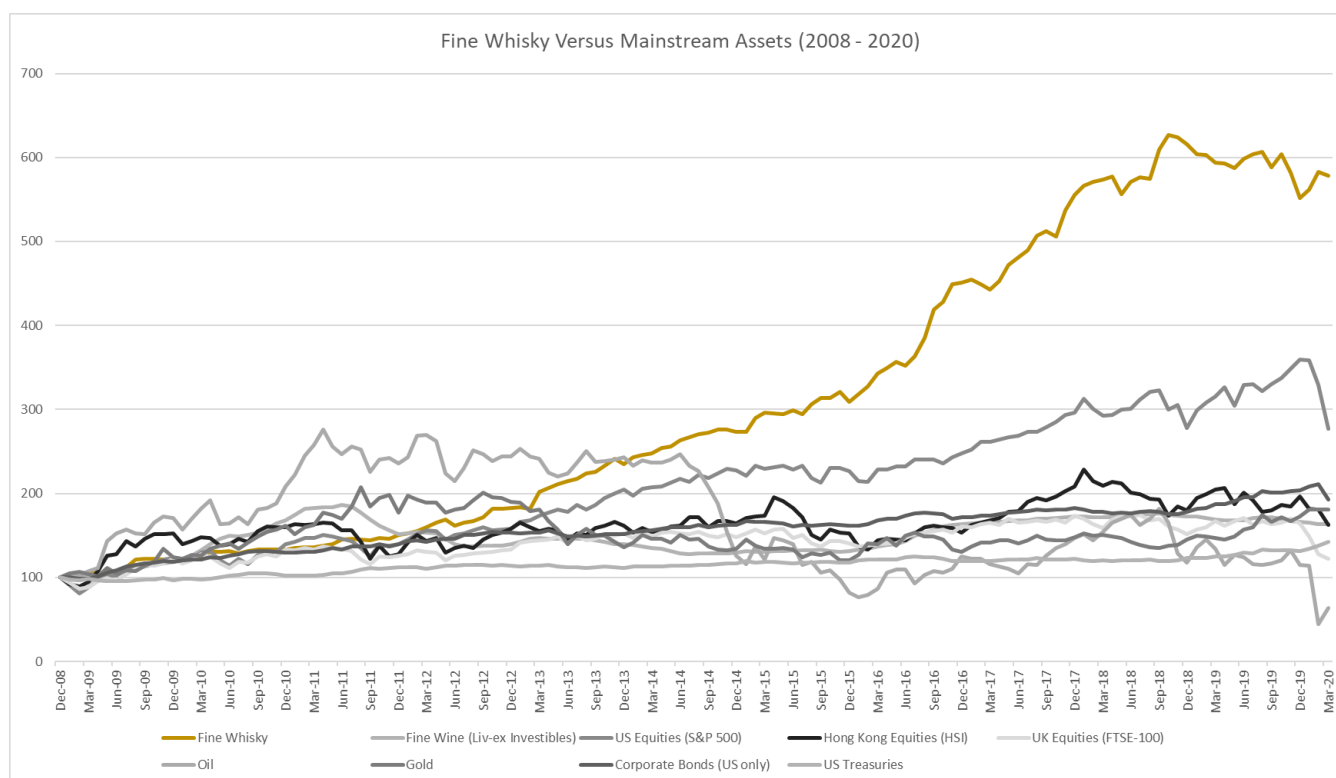




Fine Whisky A Collector's Guide

- This guide is for anyone interested in **fine whisky collecting**, either from a drinking or an investment perspective.
- Fine whisky comes mainly from **Scotland, Japan, Ireland** and the **United States**.
- Fine whisky has been one of the **best performing alternative assets** over the past decade, rising **+578%** since 2008.
- The fine whisky market is relatively underdeveloped compared to fine wine, but trading volumes are rising.
- Collectors can purchase **individual bottles** or **whole casks** of fine whisky.
- Fine whisky can be purchased and stored **under bond** or as duty paid.
- Cru has recently expanded its offering to encompass **rare and fine whisky**.

Fine Whisky has Outperformed Mainstream Assets since 2008



Sources: Rare Whisky 101, Bloomberg and Liv-ex.com

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If you are interested in learning more about how to build a fine whisky collection please email us at whisky@cruworldwine.com.

A Brief History of Whisky

'Whisky' is an alcoholic spirit made from distilled grain (usually barley, corn, rye or wheat).

Whisky is made all over the world, but most fine whisky comes from **Scotland, Japan, Ireland** and the **United States**. In most countries the spirit has to be at least 40% alcohol by volume ('ABV') to legally be called 'whisky'.

Part of the appeal and mystique of fine whisky is its long history and traditions.



Old Bushmills Distillery in Northern Ireland is the world's oldest operating distillery

Distillation of alcohol is first recorded in 13th century Italy.

By the 15th century this technique had spread to **Scotland** and **Ireland**.

With a license to distil Irish whiskey dating from 1608, **Old Bushmills Distillery** in Northern Ireland (left) is the world's oldest licensed whisky distillery operating today.

Whisky began to be made in **Japan** in the 1920s and has become internationally collectable in the last two decades.

The **United States** also has a long history of fine whiskey production (it was introduced by immigrant Scots in the 18th century). Whiskey is made across America, but fine **Bourbon whiskey** is today centred on its spiritual home of **Kentucky**.

Today, whisky is made in over 50 different countries; but they all use variations on the same basic techniques developed in Scotland and Ireland almost 500 years ago.

How Fine Whisky is Made

Whisky is a **simple** and **natural** product. It only has three ingredients: grain, water and yeast.

There are five main steps to making whisky:

Step 1: **Malting**

Grain is soaked in warm water to catalyse germination. This releases starches (sugars) which will later turn into alcohol.

Step 2: **Mashing**

Pure water is run through the germinated grains (now called 'grist') to release soluble sugars. This watery mixture is called 'wort'.



Malted Islay barley ready for milling at Bruichladdich

Step 3: **Fermentation**

The wort goes into tanks into which yeast is added. This starts fermentation. The yeasts 'eat' the sugars in the watery wort, producing alcohol as a by-product. This process typically takes 48 hours. The result is a 5-10% ABV liquid called 'wash'.

Step 4: **Distillation**

The wash is heated inside (usually) copper 'stills' (see right). The wash vaporizes, releasing the alcohols which condense and are captured, typically in a second still.

Step 5: **Maturation**

The distilled spirit is put into oak casks and stored (see below). It is commonly slightly diluted down to around 62.5% ABV before going into cask.



Copper pot stills at Old Bushmills Distillery



Casks aging at Islay legend Ardbeg. Ardbeg uses mostly ex-Bourbon casks and only 1st and 2nd fills for aging its whisky

Factors Affecting the Quality of Fine Whisky

Casks

Unlike wine, top quality whisky spends most of its life in oak, not glass. The cask used for the aging is therefore very important.

Old Sherry casks are traditionally used for aging whisky in Scotland, but **ex-Bourbon** casks are used too (as at Ardbeg, see above). And recently there has been a trend to use ex-wine, ex-port and even ex-Château d'Yquem casks too. During maturation, the flavours of the spirit combine with natural compounds in the wood to give the whisky its distinctive flavours and aromas.

Lipids, tannins, lactones and aldehydes from the oak add to the distinctive aroma of whisky. In addition, wholly new compounds are created as the oak reacts with the spirit adding complexity which the palate can later sense and enjoy.

Know your Casks

Cask Name	Volume Held
Quarter	125 Litres
Barrel	200 Litres
Hogshead	250 Litres
Butt	500 Litres
Puncheon	550 Litres

American regulations mean that Bourbon whisky is matured in new casks.

This means that a huge number of 'once used' ex-bourbon casks are available to be re-used for aging Scottish whisky.

A Bourbon "Barrel" holds only around 200 litres, so additional staves are often added to increase its capacity to create a 250 litre "Hogshead".

The first time a cask is filled with whisky it is called a "**fresh fill**" cask. These casks will still have around 10% of the former contents (usually Sherry or Bourbon) absorbed in the oak. This residual liquid also interacts with the whisky adding complexity and flavours.

Fresh fill ex-sherry casks produce a dramatic effect, colouring the whisky darkly and imparting a dominant sherry character.

A cask which has already been used for aging whisky is called a "**refill**" cask. These are generally used for longer-term (20+ years) maturation, as these casks are less active.

Bourbon casks are always charred on the inside, giving Bourbon whisky its unique flavour (see below).



Bourbon casks are always charred on the inside. Credit: Lux Row Distillers

The surface area of the cask dictates the speed of maturation, with larger casks taking longer to mature.



Bowmore on the island of Islay is surrounded by sea waters

Air Quality: The wood in a cask is porous, allowing the whisky to 'breathe' the surrounding air.

This breathing can give whisky unique characteristics; although many whiskies are aged together in professional warehouses because there isn't space at the distillery.

If the distillery is next to the sea, or on an island or in the middle of the Highlands then the air quality, temperature and humidity will be different and will influence the end product.

At **Bowmore**, on the coast of the island of **Islay**, the whisky 'breathes' the sea air and this imparts a salty, iodine character to the whisky.

Water Quality:

The purity and mineral composition of the water producing the wort will influence the flavour of the whisky. This is whisky's 'terroir'. For example, if the water filters through peated soils (found, for example, on Islay) that will impact a specific flavour.

Some of Japan's top distilleries use water from virgin snow melt which flows down mountains before being filtered through ancient granite rocks.



Water used at Yamazaki Distillery near Kyoto in Japan starts as pure snow melt which is filtered through ancient granite

Types of Fine Whisky

'Single Malt' Whisky

Most fine whisky is 'single malt', which means it comes from a *single distillery* made from a mash that uses only *one particular malted grain*.

But **special blends** are also increasingly important. Producers like **Royal Salute** and the iconic **Tribute to Honour** are using techniques familiar in fine wine to create perfectly balanced special editions. Some top Japanese distilleries like Hibiki are also creating very expensive blends.

In most cases, single malts will bear the name of the distillery, with an age statement and perhaps some indication of any special treatments (such as maturation in a port wine cask).



“Single Cask” Whisky

Unless it is labelled as ‘single-cask’, even a single malt whisky will be a blend of different casks and years.

This is because the blender wants to achieve a certain distillery style, which can only be done by blending casks with different characteristics (‘first fill’, ‘refill’ etc.).

A **single cask** (also known as ‘single barrel’) whisky, however, is bottled from an individual cask; and often the bottles are labelled with a specific barrel and bottle number.

The taste of these whiskies may vary substantially from cask to cask, even from the same distillery.

Single cask whiskies are usually the more sought-after and expensive of all whisky!

“Cask Strength” Whisky

Sometimes called ‘barrel proof’, a ‘cask strength’ whisky is one where the whisky was not significantly diluted with water prior to maturation. These whiskies are usually in the ABV range of 58-66%.

Some of the finest and rarest of whiskies come from individual ‘cask strength’ casks.

Fine Whisky Producing Countries

Scotland

Scotland is the spiritual home of fine whisky and produces the majority of collectable bottles and casks.

Scottish whiskies are generally distilled twice. "Scotch" must be distilled in Scotland and matured for a minimum of three years in oak casks. Any age statement on the bottle (e.g. "25 Year Old") must refer to the age of the *youngest* whisky used.

There are around 120 malt whisky distilleries operating in Scotland today. In addition, there are around 40 “ghost” or “silent” distilleries. These are distilleries that are no longer making new whisky, but their historic production is still being released as it matures. As you can imagine, silent distillery whiskies are often highly sought-after by collectors.

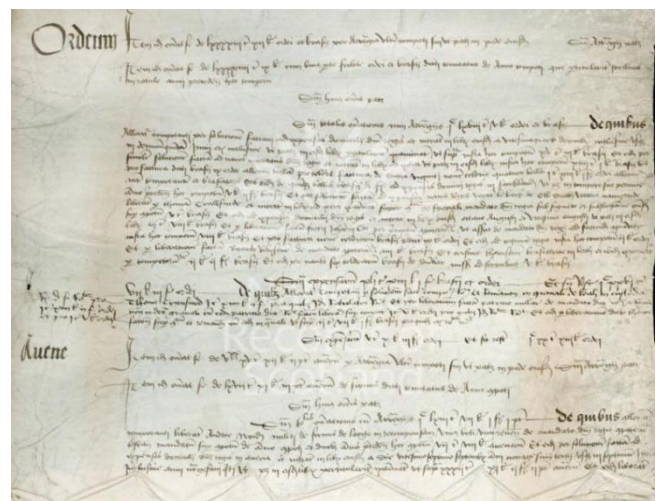
History of Scotch Whisky

Scotch whisky is first mentioned in the Exchequer Rolls of Scotland in 1495 (see right).

Scotch whisky evolved from a Gaelic drink called “*uisge beatha*”, which means “*water of life*”.

All Scotch whisky was originally made only from malted barley.

But distilleries began introducing whisky made from wheat and rye in the late 18th century.



1495 is the first written record of Scotch whisky in Exchequer Rolls of Scotland. A Friar called John Cor is named as the distiller

Regulation of Scotch Whisky

Scotch Whisky is governed by strict regulations to ensure its quality. To qualify as Scotch whisky it must be:

- Produced at a distillery in Scotland from water and malted barley (to which only whole grains of other cereals may be added).
- Fermented at the same distillery only by adding yeast.
- Distilled at an alcoholic strength by volume of less than 94.8% ABV (to ensure that the aroma and taste reflect the raw materials).
- Matured in an excise warehouse in Scotland in oak casks of not exceeding 700 litres for at least three years.
- Retaining the colour, aroma and taste of the raw materials used in its production and maturation.
- Containing no added substances, other than water and plain caramel colouring.
- Comprising a minimum alcoholic strength by volume of 40% (80% US proof).

Scotch Whisky Producing Regions

There are six main whisky producing regions:

- **Lowlands**
- **Highlands**
- **Islay**
- **Islands**
- **Speyside**
- **Campbeltown**



Image Credit: The Whiskypedia

- Lowlands** This region does not possess many top tier distilleries with the important exceptions of **Rosebank** (silent) and **Bladnoch**. But a number of exciting new projects have been launched recently and this is certainly a region to keep an eye on.
- Highlands** The Highlands is by far the largest region in Scotland (both in area and whisky volume). The most important Highland distilleries from a collector's perspective are **Brora**, **Clynelish**, **Dalmore**, **Glendronach**, **Glenmorangie**, **Glengoyne** and **Glendronach**.
- Islay** This island off Scotland's west coast has nine distilleries, all of which are important: **Ardbeg**, **Bowmore**, **Bruichladdich**, **Bunnahabhain**, **Caol Ila**, **Kilchoman**, **Lagavulin**, **Laphroaig** and **Port Ellen** (about to re-open).
- Campbeltown** Campbeltown was once home to over 30 distilleries, but currently it has only three distilleries operating: Glen Scotia, Glengyle, and **Springbank**. Springbank is one of the most important fine Scottish whiskies produced today.
- Speyside** Speyside gets its name from the River Spey which cuts through the region and provides water to many distilleries. It has the largest number of distilleries (approx. 105) in Scotland. It includes many of the great names of fine Scottish whisky: **Aberlour**, **Balvenie**, **Glenfarclas**, **Glenfiddich**, **Glenlivet**, **Glenrothes**, **Macallan** and **Mortlach**.
- The Islands** This is an (officially) unrecognised sub-region which includes all the whisky-producing islands (except Islay): Arran, Jura, Mull, Orkney, and Skye. The most important distilleries are: **Arran**, **Highland Park**, **Jura**, **Scapa**, **Talisker** and **Tobermory**.

Ireland

The main difference between Irish and Scottish whisky is that Irish is usually **distilled three times**.

Irish whiskey (an "e" is added) must be produced in Ireland and aged in wooden casks for a period of no less than three years. Unpeated malt is almost always used. There are several types of whiskey common to Ireland: single malt, single grain, blended whiskey and pure pot still whiskey.

Ireland was once teeming with distilleries. This fell to just two (amazingly) at the nadir in the 1970s when only **Old Bushmills** (Northern Ireland) and **New Midleton Distillery** (Cork) were operating. **Cooley Distillery** was opened in 1987 and today 'silent' distilleries like **Kilbeggan** (closed in 1954) are being re-opened. By 2019 the number of operational distilleries had grown back to 25.



The Old Midleton distillery dates from 1780 but is now closed. Today it stands next to brand new €130 million modern Jamesons distillery.

Japan

Japanese whisky has exploded onto the international scene in the last two decades.

Whisky production in Japan began around 1870. But the first commercial production was in 1924 with the opening of the country's first distillery (**Yamazaki**) near Kyoto.

The style of Japanese whisky is most similar to Scottish whisky.

There are many companies producing whisky in Japan, but the two best-known are **Suntory** and **Nikka**. Both these produce a number of top fine single malt whiskies and also special bottlings and limited editions which are of great interest to collectors.



The Yamazaki distillery – Japan's first, founded in 1923

The two names you need to know in Japanese whisky history are **Shinjiro Torii** and **Masataka Taketsuru**.

Torii was the founder of the original Kotobukiya company (which is today **Suntory Yamazaki**). He chose this location because the area was so famous for the purity of its water that the legendary tea master Sen no Rikyū had already built a famous tearoom there!



Water purity is crucial to Japanese whisky. This is the Suntory Okudaisen water plant supplying snow melt water to produce Yamazaki whisky.

Suntory Yamazaki is still one of Japan's most collected whiskies today.

Torii hired **Masataka Taketsuru** as distiller at Yamazaki. Taketsuru had studied distilling in Scotland and brought this knowledge back to Japan.

In 1934, Taketsuru left Kotobukiya to form his own company which he called **Dainipponkaju**. This company would eventually change its name to a more western friendly 'Nikka'.

In this new venture Taketsuru established the **Yoichi** distillery in Hokkaidō.

The base of most Japanese whiskies is a mash of malted barley, dried in kilns fired with a little peat (although less than in peated Scotch whiskies). It is usually distilled using the pot still method.

Before 2000, Japanese whisky was primarily consumed domestically and exports were limited. But this changed when Suntory and Nikka started to win prestigious international awards from around 2007 onwards. Since that time Japanese whisky has earned a reputation for serious quality and collectors' interest has risen sharply.

United States of America

American whiskey is distilled from a fermented mash of cereal grain. The United States has a much broader range of whiskeys, and many are of 'fine whiskey' quality. The USA produces malt, rye, rye malt and wheat whiskeys in many States. But the **Bourbon** whiskey of **Kentucky** is where most collectors focus their attention.



Bourbon Whiskey

"Bourbon" (reportedly derived from the name of French royal line, although no one knows exactly why) is made across the southern states of the United States – where it has been distilled since the 18th century (probably introduced by immigrant Scots).

To be classified as Bourbon, a whiskey must be made from mash that consists of at least 51% corn (maize). All American whiskey must be distilled to no more than 80% ABV and put into barrel at no more than 125 proof. Only water may be added to the final whiskey (no colouring or flavouring).

Crucially, aging of Bourbon must be in new charred oak barrels. The charred oak is what gives Bourbon its distinctive reddish colour and special flavour. Bourbon production was significantly impacted by the years of Prohibition (1920-1933). But as in Japan, the last couple of decades have seen it storm back to life. Today there are over 70 distilleries in Kentucky producing Bourbon which is avidly collected by connoisseurs around the world.

Some of the most collectable Bourbon distilleries are: **Blanton's, Michter's, Old Rip Van Winkle** (pictured above), **Eagle Rare, Willett Distillery, A.H. Hirsch** and **John E. Fitzgerald**.

Rest of the World

The 'big four' whisky producing counties no longer have the field to themselves. As whisky sales and prices have risen, a global wave of whisky-making has crossed the globe. Because whisky isn't as reliant on the environment as wine, we are seeing wonderful new 'cult' whiskies appear in **India** (Amrut), **Taiwan** (Kavalan), **Australia** (Sullivan's) **the Netherlands** (Zuidam) and **Sweden** (Mackmyra) to name just a few.

The Value of Fine Whisky

In 2019 a *single bottle* of **The Macallan 1926** (pictured right) was sold at auction for US\$1.9 million, the highest ever price for a single bottle of whisky.

Distilled in 1926 and bottled in 1986, this bottle was one of only 40 produced from legendary Macallan cask #263.

Another bottle from the batch, with a hand painted design by Irish artist Michael Dillon, had previously held the record of the world's most expensive whisky.

What are the factors which drive some whiskies to attain such values?

Reputation of the Distillery

All distilleries are *not* created equal. Some are much more desirable than others in the eyes of collectors. We cannot say whether this is purely down to intrinsic quality, efficacy of marketing, or some combination of both!



A bottle 1926 Macallan sold for US\$ 1.9 million in 2019, the highest ever price for a single bottle

Each country has its clear price leaders. In Scotland this is still **Macallan** (although the gap is closing as Macallan prices have softened recently and other distilleries rise in popularity).

In Japan, the oldest distilleries with most history are the most valuable. These include **Karuizawa**, **Hanyu** and of course **Suntory Yamazaki**.

In the United States, Bourbon has been very popular in recent years with distilleries like **Buffalo Trace**, **Blanton's** and **Weller** challenging, and even eclipsing, long-standing favourites like **Van Winkle**.

In Ireland, **Old Midleton Distillery** still makes the running in terms of value, despite being closed in 1975 and fully de-commissioned. Other distilleries gaining in price include Cork's **Redbreast** and **The Teeling Whiskey Company**.

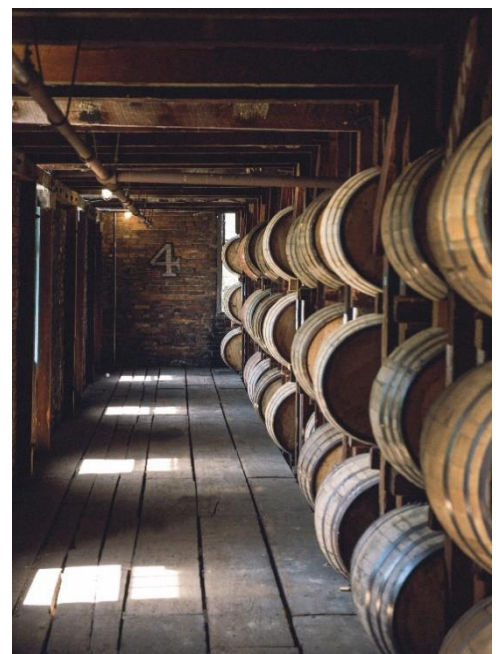
Age of the Whisky

Whisky does not age in the bottle, only in the cask. So the age of the whisky when it leaves the cask is the critical number.

Given the difficulties of keeping the spirit above 40% ABV over many decades, and allowing for the depredations of the whisky angels, very old whisky is very rare.

Whisky experts agree that, as with aged wine, long-aged whisky is intrinsically more desirable. It is smoother and more complex as a result of the time it has spent interacting with the oak and ambient atmosphere.

50+ years ago there just wasn't much whisky being made. Over the past two decades there has also been huge commercial pressure on distilleries to bottle and release older whisky to meet increased global demand. This has further depleted aged stocks



Barrels aging at Buffalo Trace distillery in Kentucky

The Whisky 'Age Curve'

The price of fine whisky rises dramatically as it gets older. The graphic below shows the price of Macallan whisky of age.



This 'age curve' is created by the fact that most casks do not have a long life. It is estimated that 90% of casks are bottled before the whisky exceeds 12 years of age. So once a whisky is beyond that point it becomes rare.

The age curve is what fine whisky investors aim to ride to produce financial returns over the long-term.

The Fine Whisky Market

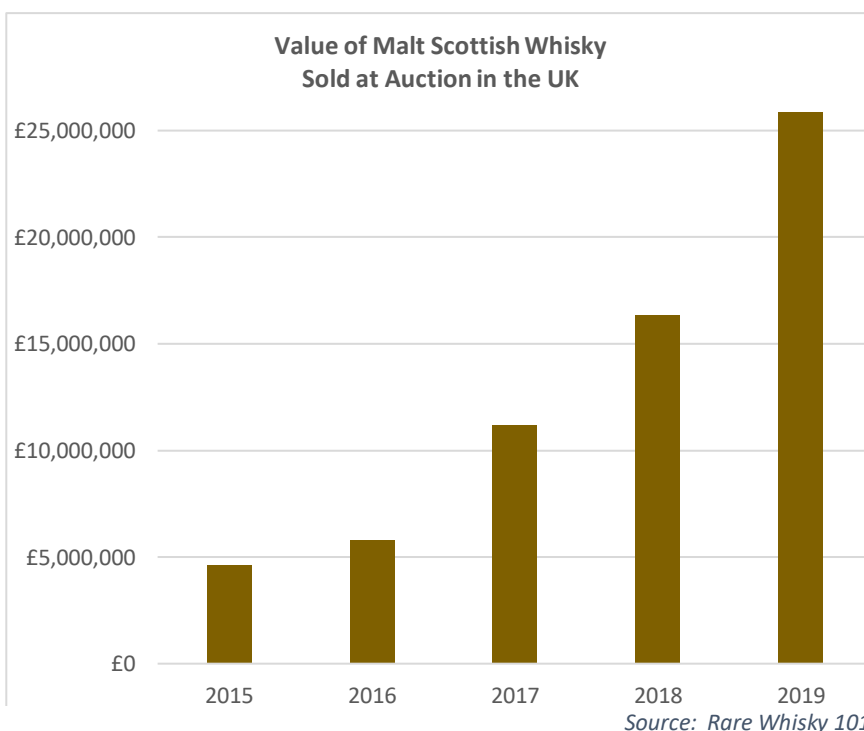
The fine whisky market is undeveloped.

As with fine wine in the 1980s and 1990s (before the establishment of the Liv-ex.com exchange in 2000) fine whisky trading is dominated by auction houses, with their inherent costs, constraints and drags on liquidity.

But there are encouraging signs that fine whisky liquidity is starting to improve.

Trading Volumes

The value of Scottish single malt whisky sold at auction in the United Kingdom rose by 562% between 2015 and 2019.



And in 2018 107,890 bottles of Scottish single malt were traded in the secondary market.

This increase in trading volumes has been driven in part by the rapid **price appreciation** of the world’s best whiskies (see below).

But is also reflects an explosion of interest in fine whisky trading across the world.



Source: Rare Whisky 101

Trading Will Become More Efficient

The fine whisky market will become more efficient and trading volumes will rise.

At present, the whisky market consists of auction houses and a handful of specialised merchants offering a predominantly 'retail' service.

A handful of small fine wine funds also exist, but they add very little in terms of secondary trading or platform development.

As prices continue to rise (see above), and collector interest builds, it seems inevitable that platform and trading technology will develop and it will get easier and cheaper to buy, sell and trade fine whisky in both bottle and cask format.

Market Share by Value		
Position	Distillery	Market Share
1	Macallan	37.10%
2	Bowmore	8.79%
3	Ardbeg	4.38%
4	Port Ellen	3.41%
5	Laphroaig	3.22%
6	Springbank	3.02%
7	Highland Park	2.69%
8	Glendronach	2.04%
9	Lagavulin	2.00%
10	Glenfarclas	1.90%

Source: Rare Whisky 101

Market Breadth Will Improve

As with most embryonic markets, trading volumes are currently concentrated in a handful of 'market leaders'.

Macallan alone current accounts for almost 40% of Scottish whisky trading volume.

This pattern is very similar to fine wine in the 2000s, when over 90% of volume on the Liv-ex.com exchange was red Bordeaux.

Today that number has fallen to less than 50% as collector interest has diversified across a far broader range of wine.

It seems inevitable that fine whisky will follow the same pattern.

How to Buy Whisky

There are two ways to own fine whisky: i) **individual bottles** or ii) **whole casks**.

Individual Bottles

Buying **single bottles** is easy and will be familiar to anyone with a fine wine background.

In order to avoid paying unnecessary duty and sales tax (and to keep the re-sale value as high as possible) you need to keep your bottles in a **bonded account** in a third party professional warehouse. But mainly rare individual bottles will only be available in 'duty paid' form, which is absolutely fine and doesn't detract from their investment potential.

Cru offers free bonded whisky storage accounts.

Provenance and Condition

The 'weak link' in the anti-counterfeiting chain are auction houses. Unless you are an expert prepared to put in hours of work, the best advice is to buy only from a trusted merchant who is active in the whisky market. This way you will be protected against forgeries and other provenance / condition issues.

Whole Casks

We encourage all serious long-term collectors to consider buying **whole casks** of whisky.

There are numerous advantages to this route, most obviously the potential for greater financial gains. Per litre of spirit, it is also *far cheaper* to store a cask – an important consideration in a 10-15+ year investment.

There are two routes to cask ownership:

1. **Buy a cask and have it filled with new spirit.** This route has the greatest potential for long-term financial gain, as the price of new spirit is often quite affordable.
2. **Buy an aged cask on the secondary market.** 'Aged' can mean anything from a few years to 20+. We believe that some of the best cask buys are when the cask is already around 5 years old (see more below).

'En Primeur' Cask Sales

The easiest way to start cask investing is to buy a newly filled cask being sold by a distillery in what is called an 'en primeur' programme.

Diageo, which owns 28 single malt whisky distilleries in Scotland, runs a programme called 'Casks of Distinction' which enables selected private clients to buy a limited number of newly filled casks.

Macallan also offers an opportunity to buy a very limited number of new casks each year via an invitation-only programme. Casks start at around GBP35,000 and must be held for a minimum of 12 years. But it is almost impossible to get into this programme as a new collector.

But as with fine wine, some of the best returns will be made by buying casks of new spirit from 'up and coming' distilleries. So our recommendation is to work with a trusted advisor to steer you in the direction of a new distillery with good prospects that is prepared to sell a cask of new spirit. These certainly exist and are likely to give you the best chance of the best financial return.

Storage

Once purchased, the cask needs to stay under bond either at the distillery or a bonded warehouse to age. In addition to capacity at distilleries, there are around 30 special purpose bonded warehouses across Scotland that can age casks for private individuals.

In a few warehouses you may even be able to 'visit' your cask and can draw off bottles for your own consumption without bottling the whole cask.



Casks aging under bond in dedicated professional warehouse

Aging the Cask

As it ages in the cask, two things happen to whisky: 1) it decreases in volume (with evaporation) and 2) it loses alcoholic strength.

The evaporation rate ("angels' share") is typically 2% of volume per year.

The angel's share is just annoying (unless you are an angel), but the loss of ABV needs careful monitoring because if the ABV drops below the legal minimum for whisky (40% ABV in most territories) then it is no longer whisky and it will lose its value.

Fine whisky investors therefore price each cask based on the **current age** of the whisky within it, the **current ABV** and the current **evaporation rate**.

Monitoring the Cask

Fortunately, the warehouse will monitor the contents of your cask to determine its current volume and its ABV. This process is called a *re-gauging*. Standard practice is to check a cask every three years up to 15 years of age and then annually after that. This will give you a *Re-gauged Litres of Alcohol* ('RLA') estimate.

Cask Storage Rates

Storing a cask of whisky is not as expensive as you might think, typically only £35 per year for a smaller cask and £65 for a larger butt or puncheon size. Add on maybe £40 a year to insure it. Given that a small cask can hold up to 250 litres of whisky this is pretty cost effective (and far cheaper than storing individual bottles).

Bottling

When you want to liquidate your investment you have two options:

- i) Sell the whole cask; or
- ii) Bottle the whisky and sell the bottles.

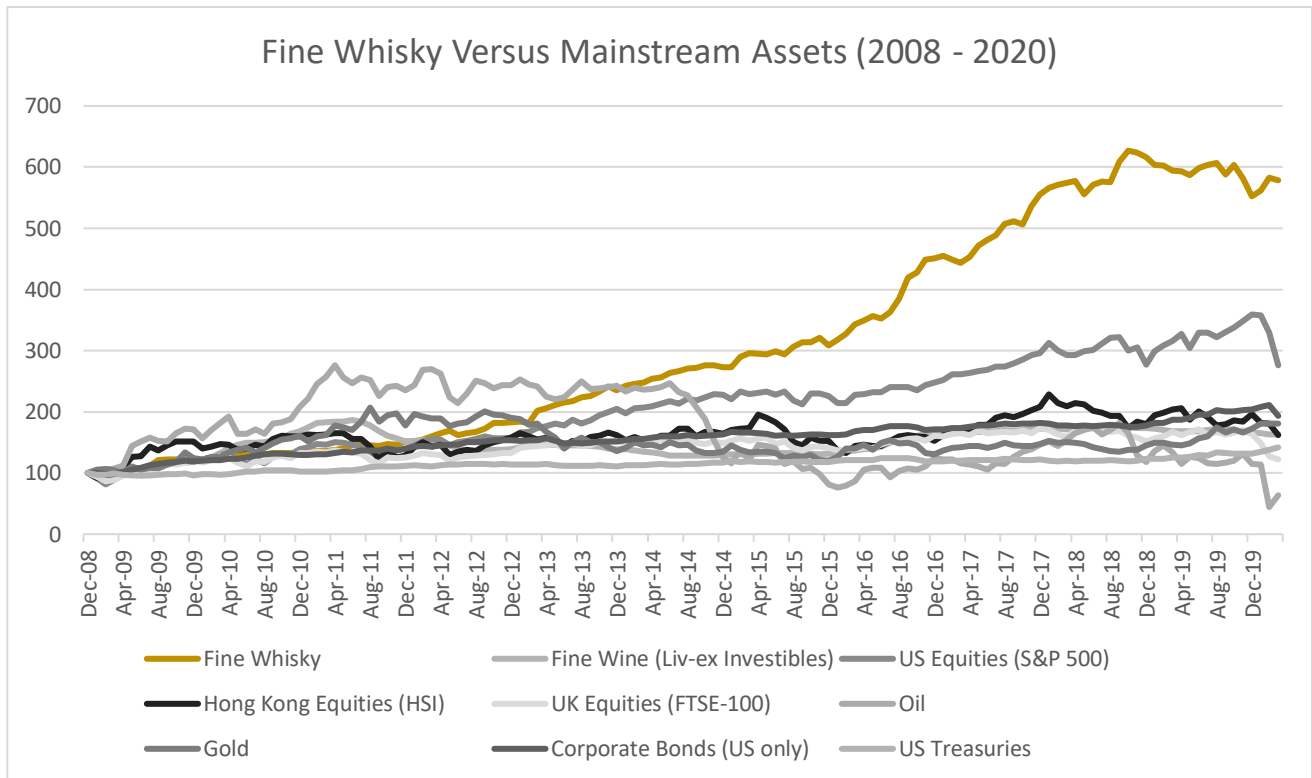
Cru will assist with bottling and labelling through our experienced industry partners.

Obviously, you are always at liberty to drink the bottles or give them away as gifts. The big advantage over fine wine is that you can put whatever you like on the label in terms of personalisation. That is why we say that this is a **risk-free investment**, because you are always guaranteed to own a valuable asset.

Fine Whisky as an Investment

Fine whisky has been an exceptionally good investment over the past decade and a half. It has easily outpaced mainstream assets like equities, bonds and commodities.

The Rare Whisky 101 index has risen by **+578%** between 2008 and Q1 2020 (see below).



Sources: Rare Whisky 101, Bloomberg and Liv-ex.com

Fine whisky has also had almost no correlation with mainstream assets:

Correlation Matrix								
	Fine Whisky	US Equities	Asia Equities	UK Equities	Oil	Gold	Corp. Bonds	Govt. Bonds
Fine Whisky	100.0%	-2.6%	-1.2%	-6.5%	3.1%	-5.3%	-0.5%	-10.1%
US Equities	-2.6%	100.0%	68.7%	69.5%	21.1%	0.5%	31.5%	-31.5%
Asia Equities	-1.2%	68.7%	100.0%	56.0%	20.8%	17.7%	38.1%	-20.5%
UK Equities	-6.5%	69.5%	56.0%	100.0%	37.3%	10.2%	31.9%	-15.9%
Oil	3.1%	21.1%	20.8%	37.3%	100.0%	14.9%	-17.3%	-26.1%
Gold	-5.3%	0.5%	17.7%	10.2%	14.9%	100.0%	33.4%	33.3%
Corporate Bonds	-0.5%	31.5%	38.1%	31.9%	-17.3%	33.4%	100.0%	39.6%
Government Bonds	-10.1%	-31.5%	-20.5%	-15.9%	-26.1%	33.3%	39.6%	100.0%

This lack of correlation makes fine whisky a very useful alternative asset to hold in a wealth protecting portfolio.

Building a Portfolio

Cask Portfolio

If you are going down the cask ownership route you will always be on the look out for 'up and coming' distilleries. Currently, we are tracking names like: **Craigallachie, Tullibardine, Daftmill, Kingsbarns, Ardnamurchan,** and **Ardnahoe** as amongst the most interesting. You will read recommendations from experts who will guide you on what to buy. And of course you will do your own research, distillery visits etc. Cru provides research on which distilleries are offering new casks and which are the best to buy.

One specifically interesting avenue is to purchase partially aged casks. These still offer a lot of financial upside but are much more affordable than 20+ year aged casks. The advantage of this route is that buying a cask after 5-10 years allows a buyer to determine the quality and character of the whisky inside in advance.

Estimating Financial Return

Cru has built a proprietary '**Future Cask Value**' (FCV) calculator which imputes the estimated future price of the bottles of whisky in a cask multiplied by an estimate of how much whisky can be derived from the cask at different points in the future.

The Future Cask Value can then be compared with the purchase price today to arrive at Internal Rate of Return percentages for different casks. Obviously, we will be recommending, for investors, those casks with the highest potential IRRs.

Bottle Portfolio

Building a fine whisky single bottle portfolio is more a matter of personal choice. For non-experts, we would recommend starting out with a 'core portfolio' of the best and most liquid names. Our current Recommended List of top distilleries is shown below:

Top 25 Blue Chip Distilleries for Long-Term Investment

Rank	Distillery	Region	Country	Status
1	Macallan	Speyside	Scotland	Active
2	Springbank	Campbeltown	Scotland	Active
3	Bowmore	Islay	Scotland	Active
4	Brora	Highlands	Scotland	Silent (planned reopen 2020)
5	Old Midleton	Cork	Ireland	Silent
6	Highland Park	Orkney	Scotland	Active
7	Old Rip Van Winkle	Kentucky	USA	Active
8	Bruichladdich	Islay	Scotland	Active
9	Suntory Yamazaki	Kyoto	Japan	Active
10	Lagavulin	Islay	Scotland	Active
11	Port Ellen	Islay	Scotland	Silent (planned reopen 2020)
12	Karuizawa	Miyota	Japan	Silent
13	Michter's	Kentucky	USA	Active
14	Glenmorangie	Highlands	Scotland	Active
15	Balvenie	Speyside	Scotland	Active
16	Glenfarclas	Speyside	Scotland	Active
17	John E. Fitzgerald	Kentucky	USA	Active
18	Glenlivet	Speyside	Scotland	Active
19	Glenugie	Highlands	Scotland	Silent
20	Arran	Arran	Scotland	Active
21	Dalmore	Highlands	Scotland	Active
22	Rosebank	Lowlands	Scotland	Active
23	Mortlach	Speyside	Scotland	Active
24	Clynelish	Highlands	Scotland	Active
25	Glen Grant	Speyside	Scotland	Active

Conclusion

Fine whisky is a hugely enjoyable and rewarding product. It has given sensual pleasure for over half a millennium.

Fine whisky has also never been so exiting. New countries like Japan and the United States are challenging the 'old world' of Scotland and Ireland, driving up quality and offering a wider and more diverse range of options for collectors.

In addition, as an investment and store of value fine whisky has shown a clean pair of heels to almost every other asset class over the past decade and a half.

We don't believe that the two sides of whisky collection (drinking and investing) are mutually exclusive. Many people do both. Investors put in the time and capital to age whisky which then can then be enjoyed by drinkers when it is fully mature.

The relationship is as smooth and harmonious as the best aged malt!

If you would like more information about how to build or start your fine whisky collection please email us at whisky@cruworldwine.com.

(UK based clients please email: ukwhisky@cruworldwine.com)

For existing Cru clients, any whiskies purchased, including casks, will appear in your Portfolio and will be tradeable with all the market analytics you are used to.



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