

PRODUCT & METHODOLOGY

# Statista Health Market Outlook



# Health Market Outlook - Insights into the world's most important health markets

About the Statista Health Market Outlook (1/2)

## What is the Statista Health Market Outlook?

The Health Market Outlook is an intuitive tool with up-to-date and comparable information that can be processed immediately about different markets of the life science and healthcare industry.

- Overview of the most relevant health markets
- Comparable market insights for 150+ countries and territories as well as 37 regions
- Market developments and revenue forecasts up to 2027

**Go to Outlook**

Find out more on:  
[statista.com/outlook/health-markets](https://statista.com/outlook/health-markets)



Medical Technology



Pharmaceuticals



OTC Pharmaceuticals



Digital Health



Hospitals



Pharmacies



Mental Health



Cannabis

# Independent market modeling and macroeconomic indicators are key to our data

## About the Statista Health Market Outlook (2/2)

The data of the Statista Health Market Outlook is composed of countless pieces of information. Our analysts build on reported performance indicators from key market players, relevant market data taken from independent databases, Statista's primary research, various market and macroeconomic indicators, historical developments, current trends, and interviews with market experts conducted by Statista. Continuous market monitoring allows us to take into consideration relevant changes along the value chain of the life science and healthcare industry.

The market estimates for the world's largest economies, such as the United States, China, and Germany, are derived using a combined top-down and bottom-up approach. Key performance indicators from the key market players on the country/territory level (or regional level) are taken into account, as well as regional consumption data.

For smaller economies, we apply algorithmic data analyses, based on macroeconomic indicators and market drivers. Normalized indicators allow for realistic assumptions and comparisons (per-capita spending, penetration rates, etc.), including countries and territories with low data availability.



# The Statista Health Market Outlook covers 152 countries & territories and 24 geographical regions

Country and territory coverage (1/2)

## Full list of countries & territories as well as geographical regions covered in the Statista Health Market Outlook

<b>Southern Europe</b>	Turkey	France	Lithuania	Belize	Puerto Rico	Qatar	<b>East Asia</b>	New Zealand	Republic of the	Mauritius
Albania	<b>Eastern Europe</b>	Germany	Norway	Costa Rica	<b>South Asia</b>	Saudi Arabia	China	Papua New Guinea	Congo	Namibia
Bosnia and Herzeg.	Armenia	Hungary	Sweden	El Salvador	Bangladesh	United Arab Emirates	Hong Kong	Guinea	<b>West Africa</b>	South Africa
Croatia	Azerbaijan	Ireland	<b>South America</b>	Guatemala	Bhutan	Japan	<b>North Africa</b>	Benin	<b>East Africa</b>	
Cyprus	Belarus	Luxembourg	Argentina	Honduras	India	<b>Southeast Asia</b>	Mongolia	Algeria	Burkina Faso	Burundi
Greece	Bulgaria	Netherlands	Bolivia	Nicaragua	Nepal	Brunei	South Korea	Egypt	Gambia	Ethiopia
Italy	Georgia	Poland	Brazil	Panama	Pakistan	Darussalam	Taiwan	Morocco	Ghana	Kenya
North Macedonia	Moldova	Slovakia	Chile	<b>North America</b>	Sri Lanka	Cambodia	<b>Central Asia</b>	Sudan	Guinea	Madagascar
Malta	Romania	Switzerland	Colombia	Canada	<b>West Asia</b>	Indonesia	Kazakhstan	Tunisia	Ivory Coast	Malawi
Montenegro	Russia	United Kingdom	Ecuador	Mexico	Bahrain	Laos	Kyrgyzstan	<b>Central Africa</b>	Niger	Mozambique
Portugal	Ukraine	<b>Northern Europe</b>	Guyana	United States	Iran	Malaysia	Tajikistan	Angola	Nigeria	Rwanda
Serbia	<b>Central &amp; Western Europe</b>	Denmark	Paraguay	<b>Caribbean</b>	Iraq	Myanmar	Turkmenistan	Cameroon	Senegal	Seychelles
Slovenia	Austria	Estonia	Peru	Cuba	Israel	Philippines	Uzbekistan	Chad	Sierra Leone	Tanzania
Spain	Belgium	Finland	Suriname	Dominican Republic	Jordan	Singapore	<b>Australia &amp; Oceania</b>	Equatorial Guinea	Togo	Uganda
	Czechia	Iceland	Uruguay	Haiti	Kuwait	Thailand		Gabon	<b>Southern Africa</b>	Zambia
		Latvia	<b>Central America</b>	Jamaica	Lebanon	Timor-Leste			Botswana	Zimbabwe
					Oman	Vietnam			Lesotho	

# The Statista Health Market Outlook countries can also be combined to form 13 political regions

Country and territory coverage (2/2)

## Full list of political regions covered in the Statista Health Market Outlook

<b>ASEAN</b>	<b>Benelux</b>	Russia	<b>EU-27</b>	Lithuania	United Kingdom	France	Romania	United Arab
Brunei Darussalam	Belgium	Tajikistan	Austria	Luxembourg	United States	Germany	Russia	Emirates
Cambodia	Luxembourg	Uzbekistan	Belgium	Malta	<b>G20</b>	Greece	Saudi Arabia	<b>NAFTA</b>
Indonesia	Netherlands	<b>D-A-CH</b>	Bulgaria	Netherlands	Argentina	Hungary	Slovakia	Canada
Japan	<b>BRICS</b>	Austria	Croatia	Poland	Australia	India	Slovenia	Mexico
Laos	Brazil	Germany	Cyprus	Portugal	Austria	Indonesia	South Africa	United States
Myanmar	China	Switzerland	Czechia	Romania	Belgium	Ireland	South Korea	<b>Nordics</b>
Philippines	India	<b>EAEU</b>	Denmark	Slovakia	Brazil	Italy	Spain	Denmark
Singapore	Russia	Armenia	Estonia	Slovenia	Bulgaria	Japan	Sweden	Finland
Thailand	South Africa	Belarus	Finland	Spain	Canada	Latvia	Turkey	Iceland
Vietnam	<b>CIS</b>	Kazakhstan	France	Sweden	China	Lithuania	United Kingdom	Norway
Baltics	Armenia	Kyrgyzstan	Germany	<b>G7</b>	Croatia	Luxembourg	United States	Sweden
Estonia	Azerbaijan	Russia	Greece	Canada	Cyprus	Malta	<b>GCC</b>	
Latvia	Belarus		Hungary	France	Czechia	Mexico	Bahrain	
Lithuania	Kazakhstan		Ireland	Germany	Denmark	Netherlands	Kuwait	
	Kyrgyzstan		Italy	Italy	Estonia	Poland	Oman	
	Moldova		Latvia	Japan	Finland	Portugal	Qatar	

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# Market Sizing





# We use top-down and bottom-up approaches for our sizing of the markets' status quo

Market Sizing (1/2)

## Detailed analysis for selected countries

We obtain the data from the Statista Health Market Outlook for the world's largest economies, such as the United States, China, and Germany, through an in-depth analysis of each market segment. Because of the considerable amount of information that is incorporated in the Statista Health Market Outlook and all the interpretation and analysis involved in the process, a detailed representation of the data sources for each data point is not possible.

Market sizes on the country/territory level are determined using a combined top-down and bottom-up approach for each segment. To calculate the global market size of every market segment, we analyze company financial reports and check various macroeconomic developments that drive the global market.

Annual reports give an indication for a first regional split of the company revenue. In addition, we use relevant key market indicators that influence the market size on regional as well as on country and territory level. These indicators are published by international organizations or national statistical bureaus and help us to estimate the market size for each country and territory individually.

## Underlying data

Key player analysis & monitoring

- Company profiles and key performance indicators
- Quarterly earning calls and further investor information

Macroeconomic and socioeconomic indicators

- Indicators from statistical offices and census data
- International organizations and associations

Market research

- Consumer profiling – the [Statista Global Consumer Survey](#)
- Exclusive surveys in selected countries and territories on specific current topics, e.g., on online doctor consultations

Studies & third-party data

- Market analyses and analyst opinions
- Industry analyses

# We estimate the potential of smaller economies with the help of macroeconomic and infrastructural drivers

Market sizing (2/2)

## Driver-based transfer of market data to smaller economies with lack of available data

The market data for smaller economies is generated using algorithmic models to compensate for the lack of available data. To evaluate the potential of smaller countries and territories, we use the performance ratios of larger economies with a similar infrastructure and development conditions as benchmark values. Then we apply an algorithm-based calculation to create market KPI estimations, using the country's or territory's key market indicators as drivers.

Over 100 driver data sets for 152 countries and territories have been collected from a variety of sources, including the International Monetary Fund (IMF), the World Health Organization (WHO), the World Bank, and many others. The data sets include a forecast from either the source or by Statista using trend analyses and prediction techniques based on historical data from 2000 onwards.

The drivers are categorized and assigned to the markets. The chosen drivers do not only have the best mathematical fit, but they must also have an actual influence on the performance of the markets. If specific drivers are not available for one country/territory, they can be replaced with a set of backup economic development drivers of more general nature.

## Market sizing exemplified by the Canadian Hospitals market in 2020<sup>(1)</sup>

**Step 1:** All countries/territories are grouped in clusters with similar health market systems, health expenditures, and indicators such as the life expectancy at birth.

**Step 2:** The country is compared with USA  Canada  reference countries<sup>(2)</sup> in the cluster, e.g., USA

**Step 3:** Compare key market indicators

Health spend (bnUS\$)	3,413.3	179.4
Public health spending (bnUS\$)	2,627.7	180.5
Out-of-pocket spending (bnUS\$)	467.7	35.6

**Step 4:** Apply an algorithm to estimate market KPIs, using data from the reference country as base and the country's key market indicators as drivers

<b>Result:</b>	USA	Canada
Hospital market revenue (bnUS\$)	1,189.9	66.3

8 | **Notes:** (1) Simplified illustration (2) Only one reference country is shown here

Sources: [Statista Health Market Outlook 2022](#)



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# Forecasts



# Our market growth forecasting is based on three different techniques

## Forecasting (1/4)

To create forecasts for up to 5 years, we combine economic developments and trend scouting with statistical and mathematical forecasting techniques. Every market is modeled differently as it is tailored to the respective industry, which also effects the forecasting method for each market.

In the Health Market Outlook, we use three different forecasting techniques: the S-curve function, exponential trend smoothing, and seasonal forecast algorithms.

A market growth forecast is generated with the help of our tool, which combines historical market data with predictions regarding the development of key market drivers by creating the most suitable curve for the market. The S-curve constitutes a special case of the logistic function and is well-suited to make forecasts regarding innovative medical devices or drugs due to the non-linear growth of the market penetration.

For markets with a projected steady growth, such as OTC Pharmaceuticals, we use exponential trend smoothing to illustrate the continuous market development. Parameters are further adjusted individually, depending on the market and country/territory.

In certain industries, replacement cycles or seasonal effects are common, and such sequences are taken into consideration in our forecasts. Where applicable, we use seasonal forecast algorithms to outline this kind of market behavior.

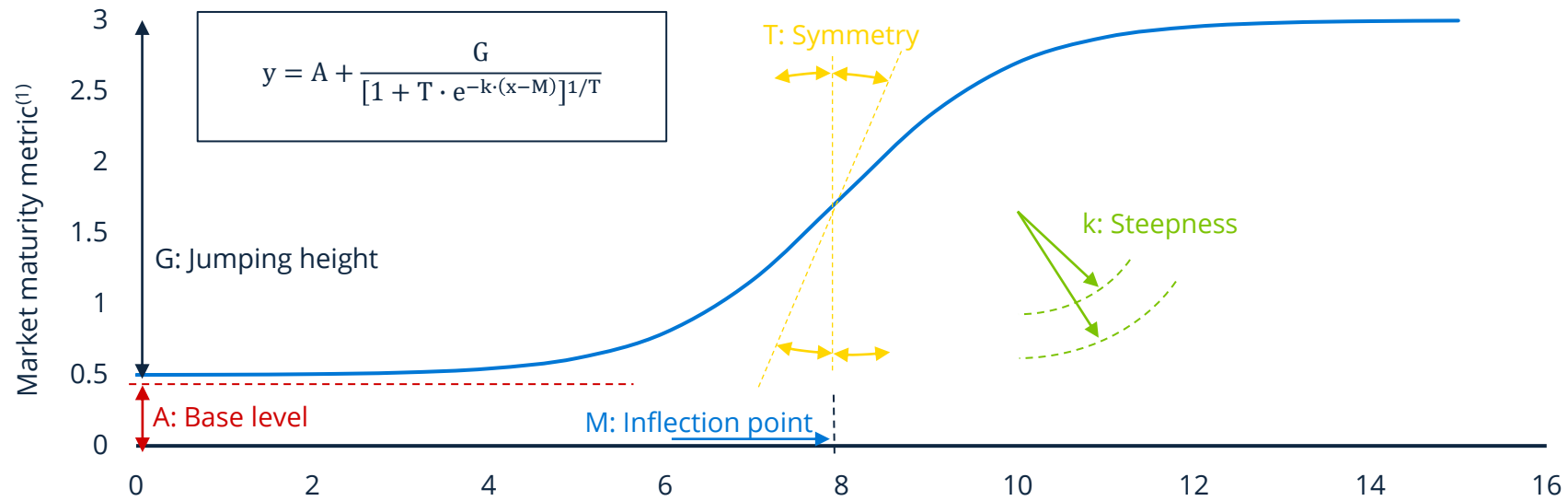
Once the status quo has been established, we assess the recent market growth and the macroeconomic environment of the country or territory in question and its region. We then move on to trend scouting, reviewing business-critical developments in the industries that provide a basis for the future growth of the markets.

The result is an algorithm-backed forecast that is based on relevant market drivers and macroeconomic indicators. We validate our data through collaboration with other Statista teams, third-party forecasts, regional comparisons, and the analysis of development cycles in different markets.

# Parametric forecasts: the S-curve function

Forecasting (2/4)

## Parameters that determine the projected market development

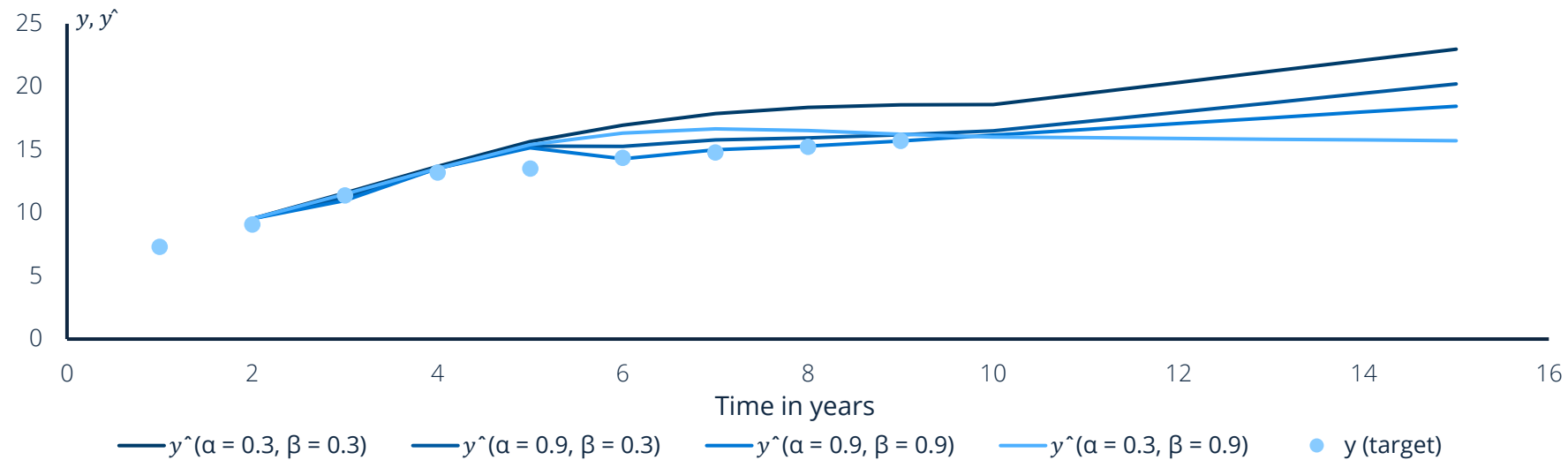


- **A: Base level** – starting point of market development / known threshold
- **G: Jumping height** – remaining potential until maximum market penetration
- **T: Symmetry** – progression of market diffusion
- **k: Steepness** – development speed / intensity of growth
- **M: Inflection point** – point of transition to incipient market saturation

# Parametric forecasts: exponential trend smoothing

Forecasting (3/4)

## Parameters that determine the projected market development

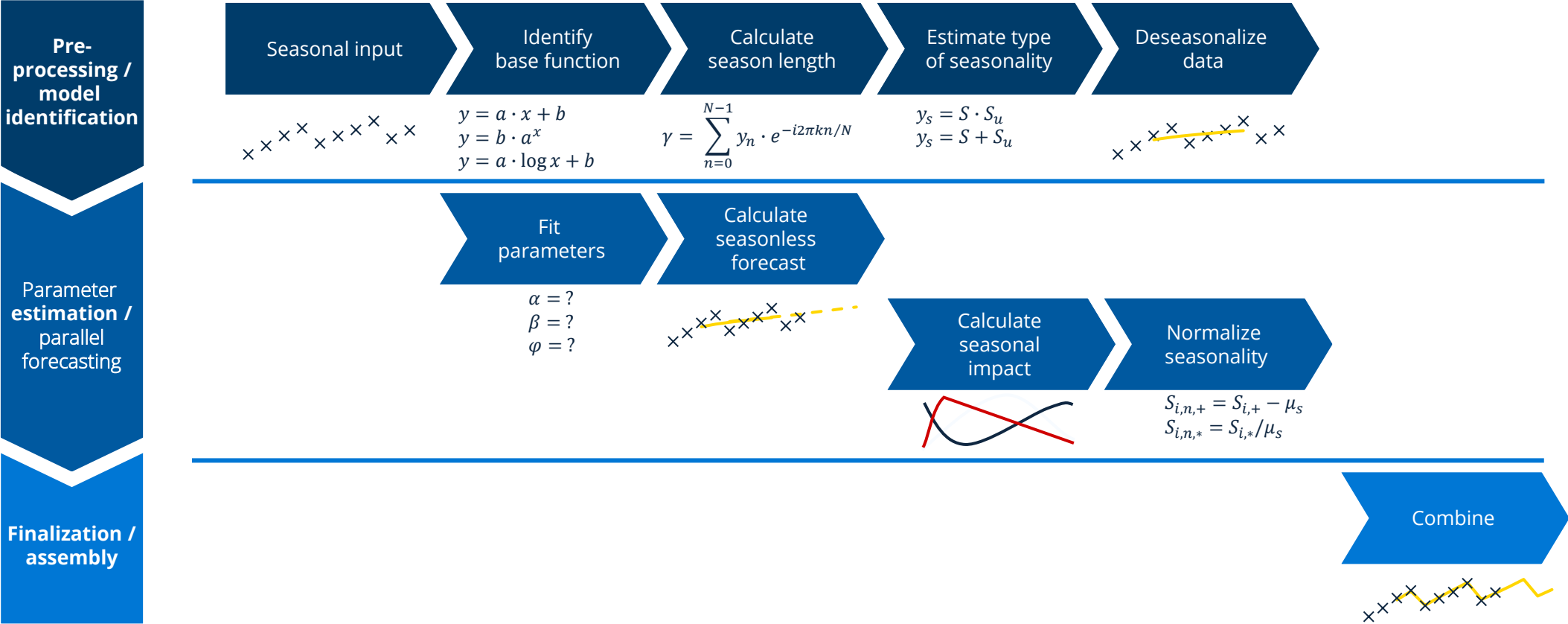


- **h: Forecast horizon** – number of years to be forecast
- **$\alpha$ : Level reactivity** – reactivity of the model towards changes in the level
- **$\beta$ : Trend reactivity** – reactivity of the model towards changes in the trend

$$\begin{aligned}\hat{y}_{t+h} &= h\hat{a}_{1,t} + \hat{a}_{0,t} \\ \hat{a}_{0,t} &= \alpha y_t + (1 - \alpha)\hat{y}_t = \alpha y_t + (1 - \alpha)(\hat{a}_{0,t} + \hat{a}_{1,1}) \\ \hat{a}_{1,t} &= \beta(\hat{a}_{0,t} - \hat{a}_{0,t-1}) + (1 - \beta)\hat{a}_{1,t-1}\end{aligned}$$

# Where applicable, we use seasonal forecast algorithms

Forecasting (4/4)



# All forecasts take projected currency effects into account

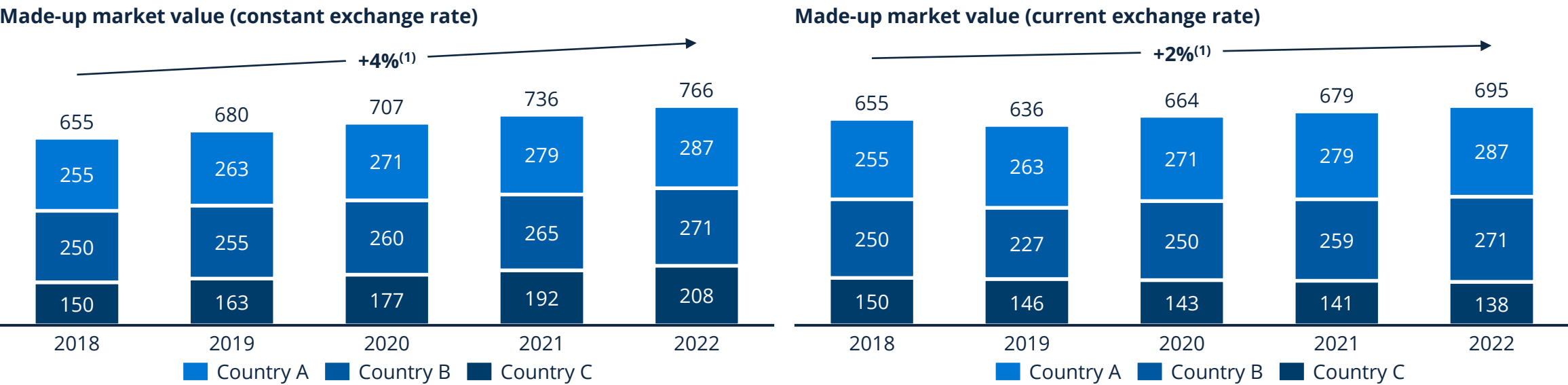
## Exchange rates in the Outlooks (1/2)

- Statista Outlook data is presented in current, or nominal, prices, which means it is not adjusted for inflation (unless explicitly stated otherwise).
- Correspondingly, the underlying exchange rates used to convert market data from local currencies into the reported currencies refer to the current value in the relevant year.
- The usage of current exchange rates marks a change compared to previous releases of the Market Outlooks (prior to Q4 2021), where the average exchange rates of the year 2017 were applied to all years. This artificial stabilization provided a clear view of the relevant market's underlying growth rates in local currencies but hid currency risks associated with certain regions. Since the Outlooks are mostly used to compare regions, we decided to no longer use constant exchange rates in order to enable a more realistic assessment of market potential from the perspective of international investors, who have to factor in currency risks. In short, current exchange rates make forecasts more comparable across regions.
- When looking at markets in a currency other than the local one, the growth rates of new market data will be different and can appear more volatile than before because currency effects are now visible. The underlying growth rate of the market can still be seen when looking at the data in the respective local currency.
- Statista's exchange rate data is sourced from international institutions, such as the International Monetary Fund, the World Bank, or the United Nations, and reflects official rates set or reported by a country's, territory's, or region's foreign exchange administration (usually the central bank).
- To take account of potential regional currency risks, we also make forecasts of exchange rates. These forecasts are based on the outlook of the relevant region's overall economy as well as on its projected inflation differential relative to other regions. They are updated twice a year and do not take into account sudden and drastic changes that might result from crises such as wars, natural disasters, or similar events.



# Current exchange rates enable a more realistic assessment of actual market potential and dynamics

Exchange rates in the Outlooks (2/2)



Currency value	2018	2019	2020	2021	2022
Country A	1	1	1	1	1
Country B	0.81	0.72	0.78	0.79	0.81
Country C	0.8	0.72	0.65	0.59	0.53

Compared to constant exchange rates, **current exchange rates put the seemingly high nominal growth rates in country C into perspective**: Due to the country's unstable currency, **international investors must expect diminishing returns**. In contrast, **country B shows some fluctuations** in the value of its currency but, overall, remains **fairly stable**, leading to only minor currency effects.

15 Notes: (1) CAGR: Compound Annual Growth Rate / average growth rate per year; all values represent made-up numbers for exemplary purposes and are not based on any existing country, market, or currency

Sources: Statista Health Market Outlook 2022

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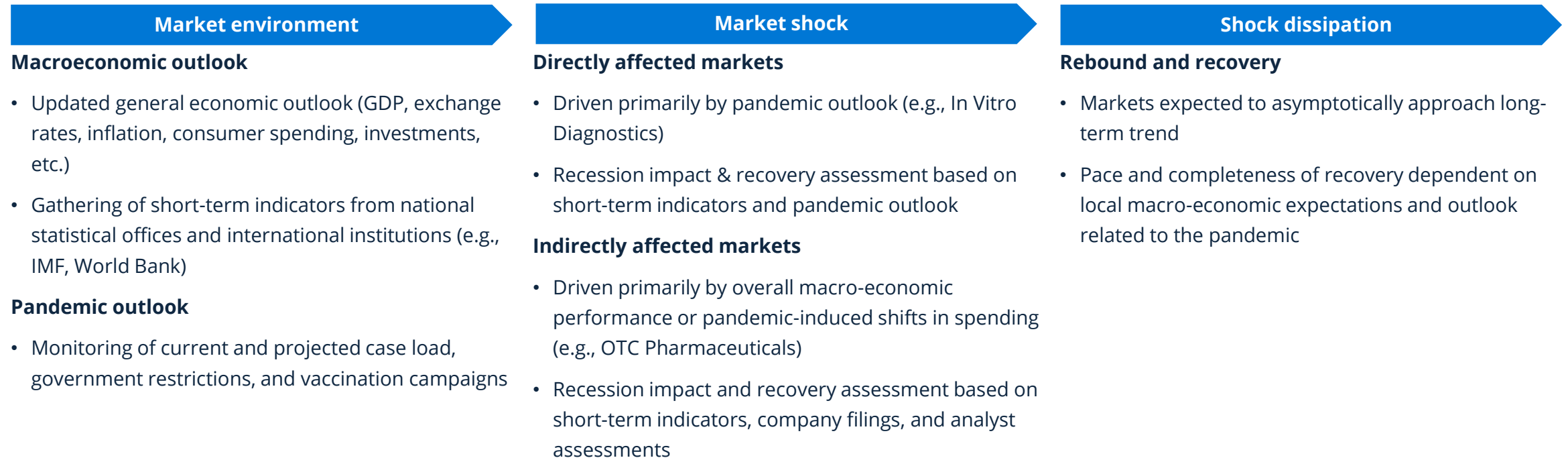
# The Impact of COVID-19



**COVID-19**

# We routinely monitor the economic situation as it unfolds and update our forecasts accordingly

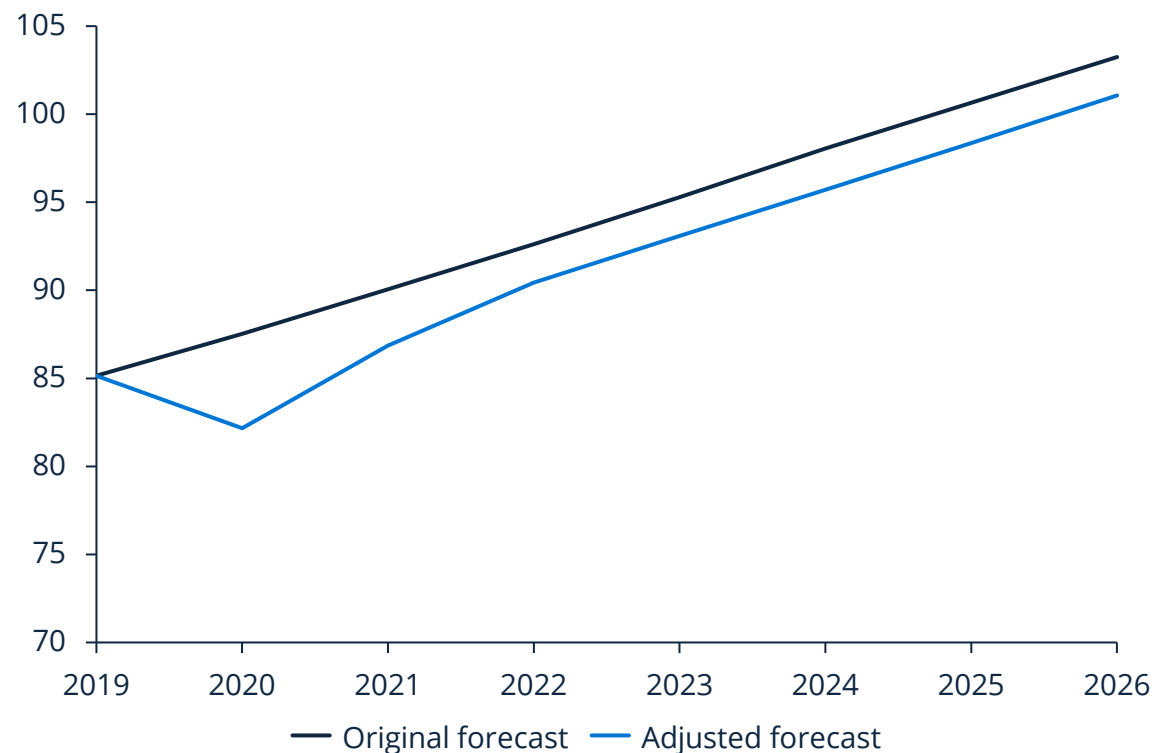
COVID-19 impact (1/2)



# An uneven recovery leads to quick initial gains while some scarring is expected to remain

COVID-19 impact (2/2)

**Global<sup>(1)</sup> constant GDP<sup>(2)</sup> forecast in trillion US\$**



## A swift but uneven recovery is underway

- COVID is here to stay, but a combination of vaccination initiatives and quarantine measures will push against the purely pandemic-related impact in most countries
- Economies have adapted to the situation better than initially expected, e.g., by shifting spending from services to goods and/or by transitioning to remote work options. Yet other sectors, such as in-person services, are likely to be subdued for a while
- Recovery in reopening societies will be quick at first but likely insufficient to compensate for all the lost potential
- Uncertainties regarding herd immunity and if/when it can be achieved remain. Furthermore, there is still inflationary pressure that stems from a combination of stimulus measures, reduced spending for services, and supply chain issues

We do not anticipate a reversal of long-term trends but a gradual dissipation of the pandemic-induced shock

We will likely see an intensification of some existing long-term trends (e.g., digitization)



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# Russia-Ukraine war impact



# The Russia-Ukraine war is expected to cause severe pressure on both supply chains and consumer budgets, and effects are likely to last long-term

Russia-Ukraine war impact general assumptions (1/2)

## Situational assessment

- We assume that the conflict will be limited to Ukrainian territory without spilling over into neighboring countries.
- For the unfolding situation, we consider three different scenarios, from bad to worst, to include various factors that may impact the economy. The scenarios are mostly based on assumptions on how long the fighting will last. The “bad” scenario is our default assumption.

## Expected immediate impact

- The war will have long-term, severe consequences for both Russia and Ukraine. There is also a high probability of a recession in Europe, and global growth could decrease by 1 to 2 percentage points as compared to prewar forecasts.
- Although Russia and Ukraine make up only around 2% of global trade, they are key suppliers of some mineral and agricultural commodities, so the war will trigger additional supply chain pressures.
- Energy-intensive industries as well as industries reliant on affected commodities are most exposed to the crisis.
- Consumers will see their budgets squeezed by higher food and fuel prices, which will crowd out other spending. Discretionary consumer goods spending will be most affected.

## Possible long-term consequences

- Due to disrupted crop cycles and increased risk perception, a COVID-like V-shape recovery of food supply is not in the cards, and there is likely to be long-term scarring.
- Russia’s economic isolation is likely to outlast the conflict, at least partially, thus sapping economic growth.
- Globally, preexisting deglobalization pressures will likely be exacerbated, with countries seeking a higher degree of self-reliance and companies rebalancing supply chains.



# We consider three basic scenarios for the unfolding situation, from “bad” to “worst,” with the “bad” scenario being our default assumption

Russia-Ukraine war impact general assumptions (2/2)

## **Bad case: quick resolution of hostilities and limited Russian territorial gains**

### **Ukraine**

- Loss of Donbas, Luhansk, and Crimean land corridor
- Civilian infrastructure will remain mostly intact
- Up to one crop cycle will be lost, or yields will be lower

### **Russia**

- Most severe sanctions against Russia will be eased after a few months, “self-sanctions” will stay in place longer

### **World**

- Crude oil price at US\$100 per barrel
- Food commodity prices 8% over baseline

## **Worse case: uneasy truce between a truncated Ukraine and Russia**

### **Ukraine**

- Partition of Ukraine (East and West)
- Moderate damage to civilian infrastructure
- One or two crop cycles will be lost, or yields will be lower

### **Russia**

- Most severe sanctions against Russia will be eased after 1–2 years, “self-sanctions” will stay in place longer

### **World**

- Crude oil price at US\$122
- Food commodity prices 15% over baseline

## **Worst case: drawn-out conflict and sustained economic warfare between the West and Russia**

### **Ukraine**

- Continued struggle for control over the entire territory
- High damage to civilian infrastructure
- Multiple crop cycles lost

### **Russia**

- The sanctions imposed on Russia will stay in place for the foreseeable future

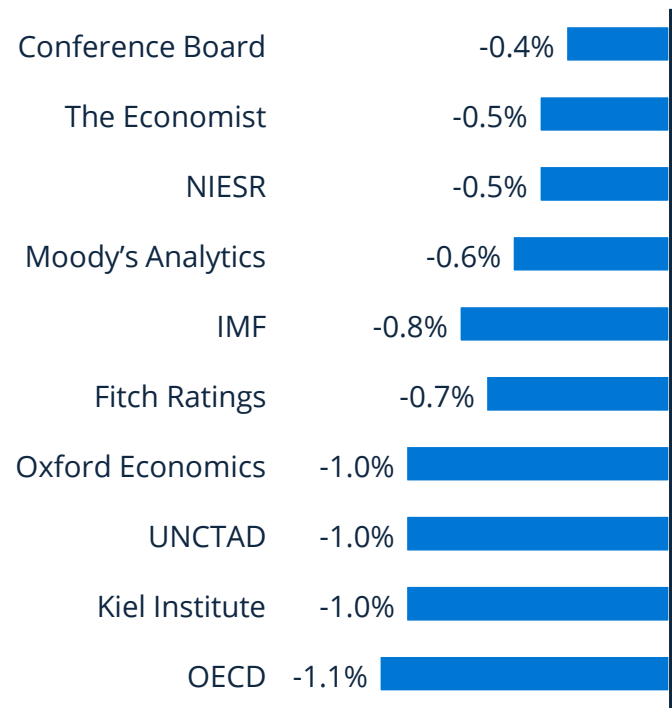
### **World**

- Crude oil price at US\$180
- Food commodity prices 22% over baseline

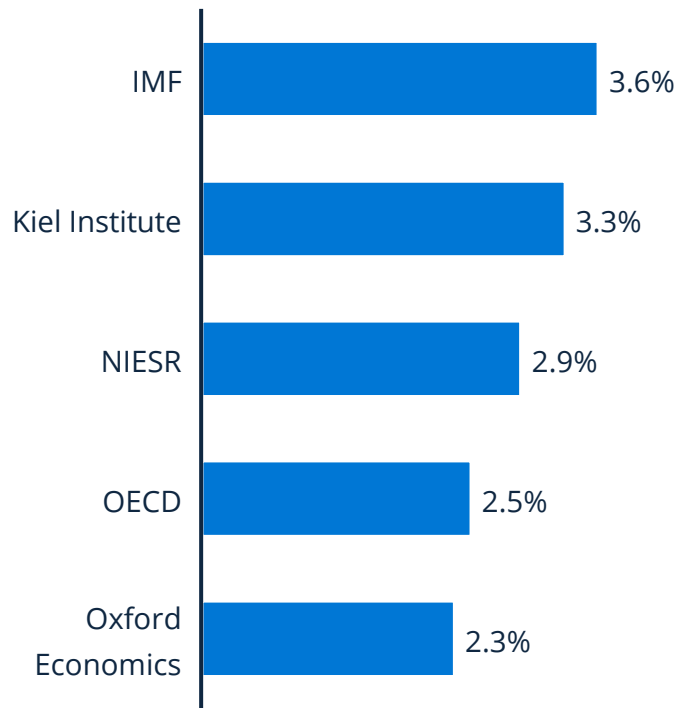
# Global growth is set to decelerate, while inflationary pressures will increase rather than decrease

Macroeconomic impact: dented growth

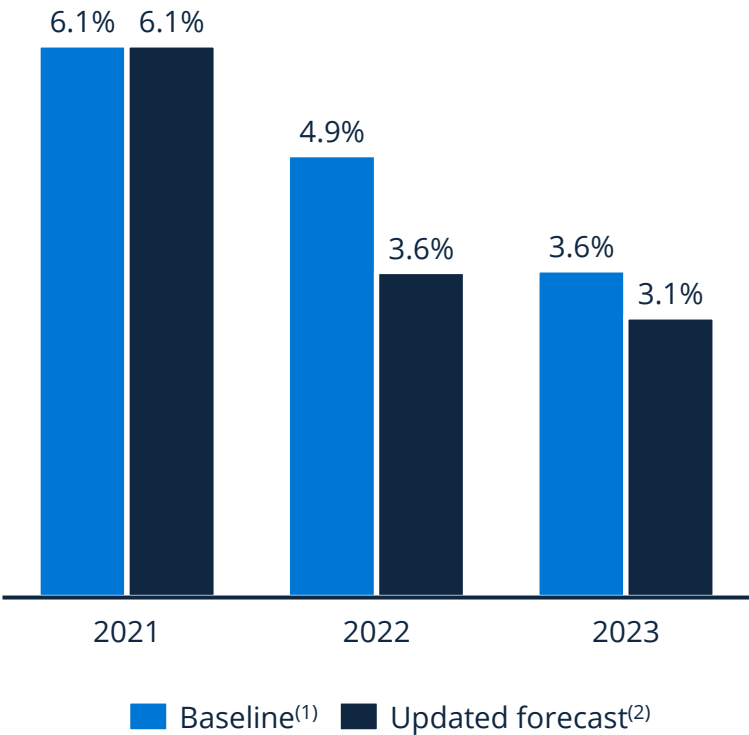
Global GDP projection revision by selected institutions in percentage points



Global inflation revision by selected institutions in percentage points



Projected real GDP growth rate in %



22 **Notes:** (1) "Baseline" reflects the IMF's World Economic Outlook, as of October 2021; baselines of respective forecasters differ (2) IMF World Economic Outlook. April 2022

Sources: [IMF](#); [Conference Board](#); [The Economist](#); [NIESR](#); [Moody's Analytics](#); [Fitch Ratings](#); [Oxford Economics](#); [UNCTAD](#); [Kiel Institute](#); [OECD](#); Statista

# Industries reliant on energy and other key commodities are most affected by the Russia-Ukraine war, with collateral damage to domestic consumption

B2B Market Outlook impact: rattled supply chains

## Expected impact by industry (ISIC<sup>(1)</sup>)

Agriculture <sup>(2)</sup>	Banking, Finance & Insurance	Accommodation, Restaurants & Nightlife
Mining & Quarrying <sup>(3)</sup>	Manufacturing	Real Estate
Energy Supply	Transportation & Storage	Professional, Scientific & Technical Activities
Wholesale, Retail Trade & Car Dealers	Construction	Administrative & Support Services
Water Supply, Sewerage & Waste Management	Information & Communication	Other

Strong negative impact	Medium negative impact	Slightly negative impact	No or positive impact
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23

**Notes:** (1) ISIC = International Standard Industrial Classification of All Economic Activities (2) Negative impact on supply from Ukraine and increased cost of fertilizers, feed, and fuel; crop producers outside the conflict zone might benefit from higher prices for their produce (3) Negative impact on companies operating in Russia or Ukraine; companies active in other regions might benefit from higher commodity prices

**Sources:** Statista

# Durable consumer goods will likely take a blow because higher food and fuel bills need to be paid

B2C Market Outlook impact: higher food and fuel budgets (1/2)

## Modeled impact on forecast by category (COICOP<sup>(1)</sup>)

Food	Housing maintenance and repairs	Goods for routine household maintenance	Transportation services	Newspapers, books, and stationery	Social protection
Non-alcoholic beverages	Water, garbage disposal, etc.	Services for routine household maintenance	Postal services	Package holidays	Insurance
Alcoholic beverages	Electricity, gas, etc.	Medical products	Telephone and telefax equipment	Education	Financial services n.e.c. <sup>(2)</sup>
Tobacco	Furniture	Medical services	Telephone and telefax services	Catering services	Other services n.e.c. <sup>(2)</sup>
Clothing	Household textiles	Purchase of vehicles	Audiovisual, photographic, and information-processing equipment	Accommodation services	
Footwear	Household appliances	Vehicle fuel and oil	Major recreational durables	Personal care products	
Actual rent	Glassware, tableware, etc.	Vehicle parts	Other recreational items	Personal care services	
Imputed rent	Tools and equipment for house and garden	Vehicle services	Recreational and cultural services	Personal effects n.e.c. <sup>(2)</sup>	

Strong negative impact (-5% or less)

Medium negative impact (-3% to -4%)

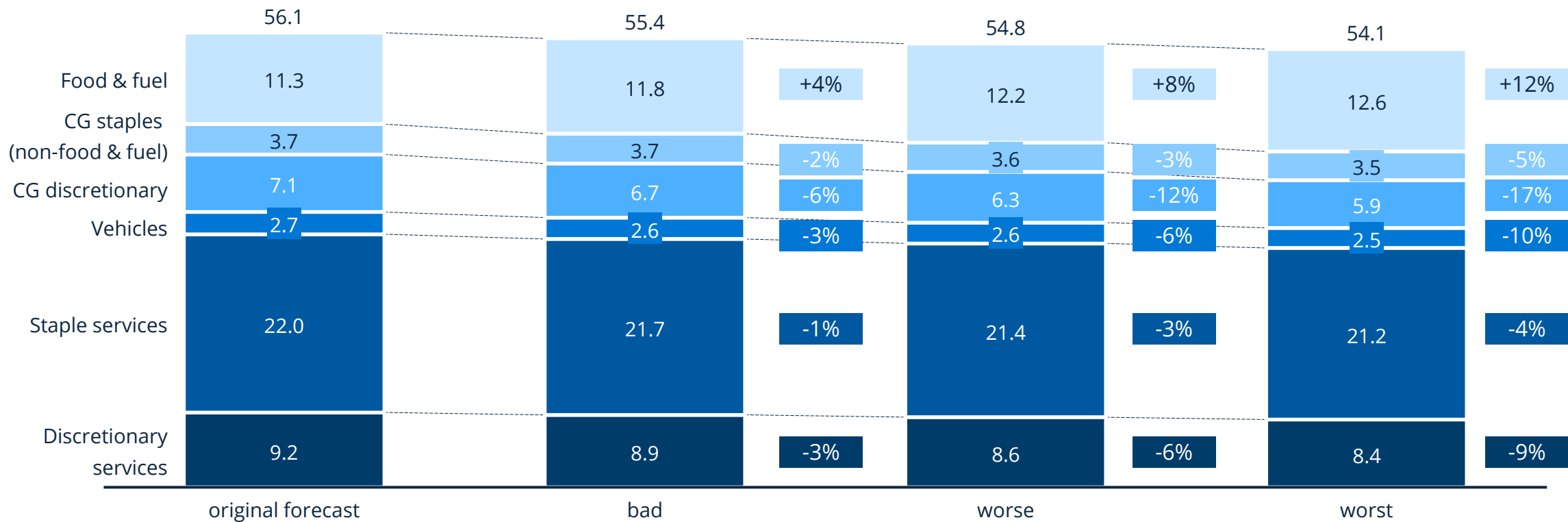
Slightly negative impact (-1% to -2%)

Positive impact (0% to 24%)

# Total consumer spending is holding up rather well, but significant amounts are being reallocated from discretionary items to food and fuel

B2C Market Outlook impact: higher food and fuel budgets (2/2)

Projected consumer spending worldwide in 2022, by impact scenario, in trillion US\$



# Appendix

This appendix contains answers to frequently asked questions about the general methodology of the Health Market Outlook and an explanation of the individual methodology of every market





# FAQ: The Statista Health Market Outlook

Frequently asked questions (1/2)

## **How is the Health Market defined?**

The data is comprised of enterprise (B2B), consumer (B2C), and government (B2G) spending, depending on the respective healthcare payer system. Revenue is allocated to the economy where the money is spent.

## **What kind of prices are shown?**

The data shown in the Medical Technologies, Pharmaceuticals, and Hospitals markets are based on manufacturer / service provider price levels, while the revenue in the OTC Pharmaceuticals and Digital Health markets are based on end-consumer prices, including VAT.

## **Does the market data reflect the impact of COVID-19?**

The forecasts were updated due to the impact of COVID-19. If new information comes to light, we will make ad-hoc changes to the affected markets.

## **Does the Health Market Outlook include market shares?**

We show global market shares for all segments/subsegments of the Medical Technology Market and for the most important segments/subsegments of the Pharmaceuticals market. In the OTC Pharmaceuticals market, brand preferences

are shown.

## **How often do you update the information?**

We update the data in our Market Outlooks twice a year. The updates are scattered throughout the year. Thus, one market might be updated in January and July, while others are updated later. If something major happens that influences our estimations or if we find inconsistencies, we will update the information immediately.

## **Is this data comparable from year to year?**

Yes, that is the main feature of our Market Outlooks: comparability across markets, countries, and years. If we change market definitions to adapt to the ever-changing business models, we adapt the whole market estimate and forecasts so that all revenue data corresponds to the new definition and is comparable from year to year.

## **When will you provide a more detailed analysis of certain categories?**

Updates and planned releases can be found in the release calendar.

# FAQ: The Statista Health Market Outlook

Frequently asked questions (2/2)

## **The figures now differ significantly from those of the previous year. Why has the data changed?**

Approaches, assumptions, input data, and scope are improved from update to update. Therefore, data from previous updates might not necessarily be comparable with current data. In addition to that, our own primary research is expanding, and we are replacing third-party data sources with the data from the Statista Global Consumer Survey, which can lead to a one-time significant change in data.

## **The data in the download files or in the report differs from the data shown in the tool. Which one is correct?**

The data in the tool is always updated first. The newer data might be available a little later in the reports and in the full-page downloads due to limited IT capacity and time lags.

## **Can we download the information into Excel/PPT?**

The data in our Market Outlooks can be downloaded as an Excel or PDF file. However, our reports are only available for download as a PDF file.

## **How can I ascertain how reliable the data is? Do you have an indicator on how precise these forecasts are?**

There is little data that we can compare our forecasts to as no statistical office monitors the exact same markets, and most sources differ in methodology. Yet, we certainly compare our estimates with those from other companies, and in some cases trade associations, company reports, and press releases serve as a good indicator.

## **Can I get the raw data or the original file where you modeled the market?**

We do not offer our working files for download.

## **Is the information on smaller economies without in-depth analysis less valuable than the information on economies with in-depth analysis?**

To compensate for the lack of available data, we use the performance ratios of economies with a similar infrastructure and similar development conditions as benchmark values. Then we apply an algorithm-based calculation to create market estimations, using the economy's key market indicators as drivers.

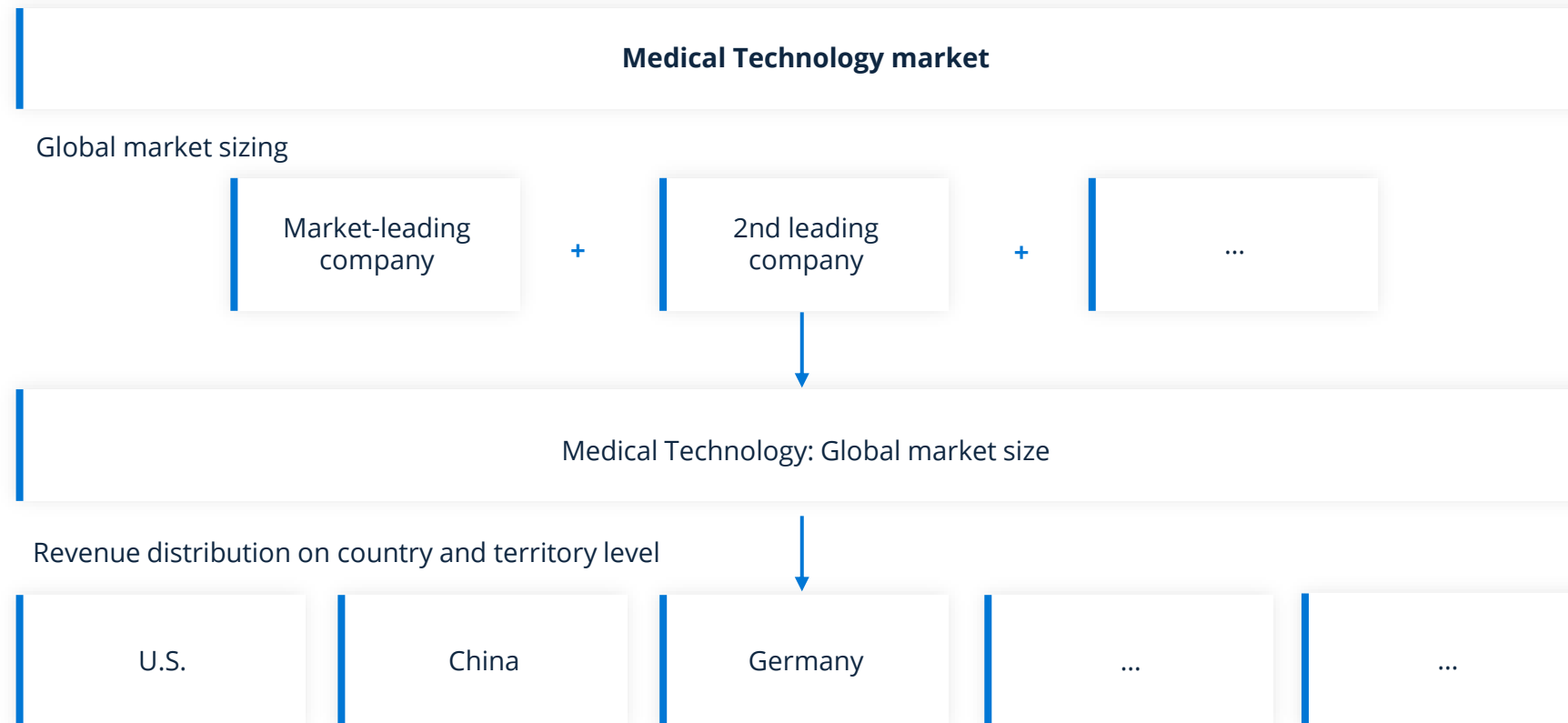
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# Medical Technology



# The Medical Technology market as an example of the top-down approach

Medical Technology market model methodology (1/2)



## Sources and benchmark:

Financial statements such as annual reports, quarterly earning calls, further investor information, as well as expert opinions



Validation based on third-party studies

Allocation is carried out based on country/territory level (and regional level) data from financial statements, expert opinions, as well as bottom-up market sizing based on macroeconomic indicators and consumption data

Validation based on third-party studies

# FAQ Statista Health Market Outlook – Medical Technology

Medical Technology market model methodology (2/2)



## What is the methodology of the Medical Technology market?

Modeling employs a top-down approach with a bottom-up validation, using financial information of the key players by segment. Market sizes are determined by a top-down approach, based on a specific rationale for each market segment and allocated to the covered countries according to the global market shares. As a basis for evaluating markets, we use relevant key market indicators and data from country-specific associations, such as healthcare expenditure per capita, health risk factors, healthcare system, and regulations concerning medical products. Next, we use further relevant key market indicators and data from country-specific associations, such as healthcare expenditure per capita, health risk factors, healthcare payer system, and regulations concerning medical products. This data helps us estimate the market size for each country individually.

Data is modeled in US\$ using current exchange rates. In our forecasts, we apply diverse forecasting techniques. The selection of forecasting techniques is based on the behavior of the particular market. For example, forecasts are based on historical developments, current trends, and key market indicators.

## What is the definition of the Medical Technology market?

The Medical Technology market segments reflect the most important markets for In Vitro Diagnostics and Medical Devices. Medical Technology vendors offer advanced medical devices from prevention to diagnosis to cure. The market is defined as products, services, or solutions used to save and improve people's lives. This field has become an increasingly important part in healthcare over the past decade.

## What does revenue in the Medical Technology market stand for?

Data encompasses B2B, B2G, and B2C spend. Figures are based on drug revenues allocated to the country where the money is spent. Monetary values are given at manufacturer price level excluding VAT.

## What kind of products are included in the Other Medical Devices segment?

The segment Other Medical Devices covers revenues for areas that are not specifically mentioned in the other subsegments, such as endoscopy, drug delivery, dental medicine, wound management, diabetes care, nephrology, neurology and ENT, etc.

**PRODUCT & METHODOLOGY**

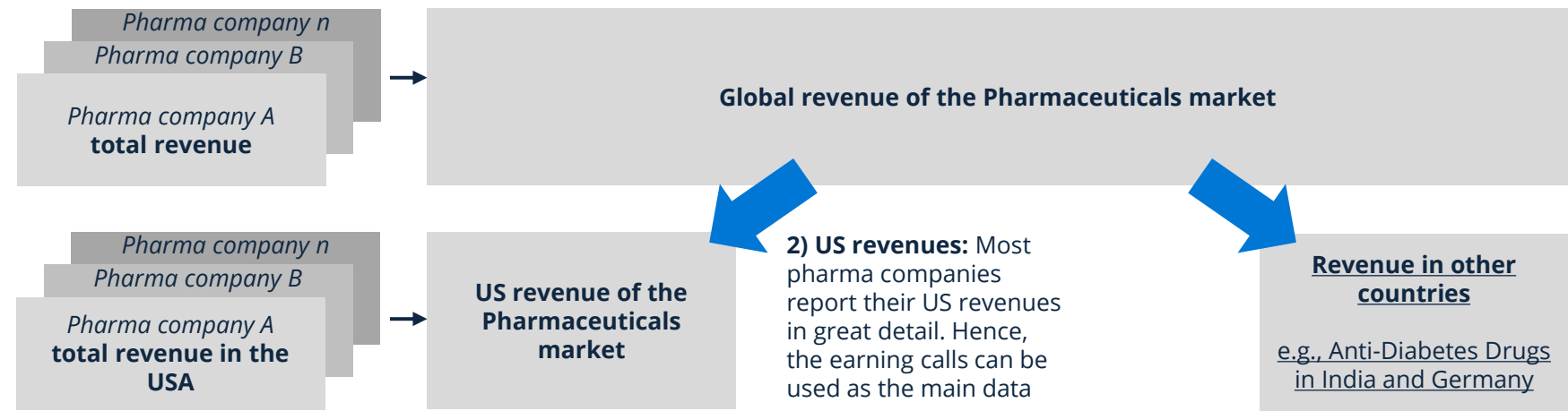
# Pharmaceuticals





# For the top-down model of the Pharmaceuticals market company data is the basis for the historical data (2016-2021)

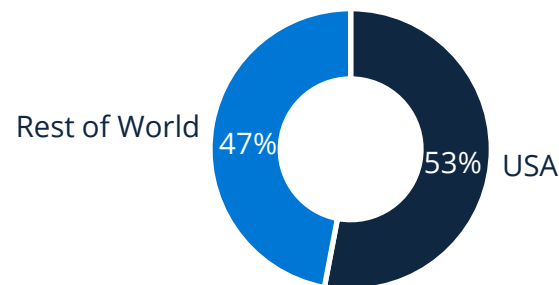
Methodology: top-down approach



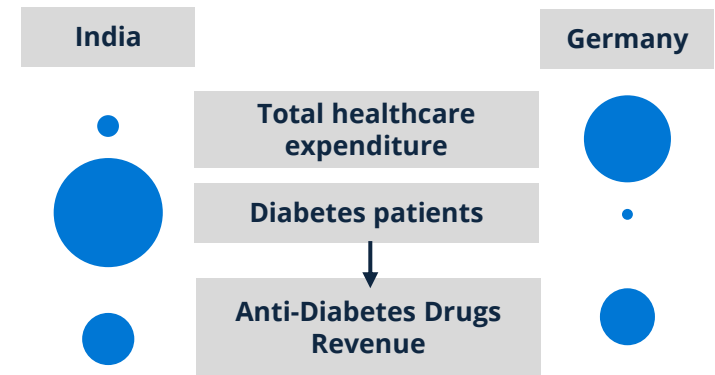
**1) global revenues:** In this top-down approach, the global revenue is estimated first. The revenue for each historical year is obtained by adding up the revenues of all pharma companies.

**2) US revenues:** Most pharma companies report their US revenues in great detail. Hence, the earning calls can be used as the main data source.

**3) country revenues:** The non-US revenues are distributed to the other countries according to *drivers*.



More than half of the global pharma revenue is generated in the USA.



This simplified view shows how the revenues of Anti-Diabetes Drugs are modeled. A higher total healthcare expenditure in Germany and higher diabetes case numbers in India lead to a similar revenue.

# FAQ Statista Health Market Outlook - Pharmaceuticals

Pharmaceuticals market model methodology (2/2)



## What is the methodology of the Pharmaceuticals market?

Market sizes are determined by a top-down approach, based on a specific rationale for each market segment. As a basis for evaluating markets, we use financial information of the key players by segment. Next, we use relevant key market indicators and data from country-specific associations, such as industry associations. This data helps us estimate the market size for each country individually.

Data is modeled in US\$ using current exchange rates. The forecasts are based on historical developments, current trends, and key market indicators. The main driver is healthcare expenditure. Expiring patents and new drugs in the pipeline are also considered.

## What is the definition of the Pharmaceuticals market?

The Pharmaceuticals market covers remedies used to cure, treat, prevent, and diagnose diseases. These small molecule drugs or biologic medical products may be called drugs, medications, or medicines. This market comprises prescription drugs and all OTC drugs covered in the Statista OTC Pharmaceuticals market. However, in the OTC market, revenues are based on end-consumer prices.

Depending on the regulations in each country, these products are provided by pharmacies, hospitals, physicians, and/or drug stores, and/or they can be bought elsewhere. They may be administered in the form of pills, capsules, gels, ointments, injections, infusions, lozenges, or aerosols/sprays.

The Pharmaceuticals market is organized in segments that cover drugs used in specific medical fields, i.e., medicines for a specific disease or a certain type of medicine. They include original brands, biosimilars, generics, and orphan drugs.

## What does revenue in the Pharmaceuticals market stand for?

Data encompasses B2B, B2G, and B2C spend. Figures are based on drug revenues allocated to the country where the money is spent. Monetary values are given at manufacturer price level excluding VAT.

## What kind of products are included in the Other Pharmaceuticals segment?

The segment Other Pharmaceuticals covers revenues for areas that are not specifically mentioned in the other segments, such as psychotropic or gastroenterology drugs and less expensive but widely used drugs, such as cold and cough remedies or analgesics.

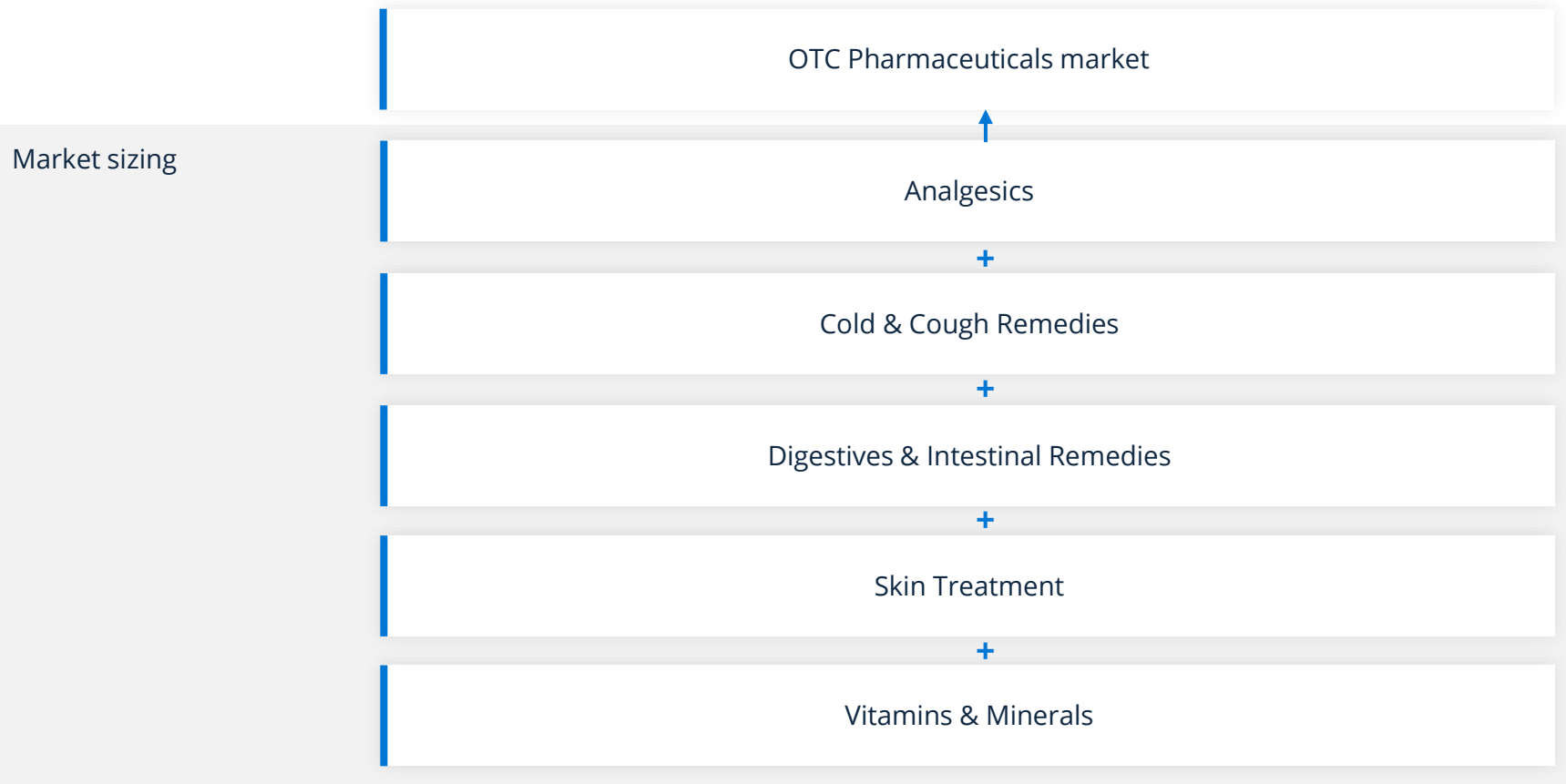
PRODUCT & METHODOLOGY

# OTC Pharmaceuticals



# The OTC Pharmaceuticals market is modelled bottom-up, using official statistics

OTC Pharmaceuticals market model methodology (1/2)



## Sources and benchmark:

National statistics, Statista Global Consumer Survey, third-party studies, company data, industry research



# FAQ Statista Health Market Outlook - OTC Pharmaceuticals

OTC Pharmaceuticals market model methodology (2/2)



## What is the methodology of the OTC Pharmaceuticals market?

As a basis for evaluating market size, we use data from national statistical offices, international institutions, trade associations, and self-medication associations. Next, we use relevant key market indicators and data from country-specific associations, such as consumer healthcare spending, out-of-pocket healthcare expenditure, health system accessibilities, and GDP. This data helps us estimate the market size for each country individually.

## What is the definition of the OTC Pharmaceuticals market?

The market comprises over-the-counter medicine that can be purchased without a medical prescription. The market is subdivided into Analgesics, Cold and Cough Medication, Digestives and Intestinal Remedies, Skin Treatment products and Vitamins and Minerals. The OTC market values represent the revenues from the sum of all six segments based on end consumer prices.

It includes both products which are exclusively sold in pharmacies and products which can be purchased elsewhere. Sales by hospitals are not included. Whereas this market covers only OTC drugs, the Statista Pharmaceuticals market covers both OTC and prescription drugs.

## What does revenue in the OTC Pharmaceuticals market stand for?

Data encompasses B2C spend. Figures are based on the OTC Pharmaceuticals market values, representing revenues generated by both product sales which take place exclusively in pharmacies and products which can be purchased elsewhere. Sales by hospitals are not included.

## The sales channels refer to online and offline, how are they defined?

The distribution channel Online refers to the purchase of physical goods in online retail. In other words, the purchase is concluded via the internet - on a desktop PC, tablet or smartphone. The distribution channel Offline covers all purchases in stationary stores, via telesale or mailorder (e.g. print catalogs). The sales channels can be found on the top level of each market.

## What is the source for the brand preference and how are they defined?

The estimated brand preference for the most important brands in the respective market/segment for one year (2021) is based on Statista's Global Consumer Their data is based on the brands offering over-the-counter products which the consumer have used in the past 12 months.

## PRODUCT & METHODOLOGY

# Digital Health

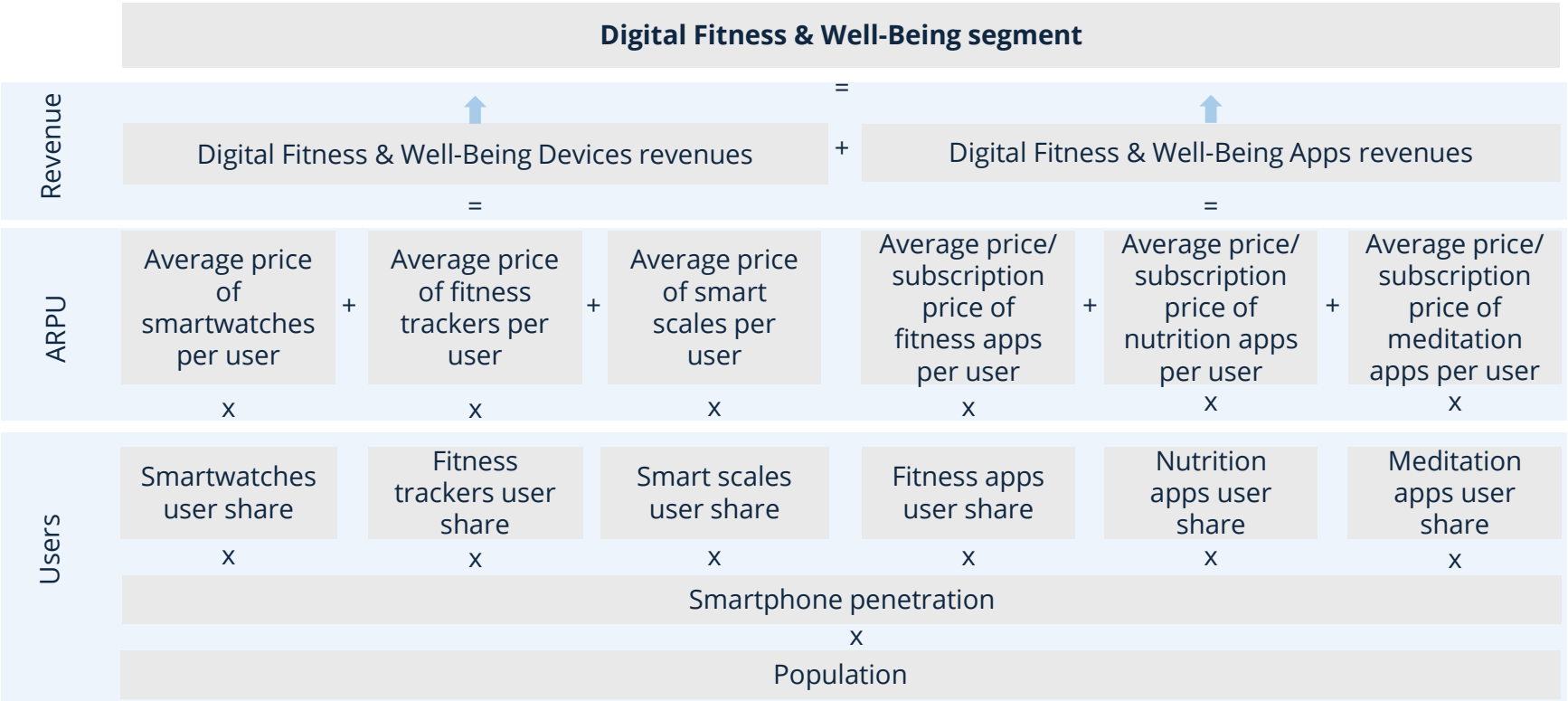


# The Digital Health market model methodology explained by means of the Digital Fitness & Well-Being segment

Digital Health market model methodology (1/2)



Sources and benchmark:



Validation through third-party studies

Company data, third-party valuations, industry research, expert interviews

Statista Global Consumer Survey, third-party surveys, company data, industry research, expert interviews

National statistics



# FAQ: Statista Digital Market Outlook – Digital Health

Digital Health market model methodology (2/2)



## Definitions

### What methodology is used for the Digital Health market?

Our analysts build on Statista's primary research ([Statista Global Consumer Survey](#)), bottom-up modeling, market data from independent databases and third-party sources, analyses of various key market and macroeconomic indicators, historical developments, current trends, reported performance indicators from key market players, and Statista interviews with market experts.

### How is the Digital Health market defined?

The Digital Health market covers a broad range of technologies, including mobile health apps, connected wearable devices, and telemedicine. The Digital Health market in the Statista Digital Market Outlook currently includes Digital Fitness & Well-Being (Digital Fitness & Well-Being Devices and Digital Fitness & Well-Being Apps) and eHealth (eHealth Devices, eHealth Apps, Online Pharmacy, and Online Doctor Consultations). The following areas are not included in the current market definition: smart clothing, smart shoes, smart eyewear, sleeping apps, mood improvement apps, addiction apps, depression apps, eating disorder apps, schizophrenia apps, and health tracking apps.

## Specials

### What does "revenue" stand for in Digital Health?

All monetary figures refer to consumer spending on digital health devices, Digital Health apps and services in the respective segment. This spending factors in discounts, margins, and taxes.

### How are Digital Health users defined?

The user metrics show the number of customers (in the selected country or region) who have made at least one online purchase (in the selected market or segment) within the last 12 months. Additionally, the users in the segments eHealth and Digital Fitness & Well-Being Apps are split into paying and non-paying users.

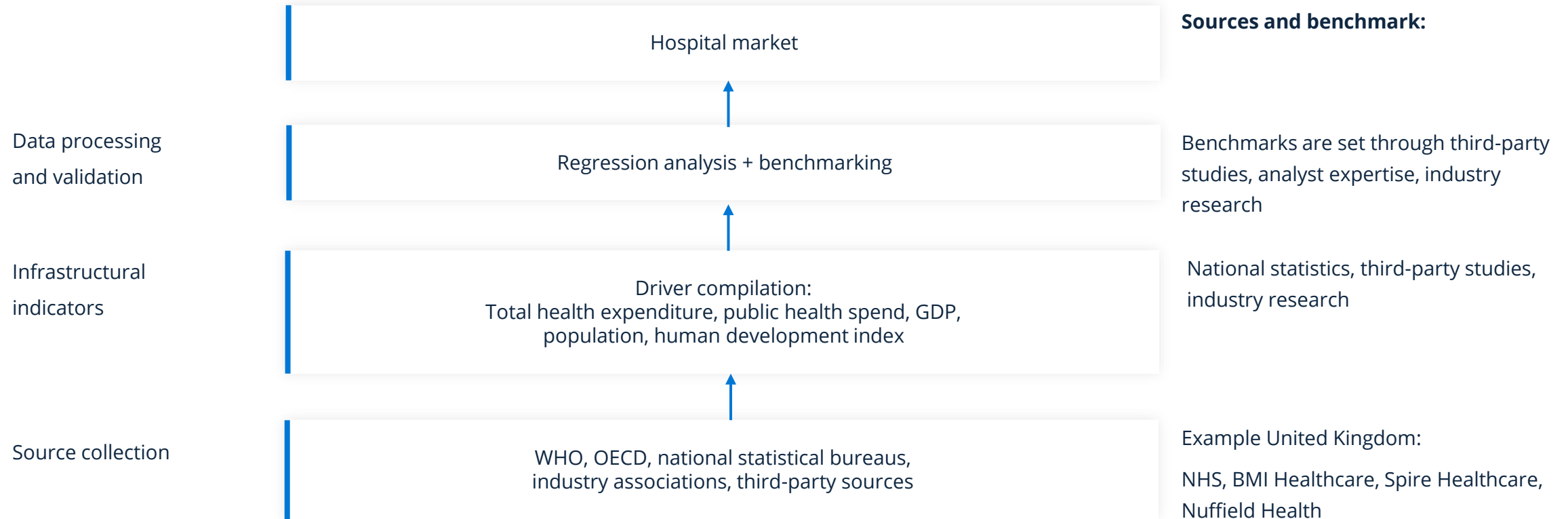
PRODUCT & METHODOLOGY

# Hospitals



# The Hospitals market as an example of the bottom-up approach

Hospitals market model methodology (1/2)



# FAQ Statista Health Market Outlook - Hospitals

Hospitals market model methodology (2/2)



## What is the definition of the Hospitals market?

The Hospitals market represents the total market for licensed establishments providing inpatient health services (Inpatient services refer to the services where the patients are admitted to the hospital to stay overnight, to monitor them more closely). This industry includes hospitals such as general hospitals, psychiatric hospitals, and specialist hospitals, which provide various services to inpatients, ranging from diagnostics to medical treatments and surgical treatments to nursing and specialized accommodation to other medical services.

The medical services provided by hospitals can vary greatly from country to country, depending on the specific legal regulations. Long-term care facilities, ambulatory care providers, and medical retailers are excluded from this industry.

## What is the methodology of the Hospitals market?

Market sizes are determined by a bottom-up approach, based on a specific rationale for each market segment. Next, we use relevant key market indicators and data from country-specific associations, such as healthcare expenditure per capita, health risk factors, public health spend, and GDP. This data helps us estimate the market size for each country individually.

Data is modeled in US\$ using current exchange rates. The market is updated twice per year in case market dynamics change. The impact of the COVID-19 pandemic is considered at a country-specific level.

## What does revenue in the Hospitals market stand for?

Data encompasses B2B, B2G, and B2C spend. Figures are based on the Hospitals market values, representing revenues paid to hospitals, allocated to the country where the money is spent, including VAT if applicable.

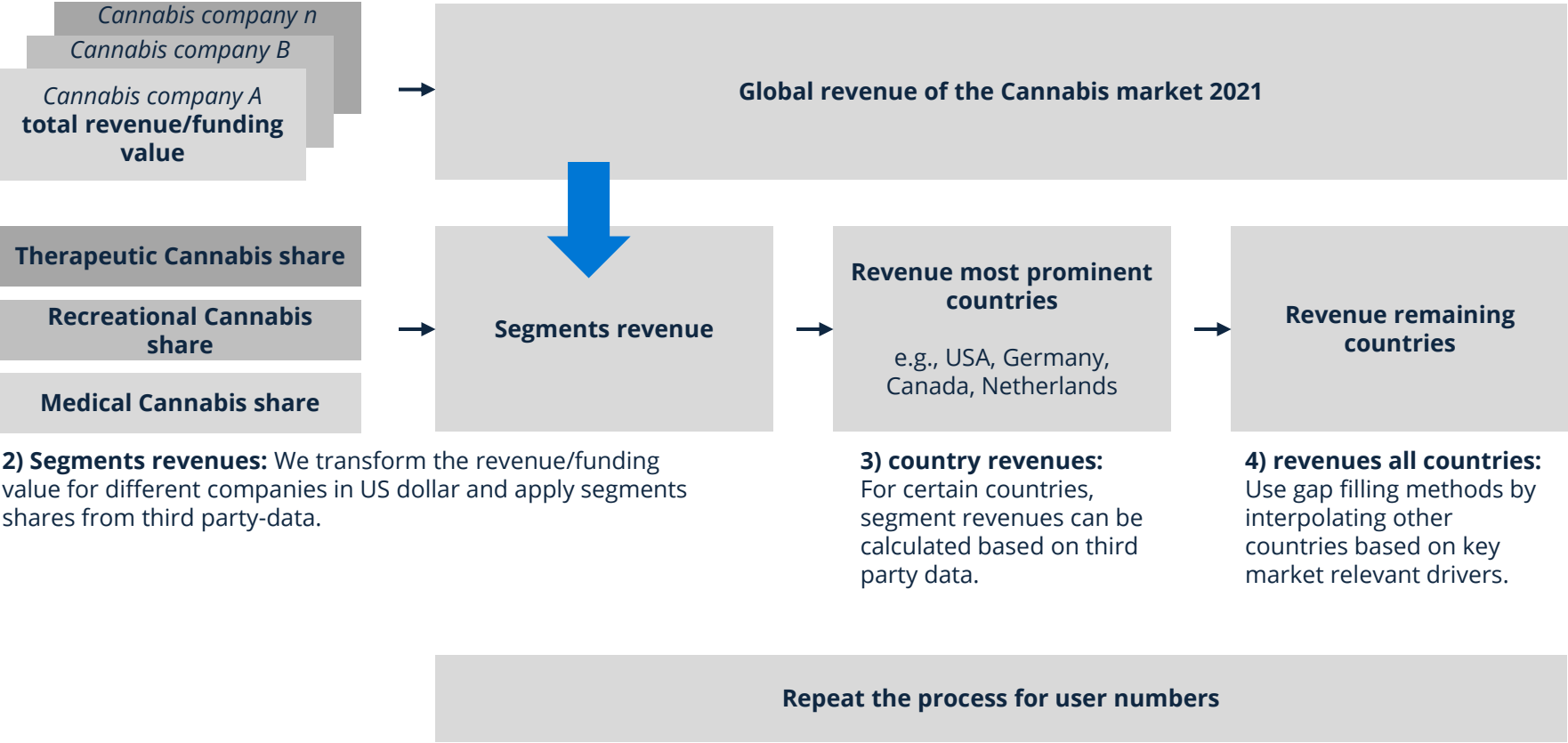
PRODUCT & METHODOLOGY

# Cannabis



# For the top-down model of the Cannabis market company financial information is the basis for the data in 2021

Cannabis market model methodology (1/2)



**1) global revenues:** In this top-down approach, the global revenue is estimated first. The revenue for 2021 is obtained by adding up the revenues/funding value of a vast amount of cannabis companies.

**2) Segments revenues:** We transform the revenue/funding value for different companies in US dollar and apply segments shares from third party-data.

**3) country revenues:** For certain countries, segment revenues can be calculated based on third party data.

**4) revenues all countries:** Use gap filling methods by interpolating other countries based on key market relevant drivers.

Repeat the process for user numbers

# FAQ: Statista Digital Market Outlook – Cannabis

Cannabis market model methodology (2/2)



## What methodology is used for the Cannabis market?

Market sizes are determined by a Top-Down approach, based on financial reports and third-party data. Next, we use relevant key market indicators and data from country-specific associations such as tobacco spending, medical product spending, consumer spending, and consumer spending for recreation purposes.

In our forecasts, we apply diverse forecasting techniques, for example, S-Curve function, ARIMA time series model and exponential curve function.

## How is the Cannabis market defined?

The Cannabis market comprises the sale of various products made of cannabis to both private end consumers and healthcare entities in all the countries where these products were legalized. It covers three segments: Recreational Cannabis, Medical Cannabis, and Therapeutic Cannabis.

The Recreational Cannabis segment includes the consumption of cannabis for non-medicinal reasons, such as boosting physical performance, pursuing creative activities, and experiencing spirituality.

The Medical Cannabis segment includes cannabinoid-based medicine, which is

supplied through the healthcare system and prescribed by a doctor. It can include higher tetrahydrocannabinol (THC) levels of cannabidiol (CBD).

The Therapeutic Cannabis segment covers cannabinoid-based therapeutic products with low THC levels. These products are used for medicinal purposes and are intended to improve the quality of life, e.g., by reducing stress and/or anxiety.

## What does “revenue” and “users” stand for in Cannabis?

Data encompasses B2B and B2C enterprises. Revenues include retail, sales and taxes. The user metrics show the number of customers (in the selected country or region) who have made at least one purchase (in the selected market or segment) within the last 12 months.

## Which countries are covered in the Cannabis market?

The cannabis market only shows countries where cannabis is legalized. As this varies according to THC level and field of application, the list of countries differs from segment to segment. This leads to a limited number of countries covered, but at the same time means that the worldwide market for cannabis is nevertheless represented.



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