World Spirits Alliance

SPIRITS: GLOBAL ECONOMIC IMPACT STUDY 2024

CONTENTS

Foreword 4

Glossary 6

Key Statistics 8

Executive summary 10

1. Introduction 14
- How Economic Impact Analysis works 16
- A generator of wealth, jobs and revenue 20
- A global industry – a global contributor 22

2. Spirits manufacturers' impact on the global economy 26
- Spirits manufacturers – direct impact 28
- Spirits manufacturers – indirect impact 30
- Spirits manufacturers – induced impact 32
- Spirits manufacturers – total impact 34

3. Spirits' downstream activities 36
- Spirits downstream activities – direct impact 38
- Spirits downstream activities – indirect impact 40
- Spirits downstream activities – induced impact 42
- Spirits downstream activities – total impact 44

4. Spirits – global trends 46
- Market overview 47
- Spirits – a highly valuable drink 48
- Focus – national spirits 49
- Premiumisation – a long-term trend 50
- Outlook to 2027 51
- Headwinds and tailwinds 52

Methodology 54
- Impact analysis 54
- Measuring spirits manufacturers' output 54
- Measuring spirits manufacturers' economic inputs 55
- Measuring economic inputs of spirits' downstream activities 56
- The global sustainability model 57
- Key data sources 58

FOREWORD

Few industries possess the heritage, cultural resonance, and economic significance of the spirits industry. At its foundations, the industry is intertwined with agriculture, history, tradition, and craftsmanship. The products often serve as cultural symbols and bridges, connecting people and diverse communities around the globe. The industry is also a significant economic driver that supports a robust value chain, generating large numbers of jobs and revenue for governments.

I'm pleased to share with you this report by IWSR Drinks Market Analysis and Oxford Economics. It presents the richness of the industry and details how the activities of the spirits manufacturers translates into economic benefits for greater parts of society worldwide.

The spirits industry begins with agriculture. From the rice fields of China to the vineyards of France to the barley fields in Scotland and the sugar cane plantations in the Caribbean, each crop contributes to spirits production, sustaining livelihoods along the way. In some rural regions, it can be the main – or sometimes the only employer; a crucial driver of the local economy.

Yet that's only the beginning. The spirits industry generates employment opportunities beyond production from marketing to logistics, distribution, and retailing. These activities bring vibrancy to local communities and support the tourism and hospitality sectors and employment in those areas. The findings of this report demonstrate that the sector supported (directly and indirectly) 36 million jobs worldwide in 2022 – about the same as the entire workforce of the UK.

Not surprisingly, the industry contributes significantly to government revenues through taxes and tariffs, which fund essential public services from healthcare to education and infrastructure. In 2022 spirits manufacturers' total gross value added (GVA) contribution to global GDP was $230 billion. To put this in context, that is only slightly less than the total GDP of Portugal for the same year.

Given this industry's reach, role in society, and reliance on agriculture, responsibility and sustainability are also paramount. With products derived from nature, spirit manufacturers are invested in the long-term sustainability of farming activities. Producers understand the need to preserve the environment and ensure the health of the ecosystems that provide raw materials. Our members are rapidly introducing initiatives to conserve water use, reduce packaging waste, and support sustainable farming.

These activities, minimizing spirits producers' ecological footprint and carbon emissions, will ultimately create an industry that is not just a huge contributor to the global economy, but also more sustainable. And that is something we can all raise a glass to.

Philippe Schaus,
CEO Moët Hennessy, President WSA

GLOSSARY

The following terms are used throughout this report:

Compensation of employees: The total cost of labour, including wages/salaries/benefits in cash and in kind, income taxes, and social contributions by both employees and employer.

Currency values: All currency values mentioned in this report are US dollars, measured at 2022 prices and exchange rates, unless otherwise specified.

Direct channel of impact: The economic impact that spirits manufacturers, spirits distributors, retailers and hospitality firms generate at their site of operation.

Downstream value chain: The distributors, retailers and hospitality venues who are responsible for getting spirits into the hands of the end consumer.

Excise duty: Indirect taxes on the sale or use of alcohol. Depending on the jurisdiction, it can be ad-valorem, hybrid or a specific tax.

Gross domestic product (GDP): The total value of final goods and services produced in the economy within a year.

Gross value added (GVA): For a manufacturer, distributor, retailer or hospitality business, its gross value added is equal to the revenue it generates in a year, less the cost of the bought-in goods and services required to generate that revenue. After adjustments for taxes and subsidies, the sum of all GVA created by all firms and industries in an economy is equal to GDP.

Indirect channel of impact: The economic activity the spirit sector supports in the supply chain by purchasing goods and services from suppliers.

Induced channel of impact: The economic activity the spirit sector stimulates by paying its staff wages and supporting further wages along the supply chain.

International Spirits: Includes categories such as whisky, vodka, rum, tequila, brandy, gin and cognac, which are widely exported around the world.

Manufacturers/producers of spirits: Businesses whose main activity is distilling, rectifying and blending spirits, ie spirits production.

National spirits: Covers (mostly white) spirits which are produced by traditional methods, are overwhelmingly consumed in the country of origin and have a strong association with just one country.

Off-trade (or retail) spirits sales: Sales of spirits that are consumed off the premises of the retailer, ie supermarkets, grocers, independent or speciality retailers and convenience stores etc.

On-trade (or hospitality) spirits sales: Sales of spirits that are consumed on premises at restaurants, bars, hotels, pubs, clubs etc

Productivity: Gross value added generated per person employed.

Retail sales value (RSV): Historical pricing data obtained from store checks across all reporting markets. It excludes the mark-up applied by on-trade values. Turnover via the on-premise sector is also measured at off-premise Retail Sales Prices.

Spirits sector: Distillers and rectifiers of alcohol, spirits distributors, retailers and hospitality firms.

Supply chains: the network of companies involved in the supply chains of the production and sales of spirits and associated upstream supply chain linkages.

Upstream value chain: Businesses in the spirits sector's supply chain and associated onward supply-chain linkages.

KEY STATISTICS

SPIRITS CONSUMPTION VALUE AND PRODUCTION ORIGIN FOR TOP 20 MARKETS

Source: IWSR, Oxford Economics. Totals may not sum due to rounding. All currency values are in US$

1 in 84 jobs

SPIRITS SUPPORTED AROUND 1 IN EVERY 84 JOBS GLOBALLY

$1 in every $140 of GDP

SPIRITS INDUSTRY LINKED IN SOME WAY TO $1 IN EVERY $140 OF GDP

36m jobs

SUPPORTED BY SPIRITS INDUSTRY IN 2022

$15 billion

SPIRITS MANUFACTURERS PAID $15 BILLION IN STAFF WAGES GLOBALLY IN 2022

$120 billion

SPIRITS INDUSTRY SPENT $120 BILLION WITH THIRD-PARTY SUPPLIERS IN 2022

EXECUTIVE SUMMARY

$730 BILLION

The spirits sector supported a $730 billion GVA contribution to global GDP in 2022

$390 BILLION

The production and sale of spirits supported $390 billion in tax revenue for governments around the world in 2022

36 MILLION JOBS

The spirits sector supported 36 million jobs in the production and sale of spirits, the supply chain and the consumer economy in 2022

Making and delivering spirits to consumers around the world is a huge, complex and diverse business.

It is an industry of cultural and historical significance, with traditions that are often deeply woven into notions of national identity that resonate with people from Shanghai to Chicago.

And perhaps most importantly of all, its economic impact is substantial. Distilled spirits are among the highest added-value agricultural goods; an industry that generates economic activity in sectors ranging from agriculture to manufacturing, logistics, hospitality and retail all over the world.

Much of the direct employment and investment is in economically fragile areas, where the industry plays a significant and positive role in local communities. In some areas, it is the main – or even the only - driver of the local economy, providing long-term employment opportunities.

This report looks at the spirits industry's total global impact - its direct, indirect and induced economic activity - and what these equate to in terms of contributions to global GDP, tax revenue and jobs.

GENERATING WEALTH, JOBS AND REVENUE

Spirits is a highly international industry, with millions of bottles being made, exported and consumed all over the world every day.

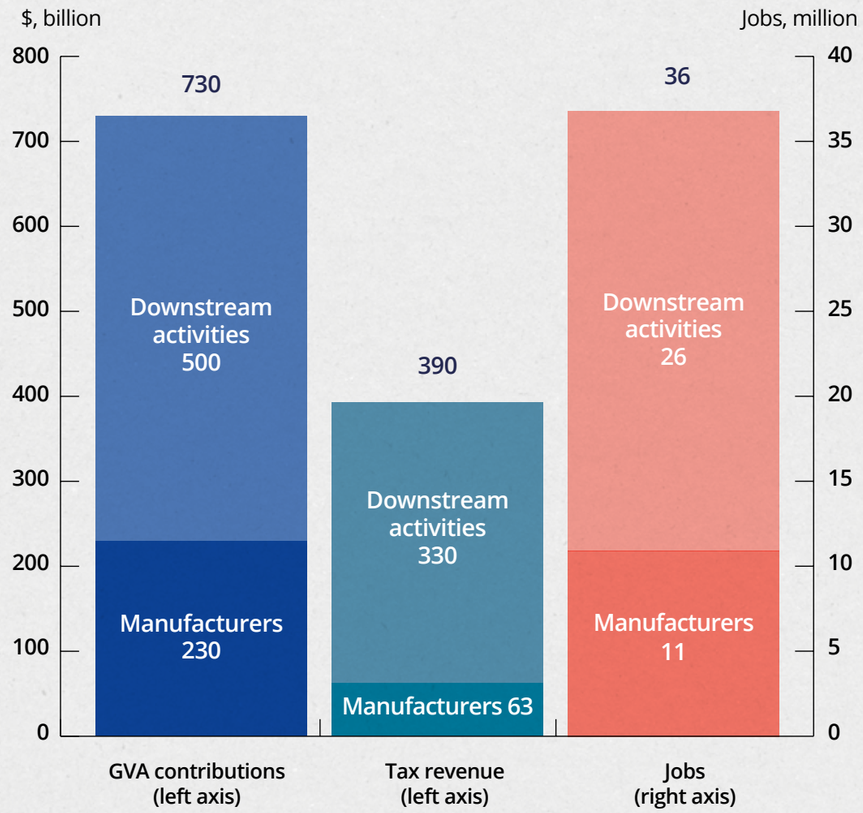
We estimate that the spirits sector supported US$730 billion gross value added (GVA) contribution to global GDP in 2022. In doing so, it supported a total of 36 million jobs in the production and sale of spirits itself, the supply chain and the consumer economy.

To put this in context, economically in 2022, the spirits industry contributed about $1 in every $140 of global GDP and employed the equivalent of the entire workforce of the United Kingdom, which the World Bank rates as the world's sixth biggest economy.

In doing so, the spirits sector supports significant tax payments for governments around the world, most notably via alcohol-specific excise taxes which are levied in addition to corporation taxes and indirect value-added or sales taxes. Combined, we estimate that spirits producers and their downstream value chain made and supported $390 billion in tax payments in 2022. If the Spirits industry were a country, it would be in the top 20 tax contributors in the world. Similar to countries such as Indonesia, Australia or the Netherlands.

Moreover, spirits is the fastest-growing alcoholic drinks category. Growth in sales value of spirits globally (including national spirits) increased by 16% in the period from 2019-2022; higher than for either beer and wine. Excluding national spirits, growth in 2022 was up over 10%. Again, this is the highest rate of all the major beverage alcohol categories.

THE GLOBAL TOTAL ECONOMIC IMPACT OF THE PRODUCTION AND SALE OF SPIRITS, 2022



Source: IWSR, Oxford Economics. Totals may not sum due to rounding

COMPARATIVE CONTEXT

1 IN EVERY 84 JOBS

The global Spirits Sector, through manufacturing and downstream activities, supported one in every 84 jobs in the global economy in 2022

$1 IN EVERY $140 GPD

The spirits sector was linked in some way to $1 in every $140 of GDP generated globally in 2022

10.5%

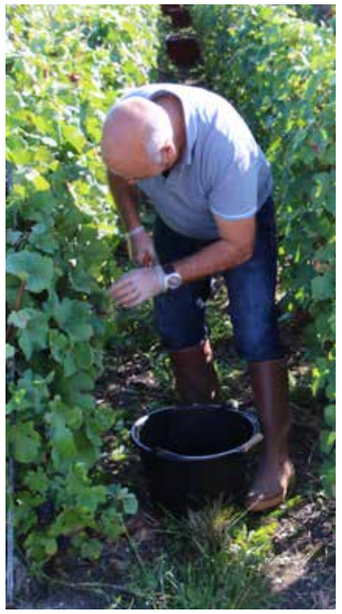
The spirits category grew 10.5% in value in 2022; faster than beer or wine

$15 BILLION

The spirits industry paid $15 billion in staff wages globally in 2022

50%

Premiumisation is a big trend in spirits. 50% of all drinks sold in 2022 were at Premium level or above, compared to 36% in 2012



ECONOMIC IMPACT OF SPIRITS MANUFACTURERS

Our findings estimate that the process of spirits manufacturing accounted for just under one third (31%) of spirits' total GDP impact ($230 billion). It also supported 11 million jobs and generated $63 billion in tax payments in 2022.

Some of this – as is to be expected - was created directly by the spirits manufacturers themselves. Our findings suggest that in the production process, distillers **directly** added an estimated $56 billion to global GVA in 2022; were directly responsible for 1 million jobs worldwide and generated $13 billion in tax payments for governments.

You can see from these figures that spirits manufacturers themselves are directly responsible for just 8% of the spirits industry's total GVA contribution to global GDP, and 3% of the jobs.

But the process of distilling, rectifying and ageing spirits requires strong interactions with a large number of different industries both upstream and downstream of the production process. This means that spirits manufacturers' economic footprint extends far beyond the direct impact alone.

In 2022, we estimate that the spirits industry spent approximately $120 billion on third-party suppliers.

These include farmers who supply the raw material for distillation, businesses from the food and drinks manufacturing sector who create products used in the distillation process, and logistics companies who deliver the products around the world.

All these indirect interactions magnify the industry's economic contribution many times over, as the money spent by spirits manufacturers with these suppliers ripples on further through these businesses' own supply chains.

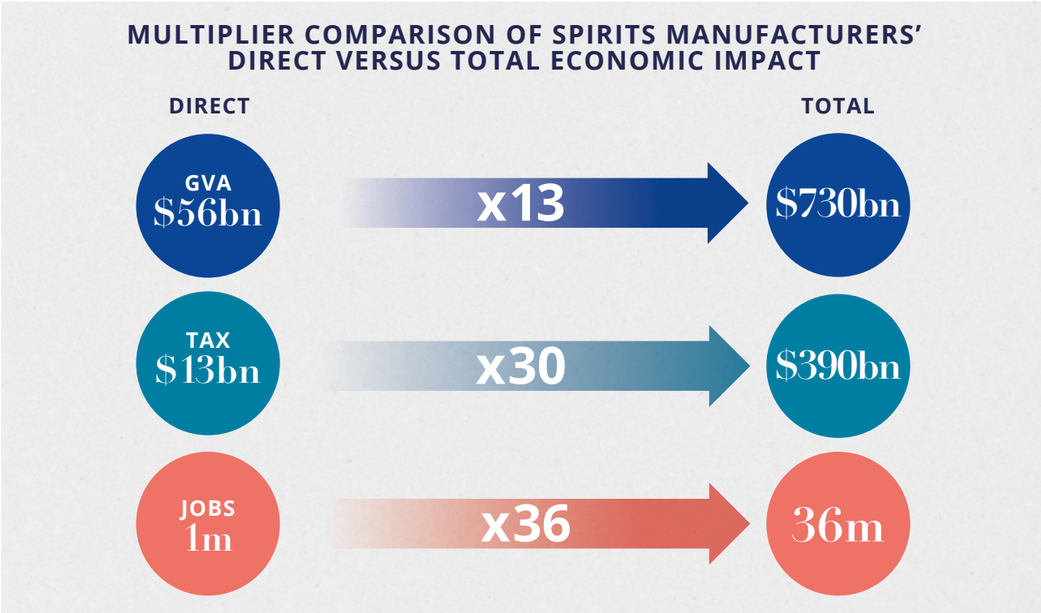
In total, we estimate this **indirect** impact to have supported a GVA contribution to global GDP of $110 billion, and sustained 7.3 million jobs worldwide. In addition, it stimulated $33 billion in tax payments to governments around the world.

This, in other words, is an industry that has powerful knock-on effects throughout the global economy, and whose economic impacts are far greater than the manufacturing of spirits in itself.

In addition, through paying their own staff's wages, and indirectly supporting the salaries of myriad other businesses in the supply chain, spirits manufacturers provide a further powerful stimulus to the wider global economy.

In 2022 we estimate that the spirits industry paid $15 billion in wages to staff globally. In addition, the spirits manufacturers' purchases from suppliers indirectly supported jobs in other sectors. Some of these direct and indirect wage payments will have been spent on consumer goods and services, such as housing, healthcare, entertainment and retail.

Via this **induced** consumer spending channel, we estimate that spirits producers and sellers' GVA contribution to global GDP was $57 billion. It also supported 2.3 million jobs across multiple sectors and helped to generate $17 billion in tax payments to governments.



IMPACT OF SPIRITS' DOWNSTREAM ACTIVITIES ON THE GLOBAL ECONOMY – DISTRIBUTORS, RETAILERS AND HOSPITALITY SECTOR

Manufacturing spirits has a big impact on the global economy. But the downstream process of selling these products generates and supports even more economic value.

Shippers, distributors and, in particular, retailers and hospitality venues form a complex global network of businesses whose role is to help bring the bottles of spirits to the consumers who enjoy them.

These downstream businesses employ large numbers of people, and their economic impact is enormous.

As with the process of manufacturing the spirits themselves, these downstream activities have both a direct impact (for instance jobs in bars, restaurants, shops) and an indirect impact through economic activity that they generate in their supply chain. There is also further induced impact in the wider economy as a result of the salaries that these businesses pay.

Taking into account these direct, indirect and induced impacts, we estimate that spirits' **downstream** value chain supported a $510 billion GVA contribution to global GDP in 2022. In the process it supported 26 million jobs worldwide and generated $390 billion in tax revenues for governments.

The impact on global employment of these downstream businesses is especially significant. This is especially true in China, where one in every 51 jobs is estimated to have been supported by spirits' downstream activities in 2022.

**Unless otherwise stated, all figures and estimates quoted here are based on research by Oxford Economics / IWSR*

IN SUMMARY

- The spirits industry is a highly productive global business that helps to generate significant economic activity throughout the wider economy.
- It does this through its own direct and indirect economic activity, employing people and contracting businesses in other sectors across its supply chain.
- It is also the catalyst for significant economic activity in other areas, particularly retailing and hospitality.
- The following chapters outline in detail the above findings and will be invaluable to spirits manufacturers, suppliers and distributors; to the many global and regional and category spirits associations who defend and promote the industry; and to governments and policy makers in spirits producing countries who rely on the industry for revenue, taxes and jobs creation.

1. INTRODUCTION

Making and selling spirits to adults of legal drinking age worldwide is a vast and complex business. From farmers to marketers and distillers to bartenders, millions of people are involved in the production, logistics and retailing of an industry that sells 32bn bottles a year*.

This report – put together by the IWSR, the leading source of data and intelligence for the beverage alcohol industry, and Oxford Economics, a leader in global economic forecasting and econometric analysis – analyses the inputs, outputs and economic impact of this vibrant, multi-faceted and international sector.

The process begins with **agriculture**. It could be in the rice fields of China or the vineyards of France; a sugar cane plantation in the Caribbean, or a barley field in Scotland. Across the planet, farmers grow crops that form the raw material for their local spirits producers.

From here the focus shifts to the **distillery**. Distillation is a process that is simple in essence, but complex in execution.

RETAIL VALUE SHARE BY MAJOR DRINKS CATEGORY 2022*

*includes national spirits

As well as experienced and highly-trained staff it also requires high-quality equipment.

So in addition to directly employing people in its still-rooms, cellars and warehouses, the spirits sector provides a livelihood for myriad **manufacturing** companies. All over the world, businesses are working to make distillation equipment and storage tanks, wooden barrels and labels, closures and bottles in all shapes and sizes. Even for countries with few distillers of their own, spirits can be an important part of the local economy.

In offices, **legal firms** navigate the often-complex requirements of bringing distilled spirits to market and **marketing teams** create campaigns to spread the word amongst the public. Billions of dollars are spent annually on brand communication, and advertisements for spirits brands have been some of the most memorable ever created.

Once drinks are released from warehouses and storage facilities, other businesses take over: **specialist importers, shippers, wholesalers** and **logistics suppliers** ensure that the bottles arrive seamlessly at their end-point.

Retailers and **hospitality** venues act as the final link in the chain, selling bottles and serving glasses and cocktails to the end consumer.

These businesses all employ staff, buy equipment and pay taxes; they commission services from accounting to decorating and cleaning to computer science.

In this report IWSR and Oxford Economics quantify for the first time the full extent of the vast economic reach of the worldwide production and sale of spirits – its impact on people, countries and business across the globe. An industry whose sales alone totalled $650bn (excluding VAT)** in 2022, but whose impact extends beyond that.

**sales 2.68bn cases of 12x75cl bottles/year*
***money spent by consumers on buying spirits in the off- and on-trade*

KEY DATA SOURCES

To assess the economic footprint of the global production and sale of spirits in 2022, Oxford Economics gathered information from a wide range of national and international sources. These are listed in full in the Methodology section at the end of this report.

Retail Sales Value (RSV) figures (by origin and consumer country), and volume figures (by origin and consumer country) were provided by IWSR.

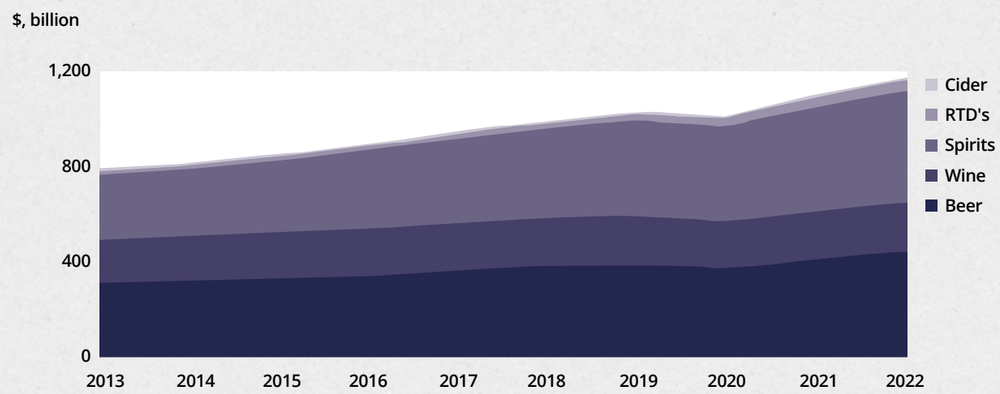
IWSR also provided information concerning on-trade vs off-trade share and tax data.

Further information on margin assumptions was provided by the World Spirits Alliance.

Using this wide variety of data and its own economic impact models, Oxford Economics quantified the impact supported by the global production and sale of spirits through the following three channels of impact: the direct economic impact of spirits producers and sellers; the indirect economic activity supported by spirits producers and sellers along their supply-chains; the induced impact arising from wage-funded consumption of employees of spirits producers and sellers and of their suppliers.

The results of the study pertain to the calendar year 2022 – the latest year for which comprehensive data was available - and is global in its scope.

TOTAL BEVERAGE ALCOHOL CATEGORIES RETAIL VALUE 2013-2022*



*includes national spirits

How Economic Impact Analysis works

We've already seen that spirits are the most important alcoholic drinks category in terms of consumer retail spending.

But to quantify the economic contribution of the production and sale of spirits it is important to define what activities are included and exactly how they have been categorised.

In this study, spirits **manufacturers** are defined as companies whose main activity is spirits production: the distilling, rectifying and blending of spirits.

Their **downstream activities** cover the economic activities of wholesalers, retailers and hospitality venues such as restaurants, bars, pubs, clubs, casinos and sporting arenas that sell spirits to consumers.

To measure the importance of the global spirits sector, Oxford Economics employed a standard assessment framework. This considers three core channels through which spirits producers and sellers support the global economy: by direct, indirect and induced impact.

DIRECT IMPACT

The economic activity created by the production of spirits, its physical delivery to wholesalers, distributors and retailers, and serving it to end consumers in hospitality venues such as bars, clubs, pubs and restaurants.

INDIRECT IMPACT

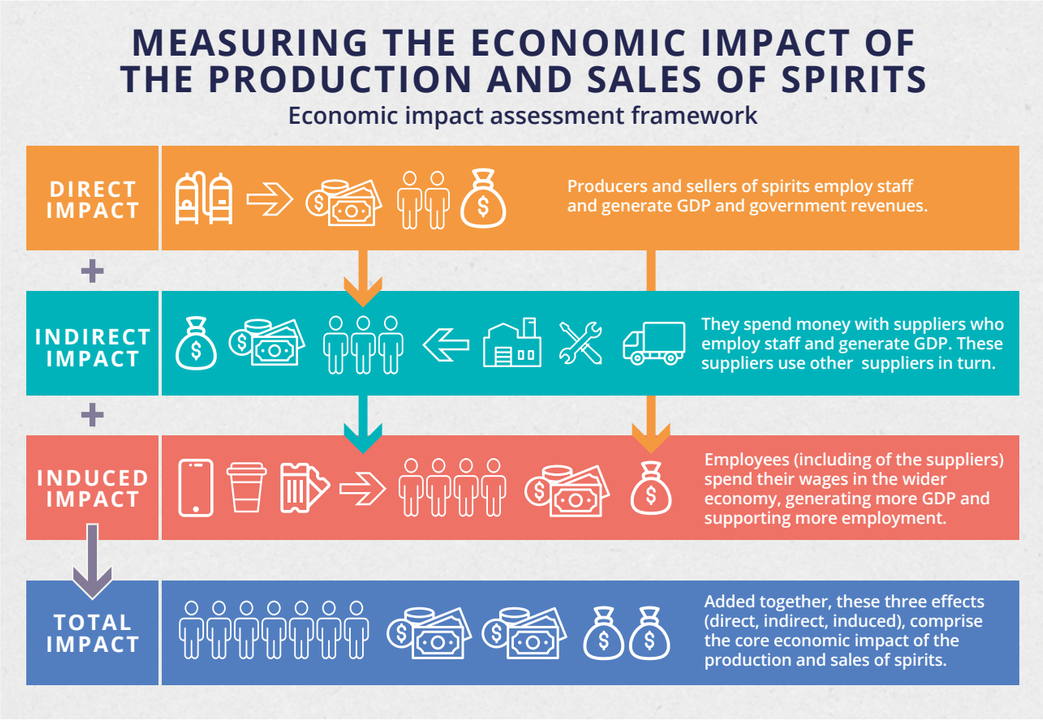
This is the economic impact that the production and sale of spirits supports along its supply chain, such as farmers, ingredient suppliers and glass producers.

INDUCED IMPACT

The economic activity in the consumer economy that is stimulated by the combined wages of staff in the production and sale of spirits and the supported staff in the supply chain.

In other words, spirits producers and sellers make direct contributions to the economy through the products they make and sell; support indirect impacts by buying goods and services from suppliers, and induce further economic activity through their employees and those of their suppliers and the businesses these workers' spending supports.

Combining these three channels makes up the total economic footprint of the production and sale of spirits. The results are



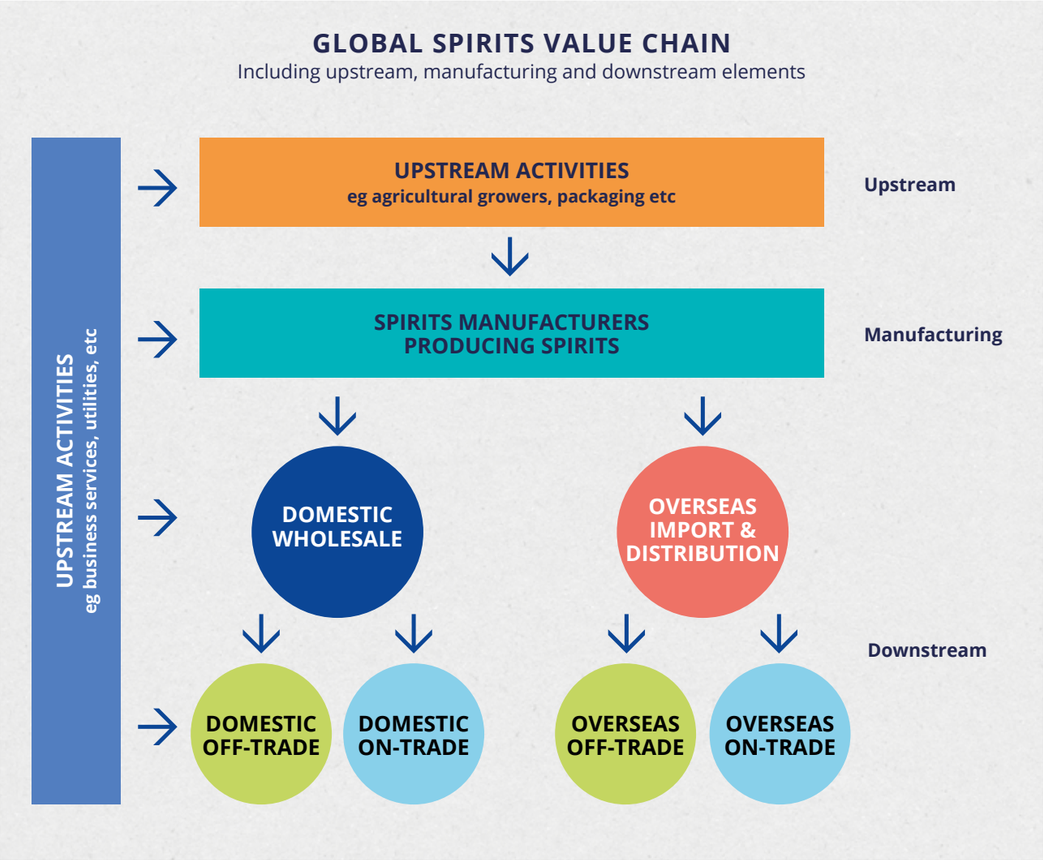
presented on a gross basis, meaning they do not take into account any displacement of activity from the spirit sector's competitors or other firms. Nor do they consider what the impact might be if the resources currently spent in supporting the sector's economic footprint were diverted elsewhere.

Oxford Economics quantified the production and sale of spirits' economic contribution across the three channels using three metrics of economic activity:

• Gross Value Added (GVA) contribution to GDP, measured in US dollars to allow for cross-country comparability.

• Employment, measured as the number of jobs in headcount terms.

• Tax revenue for governments, including personal and business income taxes, social security contributions and other taxes on production, such as excise duty. Again, this is measured in US dollars.



While most economic impact studies assess these effects, based only on spending that occurs within the country of interest, this study is more wide-ranging in its scope. To assess the impact of the production and sale of spirits on each economy, Oxford Economics used its Global Sustainability Model (GSM), which incorporates global supply chains to trace how different economies benefit from economic activity.

By taking into account global linkages, the analysis goes much further than mere national assessments. Such a comprehensive approach is essential to an international industry such as the spirits sector which has many very different yet intersecting elements all over the world. The Global Sustainability Model is explained in more detail in the Methodology section at the back of this report.

A generator of wealth, jobs and revenue

Spirits are a product that can evoke powerful, familiar – even iconic – images for consumers everywhere. Of cocktails and highballs; of glasses sipped by the fireside and raised in toast; of gleaming stills and ancient barrel warehouses.

Making and selling these products generates a significant number of jobs, as well as large amounts of tax revenue and income for governments around the world.

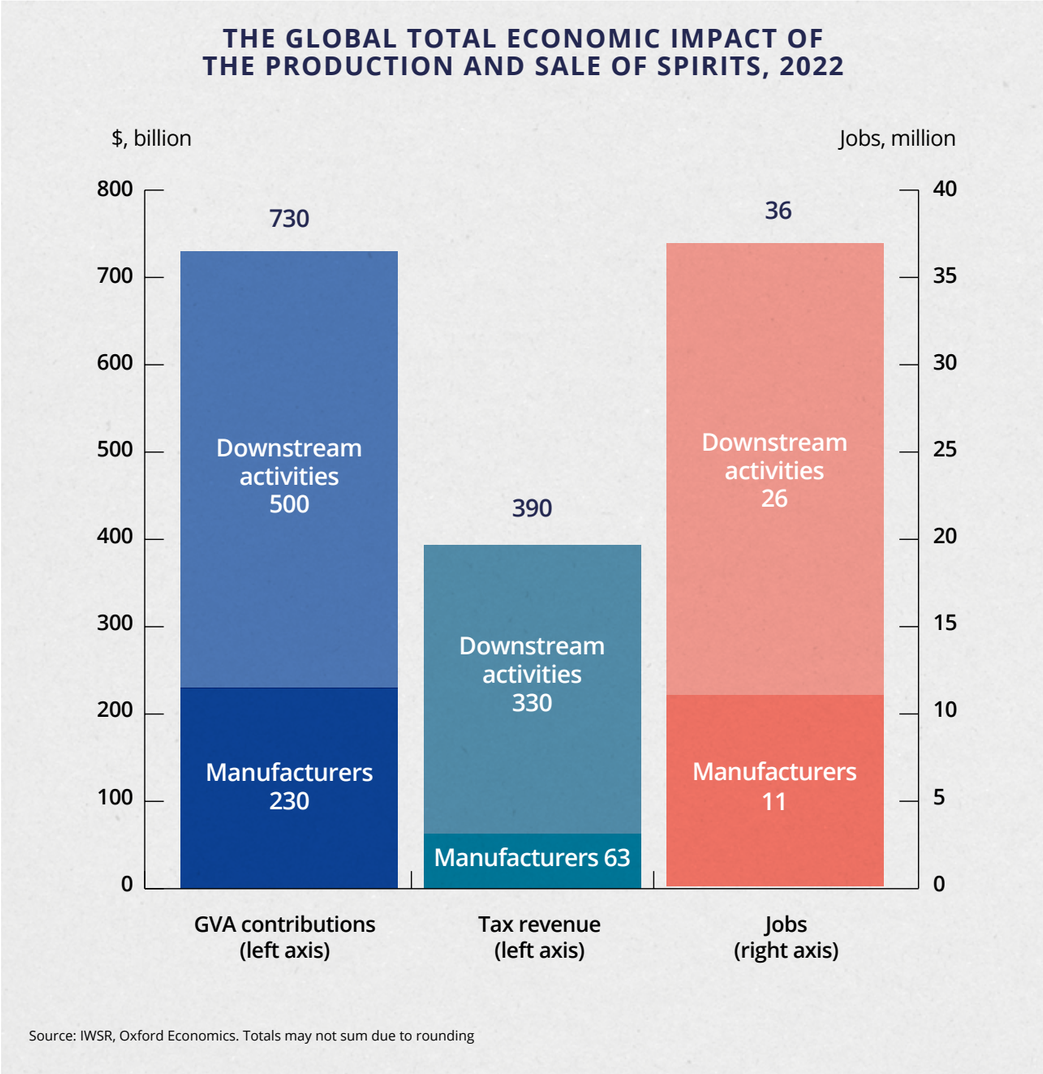
But the production and sale of these drinks are also the starting point for a much wider series of economic benefits. Every bottle of spirit produced goes on to provide profits and employment for distributors, retailers and hospitality businesses all over the world.

The total global economic footprint of the production and sale of spirits is enormous.

Taking into account the three channels of impact (direct, indirect and induced), Oxford Economics estimates that the production and sales of spirits supported a Gross Value Added (GVA) contribution of over $730 billion toward global GDP in 2022. To put it in context, this was about $1 in every $140 of global GDP in the same year.

Unsurprisingly, given the size of its GDP impact, spirits is a big employer worldwide. Oxford Economics' figures show that the sector supported (directly and indirectly) 36 million jobs worldwide in 2022 – about the same as the entire workforce of the UK.

As well as generating wealth and providing employment, there are direct benefits to governments, too. In 2022 the production and sale of spirits stimulated an estimated $390 billion in total tax revenue worldwide. This was almost equivalent to the entire tax take in the Netherlands that year.



Source: IWSR, Oxford Economics. Totals may not sum due to rounding

$730 BILLION

The spirits sector supported a $730 billion GVA contribution to global GDP in 2022

$390 BILLION

The production and sale of spirits supported $390 billion in tax revenue for governments around the world in 2022

36 MILLION JOBS

The spirits sector supported 36 million jobs in the production and sale of spirits, the supply chain and the consumer economy in 2022

A global industry – a global contributor

Spirits is a highly international industry, with millions of bottles being made, exported and consumed all over the world every week. IWSR data suggests that there are 135 countries of origin for spirits – but even this is likely to be an underestimation.

The map opposite shows the global nature of spirits' production. While there are countries associated with globally popular drinks styles that punch above their weight - Mexico (tequila/mezcal), France (Cognac), the US (Tennessee whiskey/bourbon) and the UK (gin and scotch), for instance – spirits are produced across the world. In fact the three biggest producing countries by volume are China, India and South Korea. Value share is shown in the adjacent map.

Significantly, despite the impact of Covid-19 and other global headwinds, the majority of spirits-producing countries have registered strong growth over the last five years. This is a healthy, dynamic industry that has reacted well to difficult recent circumstances.

China + (China, Hong Kong, Taiwan and Macau) is the dominant region. It is responsible for about half of the world's production revenue, and spirits here has by far the largest downstream activities of any country/region.

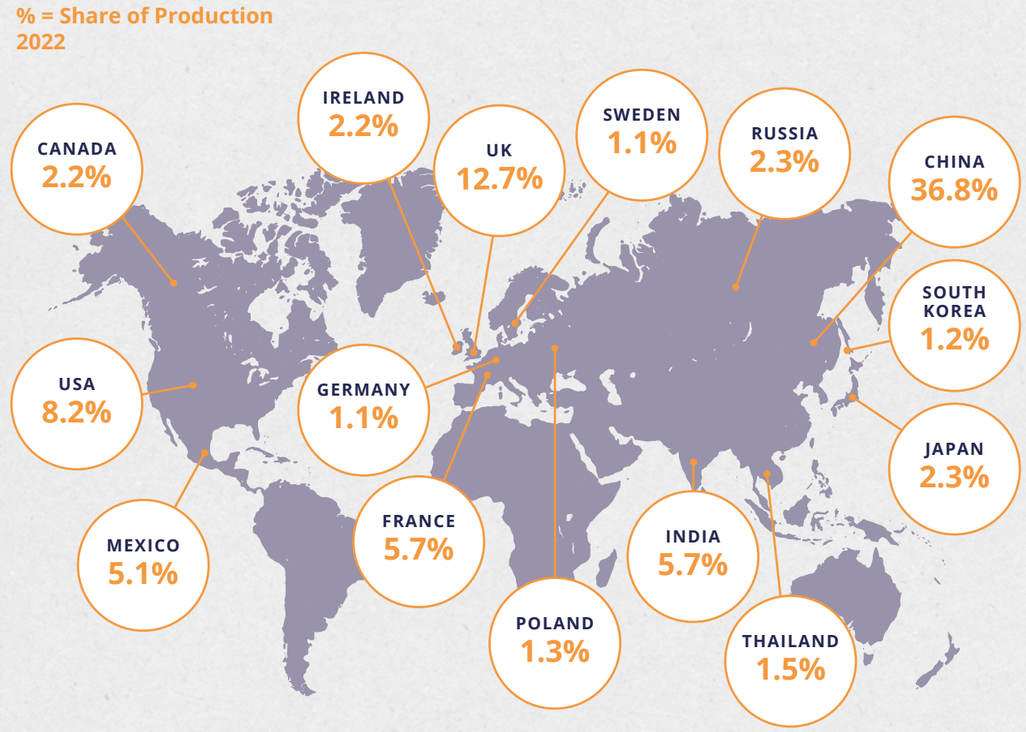
Spirits sales are a key part of the region's hospitality sector. The market is dominated by domestic drinks such as baijiu, which makes up 96% of all consumption.

A growing number of baijiu brands are selling at Premium prices to increasingly affluent consumers.

Spirits has a multi-layered distribution model in China +, and its impact on employment in the region is huge. The production and sale of spirits is estimated to support almost 3% of all jobs in the region.

SPIRITS VALUE: COUNTRY OF ORIGIN IN 2022

China, thanks to Premium and above Baiju, accounts for 37% of the value share of Spirits by country of origin. Mexico (+17.5%) is the fastest growing by value, followed by China (+13%) and Ireland (+9.7%)



Spirits' impact on the jobs market is also highly significant, particularly in economically fragile areas. In some regions, spirits manufacturing – and growing the crops that it needs – can be the main, or even the only driver of the local economy.

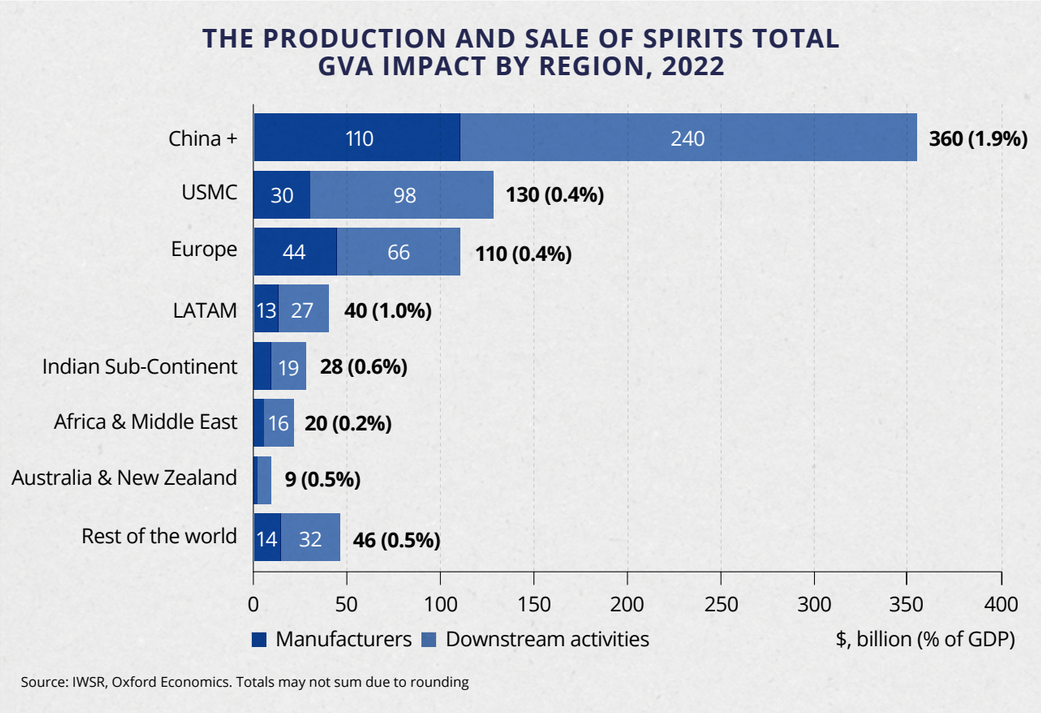
By providing long-term employment opportunities the industry plays a significant and positive role in local communities.

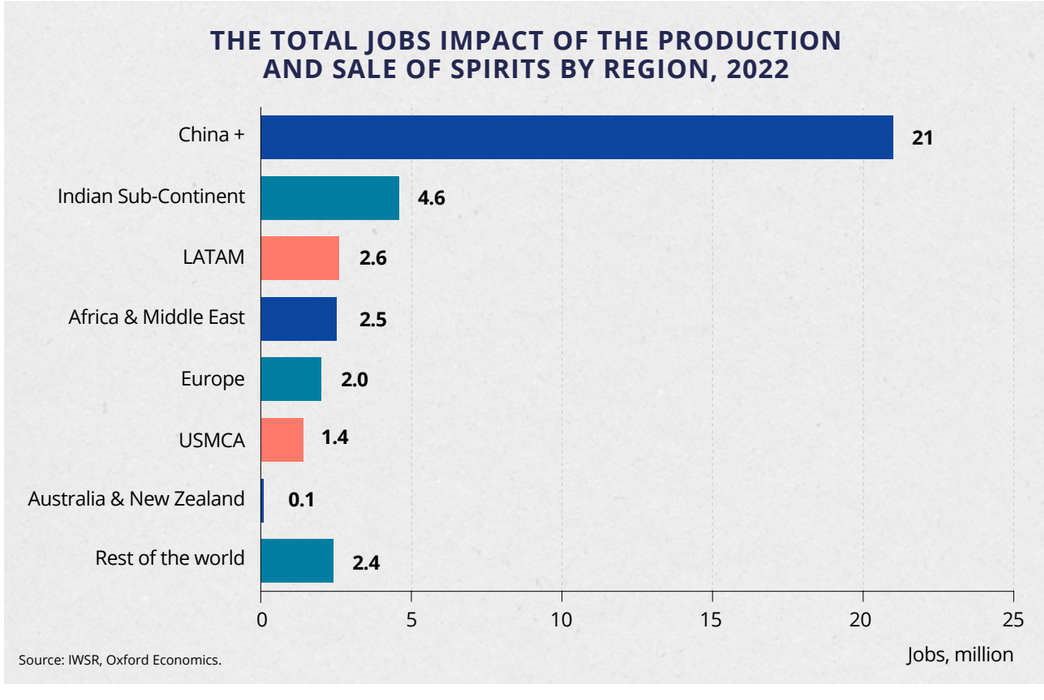
In countries outside the US and Europe, the majority of drinks consumed in these markets are typically less expensive, locally-produced national spirits.

Although value sales might be lower as a result, the production and sale of spirits in these regions is still extremely important. Directly or indirectly, many millions of people rely on it for their livelihood.

1m + 35m

Oxford Economics estimates that for every direct job in spirits manufacturing in 2022, the industry supported an additional 35 jobs across downstream activities, in supply chains or in the consumer economy


THE PRODUCTION AND SALE OF SPIRITS TOTAL GVA IMPACT BY REGION, 2022
China +
110
240
360 (1.9%)
USMC
30
98
130 (0.4%)
Europe
44
66
110 (0.4%)
LATAM
13
27
40 (1.0%)
Indian Sub-Continent
19
28 (0.6%)
Africa & Middle East
16
20 (0.2%)
Australia & New Zealand
9 (0.5%)
Rest of the world
14
32
46 (0.5%)
0
50
100
150
200
250
300
350
400
Manufacturers
Downstream activities
$, billion (% of GDP)
Source: IWSR, Oxford Economics. Totals may not sum due to rounding


THE TOTAL JOBS IMPACT OF THE PRODUCTION AND SALE OF SPIRITS BY REGION, 2022
China +
21
Indian Sub-Continent
4.6
LATAM
2.6
Africa & Middle East
2.5
Europe
2.0
USMCA
1.4
Australia & New Zealand
0.1
Rest of the world
2.4
0
5
10
15
20
25
Jobs, million
Source: IWSR, Oxford Economics.

2. SPIRITS MANUFACTURERS' IMPACT ON THE GLOBAL ECONOMY

Spirits **manufacturers** account for just under a third (32%) of the sector's total global gross value added (GVA) contribution. Across direct, indirect and induced channels of impact, distillers supported a $230 billion GVA contribution to global GDP in 2022. They also supported 11 million jobs and sustained $63 billion in tax revenue for governments around the world.

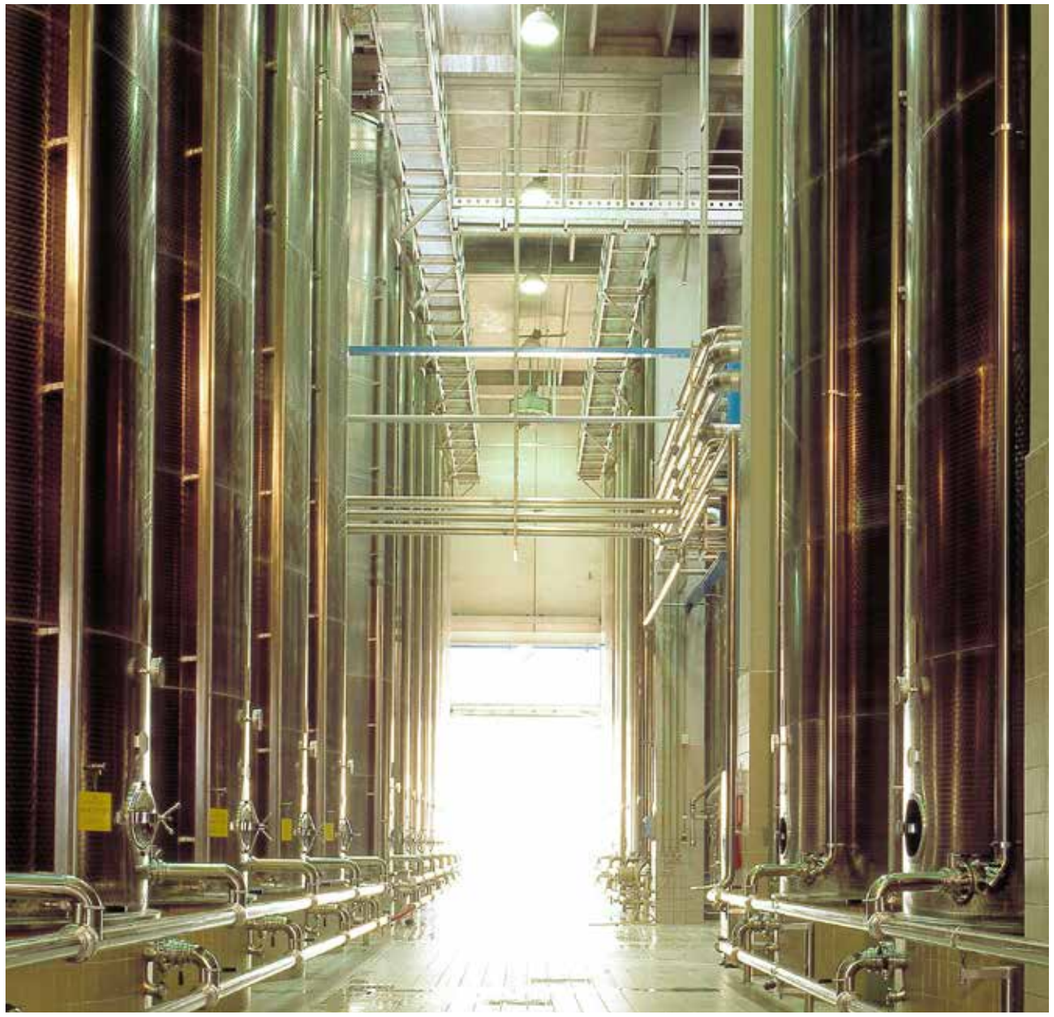
Spirits producers influence the economy in many different ways.

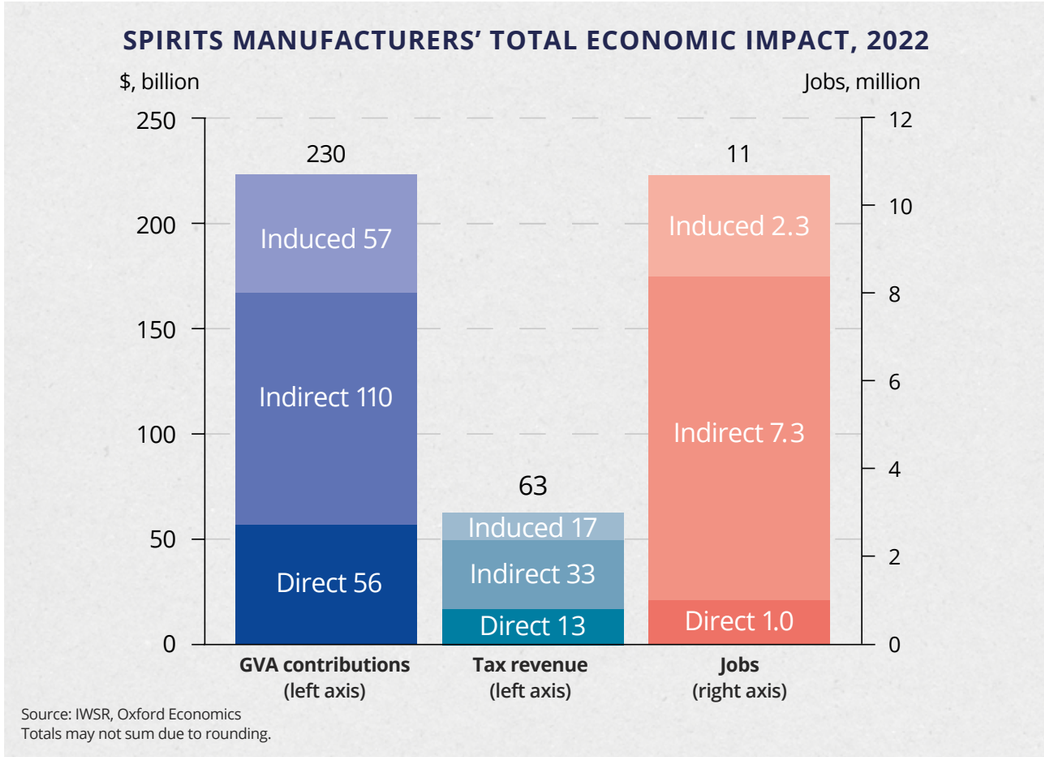
By making, marketing and selling millions of bottles every year, they have a **direct impact**.

By buying agricultural produce, manufactured goods such as machinery and packaging, and professional services like marketing or technical support, spirits' producers have an **indirect impact**.

Finally, the wages that they pay their staff and support along the supply chain stimulate further economic activity in the consumer economy. This is spirits manufacturers' **induced impact**.

In the next section, we will explore in more detail how – and how much - the production and sale of spirits supports GVA, jobs and tax contributions across these three channels of impact.





Source: IWSR, Oxford Economics
Totals may not sum due to rounding.

$230 BILLION

Across direct, indirect and induced channels of impact, spirits manufacturers supported an estimated $230 billion GVA contribution to global GDP in 2022

$63 BILLION

Spirits manufacturers helped sustain $63 billion in tax payments for governments around the world in 2022

11 MILLION JOBS

The economy of spirits manufacturing supported 11 million jobs in 2022, including direct, indirect and induced channels of impact

Spirits manufacturers – direct impact

Spirits manufacturers' direct contribution to the global economy relates to the activities that they carry out on site, and for which they are directly responsible. Creating the drinks themselves is the most obvious example, but it also includes marketing and selling them.

Other supporting businesses, such as accounting, finance and logistics also come under the aegis of spirits' producers' direct impact.

In 2022 by manufacturing and selling their products to the downstream economy, spirits' producers directly contributed $56 billion in gross value added (GVA) to the world economy.

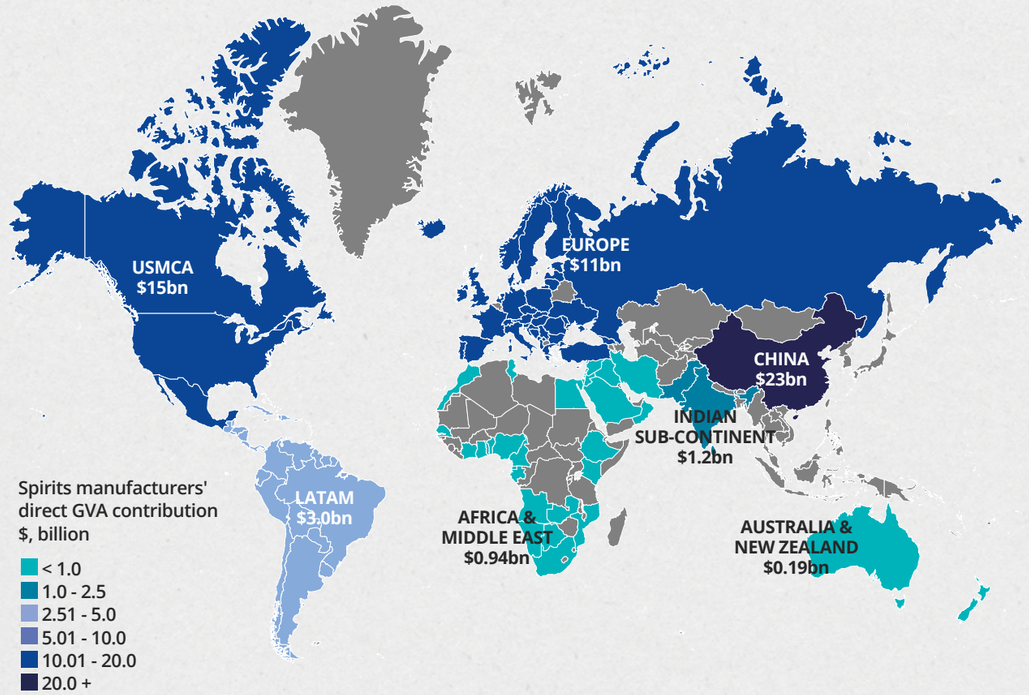
They also employed a large number of people. In 2022, distilleries and their back offices/support structures were responsible for an estimated 1 million jobs worldwide.

Over the same period, they paid governments an estimated $13 billion in taxes (excluding excise duties).

Spirits producers' direct impact was greatest in the China + region where their GVA contributions in 2022 amounted to an estimated $23 billion, followed by the US, Canada and Mexico ($15 billion) and Europe ($11 billion).

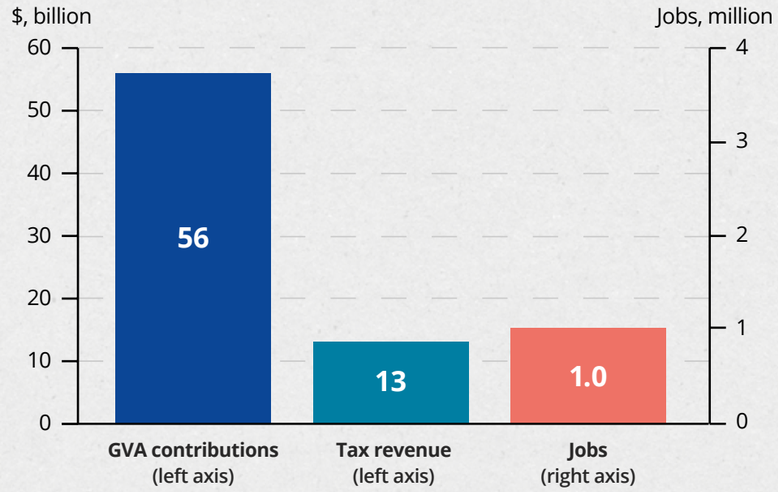
China + was the region that employed the most, with 440,000 people working directly in the production of spirits. Europe, home to a large number of classic spirits categories, was the second biggest employing region, with 100,000 jobs.

SPIRITS MANUFACTURERS' DIRECT GVA IMPACT BY REGION, 2022



Source: IWSR, Oxford Economics
Totals may not sum due to rounding.

SPIRITS MANUFACTURERS' DIRECT ECONOMIC IMPACT, 2022



Source: Oxford Economics

Spirits manufacturers – indirect impact

Spirits manufacturers' make a large direct contribution to the world economy, but their indirect impact on the wider supply chain is even more striking.

Oxford Economics estimates that spirits producers' indirect impact for 2022 amounted to $110bn in GVA contributions to global GDP.

The industry also indirectly supported 7.3 million jobs and contributed $33 billion in tax payments.

Spirits manufacturers' indirect economic impact is far higher than its direct impact (see adjacent graphic). This is because the process of spirits' creation requires manufacturers to work with a large number of different industries.

Spirits producers spent an estimated $120 billion with third-party suppliers in 2022 (see adjacent bar chart).

The most obvious of these is agriculture. Half of the production of spirits' supply chain spending in 2022 ($57 billion) was with farmers who provided distillers with the raw materials they needed to create their products, for instance wheat, grapes, sugar cane, agave and rice.

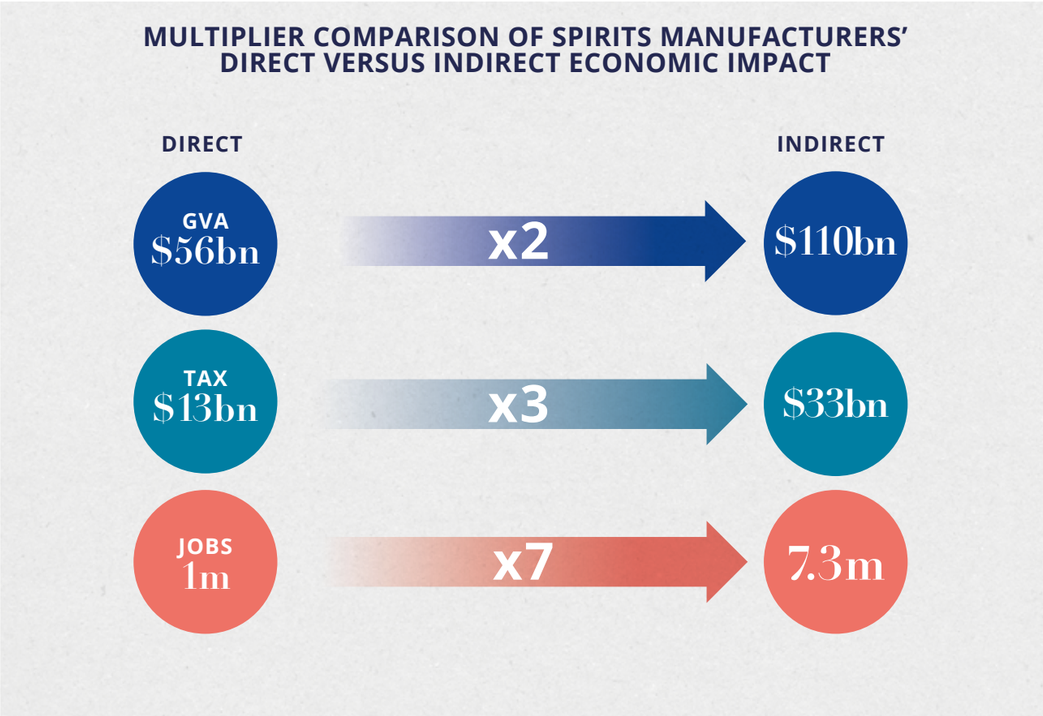
In some of these regions, supplying the spirits manufacturers can be the main, or even the only driver of the local economy, giving the industry a crucial role in the local community.

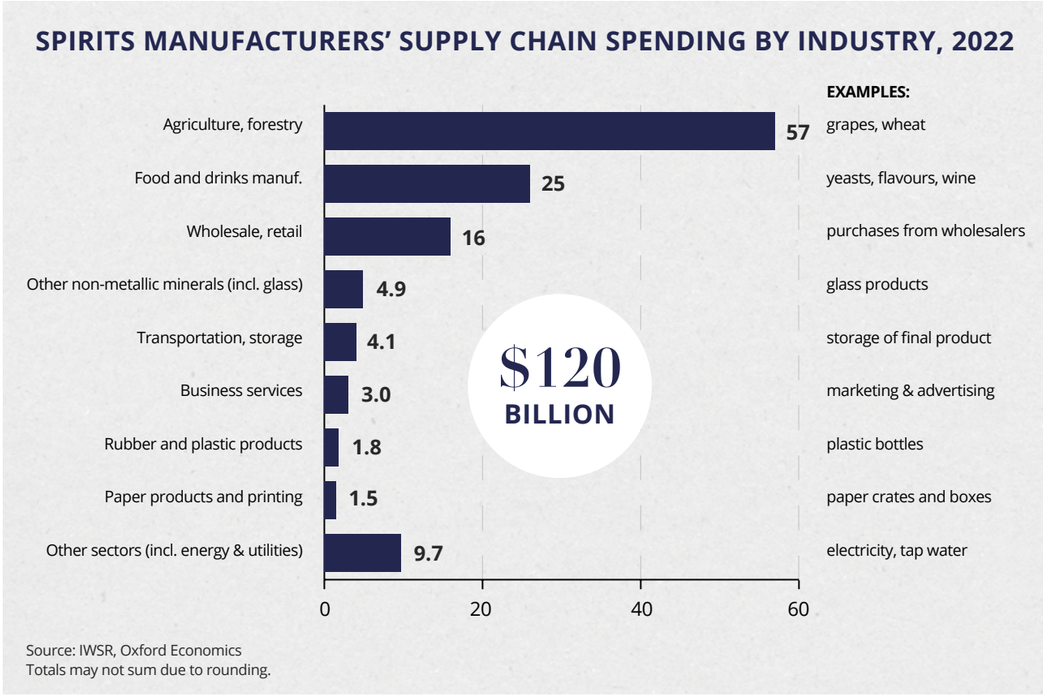
The creation of spirits also requires strong interactions with the food and drinks manufacturing sector. This is the second-biggest third-party industry. In 2022, spirits producers spent a total of $25 billion worldwide in this sector, which includes products such as yeast for fermentation, flavourings and colour adjusters, even wine.

Between them, agriculture and the food and drink sectors account for the vast majority of the production of spirits' supply-chain spending.

But other industries receive significant spend from distillers, too.

Glass bottles, wooden barrels, paper labels, cartons and cardboard packaging are all essential to spirits production. Spirit brand owners are also important supporters of the creative industries, via their advertising and marketing activities. In 2022 distillers spent significant amounts with these third-party industries.





Source: IWSR, Oxford Economics
Totals may not sum due to rounding.

Spirits manufacturers – induced impact

Through paying their own staff's wages, and indirectly supporting the salaries of myriad other businesses in the supply chain, spirits manufacturers provide a powerful stimulus to the global economy.

Oxford Economics' research estimates that spirits manufacturers paid out $15 billion in salaries and wages to staff worldwide in 2022.

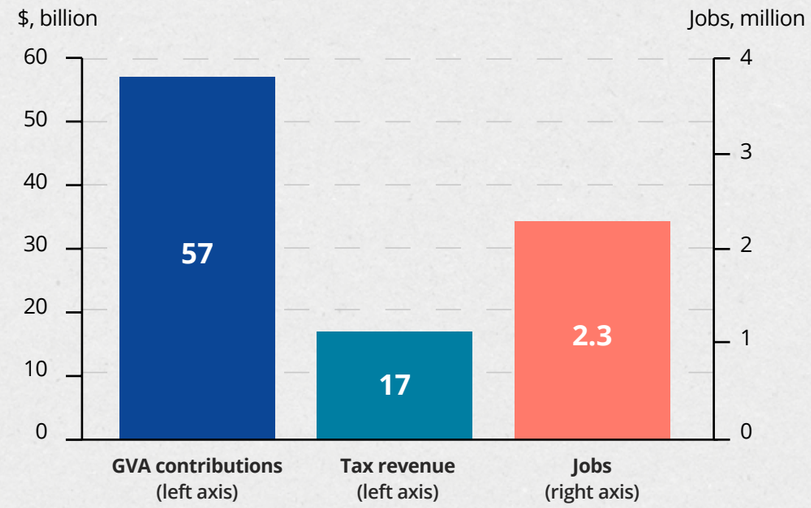
These wages, together with payments made to people employed in the wider supply chain are subsequently spent in the consumer economy. This induced spend is made on a wide range of goods and services – from meals out to mortgages - and supports not just these other businesses but their suppliers also.

Using their Global Sustainability Model, Oxford Economics was able to assess how the production of spirits is responsible for a global interaction of payment, spend and reinvestment that takes in suppliers, employees and consumers through all the world's economies.

In 2022 Oxford Economics estimates that spirits producers and sellers' GVA contribution to global GDP through this induced channel of impact was $57 billion. In the process, the industry supported 2.3 million jobs across crucial sectors like healthcare, education, entertainment, housing and retail.

The production of spirits also helped to generate $17 billion in tax payments to governments. These induced-channel payments include taxes on production (such as business rates), products themselves (such as excise duty), corporate tax and labour tax.

SPIRITS MANUFACTURERS' INDUCED ECONOMIC IMPACT, 2022



Source: Oxford Economics

Spirits manufacturers – total impact

By totalling up the direct, indirect and induced expenditure channels of impact, it's possible to see the vast influence that spirits production has on the global economy.

In 2022 spirits manufacturers' total gross value added (GVA) contribution to global GDP was $230 billion. To put this in context, that is only slightly less than the total GDP of Portugal ($250 billion) for the same year.

Worldwide, taking into account people employed directly by spirits producers, those employed in the industry's supply chain and also jobs which these salaries support in the wider economy, spirits supported an estimated 11 million jobs worldwide in 2022. This is roughly equivalent to the total workforce of Taiwan.

In addition, the production of spirits' total contribution to government tax revenues worldwide – taking into account all three channels of impact, direct, indirect and induced - was $63 billion.

The production of spirits on its own has a sizable economic influence, directly responsible for $56 billion of GVA contributions to global GDP and 1 million jobs worldwide.

It also contributed $13 billion in tax revenue to global governments in 2022.

But once you add in spirits manufacturers' indirect impact as well, its influence is significantly enhanced. Around three-quarters of the spirits industry's total economic impact is accounted for by direct and supply-chain activity.

Some 72% of the spirits manufacturers' total GVA contribution to global GDP ($166 billion out of $230 billion in 2022) was supported by the economic activity of spirits producers and their supply chains. Looking at the same direct and indirect channels shows also that the sector supported 8.3 million jobs (75% of the total impact), and $46 billion in tax payments - 73% of the total tax stimulated once induced impact is also included.

Considering all impact channels – direct activities of spirits producers themselves, indirect impact on the wider supply chain and induced impact of spirits producers' salaries on unrelated businesses - Oxford Economics estimates that in 2022 the spirits manufacturing industry supported a total GVA contribution to global GDP of $230 billion, 11 million jobs and $63 billion in tax revenue for governments.

In 2022 the contribution to the economy of the overall spirits sector - the production and sale of spirits - was equivalent to $1 in every $140 in global GDP.

The production and sale of spirits accounts for $1 in every $140 in global GDP

3. SPIRITS' DOWNSTREAM ACTIVITIES

We have already seen the impact that spirits manufacturers themselves have on the global economy. But the process of selling these products – whether that's in wholesale, retail or hospitality – generates and supports even more economic value.

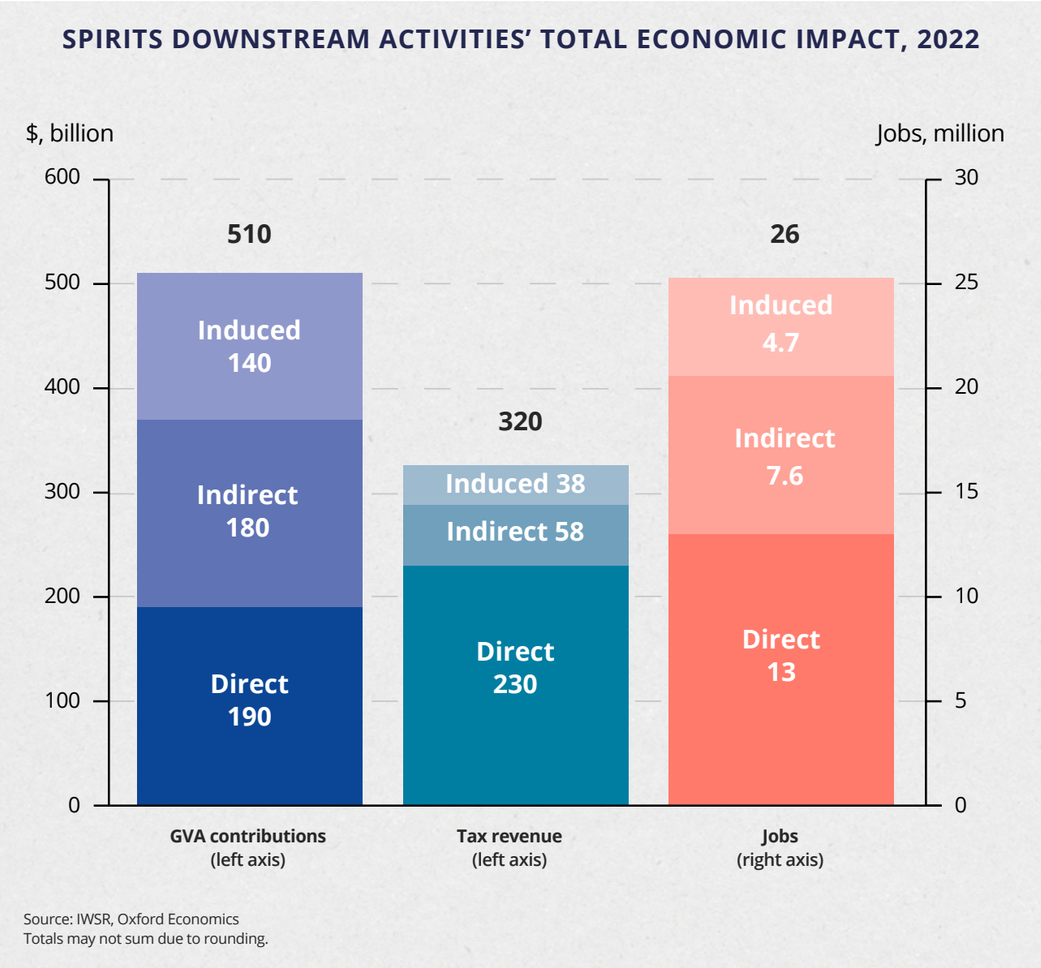
Of the total gross value added (GVA) contribution from the production and sale of spirits – $730 billion – 70% ($510 billion) is accounted for by this downstream value chain. Downstream activity sustains 26 million jobs globally and supports $330 billion in tax payments for governments around the world

The downstream value chain covers huge numbers of businesses, which between them link spirits manufacturers to end consumers.

Shipping companies transport pallets of bottles internationally, haulage firms deliver spirits to warehouses nationwide. Wholesalers monitor stock so they are able to keep both on- and off-trade outlets alike in their market fully stocked.

Convenience stores, grocers and online businesses sell spirits to consumers for them to enjoy at home. In hospitality, the availability of a wide range of spirits helps bars, restaurants, pubs, clubs, sports stadia and multiple other venues enhance consumer choice and enjoyment.

In this section we will examine in more detail the contribution that the sale of spirits makes to the global economy through its downstream value chain.



Source: IWSR, Oxford Economics
Totals may not sum due to rounding.

$510 BILLION

Spirits distributors, retailers and hospitality supported a $510 GVA contribution to global GDP in 2022

$330 BILLION

Spirits distributors, retailers and hospitality paid and supported $330 billion in tax payments to governments around the world in 2022 (this also includes excise duties directly paid by spirits manufacturers)

26 MILLION

Spirits' total downstream value chain supported 26 million jobs among distributors, retailers, and hospitality venues as well as across their supply chains and in the consumer economy in 2022

Spirits' downstream activities – direct impact

Oxford Economics' analysis shows that in 2022, spirits' downstream value chain directly generated an estimated gross value added (GVA) contribution of $190 billion to global GDP. This equated to an estimated 13 million jobs across industries such as wholesale, retail and hospitality.

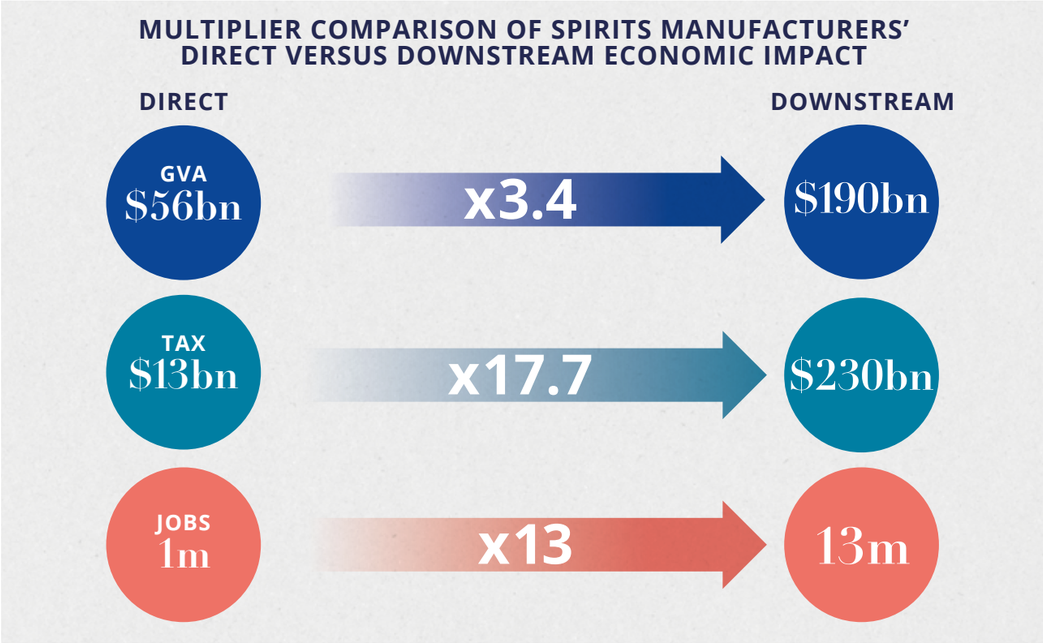
It also generated $230 billion of tax payments for governments worldwide, including VAT, import tariffs, business rates and other production taxes corporate taxes and labour taxes paid by downstream businesses. $84 billion of this was collected as excise tax.

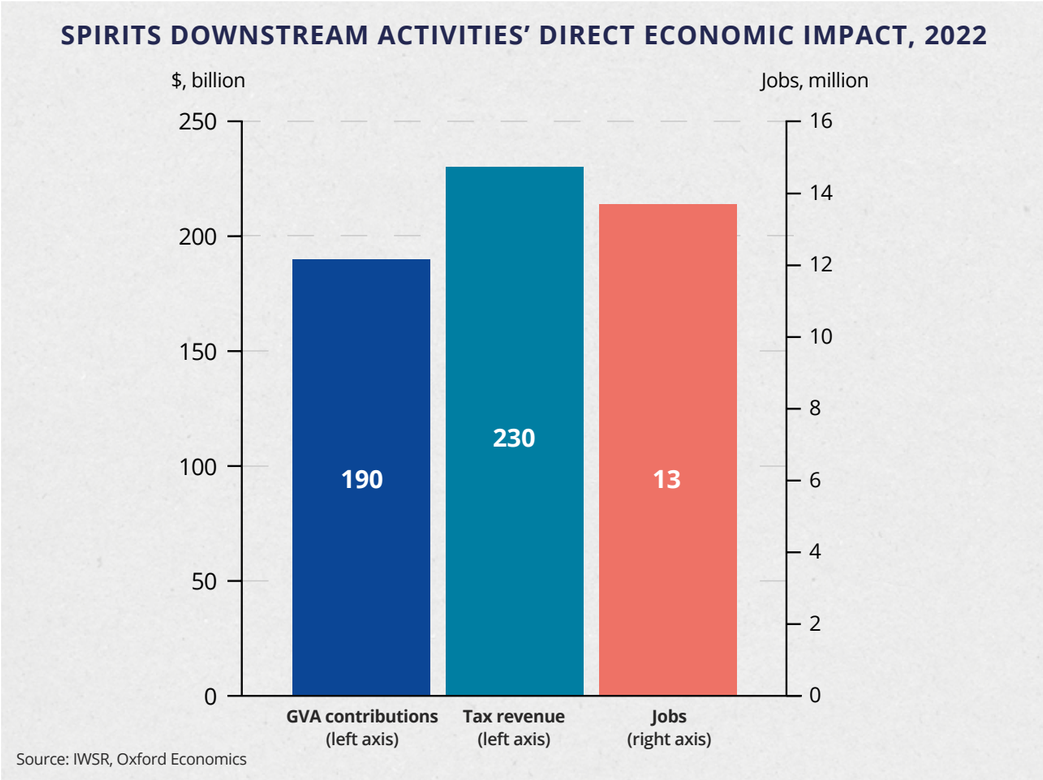
The direct economic impact of spirits' downstream value chain is particularly significant in the high number of jobs the sector supports and tax payments it generates.

For every one person directly employed by a spirits manufacturer, the industry supports 13 jobs in the direct downstream businesses.

In the retail sector, much of the value is created through slick logistical systems that can quickly and efficiently deliver spirits across the supply chain. Hospitality employs large numbers of people to serve drinks and create memorable guest experiences.

For every one person directly employed by a spirits manufacturer, the industry supports 13 jobs in the direct downstream businesses





Spirits' downstream activities - indirect impact

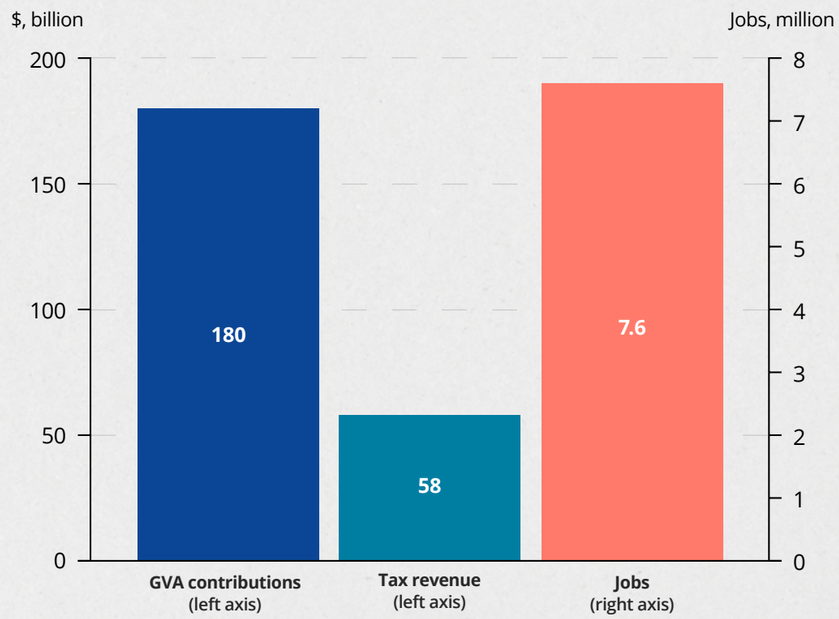
The hospitality, retail and distribution businesses that are involved in the sale of spirits all spend money with other businesses too. In doing so, spirits' downstream businesses have an indirect impact on the world economy.

For 2022, Oxford Economics estimates that this spending supported $180 billion in gross value added (GVA) contributions to global GDP. This indirect impact of spirits' downstream value chain also supported 7.6 million jobs across a wide range of economic activities and countries, and stimulated $58 billion in tax payments to governments across the globe.

The businesses involved in spirits' downstream value chain must interact on a regular basis with many other professions. It could be a restaurant buying furniture, a retailer renting warehouse space or a logistics firm employing drivers or an accountant. Either way, this indirect impact is highly significant. These businesses contribute almost as much to global GVA through what they spend with their suppliers ($180 billion) as they generate themselves ($190 billion).

One key element of this indirect downstream value chain is that the vast majority of the spending benefits local economies because the businesses involved tend to procure goods and services domestically. In 2022, 94% of procurement spending by businesses involved in downstream activities was sourced in the country of sale.

SPIRITS DOWNSTREAM ACTIVITIES' INDIRECT ECONOMIC IMPACT, 2022



Source: Oxford Economics

SUPPLY CHAIN SPEND BY REGION

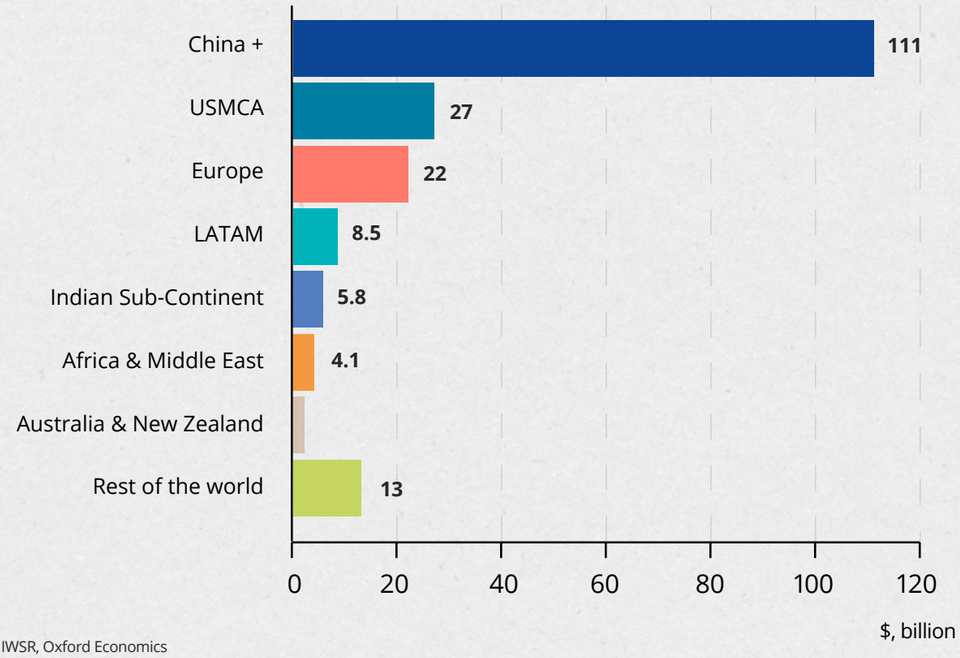
A look at the chart below shows just how the wider supply chain around the world benefits from spirits' downstream activities.

China + (China, Hong Kong, Taiwan and Macau) is the world's biggest spirits-producing area. And with a huge and vibrant hospitality and retail sector, the economic impact of spirits' downstream supply chain here is particularly potent. China + accounted for 58% ($111 billion out of $190 billion) of the downstream value chain's global purchases of goods, inputs and services in 2022.

But in 2022 Oxford Economics' estimates show spirits' downstream businesses were responsible for large amounts of spending in the supply chain all around the world, particularly in the US, Mexico and Canada ($27 billion), Europe ($22 billion) and LATAM (including Mexico*) ($8.5 billion).

**For the purposes of this report, Mexico appears both in the US, Mexico and Canada and also in LATAM regions*

SPIRITS DOWNSTREAM ACTIVITIES' SUPPLY CHAIN SPENDING BY REGION, 2022



Source: IWSR, Oxford Economics

Spirits' downstream activities - induced impact

Businesses and organisations involved in spirits' downstream economic activities paid an estimated $98 billion in wages to staff in 2022. But some of these wages, and the wages of those supported along the supply chain, were subsequently spent in the wider economy, contributing to an even higher GVA. This is the sector's induced impact.

Based on typical household consumption, Oxford Economics estimates that in 2022 spirits' downstream activities supported a total induced impact contribution to GDP of $140 billion.

This spend is made in a wide range of activities across the consumer economy, from home improvements and childcare to nights out and holidays. In the process, in 2022, this behaviour supported an estimated 4.7 million jobs, and sustained $38 billion in tax to governments globally.

SPIRITS DOWNSTREAM ACTIVITIES' INDUCED ECONOMIC IMPACT, 2022

Source: Oxford Economics

Spirits' downstream activities - total impact

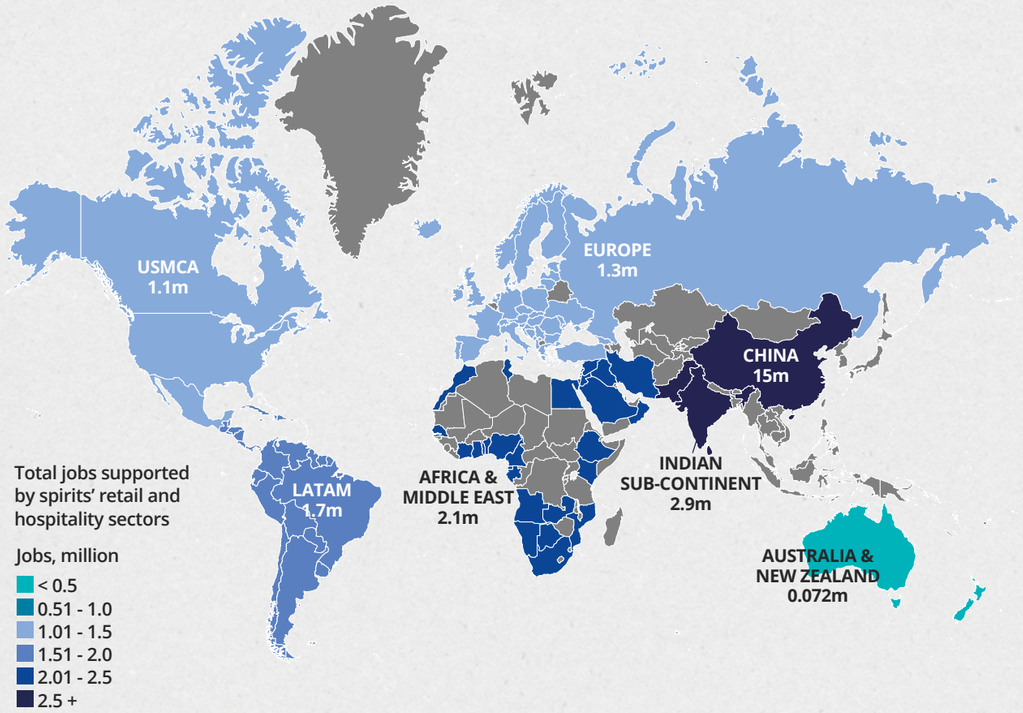
Taking into account direct, indirect and induced impacts, spirits' downstream value chain supported a $510 billion GVA contribution to GDP in 2022.

Oxford Economics estimates that this economic activity supported 26 million jobs worldwide, and generated $330 billion in tax revenues.

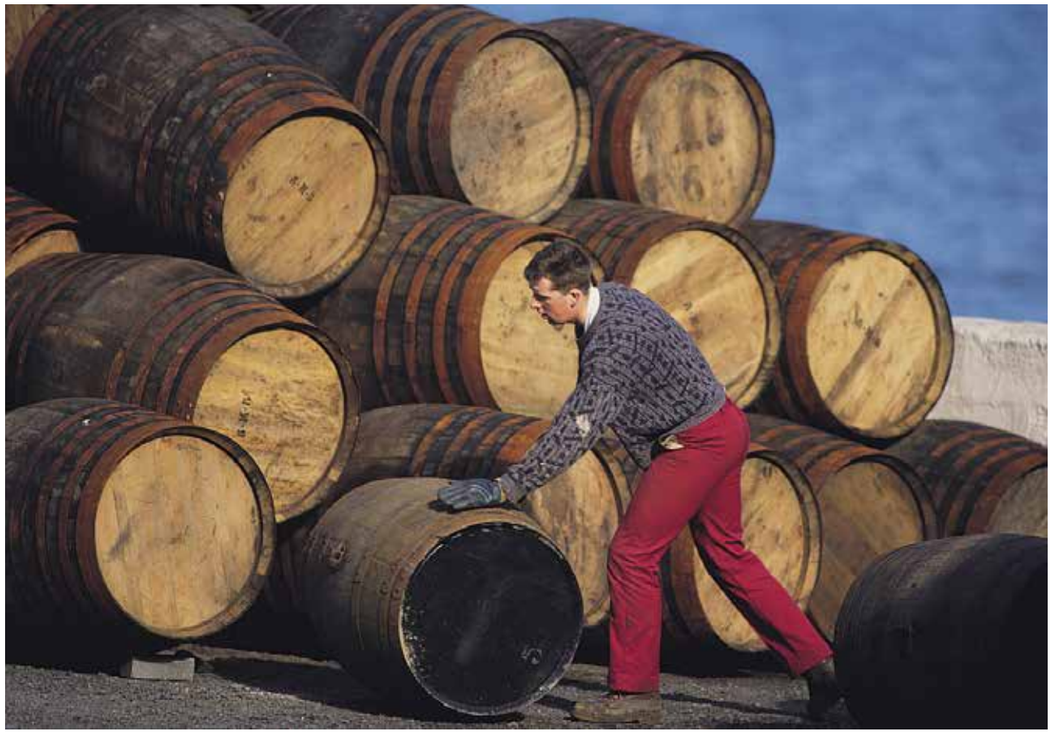
The employment impact of this downstream value chain is particularly significant – responsible for almost two and a half times as many jobs as the direct, indirect and induced impacts of the spirits manufacturers in 2022 (26 million compared to 11 million).

The impact of spirits' downstream value chain on the labour market is at its most pronounced in China, where one in every 51 jobs is estimated to have been supported by spirits' downstream activities in 2022. But the downstream sector also had a strong influence in LATAM (one in every 170 jobs) and the Indian subcontinent (one in every 190 jobs).

TOTAL JOBS SUPPORTED BY SPIRITS' DOWNSTREAM ACTIVITIES, 2022



Source: IWSR, Oxford Economics



4. SPIRITS – GLOBAL TRENDS

It is clear from the previous chapters that the spirits industry is a hugely important part of the world economy. Taking into account its direct, indirect and induced impact it contributes hundreds of billions of dollars of gross value added (GVA) to global GDP, employs tens of millions of people and provides governments with hundreds of billions of dollars of tax revenue every year.

In this section we will highlight some of the key trends and factors that have shaped the performance of this crucial category in recent years, and those that are likely to affect it in the medium term.

Market overview

Spirits is the most valuable alcoholic drinks category. As we saw in the Introduction section of this report, taking into account both national and international spirits, it accounted for 42% of global consumer spend on alcoholic drinks in 2022. This gave spirits a greater share of spend than beer (40%) and meant it was more than twice the value of wine (18%). Spirits are at their most dominant in China + where they account for over 70% of the spend on alcoholic drinks.

The spirits sector rebounded well after the Covid-19 dip in 2020 and, in 2022, was the best performer of the major drinks sectors. International spirits are selling greater volumes in 2022 than pre-pandemic.

Spirits is a category in growth. When we consider just international spirits, in volume terms in 2022 the sector grew by 5.1% compared to the previous year, selling 88 million more 9-litre cases than in 2021.

International spirits' value performance over the same period was even more positive, adding $23 billion in Retail Sales Value - a jump of 10.5% over 2021 value. This double-digit value growth outpaced that of beer, wine and RTDs in 2022.

These growth statistics exclude national spirits*, which are dealt with in more detail later in this section of the report.

From these figures, we can see that value is growing faster than volume. This can be attributed to a combination of price increases caused by inflation but also consumers trading up to higher-priced and higher-quality spirits. We will cover this premiumisation trend more fully later in this section.

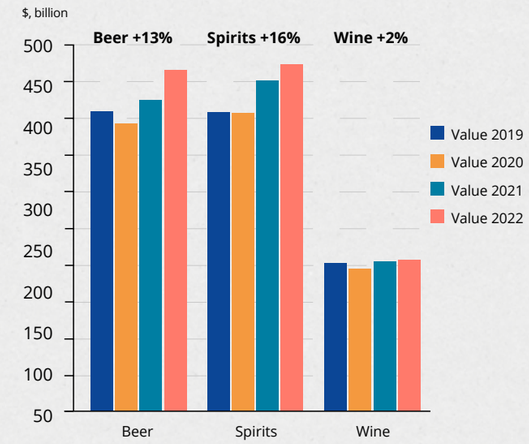
Within the spirits sector, some categories have had greater success than others. Cognac and vodka saw small volume declines from 2019-2022, whisky and rum saw small increases. Meanwhile, bitters/aperitifs and agave-based drinks (chiefly tequila) saw double-digit growth.

However, driven by inflation and trading up all international spirits categories recorded stronger value sales in 2022 than in 2019.

Based on the 2022 data, IWSR predicts that volumes in the Total Beverage Alcohol market will continue to grow at 1% a year at least until 2027.

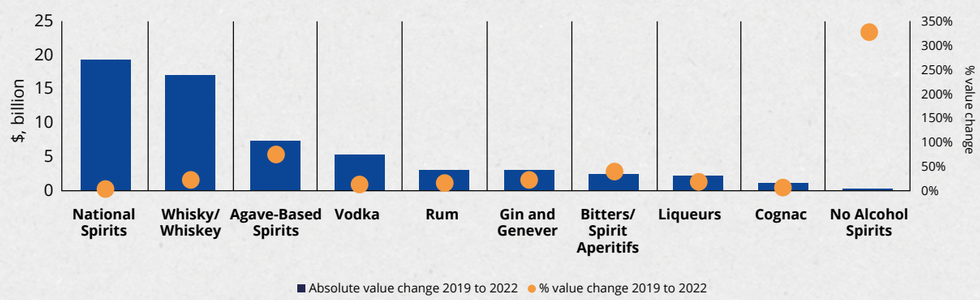
** National spirits are those that are usually produced using traditional methods and holding a strong national association. Eg aquavit, baijiu, shochu, soju. Of the total spirits value of $468 billion in 2022, national spirits were worth $221 billion. The value of Chinese baijiu alone is $210 billion. Total international spirits were worth $247 billion.*

ALCOHOLIC DRINKS RETAIL VALUE GROWTH BY CATEGORY, 2019-2022*



* includes national spirits

SPIRITS CATEGORIES % CHANGE AND ABSOLUTE VALUE CHANGE 2019-2022

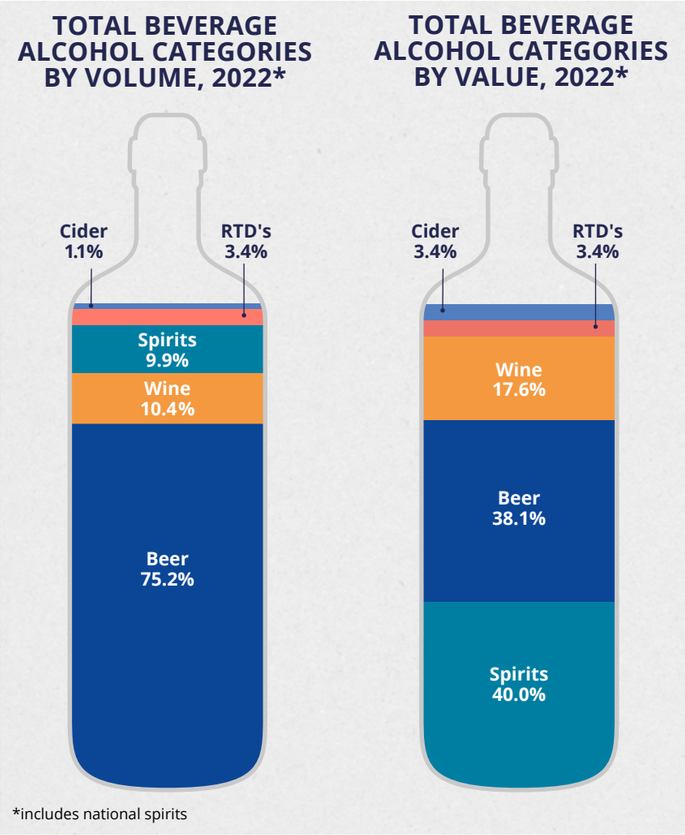


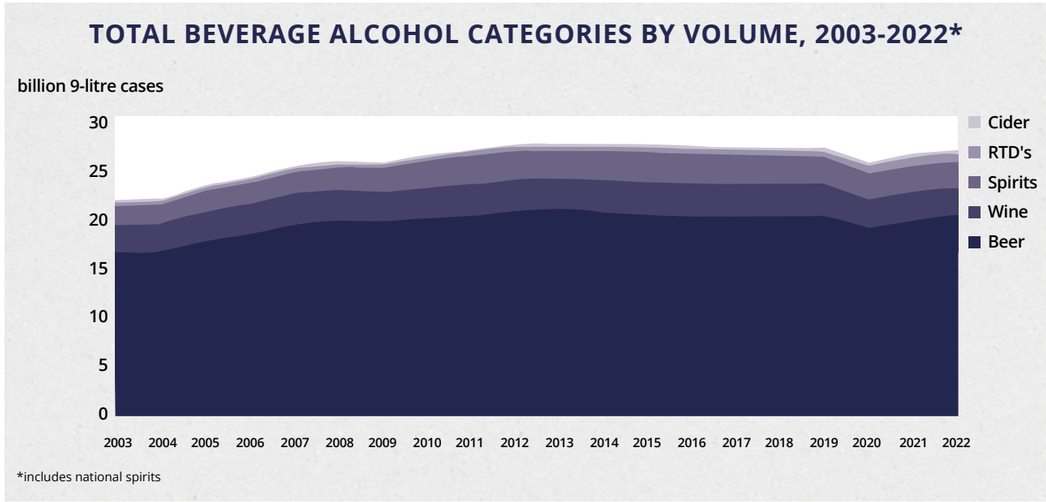
Spirits – a highly valuable drink

Over the last 20 years, the Total Beverage Alcohol category (TBA) which includes beer, wine, spirits, cider and RTDs has grown from being a 21.8 billion cases a year industry in 2003 to 27 billion cases in 2022. Most of this growth occurred from 2003 to 2012 and has slowed to about +1% a year over the last decade.

Spirits has increased its importance within TBA. While beer, understandably, dominates volumes, spirits has grown its share markedly and now sells almost as many bottles as wine (2.67 billion cases in 2022 compared to wine's 2.8 billion cases). Should current trends in both categories continue, spirits volumes will soon surpass those of wine.

In terms of value, spirits' contribution is even more important. At $470 billion of retail sales value in 2022, it is the most valuable category in a beverage alcohol industry worth, in total, almost $1.2 trillion per year.





Focus – national spirits

The spirits manufacturing sector can be split into two groups: international spirits and national spirits.

International spirits includes categories such as whisky, vodka, rum, tequila, brandy, gin and cognac, which are widely exported around the world.

National spirits covers (mostly white) spirits which are produced by traditional methods, are overwhelmingly consumed in the country of origin and have a strong association with just one country. Baijiu is a particularly good example, making up 96% of the Chinese spirits market by both value and volume.

National and international spirits are exhibiting slightly different trends. While both are seeing higher levels of consumption compared to 20 years ago, national spirits grew faster between 2003 and 2016, but have seen volumes diminish slightly since then.

By contrast, in volume terms, international spirits have grown more slowly, but (with the exception of a blip during the pandemic) more consistently. As a result, international spirits now make up a greater share of the total spirits market than ten years ago (67% in 2022, compared to 54% in 2012).

Looking at the international and national spirits by value, however, reveals a somewhat different story, with both groups growing steadily since 2013.

For national spirits, this combination of diminishing volumes and increasing value shows there is a clear premiumisation trend taking place. This is particularly true for Chinese baijiu, where volume is declining for cheap products, while premium sales are seeing strong growth.

With the exception of baijiu, where prices can be very high, national spirits are generally more inexpensive than international spirits categories. But its consumers are, nonetheless, increasingly tending to drink less but better.

China produces 96% of its spirits locally

The 4% of imported spirits accounts for 4% of the value

Baijiu is both a low-value and an extremely high-value product

NATIONAL SPIRITS VOLUME SHARE 2012 VS 2022

	2012		2022
National Spirits	45.7%	↘	33.3%
International Spirits	54.3%	↗	66.7%

NATIONAL SPIRITS RETAIL VALUE SHARE 2012 VS 2022

	2012		2022
National Spirits	46.5%	↗	47.2%
International Spirits	53.5%	↘	52.8%

Premiumisation – a long-term trend

Premiumisation has been a constant trend in the spirits sector over the past 20 years, with higher-priced tiers growing faster than lower-priced ones. This has been the case across the sector, for both national and international spirits, and has been particularly noticeable from the late-2010s onwards.

While Value and Low-Price segments are seeing smaller volumes than ten years ago, Premium and above segments are seeing consistent – and sometimes strong – growth. The Super-Premium segment, for instance, has seen value increase by a factor of 2.5 over the last decade.

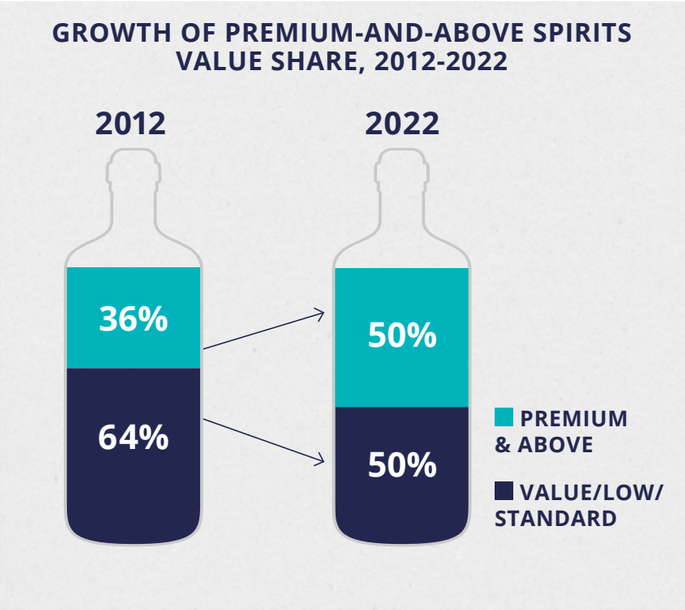
While the least expensive spirits segments – Standard, Low-Price and Value – account for a large majority of the volume of spirits sold (23 billion nine-litre cases compared to 4 billion for premium segments and above) in value terms their influence is diminishing. Half of the spend on spirits in 2022 took place at Premium level and above; a far higher proportion than ten years previously.

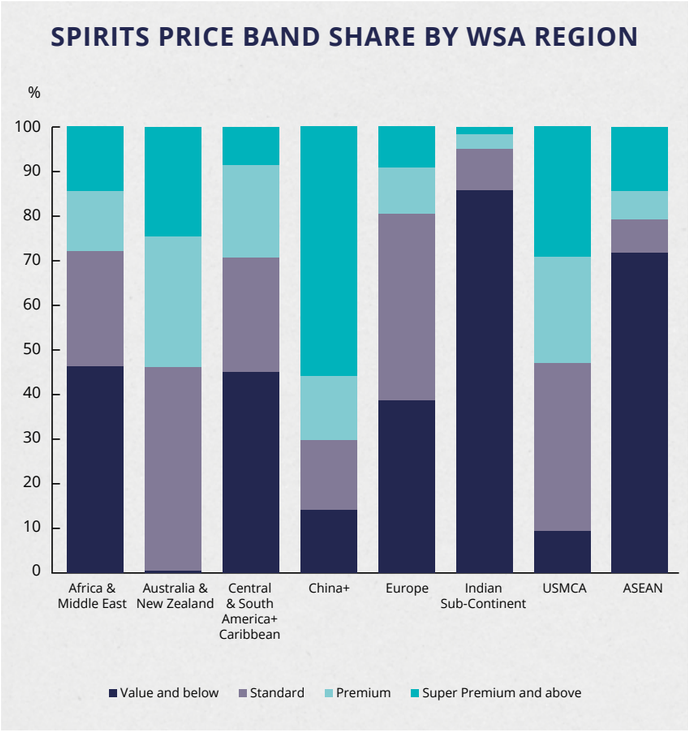
The strong growth of the highest-value segments – Ultra-Premium, Prestige and Prestige Plus – has been particularly significant in reshaping the spirits sector's value landscape.

While premiumisation is a global trend, its rate is not uniform, with a stronger foothold in some regions than others. It is least obvious in the Indian sub-continent, where – although the region is widely expected to premiumise in the near future – in 2022, some 85.7% of spirits sales were still at Value level or below.

Premiumisation is better established in Europe, where Value and below spirits accounted for just 39% of total sales in 2022. And it is very well entrenched in China +, the US, Mexico and Canada and Australia/New Zealand. In all of these regions, in 2022, spirits at Premium level and above accounted for over 50% of sales.

Despite economic and geopolitical headwinds in 2023 and continuing into 2024, premiumisation is a long-term trend – and one which IWSR estimates will continue across all Total Beverage Alcohol for the next five years. The rate of growth will be somewhat slower than in recent years, but spirits are still predicted to premiumise faster than other sectors.





Outlook to 2027

The spirits industry has experienced 20 years of growth - a period that has seen it become a powerful driver of economic activity within the beverage alcohol sector. IWSR estimates that in the 25-year period from 2002 - 2027 the spirits sector will have accounted for 62% of all the value growth in Total Beverage Alcohol.

Spirits, in other words, is a sector where volumes have grown steadily and, driven by a worldwide trend for premiumisation, value has grown even faster.

The China + region illustrates this scenario of increasing value most dramatically. In 2022 spirits accounted for just 13% of total beverage alcohol volumes in the region – but 73% of the value.

This in itself is a striking example of the high value of the spirits' category. But in the medium-term, as consumers in China + continue to search for ever more premium spirits offerings, the difference will become even more pronounced.

IWSR predicts that from 2022-2027, spirits will account for 11% of drinks' volumes in the region, but 74% of the value. Indeed, China + is predicted to overtake Europe as the world's most valuable spirits market by 2027.

All spirits categories are expected to see growth in the medium term, with agave-based drinks, such as tequila and mezcal, and Indian whisky particularly vibrant. The latter is the world's fastest-growing spirit category, predicted to grow by almost 50 million cases by 2027.

Spirits is a sector where volumes have grown steadily and, driven by a worldwide trend for premiumisation, value has grown even faster

Headwinds and tailwinds

Like all industries, the spirits sector is affected by outside factors, and shifting consumer trends; some positive, some negative. These can be briefly summarised thus:

HEADWINDS

Economic: Inflation has brought added costs and supply-chain disruption to businesses. Hospitality – a big contributor to the spirits sector's downstream value chain – has been particularly affected by a shortage of labour.

Consumer spend: Affected by the cost of living crisis, consumers are often looking to curtail their spend on non-essential goods such as spirits.

Geopolitical: The Russia-Ukraine war, conflict in the Middle East, rising tensions in Taiwan and myriad elections around the world in 2024 are all contributing to a period of uncertainty, which acts as a drag on economic activity. Sanctions, export bans and labour market shortages exacerbate any existing supply-chain shortages. Retaliatory tariffs on certain US, EU and UK distilled spirits could return in March 2025 and June 2026 if agreements are not reached in trade disputes unrelated to the sector.

Environmental: Climate change is having a big impact on agriculture around the world, with big variations in yields increasingly common. Smaller crop sizes – or more difficult growing seasons – have an inevitable effect on the price of raw materials. Implementing sustainable practices, while supported by manufacturers and farmers, is often a further cost pressure.

TAILWINDS

Innovation: The spirits industry has always been quick to innovate. And the pace of innovation has quickened further in recent years to meet swiftly-changing consumer demands.

Generational trends: Millennials and LDA-Gen Z are more orientated towards spirits than beer or wine. A love of theatrical, Instagramable moments works well with spirits cocktails and also chimes with further trends for exploration and premiumisation.

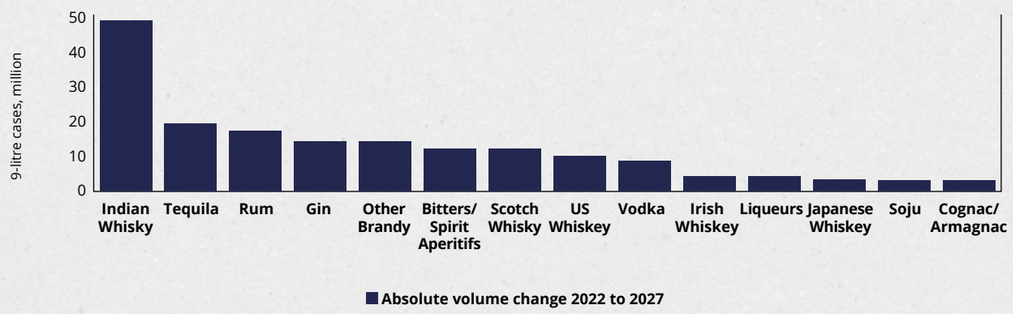
Rise of the home premise: Large numbers of people developed a love for home cocktail making during Covid lockdowns. Coupled with the increasing costs of the on-trade, at-home treating continues to offer a big opportunity for spirits producers.

Digital: Ecommerce is becoming a core route to consumer for many spirits brands, particularly in the US and China. Spirits businesses have been quick to appropriately engage consumers of a legal purchase age through social marketing.

Premiumisation: The spirits sector is particularly well positioned to service the consumer trend for 'less but better'. Brands often have myriad expressions at the Premium-plus price segments that allow consumers to make a statement about who they are and what they value.

No- and low-alcohol: The burgeoning interest in moderation due to both health and wellness amongst consumers has seen a big increase in low- and no-alcohol spirits. Volumes are low, but growing fast and this should continue.

FORECASTED LARGEST-GROWING SPIRITS CATEGORIES 2022-2027



METHODOLOGY

Impact analysis

To measure the economic contribution of the production and sales of spirits, we employed a standard impact assessment framework, which considers three core channels of impact:

- **Direct impact**: the economic activity of spirits manufacturers and businesses involved in spirits' downstream activities (on-trade and off-trade sales) at their operational sites.
- **Indirect (supply chain) impact:** the economic activity that producers and sellers of spirits support along the global supply chain.
- **Induced (consumption) impact:** the economic activity in the consumer economy stimulated by the combined wages paid by producers and sellers of spirits, and the wages of employees who are supported along the supply chain.

Using economic impact analysis with global coverage allows us to understand the multi-faceted role played by spirits in the global economy. In addition to measuring the **output** and **gross value added (GVA)** contributions of spirits, we can estimate the sector's potential as a job creator, both in manufacturing and in downstream activities. We could also quantify the tax contribution of the spirits sector and demonstrate its role in supporting public finances.

In addition, our analysis reveals the global knock-on effect of spirits in term of indirect and induced impacts.

This multi-layered, global information could support decision making within the production and sales of spirits. And it could also be vitally important for policymakers, who can fully appreciate the role of the spirits sector as value creator, employer and taxpayer.

Measuring spirits manufacturers' output

To estimate the economic impact of spirits manufacturers, we first estimated their economic output.

When available, we used national statistics from official sources, including national statistical agencies, EUROSTAT and the United Nations to derive spirits manufacturers' output. These sources are listed in detail at the end of this report.

When national statistics were unavailable for 2022 but were available for previous years, we grew spirits manufacturers' output by the growth in IWSR's RSV (excl. taxes) aggregated by origin country, between the relevant years.

When national statistics were unavailable, we implemented an estimation method which we refer to as the margins approach. This consists of deriving manufacturers' output by subtracting product taxes, wholesale margins, and retail margins from Retail Sales Value (RSV) aggregated by origin country. Using taxes and RSV data from IWSR and margin assumptions provided by WSA members, we estimated manufacturers' output.

For a few countries, national statistics were unavailable and the margins approach produced internally inconsistent results. In these cases, we implemented a secondary estimation method which we refer to as the regional average approach. This method uses average (per 9L case) manufacturer unit price of spirits by region and IWSR's volumes data to estimate manufacturers' output.

THE MARGINS APPROACH

The margins approach relies on assuming that some taxes, and wholesalers' and retailers' margins are applied on manufacturers' output to arrive at RSV.

Since we have data on taxes, margins, and IWSR's RSV, we can estimate manufacturers' output using the following equation:

Manufacturers' output =
RSV (incl. taxes) by origin - VAT - import tariff - excise duties on exports - retailers' margin - wholesalers' margin

Although it is an effective method for most markets, the margins approach can provide internally inconsistent estimates for a small number of markets.

THE REGIONAL APPROACH

The regional averages approach multiplies the volumes of spirits manufactured in a country (source: IWSR) by the average unit price per manufactured 9-litre case for the region (Europe, USMCA, Africa & Middle East, etc.). This allows us to estimate the manufacturers' output thus:

Manufacturers' output =
Volumes produced x Average Manufacturing unit price

The average unit price per manufactured 9-litre case for a region is calculated as the average manufacturers' output divided by volume across the countries in a region, weighted by volume. It is equal to the off-trade retail unit price, minus off-trade and wholesalers' margins, VAT, import tariffs and excise duties on exports.

Measuring spirits manufacturers' economic inputs

Spirits' manufacturers' gross value added (GVA)

For 27 countries, where the data existed, we calculated gross value added to output ratio by using available national statistics for the 'distilling, rectifying and blending of spirits' sector as reported by those countries. We then applied this to our estimates of spirits manufacturers' output to derive gross value added.

For the remaining countries, where national statistics for distilling were not available, we applied gross value added to output ratio for the broader 'food, beverages and tobacco' manufacturing sector to our estimates of spirits manufacturers' output to derive gross value added.

Spirits manufacturers' jobs

For 25 countries we calculated productivity (measured as GVA per job) from national statistics for the 'distilling, rectifying and blending of spirits' sector and applied it to our estimates of spirits manufacturers' gross value added to derive employment.

For the remaining countries, we applied productivity for the broader 'food, beverages and tobacco' manufacturing sector to our estimates of spirits' manufacturers gross value added to derive employment.

Spirits manufacturers' taxes (excluding product taxes)

To derive taxes paid by spirits manufacturers (excluding product taxes) we used average tax rates for labour taxes, corporate taxes and production taxes paid by the 'food, beverages and tobacco' manufacturing sector.

Compensation of employees

For 25 countries we calculated the compensation of employees to gross value added ratio from national statistics for the 'distilling, rectifying and blending of spirits' sector and applied it to our estimates of spirits manufacturers' gross value added to derive a compensation of employees.

For the remaining countries, we applied the compensation of employees to gross value added ratio for the broader 'food, beverages and tobacco' manufacturing sector to our estimates of spirits manufacturers' gross value added to derive compensation of employees.

Procurement

For each country, we derived procurement spending by subtracting gross value added from output. We then disaggregated this spending into specific sectors and countries, using the spending profiles for the broader 'food, beverages and tobacco' manufacturing sector, in which the spirits manufacturing sector sits.

Major categories of procurement include agriculture (for the raw materials from which spirits are distilled); food products (for instance, yeast, flavourings and wine); business products and transportation and services

Measuring economic inputs of spirits' downstream activities

Output of spirits' downstream activities

To derive the output generated by spirits' downstream activities we applied a consistent approach across all countries. Starting from IWSR's figures for RSV we:

• Uplifted these values to account for on-trade margins, using an on-trade to off-trade markup ratio of 3.08. This was based on the following margin assumptions: 10% for wholesalers, 30% for retailers and 300% for on-trade venues.*

• We subtracted taxes and procurement of spirits – both imports and local production.

• We adjusted the values to account for exports**

Using this approach, we were able to capture all trade margins earned on top of the manufacturer price of spirits, and encompassing all types of downstream activities, from distributors, wholesalers, retailers, bars, restaurants and other hospitality venues.

Gross value added, jobs, employment and taxes of spirits' downstream activities

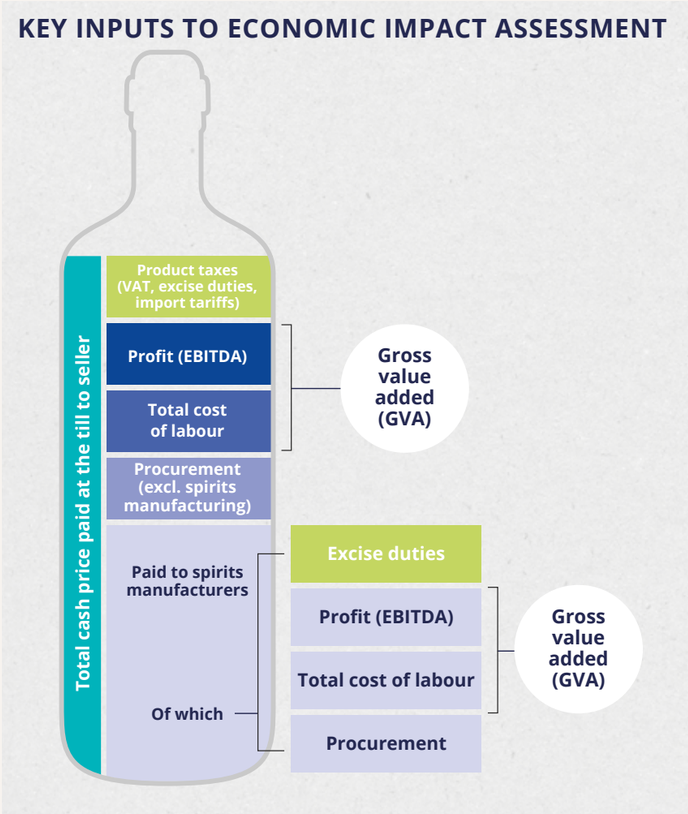
We applied gross value added, jobs and taxes (excluding product taxes) for the 'wholesale and retail' and 'accommodation and food services' sectors in each country to the output estimated, in order to obtain an estimate for each of these metrics.

We calculated compensation of employees and procurement ratios using averages from national statistics.

To disaggregate procurement spending into specific sectors and countries, we used the spending profiles for the broader 'wholesale and retail' and 'accommodation and food services' sectors.

Product taxes

Based on the tax data provided by IWSR for 2022, we estimated the product taxes that are charged on spirits at different points of their value chain.



The data provides the average price per litre of a spirit brand, along with a series of stages at which each tax was applied, as a component of the price. The taxes are removed from the average price per litre stage by stage. Based on that we were able to derive the value of the following product taxes:

• VAT
• Excise duty
• Import tariff
• Other taxes

IWSR data also provides country-level RSV (with taxes) and country-level RSV (without taxes). The difference between these two should be equal to the sum of product taxes. When this is not the case, we adjusted our tax estimates to match the implied tax value – the difference between RSV with tax and without tax.

**For Kenya we used an on-trade/off-trade markup ratio of 2.31. This was provided by WSA members. For the UK we used an on-trade/off-trade markup ratio of 4.74. This was provided by WSA members and based on data sourced from CGA. The margin assumptions of 10% for wholesalers, 30% for retailers and 300% for on-trade venues were provided by WSA members*
***Data on the imports and exports of spirits by country were provided by the World Bank's World Integrated Trade Solution (World Bank 2023, WITS) and the United Nations Comtrade (United Nations 2023, Comtrade)*

The global sustainability model

To estimate the global economic footprint of the production and sales of spirits, Oxford Economics used its Global Sustainability Model (GSM)

Oxford Economics' GSM is a bespoke input/output model, covering 185 countries. Each country's economy is split into 36 industries that are defined by the ISIC Revision 4 classification. The model takes advantage of techniques originally developed by the Nobel Prize-winning economist, Wassily Leontief. These techniques allow Oxford Economics to trace supply chain and consumer spending within countries and across their borders. Because money cycles through the economy via multiple levels of supply chain relationships, the GSM reveals what is commonly called a 'multiplier effect' for a given spend impetus.

The input/output table that is the backbone of the GSM is based on OECD data and trade patterns, and also custom input/output tables created by Oxford Economics. The resulting global input/output framework estimates how the world's major economies and industries interact with each other in a single year.

In addition, so that it can estimate the wage-induced channel of impacts, Oxford Economics models household expenditure effects by sector. To do this as accurately as possible, Oxford Economics takes into account households' propensity to spend and save in each country.

Since this analysis covers the production and sale of spirits, Oxford Economics selected three industries (according to the ISIC Revision 4 classification) that most closely cover the activities in the analysis. These industries are:

• Spirits manufacturing is represented by 'Manufacture of food products; beverages and tobacco products' (sector code: 10T12)

• Downstream activities are accounted for in 'Wholesale and retail trade; repair of motor vehicles and motorcycles' (sector code 45T47) and in 'Accommodation and food service activities' (sector code 55T56).

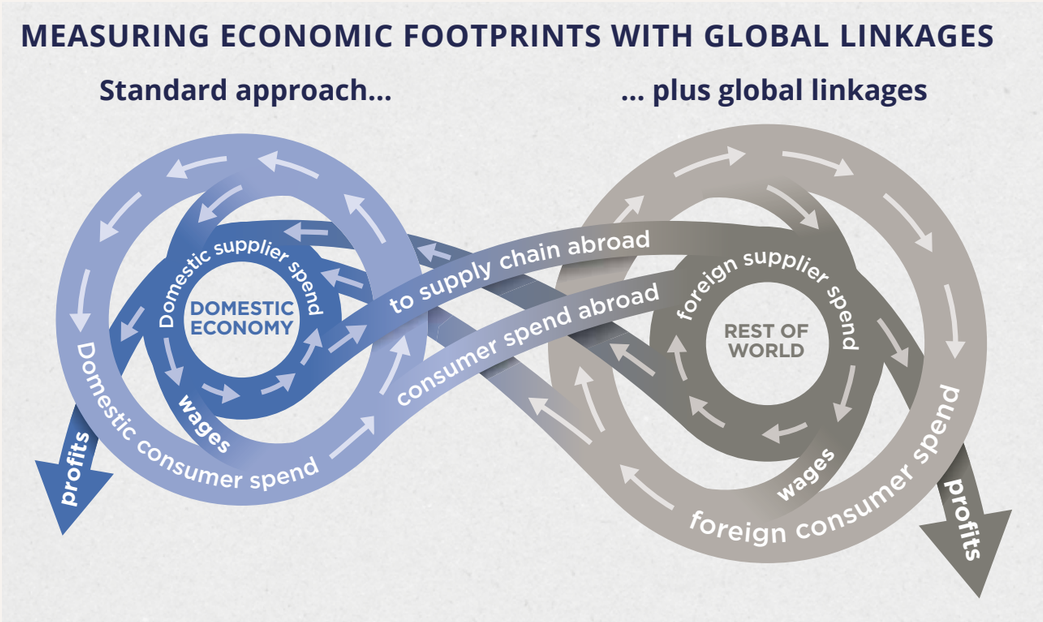
The manufacturing and sale of spirits causes money to enter the economy via these three sectors. Similarly, money spent with suppliers and in the consumer economy creates a 'demand shock'.

Oxford Economics' input/output framework provides an estimate of the sum of the internal and external production activity – across each geography and 36 industries – that is required to satisfy these demand shocks.

In other words, the GSM estimates all the economic activity that is stimulated by, say, a business's supply chain purchase or a consumer spending money at a bar or retail outlet.

Once Oxford Economics has estimated the output that is associated with a particular spend impetus, it estimates gross value added (GVA). This is achieved by multiplying the GSM's estimate of output by gross value added to output ratios that are specific to each country and industry.

Finally Oxford Economics converts its GVA estimates to employment estimates. It does this by dividing its GVA estimates by estimates and/or forecasts of the ratio of GVA to workers in each country and industry.



KEY DATA SOURCES

In addition to the most widely-used data sources mentioned earlier in the Introduction to this report, Oxford Economics gathered data from the following international organisations datasets:

- United Nations Industrial Commodity Statistics Database (ICSD), Sector 1101
- United Nations Industrial Demand-Supply Balance Database (IDSB), Sector 1101
- United Nations Comtrade database, import and exports of spirits
- World Bank Databank – Distilling, rectifying, blending of spirits – Exports and Imports

Additional information and data were sourced from the following national statistics institutes:

- Australian Bureau of Statistics
- Brazilian Institute of Geography and Statistics
- Government of Canada – Canada Industry Statistics
- Colombian National Department of Statistics
- Croatian Bureau of Statistics
- Czech Statistical Office
- Eurostat - Structural Business Statistics
- Government of India – National Statistical Office
- Mexico – National Institute of Statistics and Geography (INEGI)
- Mozambique – National Institute of Statistics
- Office for National Statistics - Annual Business Survey
- Peru – National Institute of Statistics and Information (INEI)
- Philippine Statistics Authority
- Statistics Sweden
- United States Census Bureau – Annual Business Survey

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