Freedonia Focus Reports
Global Collection

Global
Macroeconomy

May 2021

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About This Report

Scope

This report forecasts to 2021 and 2025 global population and the following global macroeconomic indicators in real (inflation-adjusted) US dollars:

- gross domestic product (GDP)
- per capita GDP
- personal consumption expenditures (PCE)
- manufacturing value added (MVA)
- construction expenditures

Forecasts for population and each macroeconomic indicator are also provided by region in terms of:

- North America
- Western Europe
- Asia/Pacific
- other regions, spanning Central and South America, Eastern Europe, and Africa/Mideast

In addition, for the three main regions, each macroeconomic indicator is forecast for the countries with the largest economies within that region.

To illustrate historical trends, world, region, and major country indicators are provided for 2010, 2015, and 2020.

All estimates of gross domestic product and components of GDP are made in terms of constant purchasing power parity in a benchmark year (2019) that is one year before the base year (2020) used in this report. Purchasing power parity GDP estimates for the benchmark year are obtained from the OECD, Eurostat, the World Bank, the International Monetary Fund, the US Central Intelligence Agency, and selected other sources. These purchasing power parity GDP estimates for the benchmark year are based on gross domestic product data expressed in the individual countries' local currency, which are then converted to US dollars by valuing each country's output at US prices in the benchmark year. This approach values the same physical output at a consistent price for all countries, thereby reducing the distorting influence of different price levels in the different countries. The alternative approach of using exchange rates to convert local currency GDP to US dollars would tend to overvalue the output of countries with high average price levels and undervalue the output of countries with low average price levels, because exchange rate conversions only partially reflect the relative prices for goods and services that are domestically consumed and invested. Furthermore, factors other than relative prices – such

as demand and supply in currency markets, interest rates, and capital flows – affect exchange rates.

Once the GDP values for a country are estimated for the benchmark year, we then calculate inflation-adjusted GDP for all other years for that country based on historical and forecast growth rates of GDP expressed in inflation-adjusted units of that country's local currency. This approach ensures that the GDP series for any given country is an accurate index of changes in inflation-adjusted GDP for that country. However, it also implicitly assumes that the price structures across countries do not change from those of the benchmark year. Therefore, caution should be used in comparing the relative GDP of countries in years other than the benchmark year. If the ratio of prices across two countries in a given year differs from the ratio of prices across those countries in the benchmark year, then the change in the relative sizes of those two economies as measured will not accurately reflect changes in output.

The benchmark year is chosen to be one year prior to the base year for the report for reasons of data availability. One benefit of that choice is that the ratio of prices across countries in the base year is usually similar to that in the benchmark year. Therefore, the ratio of real GDP between two countries in the base year of 2020 is generally a reasonably accurate representation of the relative sizes of their economies.

A full outline of report items by page is available in the Table of Contents.

Sources

Global Macroeconomy (FW95051) represents the synthesis and analysis of data from various secondary, macroeconomic, and demographic sources, such as:

- firms, and their suppliers and customers
- government/public agencies
- intergovernmental and non-governmental organizations
- trade associations and their publications
- the business and trade press
- indicator forecasts by The Freedonia Group
- the findings of other reports and studies by The Freedonia Group

Specific sources and additional resources are listed in the Resources section of this publication for reference and to facilitate further research.

Freedonia Methodology

The Freedonia Group, a subsidiary of MarketResearch.com, has been in business for more than 30 years and in that time has developed a comprehensive approach to data analysis

that takes into account the variety of industries covered and the evolving needs of our customers.

Every industry presents different challenges in market sizing and forecasting, and this requires flexibility in methodology and approach. Freedonia methodology integrates a variety of quantitative and qualitative techniques to present the best overall picture of a market's current position as well as its future outlook: When published data are available, we make sure they are correct and representative of reality. We understand that published data often have flaws either in scope or quality, and adjustments are made accordingly. Where no data are available, we use various methodologies to develop market sizing (both top-down and bottom-up) and then triangulate those results to come up with the most accurate data series possible. Regardless of approach, we also talk to industry participants to verify both historical perspective and future growth opportunities.

Methods used in the preparation of Freedonia market research include, but are not limited to, the following activities: comprehensive data mining and evaluation, primary research, consensus forecasting and analysis, ratio analysis using key indicators, regression analysis, end use growth indices and intensity factors, purchase power parity adjustments for global data, consumer and end user surveys, market share and corporate sales analysis, product lifespan analysis, product or market life cycle analysis, graphical data modeling, long-term historical trend analysis, bottom-up and top-down demand modeling, and comparative market size ranking.

Freedonia quantifies trends in various measures of growth and volatility. Growth (or decline) expressed as an average annual growth rate (AAGR) is the least squares growth rate, which takes into account all available datapoints over a period. The volatility of datapoints around a least squares growth trend over time is expressed via the coefficient of determination, or r^2. The most stable data series relative to the trend carries an r^2 value of 1.0; the most volatile – 0.0. Growth calculated as a compound annual growth rate (CAGR) employs, by definition, only the first and last datapoints over a period. The CAGR is used to describe forecast growth, defined as the expected trend beginning in the base year and ending in the forecast year. Readers are encouraged to consider historical volatility when assessing particular annual values along the forecast trend, including in the forecast year.

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Freedonia Custom Research

Agencies & Associations

Eurostat
International Monetary Fund (IMF)
Organisation for Economic Co-operation and Development (OECD)
United Nations
United States Bureau of Economic Analysis
United States Census Bureau
United States Central Intelligence Agency
World Bank