Bloomberg Market Concepts - Module 1

James Evans

05/06/2025

Economic Indicators: The Primacy of GDP

Economic Indicators Introduction

The customary way to measure the size and performance of any economy is through gross domestic product, or GDP. GDP serves as the foundational backdrop for all investing decisions. Investors analyze economic performance through the lens of economic indicators, with GDP playing a central role in their assessments. This module focuses on three primary topics: the importance of GDP to investors, how investors observe and interpret GDP growth, and the methods investors use to forecast GDP. By exploring these topics, learners will gain a deeper understanding of how macroeconomic data influences financial decision-making. In the process, the module explains how investors utilize economic indicators to assess the overall health of the economy. Learners will be able to articulate the qualities that define strong economic indicators and will be introduced to five of the most important indicators used in the U.S. economy. Additionally, the module examines the schedule and methodology by which economic indicators are released and analyzed. It also explores how these indicators can be leveraged to detect inflection points—critical moments that signal changes in the direction of economic trends.

The Origins of GDP

In the year 2000, the U.S. Commerce Department referred to gross domestic product (GDP) as "one of the great inventions of the 20th century." GDP is widely recognized as the primary measure of economic activity. For investors, tracking the growth of GDP offers a foundational lens for analyzing financial markets. To explore world GDP trends, users can type `"world GDP"` into the command line of the Bloomberg Terminal. After selecting the appropriate dataset from the dropdown menu, the data can be visualized using the GP graphing function, allowing for a display of 56 years of recent global GDP data. During the selected time span, world GDP increased at a compounded annual rate of 8%, expanding from $2 trillion to $85 trillion. This sustained economic growth supported rising revenues across a wide range of industries and fueled expansion in both financial markets and the finance industry itself.

Throughout this module, we will demonstrate how investors assess the health of an economy by examining various economic indicators. This concept is most effectively illustrated through the lens of a large, developed economy with a well-established set of indicators. Historically, the United States surpassed the United Kingdom to become the world's largest economy in 1872. Since then, it has retained this position on an absolute dollar basis for more than 140 years. Consequently, this module will use the U.S. economy as a case study to explore how economic indicators are used to evaluate overall economic conditions.

The primary unit for analyzing economic statistics is the nation-state. During the "Roaring '20s"—a period famously associated with The Great Gatsby—America experienced significant policy failures. These contributed to the onset of the Great Depression in the 1930s. Additionally, the events of the Second World War emphasized the necessity of accurate and comprehensive economic data. Such data was essential to support wartime efforts by enabling a clear understanding of manufacturing capacity and resource limitations.

GDP calculation remains a dynamic and evolving process. For instance, in 1987, Italy made a notable change by including the black market in its GDP calculation, which caused a sudden 17% increase in GDP overnight. Similarly, in April 2014, Nigerian President Goodluck Jonathan announced an 89% upward revision in Nigeria's GDP. This adjustment followed a grassroots measurement effort that accounted for rapidly growing sectors such as Nollywood. In 2013, the United States refined its GDP reporting further by isolating tech sector spending, highlighting the increasing recognition of technology as a core component of economic activity.

Economic Statistics

The world's largest economies are awash with economic statistics. These statistics span a wide range of topics and are essential for investors seeking to understand economic performance. For example, there are detailed datasets available on Brazil's inflation or Chinese industrial output. Regardless of an investor's specific focus, there is a broad array of economic indicators that can inform investment decisions. The instruments used to measure economic performance often mirror the priorities and history of each country. For instance, Brazil has an unusually large number of inflation reports, which stem from its history of high inflation. This historical context helps explain the depth and detail of such data in certain countries.

Personal consumption accounts for over two-thirds of the U.S. GDP. As a result, analyzing trends in consumer spending and broader macroeconomic influences is essential for investors. Understanding these patterns helps inform investment decisions and predict market movements. When analyzing a security with significant exposure to a specific country, incorporating that country's economic data into the investment process can provide valuable insights. For instance, a confectionery company selling chocolate is likely to experience increased sales if the target economy is expanding, as larger household budgets can drive greater consumption.

Essential Economic Indicators

There are a few dozen core economic indicators that have stood the test of time and continue to capture Wall Street's full attention. These indicators are essential tools used to assess the health and trajectory of the economy. Among the most important of these indicators are the following five: economic growth, inflation, unemployment, business confidence, and housing. Each plays a crucial role in shaping investment decisions and market expectations.

Economic Growth

To begin with the growth indicator, we must first define gross domestic product (GDP). GDP is the market value of all final goods and services produced within a country. It serves as the broadest and most comprehensive barometer of economic activity. Anyone who has taken a basic economics course will likely be familiar with the standard formula: GDP $= C + I + G + (X - M)$, where C represents personal consumption (such as spending on food), I denotes private investment (like the construction of a factory), G is government spending (for example, expenditures on military equipment like battleships), X stands for exports, and M signifies imports. The expression $X - M$ therefore captures net exports. It is important to note that the relative contributions of these components to GDP can vary significantly from one country to another.

To begin understanding the growth indicator, we define gross domestic product (GDP) as the market value of all final goods and services produced within a country. It is the broadest and most comprehensive barometer of economic activity, and anyone who has taken a basic economics course will be familiar with the standard formula:

$$\text{GDP} = C + I + G + (X - M)$$

In this formula, C represents personal consumption—such as spending on food—and I represents private investment, like building a factory. G stands for government spending, such as expenditures on battleships. X denotes exports, while M stands for imports. The difference between X and M, i.e., $X - M$, represents net exports. The proportions of GDP attributed to each of these components can vary significantly between

countries.

One of the first things any investor wants to understand when examining an economy is the percentage change in GDP from one year to the next. For example, the U.S. economy appears to have grown at an average annual rate of 6.4% since 1946. However, there is a caveat to this figure. This growth rate is based on the nominal GDP, which refers to the raw dollar amount without adjusting for inflation. Since inflation tends to be positive over time, nominal GDP growth figures can be misleading. To gain a more accurate picture of economic performance, investors must focus on the real GDP, which reflects the underlying trend by removing the effects of inflation. This adjustment allows for a clearer understanding of true economic growth.

When comparing nominal GDP growth with real GDP growth on a chart, one will observe that nominal growth (often represented as a white line) is typically greater than real growth (often shown as a yellow line). This consistent difference is attributed to inflation. Investors must be cautious of the so-called "money illusion." Nominal GDP growth reflects both increases in production and increases in the prices of goods and services. In contrast, real GDP growth isolates the changes in production alone, making it a more informative metric for evaluating economic performance. A notable historical example comes from the UK economy in 1975. Investors may have initially been impressed by a 24% growth rate. However, once it was revealed that inflation was also running at 24%, it became clear that the real growth rate was effectively zero.

Now that inflation has been removed, we can observe the real GDP growth for the U.S. economy dating back to 1948. A flat line in such a chart signifies the boundary between economic growth and recession. A recession is technically defined as two consecutive quarters of negative real GDP growth. This highlights the cyclical nature of the economy. The chart also highlights, in red, the various recessions that have occurred since World War II, including the pandemic-induced recession of 2020. These downturns have significant implications not just for economists, but also for consumers, business leaders, investors, and policymakers.

Inflation

Number two, inflation. Inflation is not only used as a means to unveil the real growth in the economy, but it is also an economic indicator in its own right. It serves both as an adjustment mechanism for real GDP and a signal of broader economic trends. As will be explored further, fixed income investors monitor inflation very closely, as it erodes the value of bonds. Because of its impact on purchasing power and interest rates, inflation has a direct bearing on investment decisions.

What is inflation? Inflation refers to the general increase in the prices of goods and services, which results in the diminished purchasing power of money. Essentially, as prices rise, each unit of currency buys fewer goods and services. In other words, inflation means that a unit of money tomorrow will buy less than what it can buy today. This erosion of value over time contributes directly to the rising cost of living. You have inflation to thank for the increased expenses associated with maintaining the same standard of living.

In the United States, there are two primary sources of inflation data. The first is the monthly Personal Consumption Expenditures (PCE) report. This report measures price changes in consumer goods and services and provides insight into how consumers are allocating their income. It is a critical data point that is closely monitored by the Federal Reserve. The second source is the monthly Consumer Price Index (CPI), which is based on the pricing of a representative basket of goods and services. This basket typically includes items such as food, housing, and automobiles. For the CPI to be an effective indicator of inflation, it must accurately reflect the spending habits of consumers in that particular country.

When thinking about inflation, it's important to keep in mind that times, tastes, and technologies all change. What constituted a representative basket of goods and services in the past may no longer serve as an accurate reflection of current consumer behavior. For instance, during the Covid-19 era, patterns in consumer spending shifted significantly compared to previous years, highlighting the importance of regularly updating economic measures to reflect evolving realities.

Unemployment

Unemployment is the third major economic indicator. Consumers make up more than two-thirds of the U.S. economy, and this consumer spending is largely driven by salaries. When more individuals lose their jobs than gain employment, the economy tends to contract. This contraction occurs because unemployed workers reduce their spending while seeking new jobs. For this reason, investors pay close attention to unemployment statistics. Rising unemployment typically suppresses GDP growth and signals economic instability. Unemployment is also a politically sensitive metric. A rising unemployment rate can prompt political backlash, as people without jobs are more inclined to vote incumbent government leaders out of office.

To demonstrate the effect of unemployment on the economy, one can begin by using the Bloomberg Terminal. Typing "US real GDP growth" into the command line retrieves the year-over-year growth data via the GDP CYOY Index. After that, selecting the "GP" graphing function enables users to generate a visual representation of the data, ideally with the date range extended over multiple decades for broader insight. To show the positive correlation between GDP and employment, users can add a line for Nonfarm Payrolls using the chart content button. This is the most critical employment indicator in the U.S. and reflects the monthly changes in the number of employed individuals, excluding seasonal agricultural workers. Additionally, overlaying red bars on the graph helps visualize periods of recession in the U.S. economy since World War II. From this visualization, the relationship between GDP and employment becomes evident—economic contraction typically coincides with declines in employment.

Business Confidence

Business confidence is the fourth key economic indicator. Although the U.S. is predominantly a consumer-driven economy, the decisions made by individual business leaders tend to carry significantly more weight than those made by individual consumers. Business leaders generally undertake large investments and expand hiring when they are confident that future demand for their goods and services will increase. This forward-looking behavior plays a vital role in driving economic activity and shaping the business cycle.

The Institute for Supply Management (ISM), an Arizona-based association, produces the most widely followed index of U.S. manufacturing activity, known as the Purchasing Managers' Index (PMI). Since the 1940s, ISM has consistently surveyed procurement professionals responsible for buying goods and services for corporations to gauge business conditions. The PMI serves as a straightforward economic gauge: a reading above 50 indicates optimism in the manufacturing sector, while a reading below 50 signals pessimism.

Not only is the Purchasing Managers' Index (PMI) simple to interpret, but it also serves as a reliable leading indicator of GDP growth. To illustrate this, one can type "PMI indicator" into the command line and select "ISM Manufacturing PMI," then use the "GP" function to generate a chart. Overlaying GDP growth on this chart reveals a historically strong relationship between the two measures. In most of the recession periods presented, the PMI index showed a decline shortly before a corresponding drop in GDP, highlighting its predictive value.

Housing

Housing, though accounting for only about 3% of the U.S. economy, is considered a strong economic indicator due to its broader economic implications. The main metric for residential housing construction is housing starts. Before home-builders commit to projects, they must be confident that consumers feel secure enough to undertake a 30-year mortgage. Moreover, once a new home is purchased, the spending continues as new homeowners typically invest in a variety of goods and services—such as paint, kitchens, landscaping, appliances, and furniture. As a result, the actual economic footprint of residential construction is significantly larger than the initial 3% figure suggests, making housing starts a valuable indicator of economic confidence and growth.

We observe that when housing starts are plotted against real GDP growth, a relationship emerges, reinforcing the significance of this measure. All five measures discussed—economic growth, inflation, unemployment,

business confidence, and housing—serve as strong indicators of the overall health of the economy.

Economic Indicators: Monitoring GDP

How to Guess GDP

As noted in the previous section, real GDP growth serves as the most definitive and authoritative barometer of the overall economy. It is calculated with great care, integrating data from hundreds of sources such as tax returns, censuses, and surveys. Notably, once a quarter ends, it typically takes an additional month to release a preliminary GDP calculation. For traders and portfolio managers who have substantial financial stakes in the health of the economy, the GDP report may ironically offer limited usefulness. This is because it is not released frequently or quickly enough. As discussed earlier, more frequent and timely indicators often serve as reliable proxies, given their correlation with real GDP growth. Therefore, investors often track the economy indirectly. The next step is to demonstrate how investors make informed projections about GDP growth throughout a quarter, using a particularly compelling example.

Timeline of Economic Releases

Imagine it's Wednesday, the 1st of January, 2014. We are investors with a lot at stake and are eager to learn how the U.S. economy is performing over the first quarter.

The first thing we'll do is take a look at the World Economic Calendar, or WECO, and click on the United States to see a chronological list of economic indicators to be released after January 1st.

The first inkling that we have on how the U.S. is doing comes from the PMI business confidence indicator. As this is published on the first business day of the following month, January's number will be published on Monday, February 3rd. This will tell us about U.S. business confidence in January 2014. The "Actual" is the published economic indicator value. The column to the left of that, called the "Survey", is a median estimate from analysts of what the value of the economic indicator will be upon release. If an actual exceeds the estimate, it is a pleasant surprise. And if it falls short of the estimate, it is an unpleasant surprise. In this instance, the published PMI is 51.3 versus the median expectation of 56. Therefore, it is a negative surprise.

The Change in Nonfarm Payrolls is also reported monthly. As this is published on the first Friday of the following month, January's number will be released on Friday, February 7. It, too, is another negative surprise!

Housing starts is another monthly statistic. This figure is typically released around the middle of the following month. In this case, January's number will be released on Wednesday, February 19. It, too, is yet ANOTHER negative surprise! And, as of yet, we've seen no sign of GDP!

Finally, inflation—CPI—comes out monthly as well. As this is released around the middle of the following month, January's number will come out on Thursday, February 20. This is in line with estimates.

This process repeats itself in March for the monthly data from February, and in April for the monthly data from March. And still no sign of GDP!

Unlike the other indicators, GDP is released every quarter, a month after the end of the quarter. GDP for the first quarter of 2014 is released on Wednesday, April 30. It is yet one more negative surprise, coming in at 0.1% growth in real GDP compared to the estimate of 1.2%. Although it is a negative surprise, this really should come as **NO** surprise given what we learned from other indicators in the interim.

The Value of Economic Indicators

Given the strong correlation of other, more timely economic indicators with GDP growth, actual GDP growth has entirely lost its capacity to surprise. But it is surprises that move markets. Therefore, GDP is yesterday's news. Remember, the PMI reading on February 3 was a disappointment, as was the entire quarter. Now we can appreciate why PMI garners disproportionate attention. For this reason, PMI was former Federal Reserve Chair Alan Greenspan's "Desert Island Statistic." It was the one statistic with which he would've chosen to conduct U.S. policy if he were stranded on a desert island.

Economic Indicators: Forecasting GDP

Accessing Economic Forecasts

As we saw, indicators, particularly the more timely ones, have the capacity to move markets. Analysts therefore maintain estimates for the most important upcoming releases.

Let's highlight two further aspects of the World Economic Calendar as we discuss analyst estimates. First, the Relevance column indicates the volume of alerts that users have set up for each indicator. Therefore, the greater the investor interest, the greater the relevance. Not a bad way to see what truly matters! Note that both "ISM Manufacturing" (PMI) and "Change in Nonfarm Payrolls" (employment) are both full signal strength! Second, the Survey column contains the analyst consensus forecast for that specific indicator.

Let's take a look at that surprisingly weak PMI number from early February that we saw earlier. If we right-click on the estimated survey amount, we can see how that consensus was calculated. The ECOS Economic Estimates function shows the workings. Here we can see that the median estimate for PMI on February 3rd was 56.0. This is calculated by taking the average of the estimates—in this case—from 85 economists. The yellow diamond signifies where the actual result was upon release. Its position way off to the left shows that, as we now know, analysts were all too optimistic about the U.S. economy in January!

Economists serve two very different roles when it comes to creating estimates. First, as we saw, they maintain estimates of what they think key economic indicator values will be in the short term. Second, they form opinions on the longer-term future for the most important economic statistics. Here on the ECFC Economic Forecasts function, we can see the consensus estimates for real GDP growth, inflation, and unemployment. The distant future is inherently less knowable than the near future, and long-term forecasters have to take into account things like demographics, government policies, and technology. We began this module highlighting that changes in the economy form the bedrock of the financial markets. Therefore, long-term economic estimates are critically important as they are used as inputs to financial models.

Spotting Turning Points

Politicians and the public are obsessed with whether the economy is getting better or worse. Their jobs, after all, depend on it! Newspapers and politicians can spin anecdotes to their own ends. The plural of anecdote is data. Therefore, a material change in economic estimates from dozens of analysts often signifies that an important turning point has been reached. In this way, economic analysts at times offer a useful running verdict on how an economy is being managed. Let's discuss an example of when they did just that.

Turning Point Case Study

Using the Economic Forecasts function, let's see how U.K. growth estimates changed through the course of 2012 and 2013. We'll do this by pulling up GDP growth, charting the estimates, and seeing how they evolved, focusing on estimates for 2014. The white line represents the median of the analysts surveyed about how fast the British economy would grow in 2014. The chart begins in early 2012. Economists became pessimistic on 2014 performance, as evidenced by the dip in the white line. Then, from summer 2013 onwards, they became optimistic. This happened right around the time of the surprisingly good U.K. economic indicators

in August that we recently looked at. Positive surprises of that nature force upward revisions in estimates.

Let's explore a more recent instance of economic forecasts by analyzing the aftermath of the Brexit referendum. In June 2016, economic forecasters anticipated a significant turning point for the U.K. economy, expecting immediate negative effects following the referendum. Contrary to expectations, U.K. voters opted to leave the European Union, defying widespread belief that such a decision would damage the U.K. economy in the short term. Using the Economic Forecasts function again, we can observe how U.K. real GDP growth estimates for 2017 evolved, from the period leading up to the June 2016 referendum to the subsequent 12 months. The chart begins in early 2015, during which economists projected that the U.K. economy would grow by over 2% in 2017. However, immediately after the referendum, those estimates were sharply revised down to only 0.5%. This pessimism stemmed from the assumption that the U.K. would execute a chaotic and abrupt exit from the European Union. However, it ultimately took the U.K. nine months to formally notify the European Union of its intention to leave. Despite the "Leave" vote, consumer spending remained robust, surprising economists. Given the resilience of economic indicators up to the formal notification, analysts were compelled to revise their 2017 estimates upwards.

Using a Mosaic to Spot Turning Points

Among the wealth of economic indicators, there is, alas, no silver bullet that consistently presages a turning point. However, by using several indicators in concert, analysts can derive meaningful insights into the economy. Let us walk through an example to understand this approach more deeply.

In the Economics Surprise Monitor (ECSU), there are 40 carefully selected, meaningful leading indicators for the U.S. economy listed in the left-hand column. The second column displays the most recent date of release for each indicator, while the third column shows the actual value of the indicator upon its release. The fourth column records the percentage by which the actual value either exceeded or missed the analyst estimate. A positive surprise is shown in green, while a negative surprise is shown in red. These fourth-column data points are aggregated to create the "Bloomberg US Economic Surprise Index," which appears as the white number at the top of the monitor. Next, we will chart this aggregate "surprise" over time to examine its implications.

This chart illustrates whether the economy was outperforming or underperforming relative to expectations. The red area below the x-axis indicates that there were more unpleasant than pleasant surprises in the U.S. economy, signaling weaker-than-expected performance. Conversely, the green area above the x-axis shows that there were more pleasant than unpleasant surprises, suggesting better-than-expected economic outcomes. Additionally, the chart includes an orange line that represents the percentage change in the S&P 500 index—the main stock market index in the United States—calculated as a rolling six-month percentage change.

For much of this period, movements in the "surprise" index led the S&P 500, as can be observed. This model exhibited some predictive power. However, caution is warranted with such approaches. As the saying goes in financial markets, models like these work beautifully—until they don't.

Conclusion

To sum up, the three key takeaways from this module are as follows. First, real GDP growth serves as the primary yardstick for measuring economic health. As such, indicators that are most closely tied to real GDP growth tend to draw the most attention from investors. Second, despite its importance, GDP takes a long time to calculate. As a result, investors often focus on related statistics that are released more promptly. These earlier indicators frequently have a stronger effect on financial markets than the GDP reports themselves. Third, economic forecasts play a foundational role in many financial models. Investors must be vigilant when the economic outlook changes, as interpreting these forecasts can uncover profitable trading opportunities. Finally, when evaluating economic conditions, one should heed the wisdom of John Maynard Keynes: "When the facts change, I change my mind," since econometric models can seem flawless—until they no longer are.

borrowers and lenders.