottle x the volume of transactions that occurred in the period. This is not representative of the value of all bottles of whisky held by investors or collectors, it is instead the amount transacted at auction. It also excludes any private transactions that did not happen through auctions. Total value captured in the twelve months to April 2023 was £39.7m. As we noted in our prior report, this is not the entirety of the auction market and trends for the whole market may be different. However, Brainnwave believes that the dataset is statistically significant and any variation is unlikely to be meaningful. We

estimate that this £39.7m is equivalent to 45% of the overall auction market.

Bottles were matched based on the title of the lot, the bottle age, volume (bottle size), brand, distillery and abv. Any bottles which did not have all information available for age, volume, abv and either a brand or distillery could not be confidently matched and were not grouped into bottle titles. Brainnwave then applied a natural language processing tool to perform 'fuzzy matching' of the bottle lot title to match bottles with similar titles. A manual check was performed using the winning bid for each bottle title match to confirm outliers were indeed valid and to tune the natural language processing tool. Brainnwave's current method limits the number of false bottle matches but may create multiple bottle title matches for the same product. For the purposes of this analysis Brainnwave sought to minimise the number of bottles which could be grouped incorrectly.

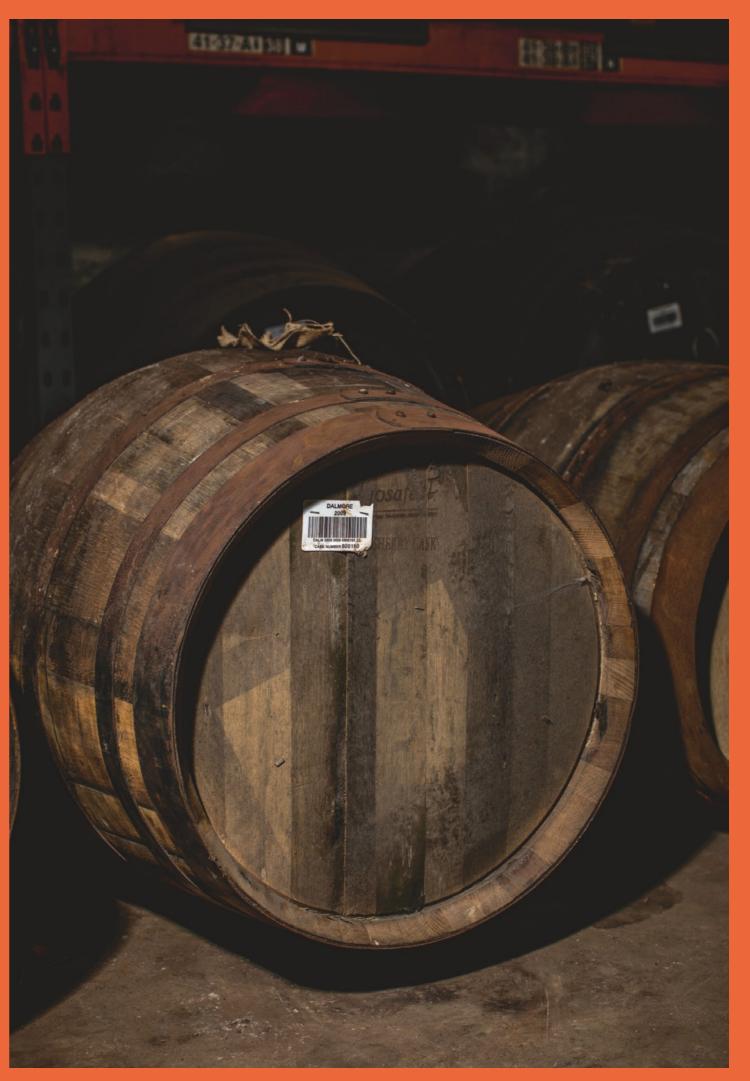
We have included indices in this report. These are indices based on all of the relevant bottles, rather than selecting particular bottles. The downside of this methodology is that the bottles sold in any given period will change, thus skewing the index. However, the upside is that it is more representative of what is happening in the auction market as a whole. Past performance is no guide to the future. The indices are subject to fine-tuning and may change in future releases, but we expect the overall behaviour to be the same.



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Whisky Intelligence

Thanks to the auction houses and auction sites that shared data and insights for this report.

Auction Houses

Sotheby's Wine

Bonhams

ASTE BOLAFFI

Auction Sites



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42

