

INDUSTRIES & MARKETS

Statista Market Insights: elements & methodology

Market Insights
by **statista** 

April 2023



Agenda

Introduction	3	Forecasting	24
What are the Market Insights?	4	Exchange rates in the Market Insights	29
Country and territory coverage	5	Russia-Ukraine War	31
Markets covered in Market Insights	9	Summary	32
Market sizing – Our modeling process	11	Macroeconomic impact	33
Market modeling approaches	13	Impact on B2B markets	34
Bottom-up based on Statista Consumer Insights	14	Impact on B2C markets	35
Model based on trade organization data	15	Key Market Indicators – Statista’s macroeconomic offering	36
The multiple-regression model	16	Scope	37
Financial & company data-based bottom-up model	17	Data collection	42
Bottom-up based on industry associations data	18	Market Shares	43
Bottom-up based on product and price monitoring	19	Frequently Asked Questions (FAQs)	46
Industrial markets based on ISIC	20	Contact information	59
Top-down using companies’ financial data	21		
Bottom-up using investing websites	22		

CHAPTER 1

Introduction – Market Insights



The Statista Market Insights provide industry-specific data and valuable insights into more than 1,000 markets

About the Statista Market Insights

What are the Statista Market Insights?

Statista Market Insights offer essential market indicators, independent forecasts, and detailed insights into the most relevant B2C and B2B markets for over 150 countries. The availability of market data is often inconsistent in terms of form, scope, and segmentation, making it challenging to obtain reliable comparisons between different data sets. Our aim is to simplify your research and planning process by providing all the necessary data with a clearly defined market scope.

We have developed the Statista Market Insights tool by utilizing resources from the Statista platform, conducting in-house market research, and leveraging the expertise of our analysts. Our team evaluates the status quo of the markets, tracks emerging trends, and provides an independent forecast regarding market developments.

Our tool offers data on various figures such as revenue, volume, price, users, penetration rate, spending, market share, which are easily accessible on the platform and downloadable in multiple formats. We update data for each market at least twice a year and prepare comprehensive reports for all markets, providing an extensive overview of the latest trends and the current state of the market.

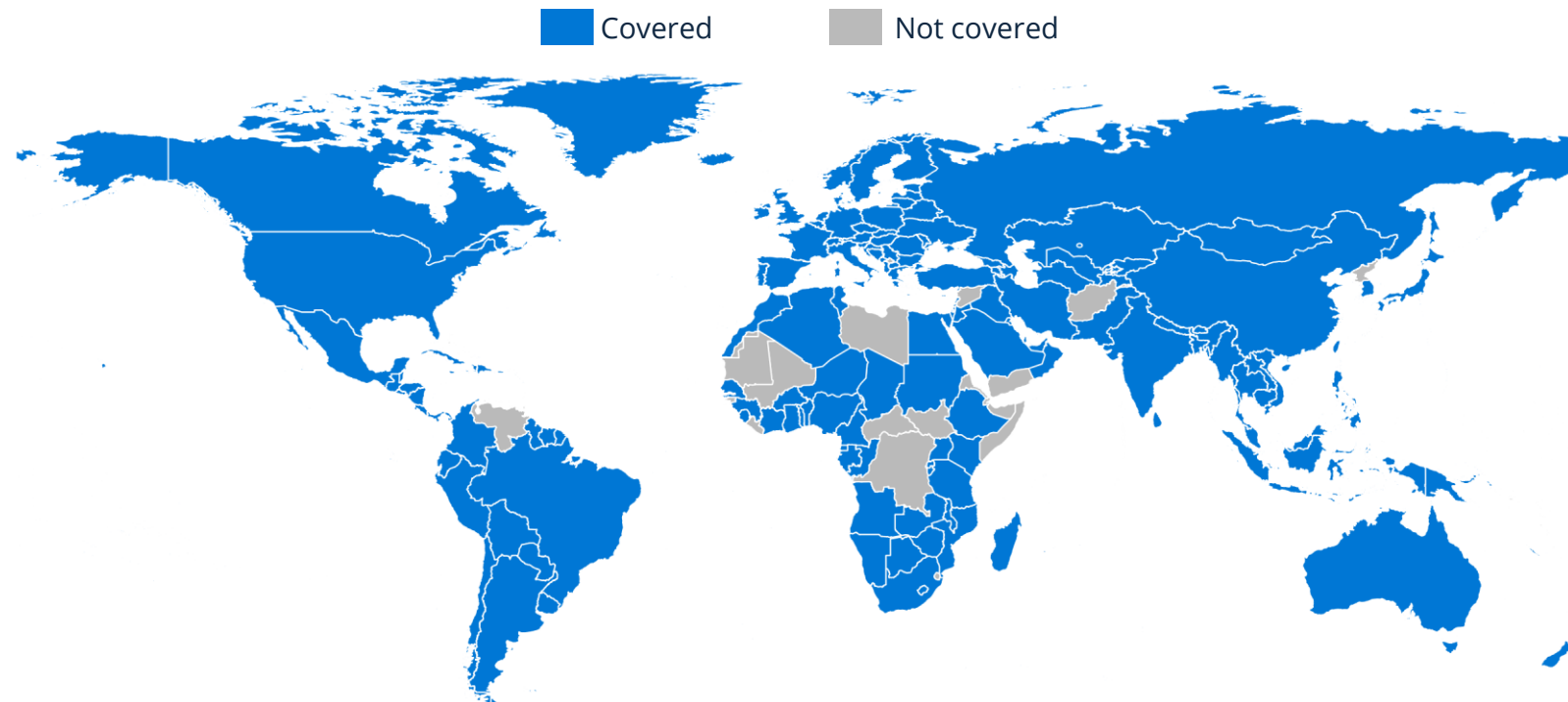
All in all, Statista Market Insights is a vital tool for market analysts, providing reliable and up-to-date data for making informed decisions. With our user-friendly platform and expert analysis, we aim to help you stay ahead of the competition in your respective markets.

Market
Insights
by **statista** 

The Statista Market Insights cover over 150 countries & territories and over 40 geographical and political regions

Country and territory coverage (1/4)

Statista Market Insights coverage



The Statista Market Insights cover over 150 countries & territories and 28 geographical regions

Country and territory coverage (2/4)

Europe

Southern Europe

Albania
Bosnia and Herzeg.
Croatia
Cyprus
Greece
Italy
North Macedonia
Malta
Montenegro
Portugal
Serbia
Slovenia
Spain
Turkey

Eastern Europe

Armenia
Azerbaijan
Belarus
Bulgaria
Georgia
Moldova
Romania
Russia
Ukraine

Central & Western Europe

Austria
Belgium
Czechia
France
Germany
Hungary

Ireland

Luxembourg
Netherlands
Poland
Slovakia
Switzerland
United Kingdom

Northern Europe

Denmark
Estonia
Finland
Iceland
Latvia
Lithuania
Norway
Sweden

Americas

South America

Argentina
Bolivia
Brazil
Chile
Colombia
Ecuador
Guyana
Paraguay
Peru
Suriname
Uruguay

Central America

Belize
Costa Rica
El Salvador

Guatemala
Honduras
Nicaragua
Panama

North America

Canada
Mexico
United States

Caribbean

Cuba
Dominican Republic
Haiti
Jamaica
Puerto Rico

The Statista Market Insights cover over 150 countries & territories and 28 geographical regions

Country and territory coverage (3/4)

Asia

South Asia

Bangladesh
Bhutan
India
Nepal
Pakistan
Sri Lanka

West Asia

Bahrain
Iran
Iraq
Israel
Jordan
Kuwait
Lebanon
Oman

Qatar

Saudi Arabia

United Arab Emirates

Southeast Asia

Brunei Darussalam
Cambodia
Indonesia
Laos
Malaysia
Myanmar
Philippines
Singapore
Thailand
Timor-Leste
Vietnam

East Asia

China

Hong Kong

Japan

Mongolia

South Korea

Taiwan

Central Asia

Kazakhstan

Kyrgyzstan

Tajikistan

Turkmenistan

Uzbekistan

Australia & Oceania

Australia

Fiji

New Zealand

Papua New Guinea

Africa

North Africa

Algeria

Egypt

Morocco

Sudan

Tunisia

Central Africa

Angola

Cameroon

Chad

Equatorial Guinea

Gabon

Republic of the Congo

West Africa

Benin

Burkina Faso

Gambia

Ghana

Guinea

Ivory Coast

Niger

Nigeria

Senegal

Sierra Leone

Togo

Southern Africa

Botswana

Lesotho

Mauritius

Namibia

South Africa

East Africa

Burundi

Ethiopia

Kenya

Madagascar

Malawi

Mozambique

Rwanda

Seychelles

Tanzania

Uganda

Zambia

Zimbabwe

The countries covered can also be grouped into political regions

Country and territory coverage (4/4)

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

The Statista Market Insights provide data on 10 different topics

Topics covered in Market Insights (1/2)



Global Indicators



Advertising & Media Markets



Industrial Markets

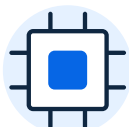


Mobility Markets

Market Insights by statista



Financial Markets



Digital Markets



Consumers Markets



Technology Markets



Health Markets

This broad range of topic-specific markets includes further markets on deeper data layers

Topics covered in Market Insights (2/2)

Advertising & Media

Advertising
AR & VR
eSports
Media
Metaverse

Consumer Markets

Accessories
Alcoholic Drinks
Apparel
Beauty & Personal Care
Consumer Electronics
DIY & Hardware Store
Eyewear
Food
Footwear
Furniture
Home & Laundry Care

Hot Drinks

Household Appliances
Luxury Goods
Non-Alcoholic Drinks
OTC Pharmaceuticals
Tissue & Hygiene Paper
Tobacco Products
Toys & Hobby

Digital Markets

App
Digital Advertising
Digital Health
Digital Media
eCommerce
eServices
Fintech
Online Food Delivery
Smart Home

Global Indicators

Socio- Economic Indicators
Macroeconomic Indicators
Health Indicators
Digital & Connectivity Indicators
Consumption Indicators
Logistics & Transport Indicators

Financial Markets

Capital Raising
Digital Assets
Real Estate
Retail & Commercial Banking
Wealth Management

Health Markets

Cannabis
Digital Health
Hospitals

Medical Technology
Mental Health
Pharmaceuticals
Pharmacies

Industrial Markets

Agriculture
Energy
Manufacturing
Mining & Quarrying

Mobility Markets

Bicycles
Electric Vehicles
Motorcycles
Passenger Cars
Shared Mobility
Third-Party Logistics (3PL)
Travel & Tourism

Technology Markets

Communication Services
Cybersecurity
Data Center
Devices
Internet of Things
IT Services
Public Cloud
Robotics
Semiconductors
Software

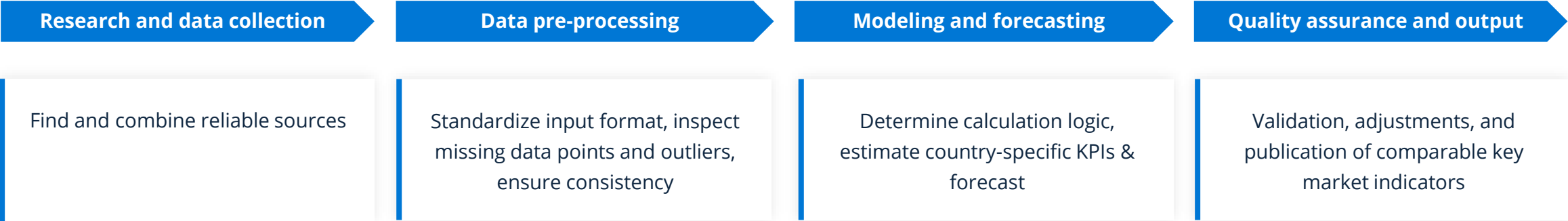
CHAPTER 2

Market sizing – Our process



Our methodology of building market models explained step-by-step

Market sizing: Our market modeling process



Our team of international experts identifies and evaluates available data sources. These include statistical offices, industry & trade associations, public institutions, specialized private research companies, financial & company data, furthermore, data of exclusive partners whom we cooperate with.



We ensure that the information used in our models is comparable and expressed in standard units. Using an algorithmic approach, outliers are eliminated, and missing data points are either estimated (if enough information is already available) or further researched.



We build standardized bottom-up or top-down models that leverage data science and machine learning technologies to scale. All our market models take into consideration the specific market dynamics of each country. The forecasting is done based on key market indicators, using a mix of standard approaches, e.g., exponential smoothing.



Extensive plausibility and consistency checks of derived time series are done in order to assure the high level of quality of our market analysis. This quality assurance also includes validations which are done using external sources. Model data is finally aggregated into indicators for the Statista platform.



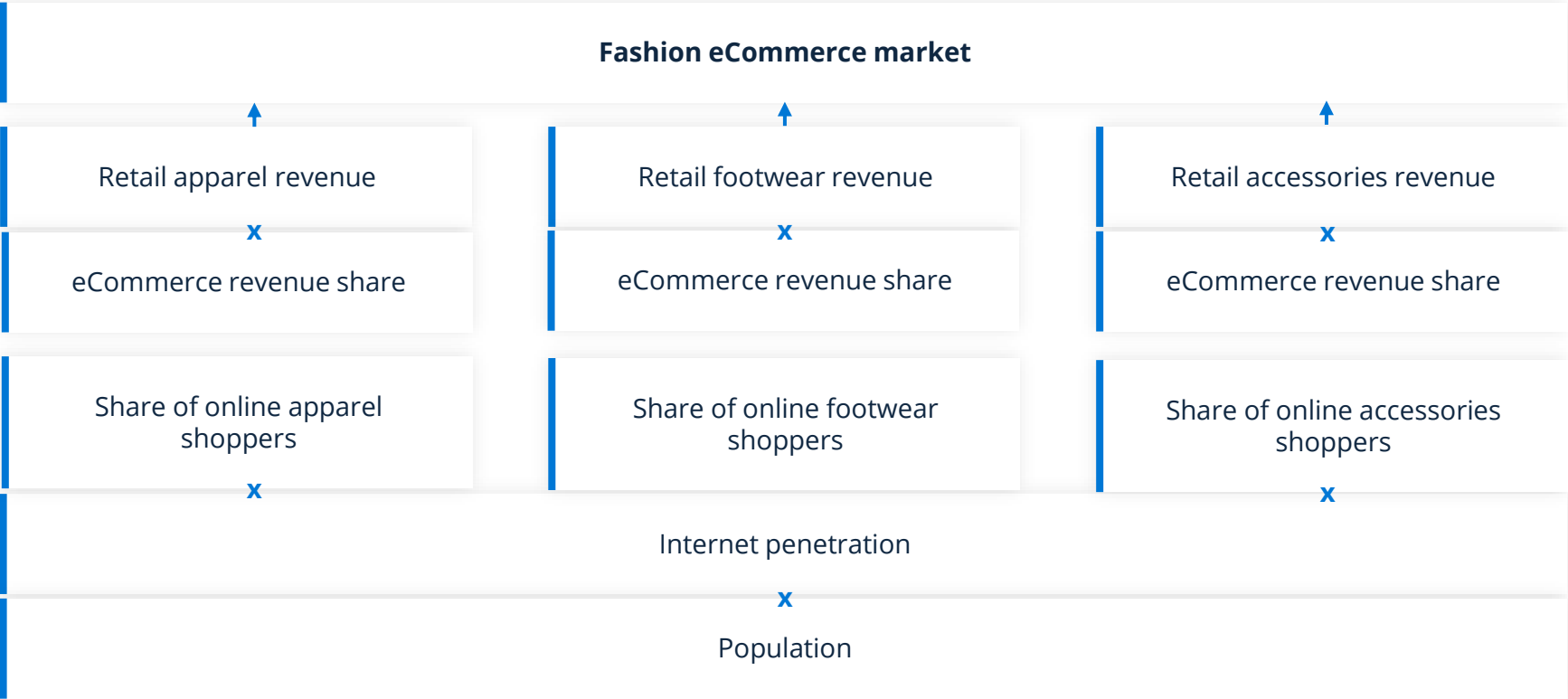
CHAPTER 3

Market sizing – Market modeling approaches



The eCommerce market as an example for bottom-up models built based on data of national statistic offices and the Statista Consumer Insights

Similarly modeled markets: Digital & Traditional Music, eServices, Online Food Delivery



Sources and benchmark:

Validation through third-party studies, national statistics, the [ecommerceDB](#), expert interviews

Retail revenue data from the [Statista Market Insights](#)

Third-party studies, national statistics, primary research, Google Trends search data, key market indicators

[Statista Consumer Insights](#)

National statistics

National statistics

Trade organization data is the foundation of multiple consumer markets, such as the Bedroom Furniture market

Similarly modeled markets: Home & Laundry Care, Eyewear, Footwear, Apparel, Accessories, Tissue & Hygiene Paper, Robotics



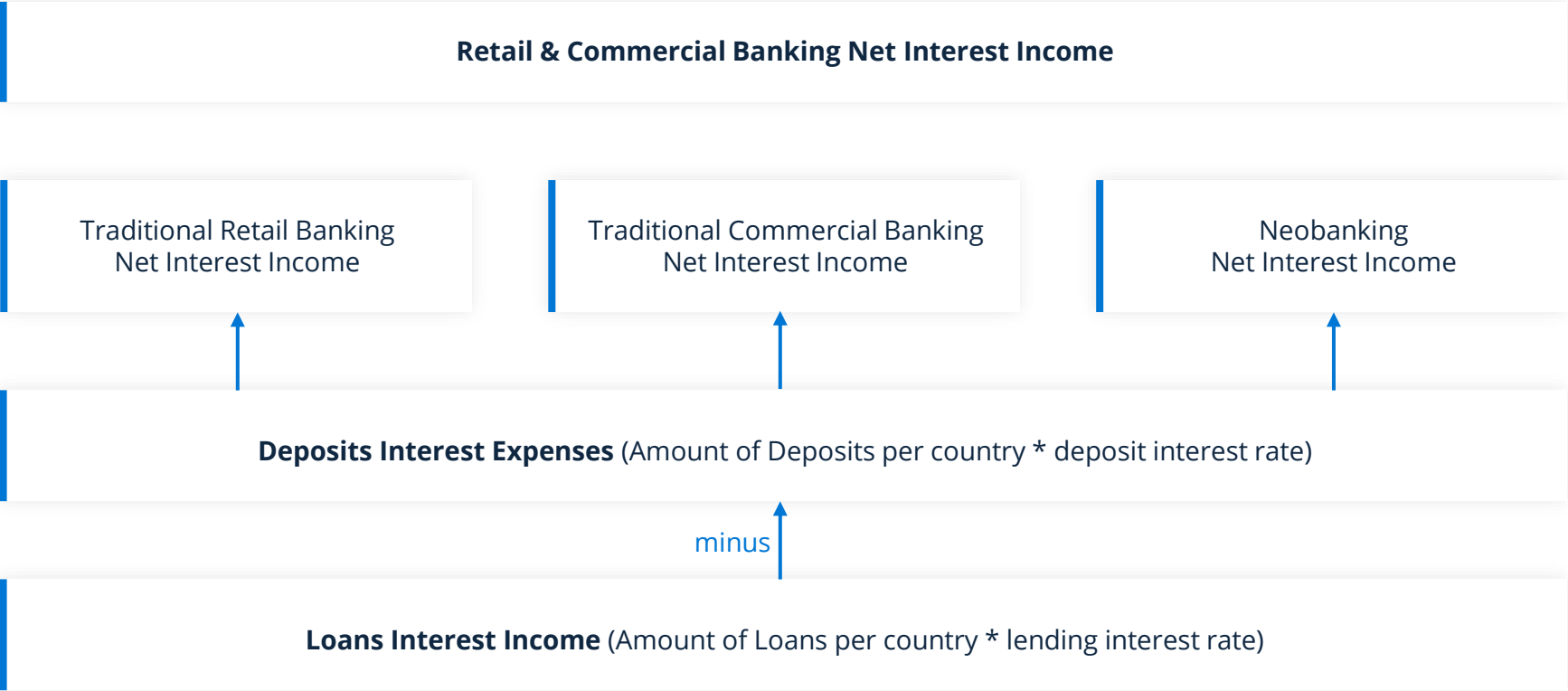
The multiple-regression approach is fitting to fragmented markets with numerous local players, such as TV Advertising

Similarly modeled markets: Books, Out-of-Home Advertising, Influencer Advertising



The Retail & Commercial Banking market as an example for financial & company data-based bottom-up modeling

Similarly modeled markets: Pharmaceuticals, Wealth Management, Public Transportation



Sources and benchmark:

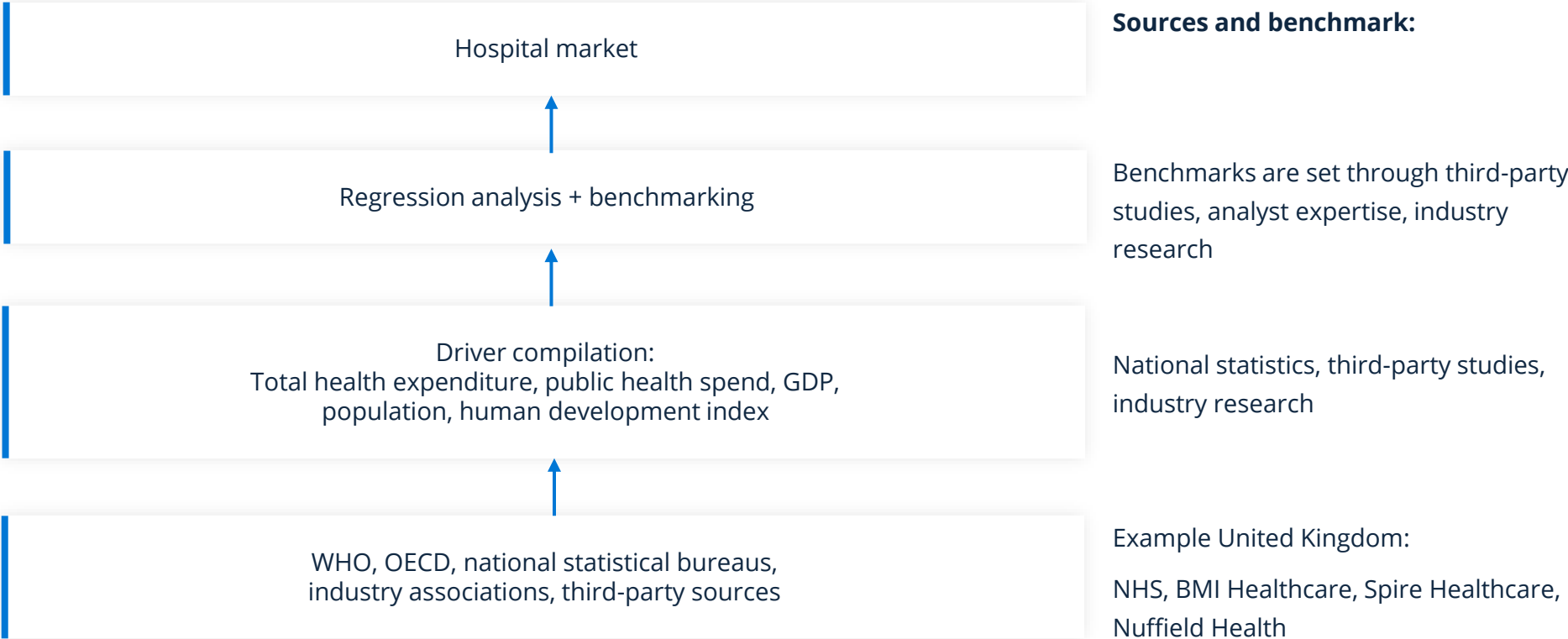
Validation through third-party studies, national statistics offices, and benchmarking

Top 1000 Banks' income statements & balance sheets, IMF data

Top 1000 Banks' income statements & balance sheets, IMF data

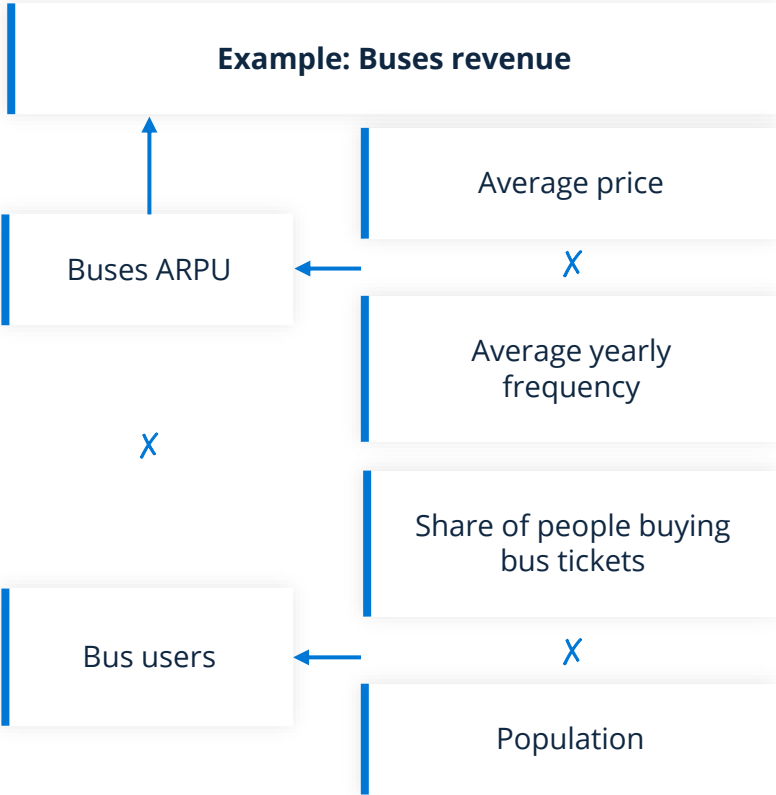
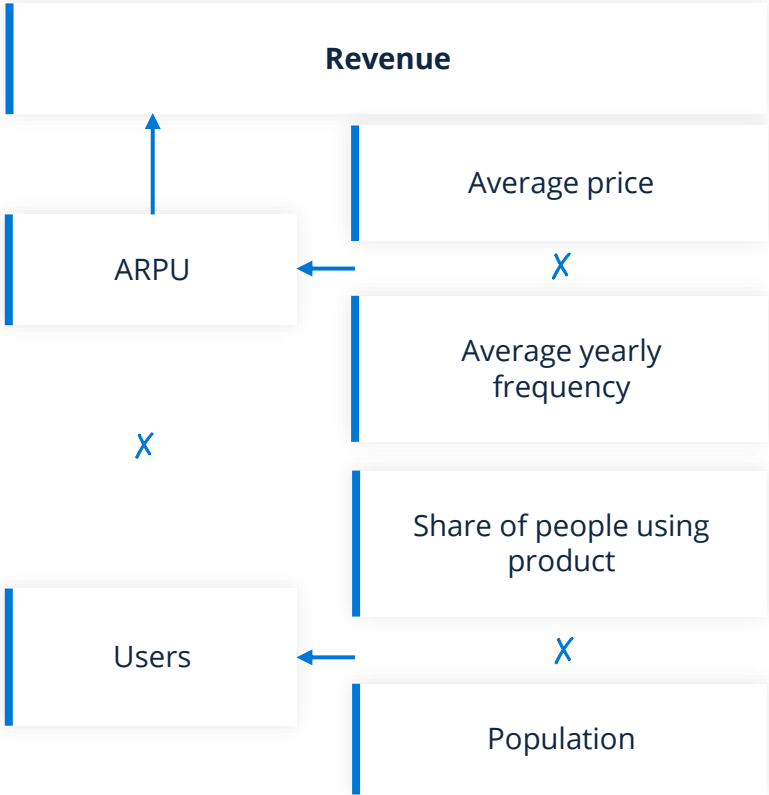
The Hospital market as an example for bottom-up modeling using data from industry associations, public institutions, and statistical offices as its bedrock

Similarly modeled markets: Pharmacies, Mental Health, Cannabis, Communication Services, Real Estate



Product and price monitoring as well as survey results are the foundation of multiple mobility markets, such as Buses

Similarly modeled markets: Flights, Trains, Ride-Hailing, Car-sharing, Bike-sharing, Travel & Tourism



Sources and benchmark:

Validation through third-party studies and benchmarking

National statistics, primary research, third-party studies, expert interviews, company profiles, product and price monitoring

[Statista Consumer Insights](#)

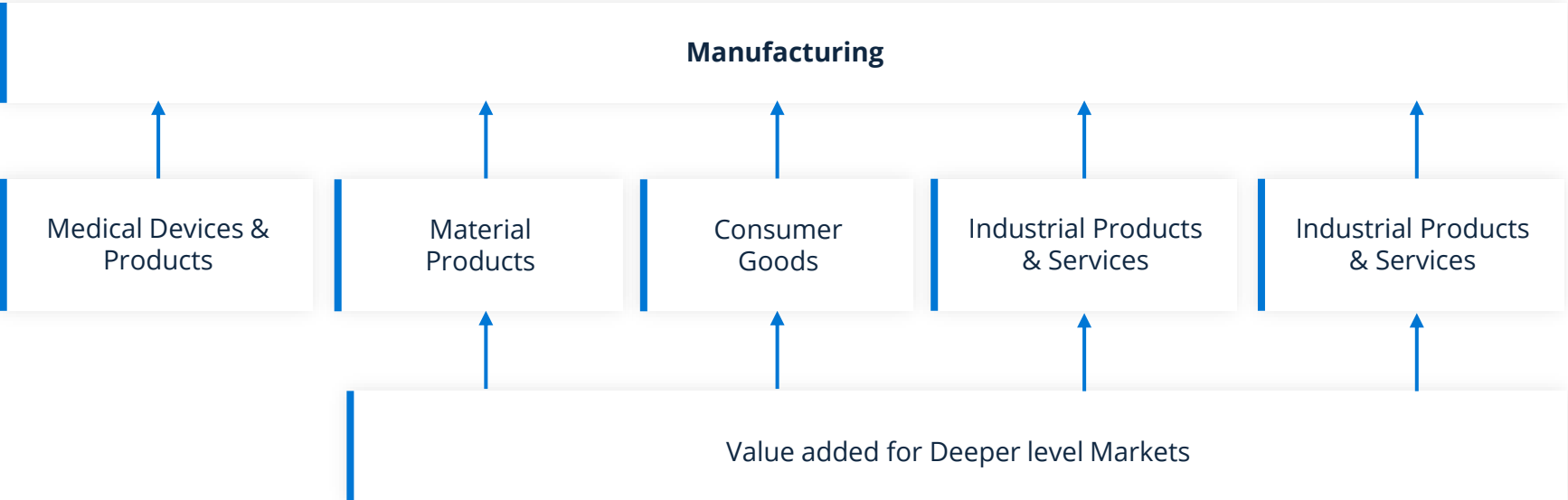
National statistics

19 **Notes:** For countries in which no surveys were conducted or which have missing values, we have calculated user and ARPU figures using a driver-based projection method.

Source: [Statista Market Insights](#) 2023

We build our industrial markets based on on the International Standard Industrial Classification of All Economic Activities (ISIC)

Similarly modeled markets: Agriculture, Energy, Mining & Quarrying



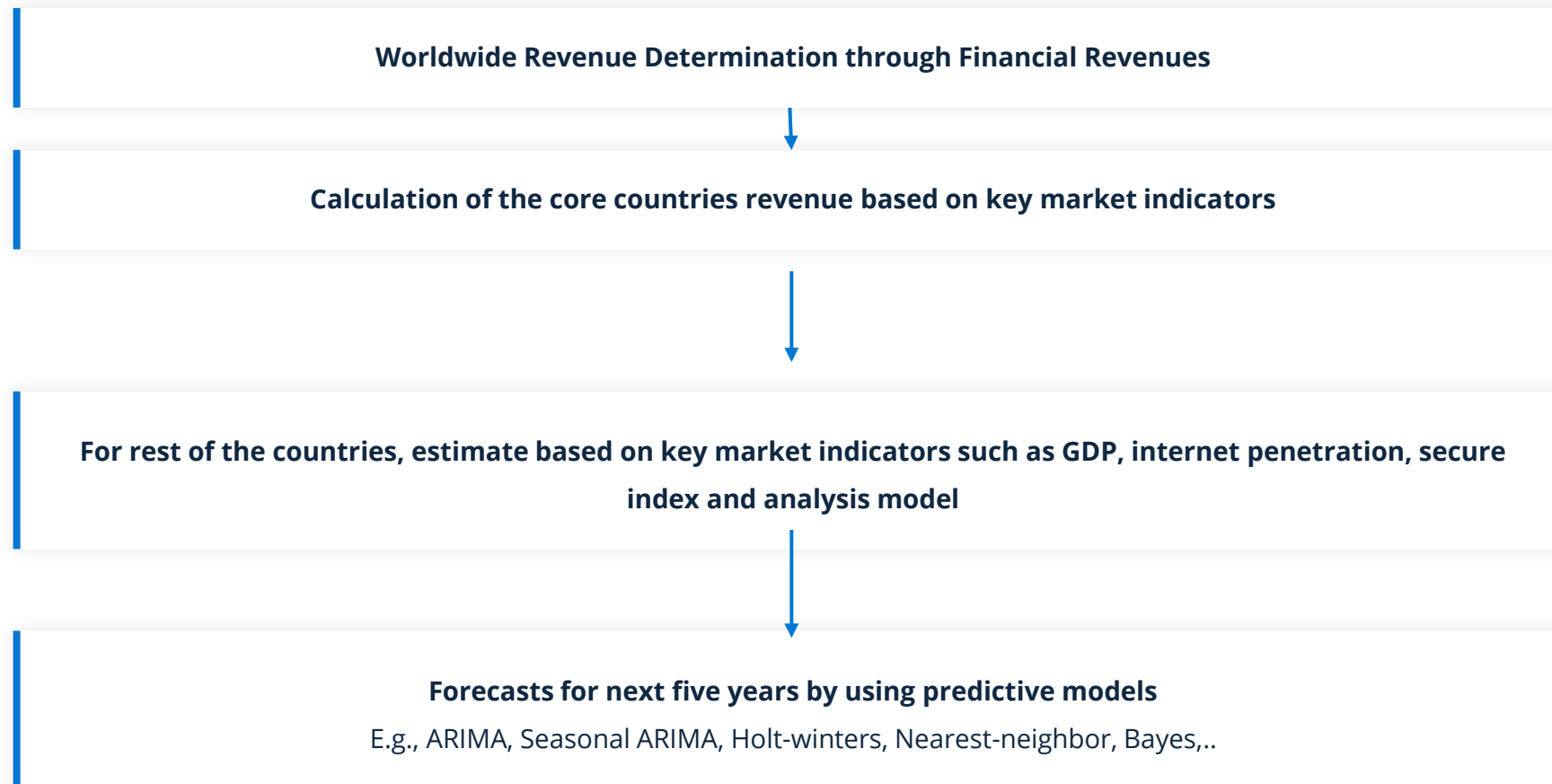
Sources and benchmark:

Validation through third-party studies, national statistics offices, and benchmarking

Deepest level is based on the International Standard Industrial Classification of All Economic Activities (ISIC)

A financial statement-based top-down model is applicable for markets with few global players, such as the Cybersecurity market

Similarly modeled markets: Public Cloud, Software, Data Center, Luxury



Sources and benchmark:

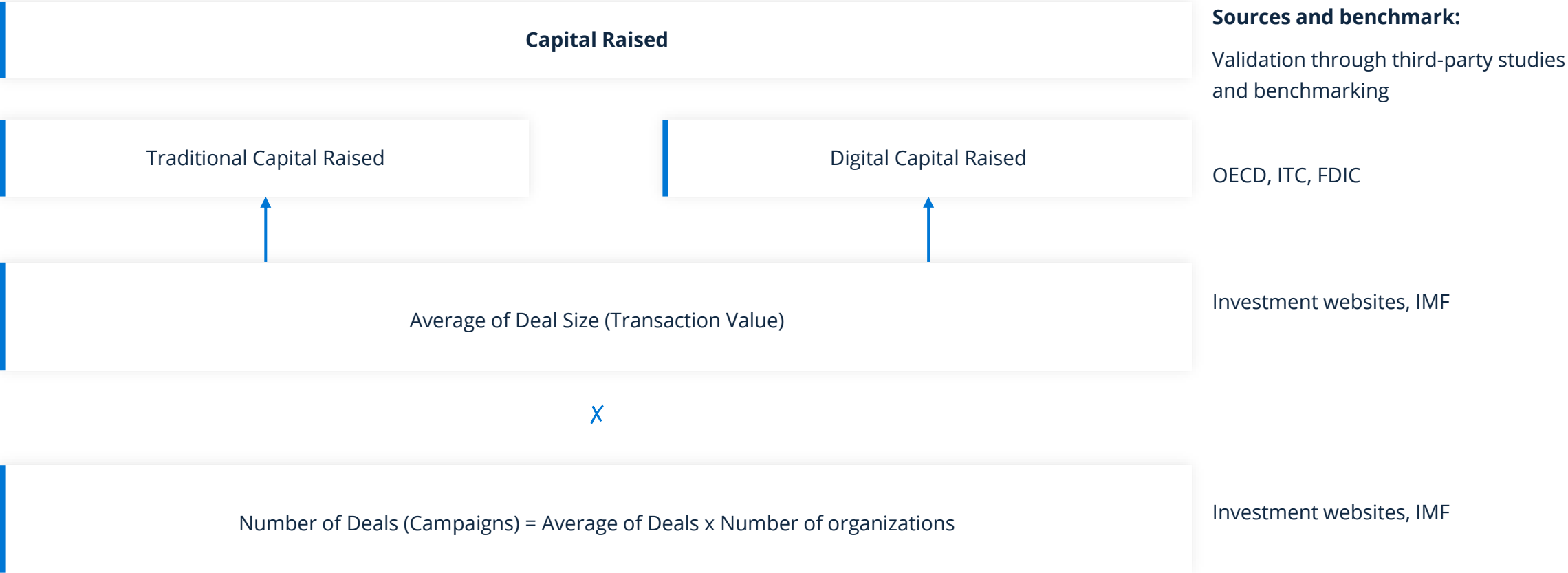
National statistical offices, and various organizations that specialize in cybercrime response and strategic analysis, such as **Anti-Phishing Working Group, Center for Internet Security, Center for Strategic and International Security, and Federal Bureau of Investigation.**

Specific source: the German Cyber Security Council, NCSC in the UK, and the Canadian Centre for Cyber Security.

Data is obtained from a variety of sources, including analysis of +30 financial statements of key players in their respective industries.

Data of international organizations and investment websites could be the foundation of models with very limited data availability, such as Capital Raising

Similarly modeled markets: Metaverse, AI



CHAPTER 4

Forecasting



Our market growth forecasting is done differently for new and mature markets

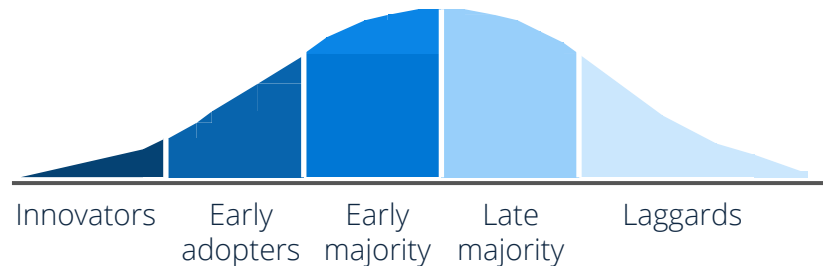
Forecasting (1/5)

Well established markets

When it comes to markets existing for long periods of time, such as the Passenger Cars market, we have a lot of data on which we can base our forecast. In these cases, we use standard methods, such as exponential smoothing, ARIMA, or the Holt-Winters seasonal smoothing method, on detailed data sets to arrive at our market estimate.

New markets

Digital products and services, such as Digital Assets, are not embraced by all individuals at the same time. The market maturity can be evaluated using the Bass diffusion model, which describes how new products penetrate the market and how long it takes until users adopt the new product. This lifecycle of technology penetration can be represented as a graph:



The Bass model is suitable for making predictions for all products despite possible differences in product characteristics and complexity – the curve can shift in time and its steepness might differ, but its shape is always similar.

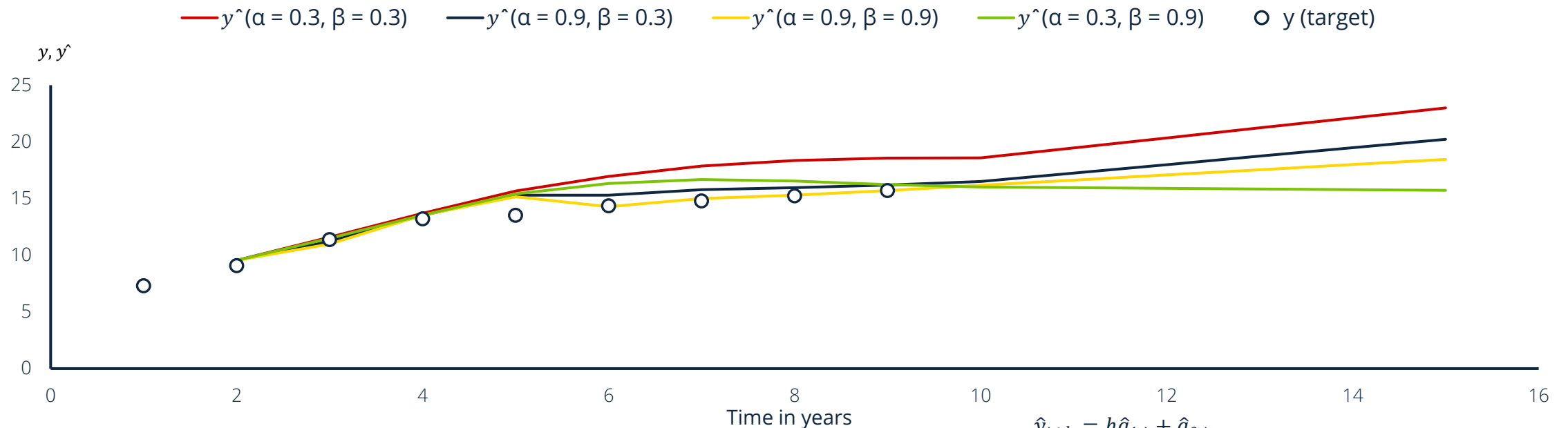
Once the status quo has been established, we assess the recent market growth and the macroeconomic environment of the country in question and its region. Then we move on to trend scouting, looking out for business-critical developments in the industries that provide the basis for the future growth of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

The result is an algorithm-backed forecast based on relevant market drivers (internet penetration, consumption spending, infrastructure development, share of urban population, etc.) and the lifecycle of technology adoption in the given market. We validate our data through collaboration with other Statista teams, third-party forecasts, regional comparisons, and the analysis of development cycles in different markets.

Exponential trend smoothing

Forecasting (2/5)

Parameters that determine the projected market development



h: Forecast horizon – number of years to be forecast

α : Level reactivity – reactivity of the model towards changes in the level

β : Trend reactivity – reactivity of the model towards changes in the trend

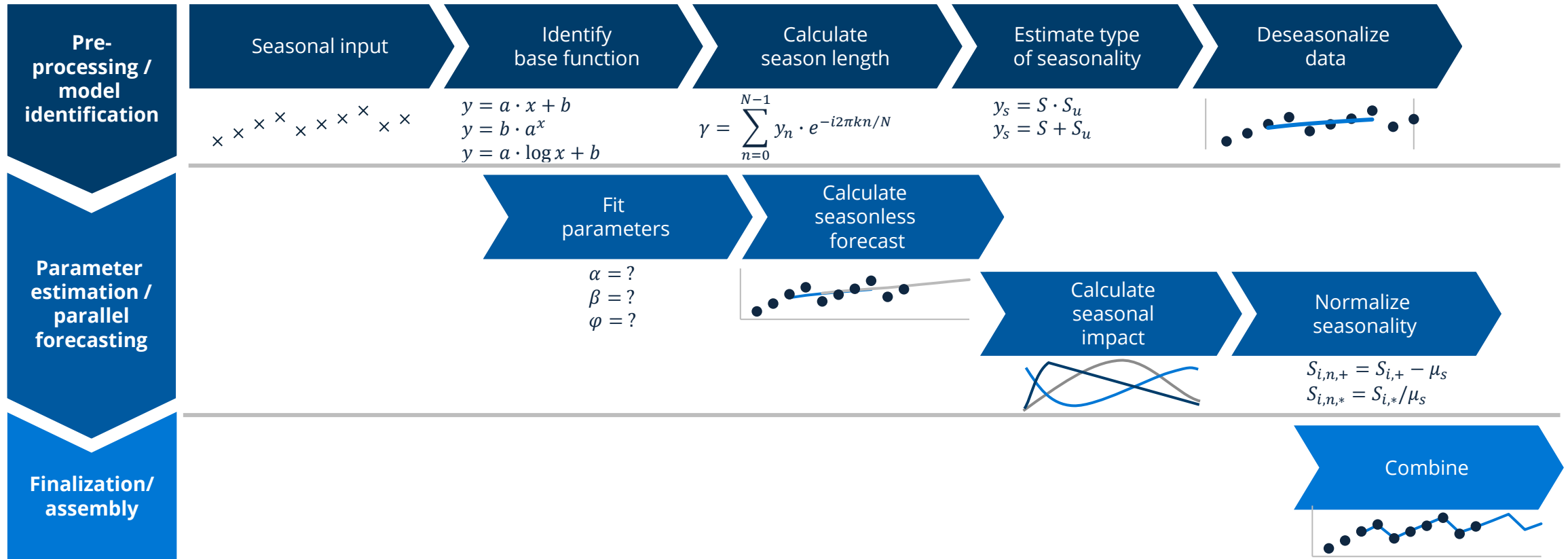
$$\hat{y}_{t+h} = h\hat{a}_{1,t} + \hat{a}_{0,t}$$

$$\hat{a}_{0,t} = \alpha y_t + (1 - \alpha)\hat{y}_t = \alpha y_t + (1 - \alpha)(\hat{a}_{0,t} + \hat{a}_{1,1})$$

$$\hat{a}_{1,t} = \beta(\hat{a}_{0,t} - \hat{a}_{0,t-1}) + (1 - \beta)\hat{a}_{1,t-1}$$

Where applicable, we use seasonal forecast algorithms

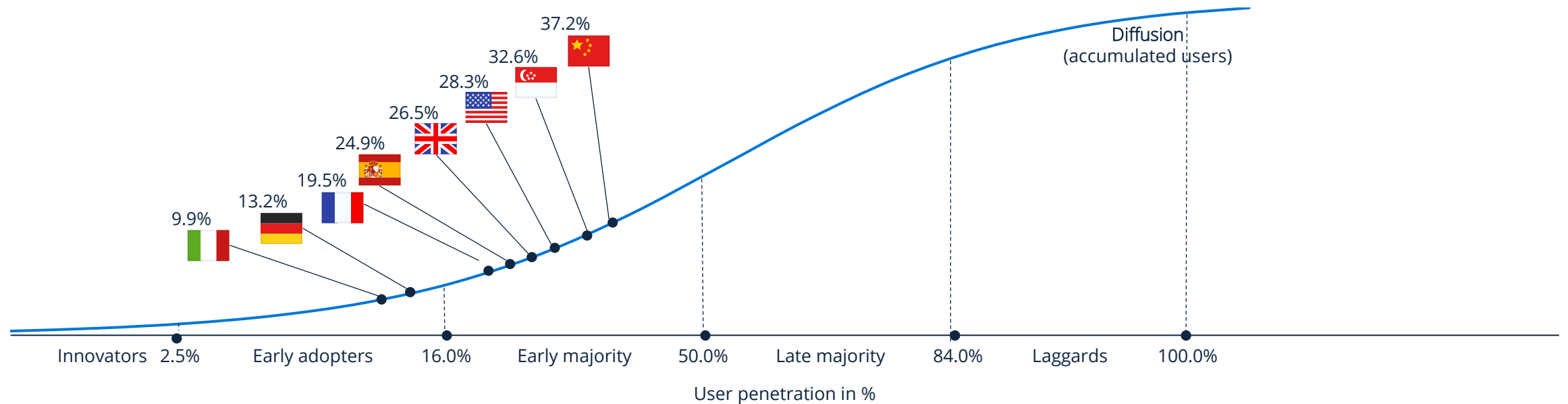
Forecasting (3/5)



The application of the Bass innovation diffusion model exemplified by Ride-Hailing market growth

Forecasting (4/5)

Innovation diffusion curve 2021

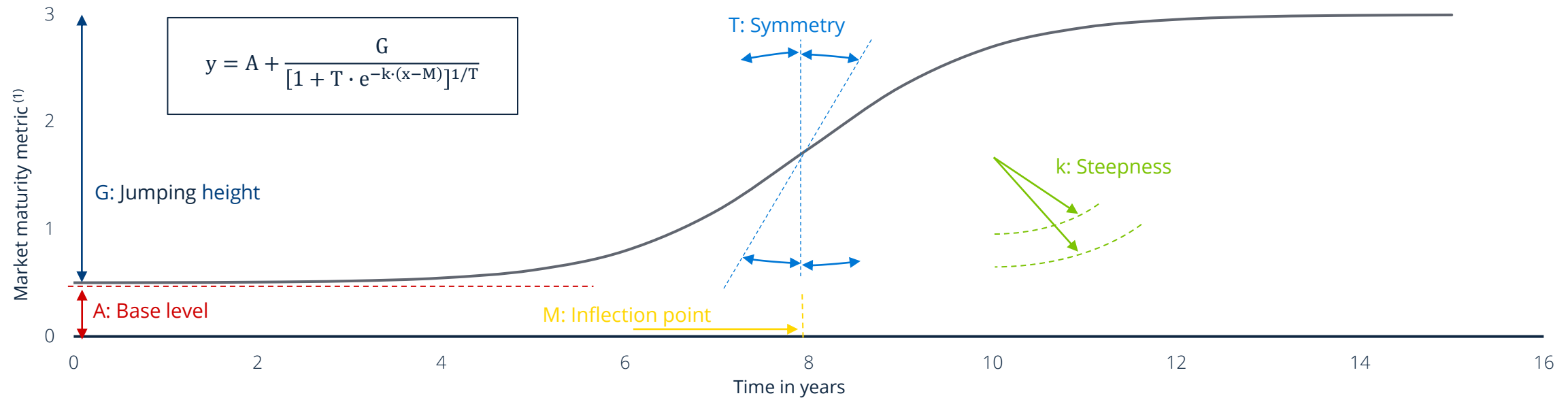


The diffusion of innovations graph shows successive groups of consumers adopting ride-hailing (the graph above shows the penetration rate of selected countries). In general, innovations are not adopted by all individuals at the same time. Instead, they tend to adopt them successively, and it is possible to classify customers into different adopter categories based on how long it takes them to adopt the innovation. Diffusion is the rate and volume at which innovations spread among their users. An adoption rate of 100% is theoretically possible but not realistic. Thus, the high online share in Singapore and China can be considered close to saturation.

The S-curve function and its parameters

Forecasting (5/5)

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

All forecasts take projected currency effects into account

Exchange rates in the Market Insights (1/2)

Statista Market Insights **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 Insights (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 Market Insights 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 must 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.

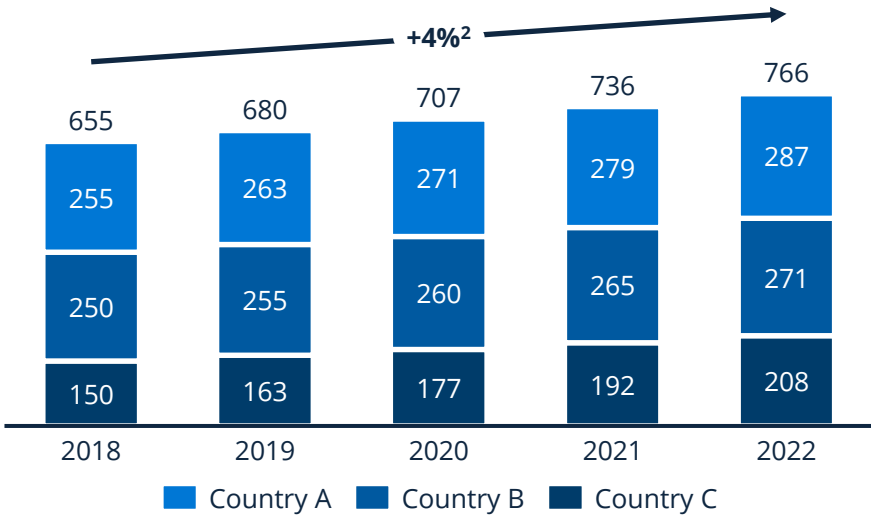
Statista's exchange rate data is **sourced from international institutions**, such as the International Monetary Fund, the World Bank, or the United Nations, and reflects **official rates** set or reported by a country's, territory's, or region's foreign exchange administration (usually the central bank).

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

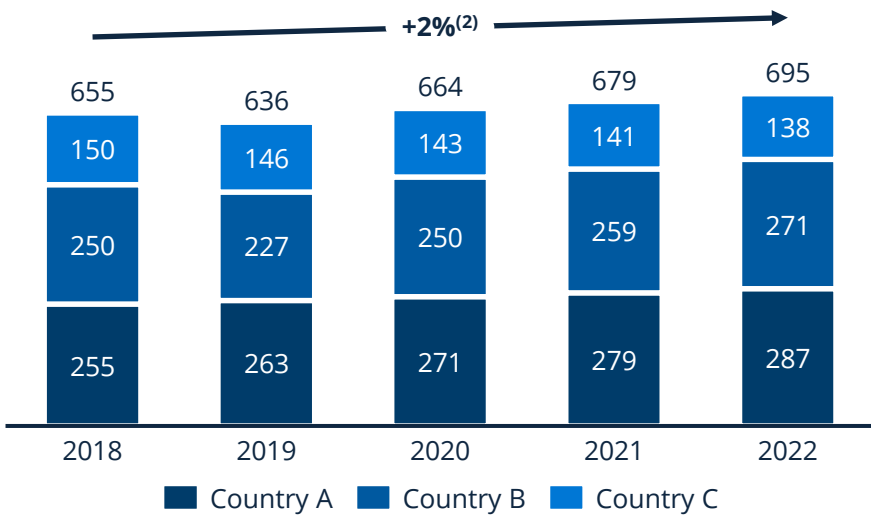
Exchange rates in the Market Insight (2/2)

Made-up market value⁽¹⁾ (constant exchange rate)



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

Made-up market value¹ (current exchange rate)



Compared to constant exchange rates (on the left), 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 from that country. In contrast, country B shows some fluctuations in the value of its currency, but, overall, remains stable.

30 | Notes: (1) All values represent made-up numbers for exemplary purposes and are not based on any existing country, market, or currency. (2) CAGR: Compound Annual Growth Rate / average growth rate per year

Source: Statista Market Insights 2023

CHAPTER 5

Russia-Ukraine war

This section provides information on how we assess the impact of the Russia-Ukraine war



The Russia-Ukraine war has been causing severe pressure on both supply chains and consumer budgets, and effects are likely to last long-term

Summary

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 has been triggering additional supply chain pressures.
- Energy-intensive industries as well as industries reliant on affected commodities are most exposed to the crisis.
- Consumers have been forced to squeeze their budgets by higher food and fuel prices, which crowds out other spending. Discretionary consumer goods spending are most affected.

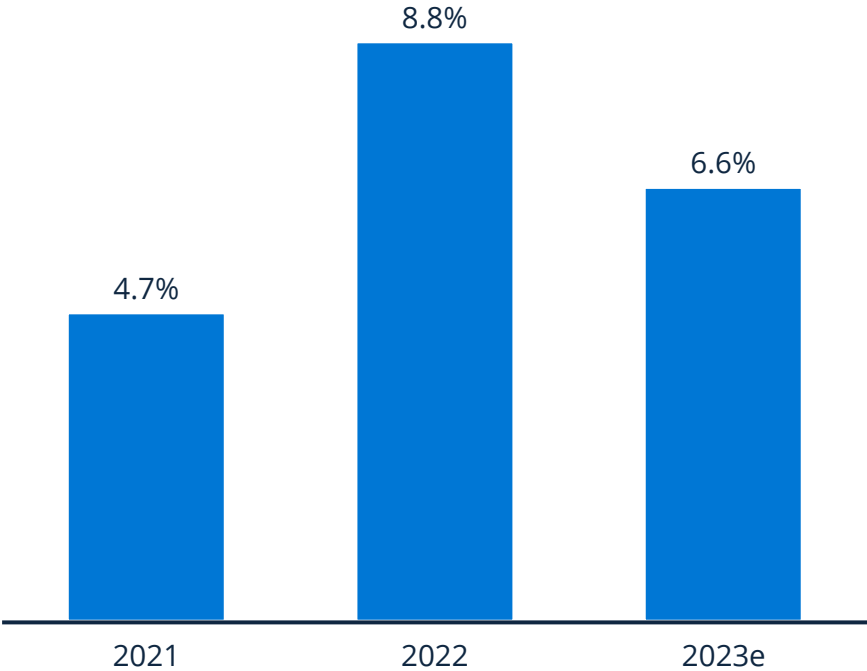
Possible long-term consequences

- 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.

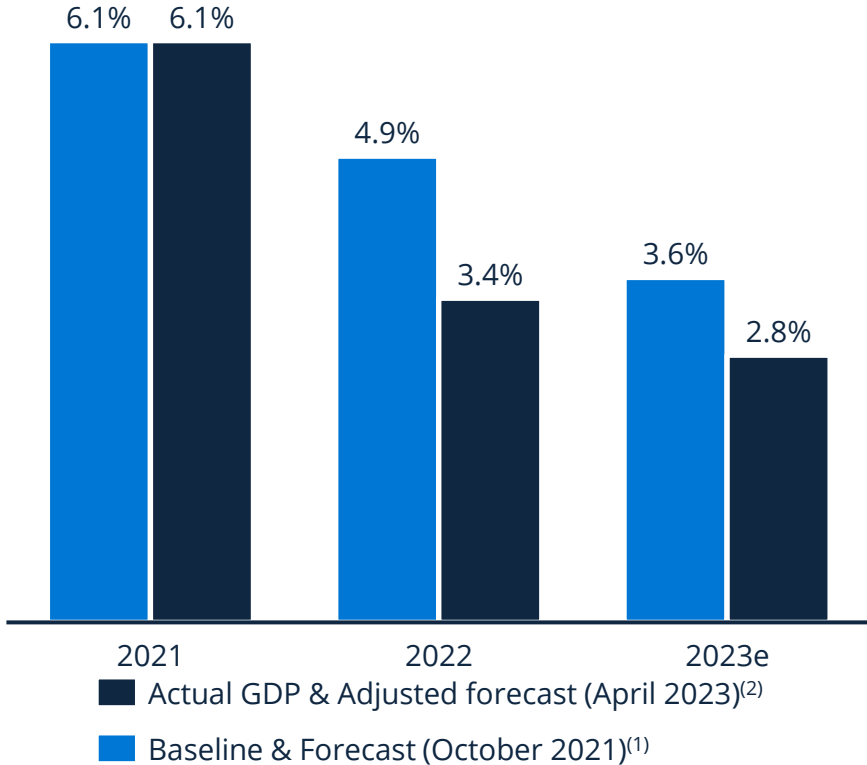
Global growth is set to decelerate, while the inflation is projected to slightly decrease but stay on a high level in 2023

Macroeconomic impact: dented growth

Global inflation in %



Projected real GDP growth rate in %



33 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 2023

Source: [IMF](#)

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

Impacts on B2B markets: rattled supply chains

Expected impact by industry (ISIC⁽¹⁾)

Agriculture ⁽²⁾	Banking, Finance & Insurance	Accommodation, Restaurants & Nightlife
Mining & Quarrying ⁽³⁾	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
------------------------	------------------------	--------------------------	-----------------------

34 **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.

Source: [Statista Market Insights](#) 2023

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

Impacts on B2C markets: higher food and fuel budgets

Modeled impact on forecast by category (COICOP⁽¹⁾)

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. ⁽²⁾
Tobacco	Furniture	Medical services	Telephone and telefax services	Catering services	Other services n.e.c. ⁽²⁾
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. ⁽²⁾	
Strong negative impact (-5% or less)		Medium negative impact (-3% to -4%)		Slightly negative impact (-1% to -2%)	
Positive impact (0% to 24%)					

CHAPTER 6

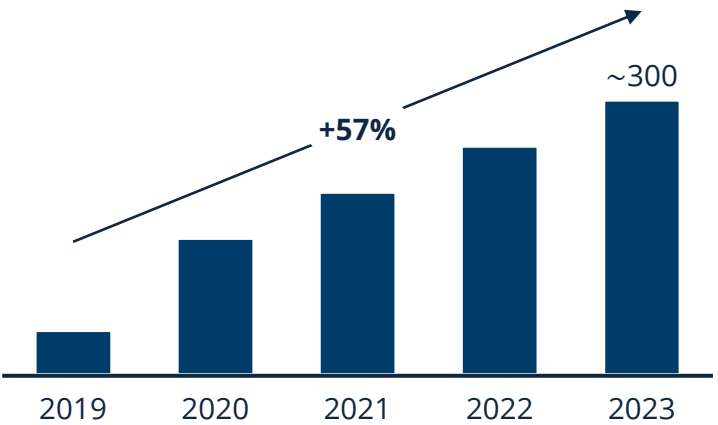
Key Market Indicators



Statista offers ~300 proprietary macroeconomic indicators in 8 major content areas and 150+ geographies with a ~40-year time frame

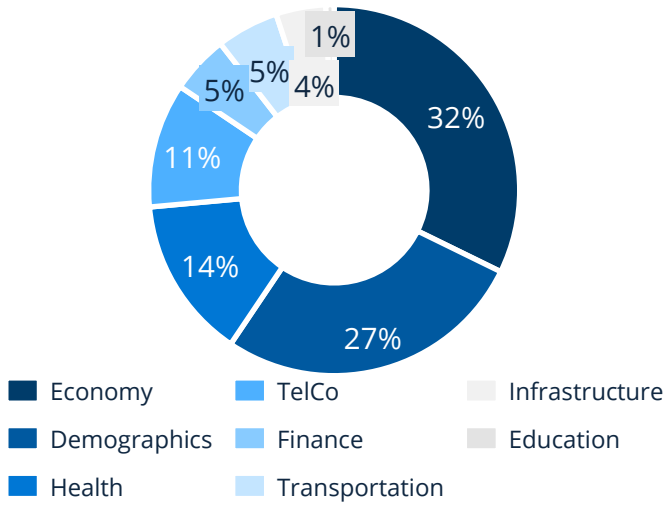
Scope

Number of macroeconomic indicators covered per year



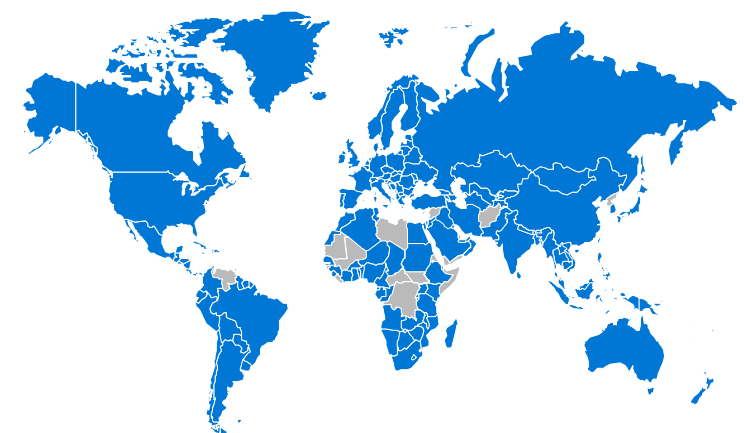
- Macroeconomic offering is extended annually
- Heavy investment in automation & tech in 2020
- Data updated bi-annually or more frequently based on novel events (COVID-19; Russia-Ukraine war)
- 98% of indicators with time range 2000-2040⁽¹⁾

Share of macroeconomic indicators per content area



- Content covers all major parts of life & business
- Content structure follows our hierarchical market structures for easy navigation
- Raw data can be organized in any shape or form, i.e., based on source, country, content type

Countries and regions covered with macroeconomic indicators

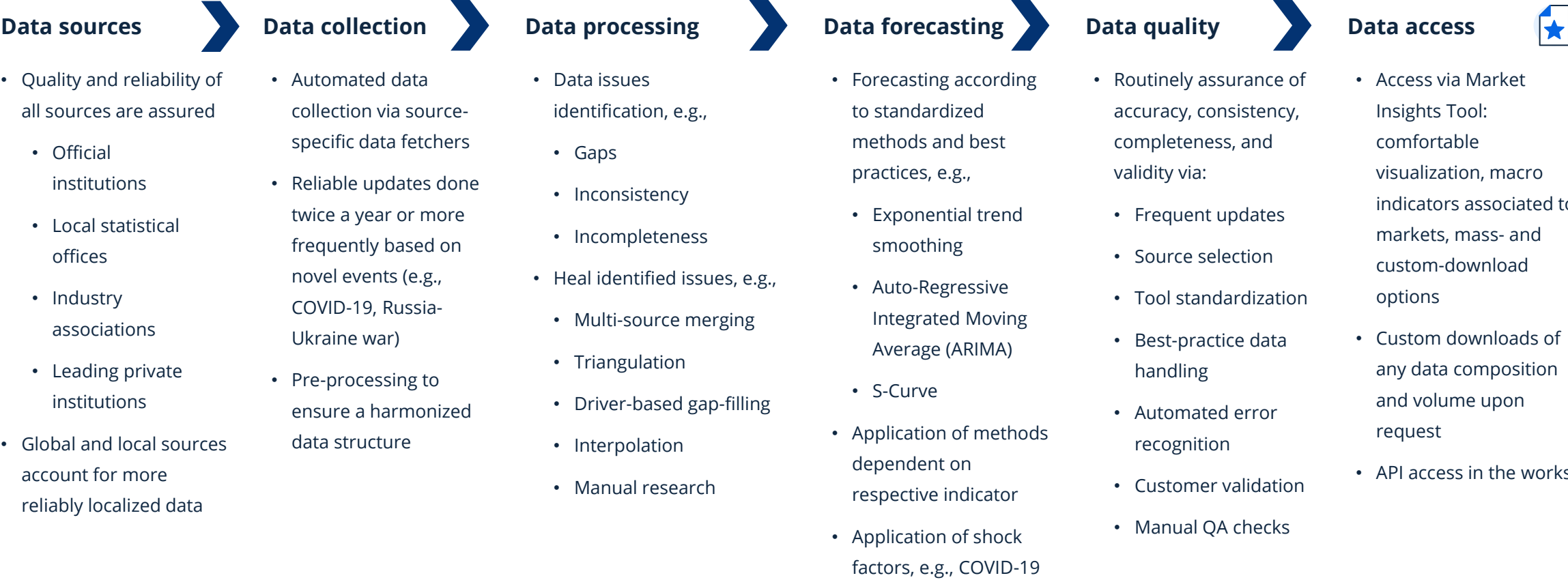


- 152+ countries in all relevant geographical & political regions covered
- Country coverage represents 99.7% of global GDP
- Many commonly uncovered niche countries included, e.g., Bahrain, Nigeria, and Oman

37 **Notes:** In addition to the published indicators, we internally use more than 2,000 indicators in our market modeling and forecast models
 (1) Exceptions include indicators starting later than 2000, e.g., social media penetration rate
Source: [Statista Market Insights 2023](#)

Statista's data creation process always ensures up-to-date data with continual quality assurance, standardized forecasting, and easy access

Process



Statista uses top-grade sources including international institutions, statistical offices, industry associations, and leading private institutions

Data sources

International institutions



Exemplary sources & macroeconomic indicators retrieved:

- IMF: exchange rates
- WHO: health spendings
- OECD: household income
- World Bank: development indicators

Local statistical offices



Exemplary sources & macroeconomic indicators retrieved:

- KOSIS (Korea): household sizes
- BEA (U.S.): consumer spending
- SingStat (Singapore): household income distribution
- NBS (China): retail sales

Industry associations



Exemplary sources & macroeconomic indicators retrieved:

- GSMA: telecommunication metrics
- ITU: telecommunication infrastructure
- ICAO: civil aviation

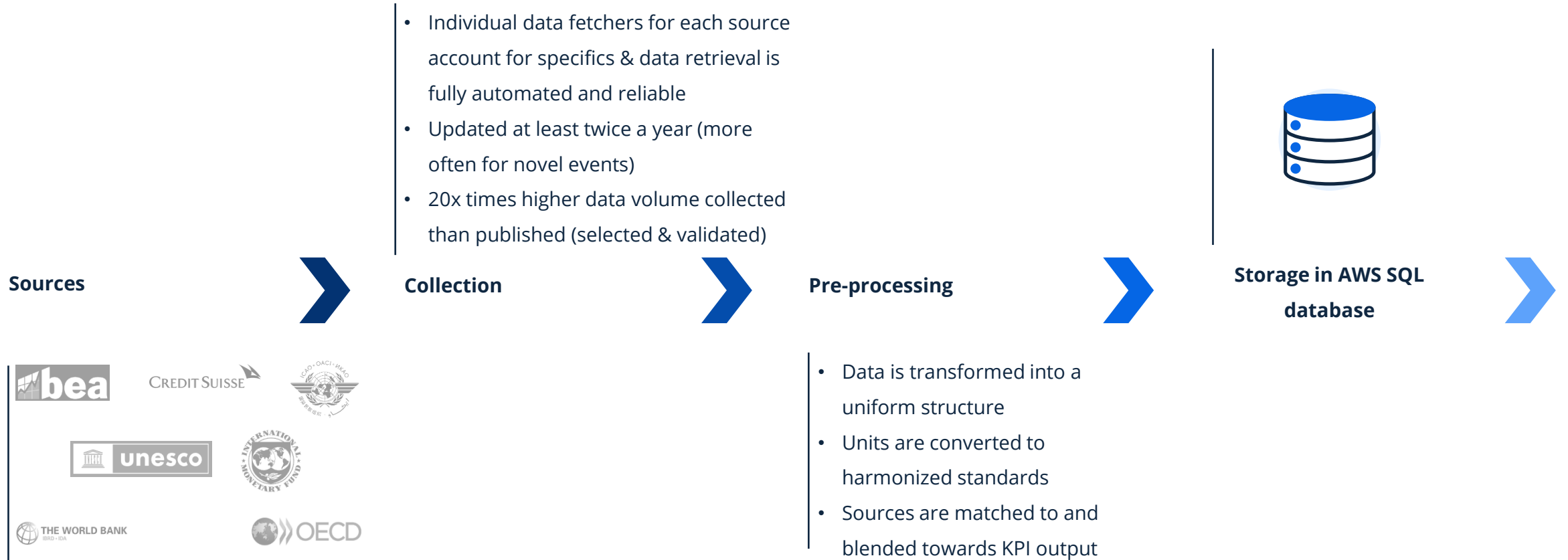
Leading private institutions



Exemplary sources & macroeconomic indicators retrieved:

- CreditSuisse: Household wealth
- PwC, Deloitte, KPMG: Tax rates
- RSF: World Press Freedom Index

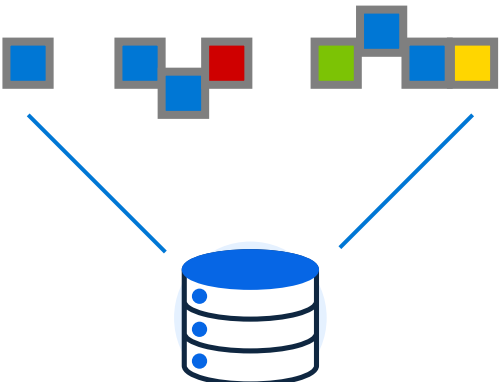
Process four steps



Data processing of input is a key quality driver; we establish automated routines to detect and heal >90% of input data issues

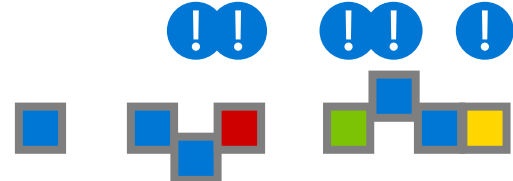
Data processing

Storage in AWS SQL database



- High server availability for high data availability
- Quick and scalable processing for easy extension
- Dynamic performance meets all requirements

Analyze input data & detect issues



- Data gaps, e.g., years missing or different time frames
- Data inconsistency, e.g., change of data definition/reporting logic
- Data incompleteness, e.g., not enough data points for forecast
- Data context, e.g., documentation, definition, methodology
- Data outliers, e.g., inexplicable individual jumps

Heal issues with established methods

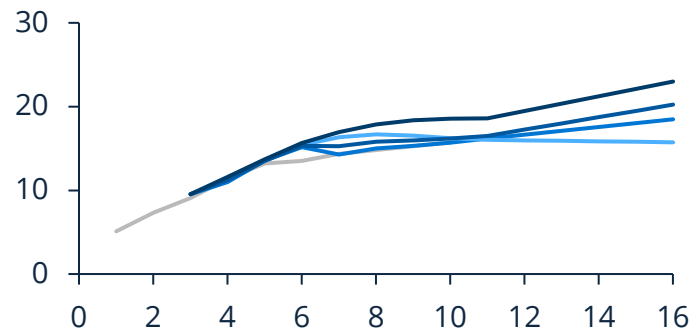


- Source blending: data is combined from various inputs into one dataset
- Interpolation: parameter-based curve fitting is used to create more reliable and fitting data
- Driver-based gap-filling: existing data from neighboring or comparable countries is used to approximate gaps in a given country
- Manual research: For high-priority indicators, manual research is conducted to verify, falsify, and/or find alternative/proxy data

Depending on the indicator, we use a range of well-established forecast techniques, which we employ at scale using machine learning

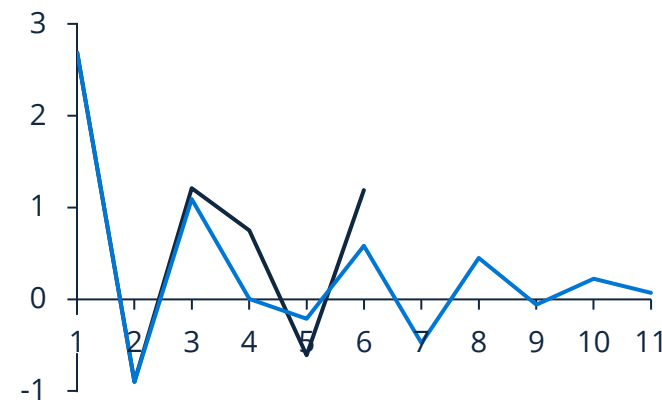
Data forecasting

Exponential trend smoothing (ETS)



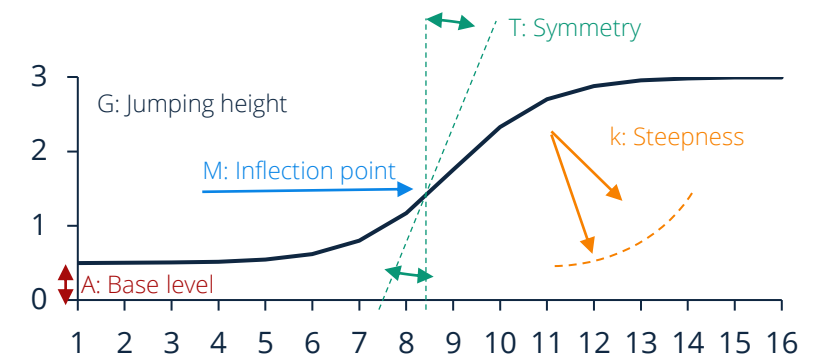
- Forecast trend is explained as the weighted average of past observations
- Trend component can be linear or damped
- Seasonal components can be incorporated

ARIMA⁽¹⁾



- Class of models is based on the concept that future values are a linear combination of past values of the same time series
- Combination of linear regression, moving average, and differencing
- Can incorporate seasonality

S-Curve



- Forecast is dependent on assumptions about potential market size and adoption rate over time
- Especially used for technological innovations⁽²⁾
- Typical growth phases are driven in stages by specific users, e.g., innovators, early adopters

CHAPTER 7

Market shares



Market shares offer a comprehensive view of the competitive landscape

Market shares methodology (1/2)



Definition of market share estimates

- Depending on the market, we show market shares of brands, companies, or both
- Market shares always refer to the value share of the brand or licensing company in the market as defined on the respective insight page
- Underlying revenue estimates usually include markups of intermediaries and sales taxes.

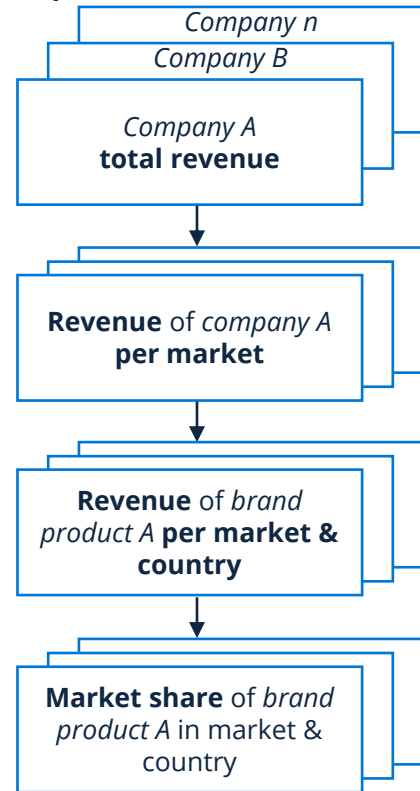
Data inputs behind market share estimates

- brand usage surveys from [Statista Consumer Insights](#) and external data providers
- company data from [Statista Company Insights](#), financial filings, earnings calls, data partners and additional desk research
- revenue-relevant key performance indicators (e.g., users, downloads, search volume, social media interactions) from own research and external data providers
- brand presence and pricing from shop inventory analysis

The variety of approaches used to model market shares can be grouped into two main variants: top-down or bottom-up

Market shares methodology (2/2)

Top-down



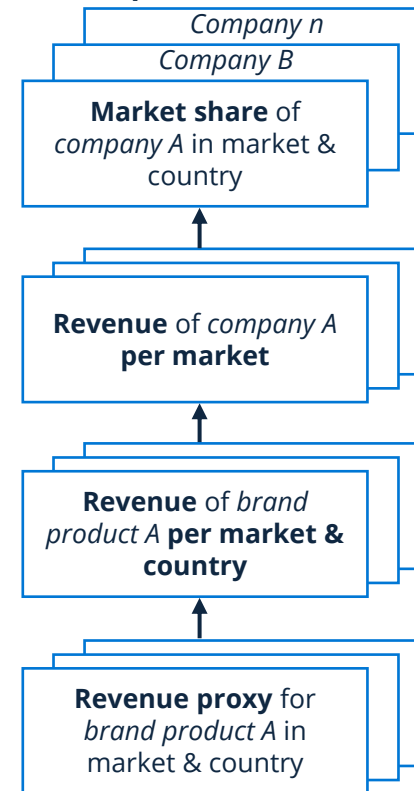
Data collection: company data is collected from financial filings of companies, earnings calls, data partners, and public sources

Data mapping: countries are mapped to reporting geographic segments, and brand products to reporting business segments of licensing companies

Data modeling: market revenues are drilled down using general socio-economic indicators, own and external user surveys about brand usage, as well as proxy kpis such as app downloads, search interest, or product store presence

Data aggregation & adjustment: missing brands and long tail are imputed, and shares are aligned with market size

Bottom-up



Data aggregation: modelled brand revenues are aggregated by licensing company and market

Data mapping & adjustment: brand products are mapped to licensing companies based on desk research; modelled values are adjusted not to over- or undershoot company revenues

Data modeling: market-specific business models are used to estimate revenues at brand product level, missing brands and long tail are imputed, and shares are aligned with market size

Data collection: revenue-relevant kpis and proxy kpis (users, downloads, search interest, store availability etc.) are collected from own and secondary sources

CHAPTER 8

Frequently Asked Questions (FAQs)



FAQs: General questions about the Market Insights

Frequently asked questions (1/12)

What is the difference between a top-down and a bottom-up model? And how do I know which approach has been used for a particular market?

Market sizes are determined using a bottom-up or a top-down approach or a combination of the two. A top-down approach starts with the overall market, which is then broken down into smaller parts (e.g., the Food market is divided into the Meat, Fish & Seafood, and Vegetables markets, among others). A bottom-up approach, meanwhile, starts with individual submarkets (e.g., Home Entertainment and Energy Management, which are part of the Smart Home market), which are then aggregated to arrive at a total market size. More details and information on the individual modeling approaches can be found in the methodology box on the content page of the respective market.

The data in the downloadable files and/or in the report differs from the data shown on the platform. Which is correct?

The data on the platform is always updated first. In the reports and in downloadable files, the new data might be available a little later due to limited IT capacity and time lags.

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

We do not offer our working files for download.

Whom do I contact in case of feedback or questions regarding the content of the Market Insights?

For all content support requests, please contact our customer support. The request will be immediately forwarded to the responsible market analyst, who can give you relevant feedback.

Has the monetary data been adjusted for inflation?

The forecasts in the Statista Market Insights data are presented in current, or nominal, prices, which means it is not adjusted for inflation (unless explicitly stated otherwise).

What currency rates were used to convert the values in local currency into US\$?

The Statista Market Insights data is computed with the current currency rate in the respective year.

FAQs: General questions about the Market Insights

Frequently asked questions (2/12)

How often do you update the information?

We update the data in our Market Insights at least 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.

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.

Is data on different years comparable?

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

What macroeconomic data was used to model the forecast?

You can find the key market indicators used for forecasting at the bottom of the market page.

How can the differences with competitor data (shown in the Comparable Estimates box) be explained?

Market sizes depend strongly on the scope of the market, e.g., which products and services are included or excluded or whether B2G spending is considered. As a consequence, the numbers of our competitors may vary. In the Comparable Estimates box, we display our data next to competitor data. The info button on the right shows the differences in market scopes.

FAQs: Consumer Markets

Frequently asked questions (3/12)

How is luxury/prestige defined? What brands do you define as luxury ones?

The data in the Luxury market is based on an analysis of a vast amount of financial data of the key companies in that industry. We look at the financial filings of companies that sell personal luxury goods; therefore, we do not have any particular information on price-points but define luxury by brand. An overview of the modeling structure and the companies and brands included can be found in our methodology document.

How is “price per unit” calculated?

The average prices are calculated differently depending on the market. This is because different factors are considered for each market. In the food and beverage markets, for example, at-home and out-of-home consumption play a major role. The price per unit always refers to the specified unit of volume sales. If the volume sales are specified in kilograms, for example, then the price per unit is the price per kilogram. The average price per unit on the platform is calculated, among other things, by dividing the revenue by volume sales. It should be noted, however, that other factors also play a role.

How is the split between at-home and out-of-home markets calculated?

The at-home market, also called the off-trade market, covers all retail sales via super- and hypermarkets, convenience stores, or similar sales channels. The out-of-home market, also called the on-trade market, the away-from-home market, or HORECA, encompasses all sales to hotels, restaurants, catering businesses, cafés, bars, and similar hospitality service establishments. Both the at-home and the out-of-home market are valued at retail selling prices, including all sales and consumption taxes.

Which part of the data has been forecasted, i.e., in which year does the forecast begin?

Typically, the forecast starts in the current year because input data is either only partially available for the current year or only available for the previous year (unless it has been forecasted itself). As the underlying sources differ from market to market, the starting point of the relevant forecast may also be somewhat different.

FAQs: Digital Markets

Frequently asked questions (4/12)

What sources are used for the App market, and how are different kinds of apps assigned to their respective market?

The App market comprises the sale of software applications that can be downloaded, installed, and run on mobile devices. More specifically, it refers to apps that can be downloaded from Apple, Inc.'s App Store and the Google Play store (or, in the case of China, from stores such as Huawei AppGallery and Tencent Appstore). We track 20 non-game categories and 15 game categories that are found in both Apple Inc.'s App Store and the Google Play store. We also consider revenue from in-app purchases (IAP) that comes from the purchase of features, upgrades, and subscriptions within an app, paid app revenue from the one-time purchase of an app, and advertising revenue obtained from showing ads within an app. We use several data sources and data partners for our app information, supplementing their data (which usually does not cover all apps in a country) using an algorithmic process that accounts for any apps that they may have missed because of the fast-changing nature of this industry.

Why do the total user numbers in the Digital Media – Video-on-Demand market not match the aggregated market user numbers?

The total number of users in a market such as the Video-on-Demand market is not merely the sum of all the markets that are included in our definition, i.e., the Video Streaming (SVoD), Pay-per-View (TVoD), Video Downloads (EST), and Advertising Video-on-Demand (AVoD) markets. Since consumers can be users of all these markets, they are counted only once. We calculate the total Video-on-Demand users using an aggregation share for each of these markets.

FAQs: Digital Markets

Frequently asked questions (5/12)

Why is the eCommerce market bigger than the corresponding market in the Market Insights' Consumer topic?

The online revenues of the markets that are part of the Consumer topic in our Market Insights do not entirely match those of the corresponding eCommerce market due to different scopes. In the eCommerce markets, we cover a broader range of products than in the markets of our Consumer topic, and this results in a higher market size of the former (total retail). These products can be found in the "Other" category in each eCommerce market.

What does the online/offline split in the eCommerce market represent?

The online/offline split in the Sales Channels box shows the share of online retail versus offline retail. The total of 100% corresponds to the market size of the relevant market in the Market Insights, which covers both online and offline sales. The online share, meanwhile, represents the corresponding eCommerce market. The remaining share refers solely to offline sales.

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) within the last 12 months. Additionally, the users in the markets eHealth and Digital Fitness & Well-Being Apps are split into paying and non-paying users.

FAQs: Financial Markets

Frequently asked questions (6/12)

Is the interbank market included in the data of the Retail & Commercial Banking market?

The Retail & Commercial Banking market in the Market Insights provides data about the topics of traditional banking and neobanking, including the B2C & B2B business. The interbank market and government banking are out of scope.

What financial services are included in the revenue numbers in the Financial Advisory market?

The financial services taken into account are full-service products offered by financial institutions that relate to insurance, investing, lending, and trading.

How is the difference between company and advisory revenue in the Financial Advisory market?

Company revenue is the revenue the company generates through its commission income, which is a percentage fee that's charged for their financial services offering. Whereas advisor revenue is the revenue generated through a company's commission expense, this expense is what the company pays out to their advisors in terms of an advisory fee for providing their consulting services.

What does the value of real estate mean?

The value of real estate refers to the accumulated worth of all real estate in a region, country, or territory. This would be the estimated price of all real estate if they were all for sale.

What does the net interest income in the Retail & Commercial Banking market entail?

Net interest income is a key financial metric used by banks to measure the profitability of their lending activities. In the Market insights Retail & Commercial Banking market the net interest income represents the difference between the interest earned by banks on its loans, and the interest paid to depositors on their deposits for each country or region.

FAQs: Global Indicators

Frequently asked questions (7/12)

What data was used to model the forecast?

The Global Indicators market is based entirely on the Key Market Indicators. 128 selected data points from the Key Market Indicators, covering 152 countries, are used to construct the Global Indicators. Further details on data sourcing, modeling, and processing can be found in Chapter 6 ('Key Market Indicators') of this document.

How often is the data updated?

Global Indicators are updated twice a year: in June and December, or whenever major changes occur.

What is the difference between real GDP and GDP in current US dollars?

Real GDP uses a constant price level, i.e., it adjusts GDP for inflation. It shows the "real" volume of the economy. GDP in current US dollars converts local currencies into US dollars to ensure comparability but does not take inflation into account.

Are values in the Global Indicators Markets based on current or constant values?

Global Indicators' market values are based on current values.

How are the various indicators in the product sourced and verified for accuracy?

Global Indicators are sourced from a wide range of reputable and authoritative data providers, including international organizations, statistical agencies, research institutions, and official government sources. A rigorous quality control process such as outlier handling (based on z-score), change point analysis and other qualitative and quantitative methods are followed to verify the accuracy, reliability, and consistency of the data before it is included in our product. Data sources are regularly updated to ensure that our customers have the most up-to-date and reliable information available.

FAQs: Health Markets

Frequently asked questions (8/12)

Why are some countries not shown in the Cannabis market?

We show all the countries where these products were legalized. The geographical scope varies depending on the exact cannabis product as not all types of cannabis are legalized in each country. For example, in Germany, the medical and therapeutic use of cannabis is legal, whereas recreational use is not legal.

What kind of products are included in the Other Pharmaceuticals market?

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

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 difference between the Pharmaceuticals market and the OTC Pharmaceuticals market?

The Pharmaceuticals market comprises prescription drugs and all OTC drugs covered in the OTC Pharmaceuticals market. However, in the OTC Pharmaceuticals market, revenues are based on end-consumer prices.

Which vaccines are included in the COVID-19 Vaccines market?

This market covers data for the vaccines by Pfizer/BionTech, Moderna, Johnson & Johnson, AstraZeneca.

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) within the last 12 months. Additionally, the users in the markets eHealth and Digital Fitness & Well-Being Apps are split into paying and non-paying users.

FAQs: Industrial Markets

Frequently asked questions (9/12)

What does Gross Production Value refer to in Agricultural market terms?

The Gross Production Value in the Agricultural market is calculated by multiplying the physical quantity of gross production by the output prices at the farm gate level. It represents the monetary value of production at this level. Since intermediate uses within the agricultural sector, such as seed and feed, have not been deducted from the production data, this production value is referred to as "gross production."

How specific are the indicators that you use to generate individual industries, e.g., in the case of food types?

Our forecasts are based on a wide range of official statistics and secondary data sources, including national and international governmental institutions, trade associations, and the trade press. Core sources are statistics on agricultural and industrial production and on international trade as well as household budget surveys that track the consumption of representative samples of a population over a certain period of time.

Are values in the Agricultural & Manufacturing Markets based on current or constant values?

Values in the Agricultural & Manufacturing markets are based on current values.

Why are there zero values for some years in the nuclear energy market?

This could indicate that the country either plans to phase out its nuclear sector or has not yet begun using it.

FAQs: Mobility Markets

Frequently asked questions (10/12)

How is the online/offline share of the Shared Mobility and Travel & Tourism markets calculated?

We use the Statista Consumer Insights as a base for calculating the share of online and offline bookings for both the Shared Mobility and Travel & Tourism markets since the survey contains separate questions about online as well as general (incl. both online and offline) product purchases.

Can the Shared Mobility market revenue be broken down by key market players?

To ensure a comprehensive understanding of our markets, we model independently from company-specific data, instead relying on overall booking data in the respective market (flights, busses, trains, public transportation, car rentals, car-sharing, bike-sharing, E-scooter-sharing, bike-sharing, moped-sharing). Rest assured that our revenue data does include data from key players in the market.

What does the electric vehicles market include?

The electric vehicle market offers data on electric vehicle sales, prices, and revenues for each country. We also provide data on each country's public charging market revenues, revenue per public charging station and public charging revenue per electric vehicle. Additionally, we provide information on key market players and their revenues, and market shares in covered countries. Our coverage currently includes battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs). As the electric vehicle market evolves, we remain committed to increasing our coverage to include emerging technologies that meet the needs of sustainability and eco-friendly transportation; we are optimistic about the potential for new technologies to emerge and shape the market.

Are the markets broken down by brands/companies?

The Passenger Cars market is broken down by car makes, and we have market shares for some markets. For an idea on user shares, you can refer to the [Statista Consumer Insights](#) for all markets of the Statista Market Insights.

FAQs: Mobility Markets

Frequently asked questions (11/12)

What is the methodology for the electric vehicles market and the electric vehicles (charging) infrastructure?

Since the electric vehicles market is an emerging sector, our forecasts are based on two factors;

1. Current policies announced by countries' governments and unions around the world, we assume that these policies will be met in full and on time.
2. Historical figures while taking the economic situation of each country into consideration because pledges made by countries' governments and unions only partially reflect consumer behavior, in this case, the consumer purchase of electric vehicles.

For the electric vehicles charging stations, we include a variety of factors that finally determine the revenue. Among those are the following factors:

- The annual travel distance of vehicles
- The charging cost
- The share of charging at public charging stations vs. at-home charging

- The efficiency of electric vehicles
- The electric vehicle fleet

Dividing this revenue by the number of charging stations gives us the revenue per unit.

What is the methodology for the electric vehicles market and the electric vehicles (charging) infrastructure?

Since the electric vehicles market is an emerging sector, our forecasts are based on two factors;

1. Current policies announced by countries' governments and unions around the world, we assume that these policies will be met in full and on time.
2. Historical figures while taking the economic situation of each country into consideration because pledges made by countries' governments and unions only partially reflect consumer behavior, in this case, the consumer purchase of electric vehicles. For the electric vehicles charging stations, we include a variety of factors that finally determine the revenue, such as the annual travel distance of the vehicles, the charging costs, and the share of charging in public vs. home.

FAQ: Technology Markets

Frequently asked questions (12/12)

Why is the Software market revenue more in the United States than that in China although there are higher number of users in China?

The Software market Revenue in China is comparatively lower than that of United States in spite of higher number of users mainly because of the following two reasons :

1. The very high Software piracy rate in China compared to that of the United States. This can be observed in the Key market indicators presented on the market page on the platform.
2. The Software market in China is dominated by domestic players with pricing models different than that of the many international players.

Do the technology markets include B2B, B2C, and B2G figures?

In general, all technology markets include B2B (business-to-business), B2C (business-to-consumer), and B2G (business-to-government) spending. More details and information on the individual modeling approaches and potential exceptions can be found in the methodology box on the content page of the respective market.

How was the estimated cost of cybercrime built?

Regarding the estimated cost of cybercrime, the figures up to 2022 are called “estimated” data and the statistics for 2023-2028 are called “forecasted” data.

We had to make some assumptions as companies do not officially state this information in their financial filings. For this purpose, we reviewed, among others, third-party studies, such as APWG, FBI, and national cyber security organizations (German Cyber Security Council, Canadian Centre for Cyber Security, etc.), that used information from reported cyber-attacks during years. Furthermore, the growth of global GDP and internet penetration is also a part of the increasing trend of cyber attacks.

Then, to do the forecast, we combine economic developments and trend scouting with statistical and mathematical forecasting techniques to create forecasts for up to five years.

Get in touch with us – we are happy to help



Vayola Jocelyn

United States

+1 212 419-8219

support@statista.com



Carolina Dulin

Latin America

+1 212 419-5774

support@statista.com



Lodovica Biagi

Europe

+44 208 189 7000

eu.support@statista.com



Jens Weitemeyer

Germany

+49 40 28 48 41 0

kundenservice@statista.com



Yolanda Mega

Asia

+65 6995 6959

asia.support@statista.com