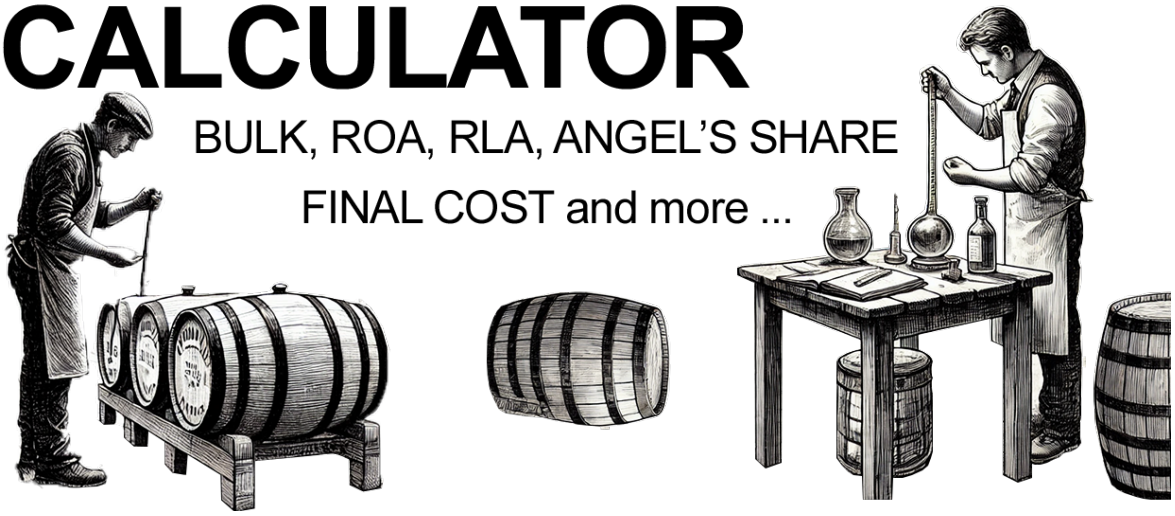
CALCULATOR

BULK, ROA, RLA, ANGEL'S SHARE
FINAL COST and more ...



CASK

1 = Price of the cask excluding VAT. Duty and VAT are added later, when the bottles leave the bonded warehouse.
2 = Quantity of Pure Alcohol in litres.

We use different expressions like RLA (Regauged Litres of Alcohol), ROA (Removed Overall Alcohol), and OLA (Original Litres of Alcohol) to describe the quantity of pure alcohol because they refer to **different stages or contexts** in the cask's life.

- **OLA** = the amount of pure alcohol when the cask was first filled.
- **RLA** = the amount remaining in the cask now, measured at current strength.
- **ROA** = the amount of alcohol removed from the cask when it's emptied.

These terms help track alcohol volume changes over time due to **evaporation, sampling, or transfers**.

3 = % of Alcohol
4 = We chose to convert the quantity of pure alcohol into bulk litres. To convert pure alcohol into bulk litres means calculating the total volume of liquid (alcohol + water) at a specific alcohol strength. The quantity expressed in bulk litres is usually easier to understand and allows one to see the exact volume of liquid in the cask.

MATURATION

If you don't bottle your cask immediately, you can estimate its volume and alcohol percentage after additional years of maturation.

1 = Add extra years of maturation if you decide to not bottle your cask right away
2 = The choice of maturation region is crucial, as it directly influences how the spirit evolves—affecting both volume loss and ABV change through differences in temperature, humidity, and cellar conditions.
3-4 = Average data based on each choice of maturation region

(For more information about the Angels' Share, see the explanation at the end of this PDF.)

CUSTOMIZE YOUR BOTTLING

Update the information if you wish to bottle at a different ABV than natural strength or in a bottle size other than 70cl.

1 = Change the bottle size if you choose to use a different bottle size than 0.7 litres (70 cl).
2 = If you decide to lower the ABV (alcohol by volume) during the bottling process, please indicate the desired ABV here. It must be lower than the natural strength and not below 40%. By reducing the ABV (alcohol by volume), you will increase the total liquid volume, allowing for more bottles to be filled and lowering the cost per bottle.

WAREHOUSE & More

All these costs vary depending on the company.

1 = A Duty Representative is compulsory if you own a cask in Scotland. If you own only one cask, the cost of a Duty Representative can be significant (around £250 per year). You don't necessarily need to provide this information if you own several casks, as the cost of a Duty Representative becomes less significant per cask.
2 = Monthly storage fee of your cask in a bonded warehouse.
3 = If you occasionally want to check the level of your cask, you can request a regauge.
4 = If you want to taste your cask from time to time, you can ask for a sample.
5 = If you want to move your cask to another warehouse or bottling company, additional costs may apply.

PACKAGING

Once you decide to bottle your cask, you will face many additional costs. If you choose a special bottle shape or a crystal decanter, a label made of beautiful Japanese-quality paper, and a wooden presentation box, your final price per bottle can change drastically. In addition, your warehouse or bottling company will adjust the bottling cost depending on all these packaging choices.

1 = Enter the unit cost for your selected empty bottle
2 = Enter the unit cost for your selected closure. Closure could be already included in the price of the glass bottle (leave it blank then), but if you choose a special closure, it can be much more expensive.
3 = Enter the unit cost for your chosen label.
4 = Enter the unit cost for your box.

SHIPPING

Even if you're based in the same country where your cask is bottled, you will still incur shipping fees. These fees can increase significantly if, for example, you live in Australia and your cask is bottled in Cognac, France.

Ask a freight forwarder to evaluate these shipping fees. They can vary greatly depending on whether you ship by air or sea, choose a refrigerated container, opt for door-to-door delivery, and so on. A freight forwarder can also assist you with the import process in your country.

1 = Shipping fees
2 = Shipping calculated per bottle.

TAXES

When you buy a cask of whisky and bottle it, the product is still in bond (not yet taxed). However, as soon as you import those bottles into your country, local customs authorities will apply **duty and VAT** based on the alcohol content, volume, and value. These charges can be **very high**, especially in countries with strict alcohol regulations or high tax rates. It's important to factor these costs into your budget to avoid surprises.

1 = Add the VAT of your country of importation
2 = Add the Duty. **Duty on alcohol** is a tax charged by some countries in addition to **VAT**. It's usually based on:

- **Type of alcohol** (e.g., beer, wine, spirits)
- **Alcohol strength (ABV)**
- **Volume imported**

For example, stronger spirits typically have higher duty per litre of pure alcohol.

DISTRIBUTION

You are a professional, an importer — you can add your margin here, along with your distributor's margin and the retailer's margin. This will give you a clear idea of the final price of your bottle when it reaches the shop shelves.

1 = This is the revised cost per bottle, including all the previous additional fees. Basically, your bottle cost (excluding VAT) Imported & Delivered at the Final Destination.
2 = Your margin as Importer in %.
3 = Your margin as Importer in value.
4 = Your trade price to distributor is the result of the margin you've added as an importer—this is the price you sell to a distributor, if one is involved. In many cases, importers sell directly to the trade, acting as both importer and distributor. Only include a distributor margin if there is a separate distributor between you and the retailer.
5 = The distributor margin in % (add only if there is any).
6 = The distributor margin in value.
7 = Trade Price to Retailer (excl. VAT).
8 = The retailer margin in %.
9 = The retailer margin in value.
10 = This is the revised cost per bottle excluding VAT, including the additional margins.
11 = This is the revised cost per bottle including VAT when it reaches the shop shelves.

RESULT

1 = We chose to convert the quantity of pure alcohol into bulk litres. To convert pure alcohol into bulk litres means calculating the total volume of liquid (alcohol + water) at a specific alcohol strength. The quantity expressed in bulk litres is usually easier to understand and allows one to see the exact volume of liquid in the cask.
2 = Bottling ABV (% of Alcohol).
3 = The number of bottles you will obtain.
4 = The final cost per bottle including packaging, bottling, shipping (excluding VAT)
5 = The final cost per bottle including packaging, bottling, shipping (including VAT)

ANGELS 'SHARE

Whisky

In Scotland and Ireland, there is no distinction between dry and humid cellars.

Average evaporation : a loss of 1.5% volume per year, and a loss of 0.35% ABV per year.

In France, we frequently distinguish between **wet (humid) and dry cellars**. In Scotland, the distinction is rarely emphasized publicly. Instead, there's a general mention of **angel's share** around **1–2% per year**.

In France, two distinct cellar types are common and intentional:

- Many producers age in both types to obtain **different aromatic and ABV profiles**.
- Example: **Chais humides** (often underground or with moist earth floors) vs. **chais secs** (above ground, stone or wood floors).

The impact on ABV and flavor is substantial and widely understood:

- Wet cellar → alcohol evaporates faster → **ABV drops**
- Dry cellar → water evaporates faster → **ABV rises**
- This is **actively used** in blending strategies.

The evaporation data below are based on averages, as conditions can vary depending on location, building, etc.

Cognac

Dry Warehouse : a loss of 3-4% volume per year, and a gain of 0.5% ABV per year.
Wet Warehouse : a loss of 2.5-3% volume per year, and a loss of 0.5% ABV per year.

Armagnac

Dry Warehouse : a loss of 2.5% volume per year, and a gain of 0.8% ABV per year.
Wet Warehouse : a loss of 4% volume per year, and a loss of 0.8% ABV per year.

Calvados

In Calvados, there is much less (if any) talk about the distinction between dry and humid cellars, unlike in Cognac or Armagnac. In Normandy, the climate is cold, oceanic, and very humid. Most cellars are built from stone, with either earthen or concrete floors. This limits evaporation differences and, consequently, changes in ABV depending on the cellar. Under these conditions, alcohol tends to evaporate slightly faster than water, which generally leads to a slight decrease in ABV over the years. However, the variations are moderate, and there is no active strategy as in Cognac (where both types of cellars are used deliberately to create distinct profiles).

Average evaporation Calvados : a loss of 3% volume per year, and a loss of 0.4% ABV per year.

Rum

Typical cellar conditions in the Caribbean are predominantly humid, due to the tropical climate, with ambient humidity often reaching 70–90% or more. Most aging warehouses are open-air or naturally ventilated structures, often with thin walls or open slats. These conditions accelerate alcohol evaporation, leading to a gradual decrease in ABV over time. Such environments are common in countries like Jamaica,

Barbados, Martinique, and Guadeloupe. The volume losses can be significant — up to 50% of a cask's contents can be lost over just 10 years.

The ABV loss is not exactly linear — it's often steeper in the first few years when the spirit is most volatile. Some producers transfer rum to continental Europe (e.g. France or Spain) after tropical aging to stabilize ABV. 1% ABV loss per year is a good average estimate for Caribbean rum aging in humid, tropical cellars. Loss varies by warehouse and climate, but typically falls within the 0.5–1.5%/year range.

Maturation in the Caribbean islands : an average loss of 8% volume per year, and a loss of 1% ABV per year.

Maturation in Europe (usually in Netherland, Liverpool or Scotland) : an average loss of 2% volume per year, and a loss of 0.4% ABV per year.