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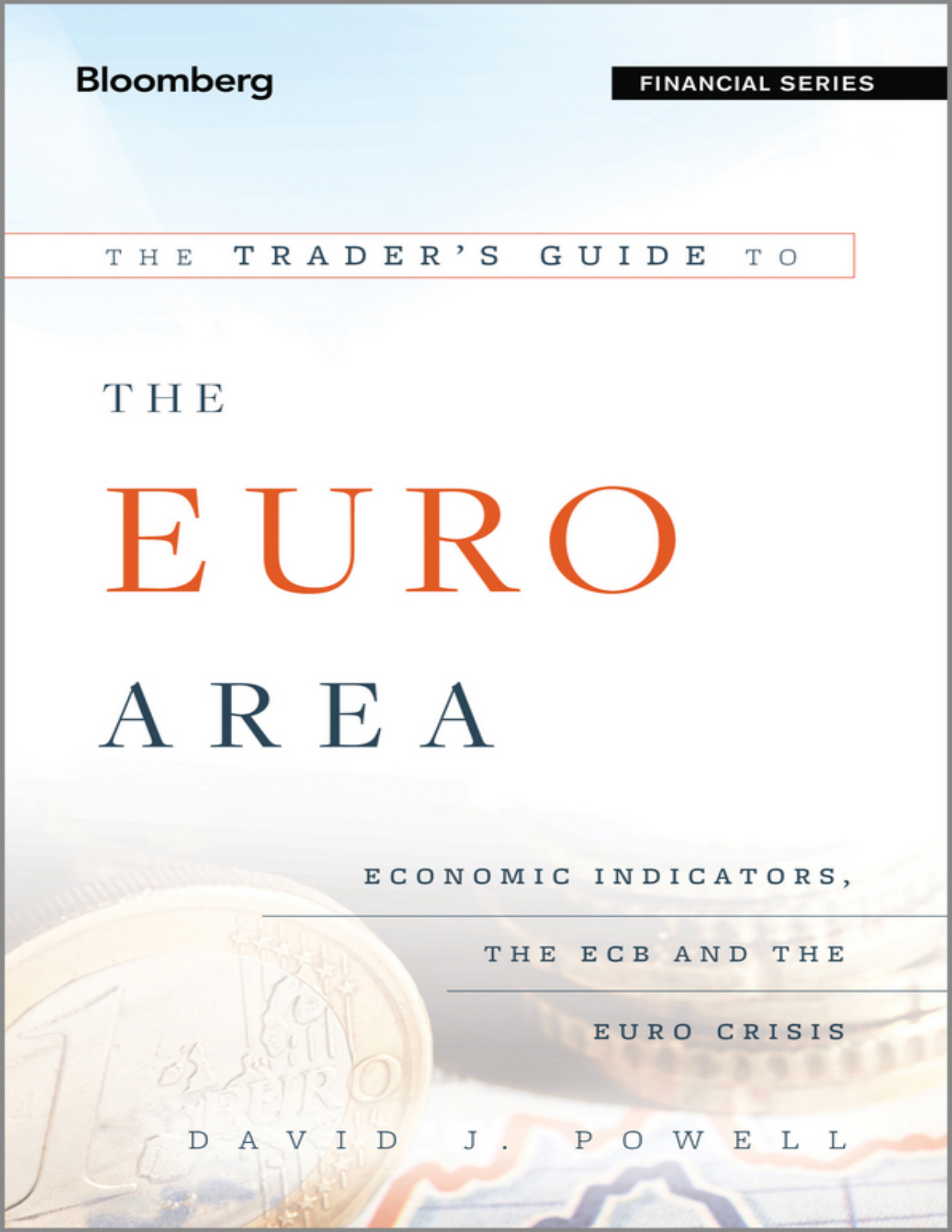
THE TRADER'S GUIDE TO

THE EURO AREA

ECONOMIC INDICATORS, THE ECB AND THE EURO CRISIS

DAVID J. POWELL



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Chapter 1

Introduction

The euro area remains in a state of flux and appears to be unsustainable in its present form. The outcome of the crisis may be unknown for years and a judgment on the project's success or failure may be out of reach for decades.

In the meantime, analysts, portfolio managers and traders will still have daily, weekly, quarterly and annual benchmarks. They will have to analyze economic developments in the euro area and their impacts on financial assets. The objective of this book is to provide a framework for that analysis that is comprehensible to most financial market participants.

The book begins with a focus on coincident and leading economic indicators for the euro area. The former furnish information on the state of the economy and the latter signal the future directions of those coincident indicators. Leading indicators, therefore, often attract the most attention in the financial markets.

Klaus Abberger and Wolfgang Nierhaus, economists at the Ifo Institute in Munich, have defined the characteristics of a good leading indicator. They have written, "The characteristic of a good indicator is that it signals turning points in economic activity in a timely and clear fashion (i.e. without false alarms). In addition the lead of the indicator should be stable so that a relatively reliable estimate can be made as to how early the signal of the indicator occurs. Finally, the results should be available in a timely manner and not subject to any major revisions after publication."[1]

Unfortunately, no indicator exists that perfectly fits that description and an analyst should therefore have a broad-based view and needs to watch a variety of indicators. That's the method of most economists. Alan Blinder, former vice chairman of the Board of Governors of the Federal Reserve System, said his approach while at the central bank was relatively simple: "Use a wide variety of models and don't ever trust any one of them too much."[2]

Mervyn King, former governor of the Bank of England, delivered a similar message: "The wealth and diversity of published labour statistics means it is rare for them all to point in the same direction. The MPC's analysis of the labour market is like the construction of a jigsaw puzzle. The pieces of data are assessed alongside each other in order to build up as clear a picture as possible. No single piece of data is interpreted in isolation. And no single piece of data is, in itself, decisive."[3] One could easily say the same thing about the economy as a whole.

Subsequent chapters attempt to provide an explanation of euro-area institutions. The region, with 17 central bank governors, 17 finance ministers and 17 heads of government as well as countless policy makers in Brussels, has become increasingly difficult to understand without knowledge of the roles of those bodies.

Chapter 8 focuses on the euro crisis. It attempts to provide an explanation of its origins and a glimpse of the potential outcomes. In addition, the tools needed to analyze the crisis as it evolves are presented. No one knows exactly how the crisis will end and financial market participants need to be armed with the appropriate instruments to understand the latest developments.

The views of some of the most widely-quoted economists – Willem Buiter, David Blanchflower, Paul De Grauwe, Barry Eichengreen, Milton Friedman, Paul Krugman, Thomas Mayer, Carmen Reinhart, Kenneth Rogoff and Hans-Werner

Sinn – are frequently cited. Their insights into the debacle have been unparalleled, though some of the arguments may have shifted with time. The views of most economists are constantly evolving along with the events of the debt crisis. As John Maynard Keynes quipped, “When the facts change, I change my mind. What do you do, sir?”

The remaining chapters provide information unique to the economies of Germany, France, the U.K., Switzerland, Sweden and Norway. These countries have many of the same economic indicators – gross domestic product, industrial production, purchasing manager indices, etc. – as the euro area. These data points are basically the same for those countries as for the euro area as a whole, though some details may differ. A second review of the indicators for the individual countries is avoided.

The reality is no one – not even the best economists – can see into the future. All anyone can do is make the best decisions possible based on a set of incomplete information. The best way to be armed for that decision-making process, despite its flaws and incompleteness, may be to understand the present state of the economy and the political debate as fully as possible.

[1]Abberger, Klaus and Nierhaus, Wolfgang *The Ifo Business Cycle Clock: Circular Correlation with the Real GDP*. CESIfo Working Paper No. 3179, Ifo Institute, 2010.

[2]Blinder, Alan *Central Banking in Theory and Practice*. Cambridge, Mass.: MIT Press, 1998.

[3]King, Mervyn “Employment Policy Institute’s Fourth Annual Lecture.” Bank of England, December 1, 1998. {http://www.bankofengland.co.uk/publications/Pages/speeches/1998/speech29.aspx}

Chapter 2

Gross Domestic Product

GDP is the most commonly cited comprehensive indicator of economic activity. It is the total market value of the goods and services produced within a nation or, in the case of the euro area, a monetary union. It can also be described as the total income of the geographic area.

The first word of the term – gross – indicates that depreciation of equipment and factories used in the production process is excluded from the calculation.[1] For example, the decline in the value of an aging computer is ignored in this measure of national output.

The second word of the term – domestic – indicates the inclusion of all production within the region's borders irrespective of the country of origin of the producer.[2] For example, if a Mercedes is produced in a plant constructed by the German company in the U.S., the car is included in U.S. GDP and excluded from German GDP. If the car is produced in Germany and shipped to the U.S., it is included in German GDP and excluded from U.S. GDP.

Three methods of measuring GDP exist: expenditure, output and income. In theory, all three methods should produce the same figure. In practice, measurement problems normally lead to discrepancies.

The Expenditure Approach

The expenditure approach is based on the final or end use of the produced goods and services. This method has

historically been used most frequently by national statistical agencies. In a report from 1996 of 18 member countries, the OECD calculated that all of them reported GDP using the expenditure approach. Sixteen of them also tallied the figure using the output method and 10 used the income approach as well.[3] These numbers have since risen to 18, 17 and 16, respectively.[4]

The accounting identity used to calculate GDP under the expenditure approach states that GDP equals consumption plus investment plus net exports. Consumption is broken down into private consumption and government consumption and investment consists of gross fixed capital investment and the change in inventories. The sum of consumption and investment equals domestic demand. Net exports equals exports minus imports.

Consumption (= Private Consumption + Government Consumption)

+ Investment (= Gross Fixed Capital Investment

+ Change in Inventories)

= Domestic Demand

+ Net Exports (= Exports − Imports)

= Gross Domestic Product

Private consumption is spending on goods and services by non-governmental entities such as individuals and households. It is the largest category of GDP for most developed economies. For example, it was about 71% of GDP of the U.S.; 64% of that of the U.K. and 57% of that of Germany in 2011.

Eurostat also includes a group called NPISH in its calculation of private consumption (Table 2.1). It is an acronym for non-profit institutions serving households. It includes charities, churches, political parties and trade unions.

TABLE 2.1 Euro-Area GDP and Expenditure Components

Source: Eurostat

T1	GDP AND EXPENDITURE COMPONENTS																					
t/t-1	PERCENTAGE CHANGE OVER THE PREVIOUS QUARTER – SEASONALLY ADJUSTED – CHAIN-LINKED VOLUMES																					
	GDP				Household & NPISH final consumption expenditure				Government final consumption expenditure				Gross Fixed Capital Formation				Exports				Imports			
	2011		2012		2011		2012		2011		2012		2011		2012		2011		2012		2011		2012	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
EA17	0.1	−0.3	0.0	**−0.2**	0.2	−0.5	−0.2	**−0.2**	−0.2	0.0	0.2	**0.1**	−0.4	−0.5	−1.3	**−0.8**	1.5	−0.2	0.7	**1.3**	0.5	−1.4	−0.2	0.9
EU27	0.2	−0.3	0.0	**−0.1**	0.0	−0.3	−0.1	**−0.2**	−0.3	0.1	0.4	**0.2**	−0.1	−0.3	−0.7	**−0.9**	1.4	0.1	0.5	**1.0**	0.6	−1.0	−0.2	0.9
US	0.3	1.0	0.5	**0.4**	0.4	0.5	0.6	**0.4**	−0.6	−0.7	−0.3	**−0.3**	2.6	2.0	1.3	**1.1**	1.5	0.4	1.1	**1.5**	1.1	1.2	0.8	0.7
JP	1.8	0.1	1.3	**0.3**	1.1	0.7	1.2	**0.1**	0.2	0.4	1.0	**0.3**	0.6	3.3	−0.4	**1.5**	7.9	−3.6	3.4	**1.2**	3.4	1.0	2.2	1.6

Government consumption represents the purchase of goods and services by general government. It made up about 20% of GDP of the U.S.; 20% of that of Germany; and 22% of that of the U.K. in 2011.

Investment is the spending used to increase future consumption. The category breaks down into gross fixed capital formation and inventories.

Gross fixed capital formation represents the acquisition of fixed assets minus the disposal of those items. In this case, “gross” refers to the exclusion of depreciation costs. Fixed assets are defined by Eurostat as “tangible or intangible assets produced as outputs from the processes of production that are themselves used repeatedly, or continuously, in processes of production for more than one year.”[5] An example of a tangible asset from this category is a factory and one of an intangible asset is a patent.

The remainder of investment spending consists of inventory accumulation. Inventories are used to meet future demand.

Investment, under the framework of national accounting, is undertaken mostly by businesses. The purchase of new homes is the only part of personal spending that falls into this category. Government spending generally falls into the category of consumption.[6]

The category of net exports is the difference between exports and imports. It represents the portion of aggregate domestic production that is beyond the goods and services needed for domestic consumption.

The breakdown by category of expenditure allows for an analysis of the type of spending that drives economic growth. Investment – gross fixed capital formation and inventories – tends to be the most cyclical category of spending. That is because businesses will likely delay plans for expansion or reduce their stocks of inventories as long as their managers perceive the outlook for demand to be uncertain or weak.

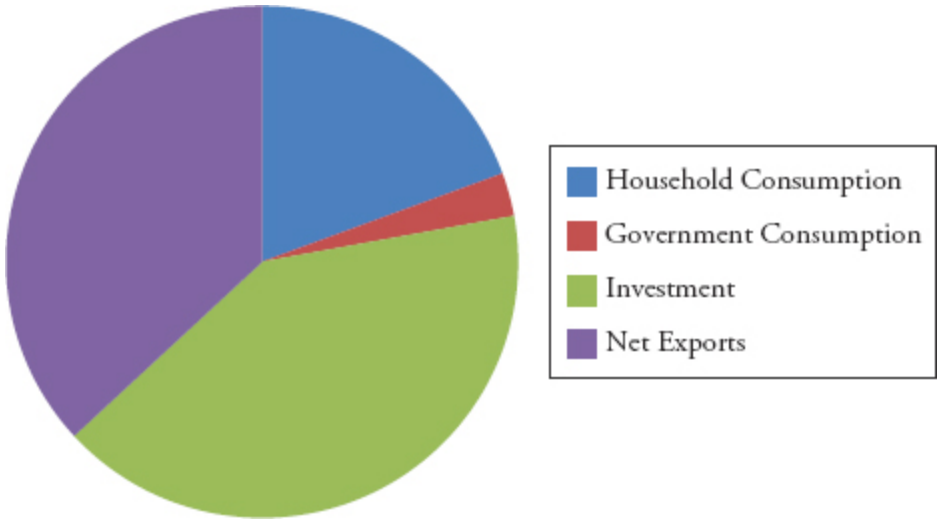
The recession in the euro area from 2008 to 2009 provided a good example. GDP contracted for five quarters – from the second quarter of 2008 through the second quarter of 2009.

The economy contracted by 1.2% per quarter, on average, during that period. The contraction in investment spending was responsible for 1 percentage point of that average quarterly decline. Specifically, 0.7 of a percentage point was due to the decline in gross fixed capital formation and 0.3 of a percentage point to the change in inventories.

The subsequent recovery provided a similar picture. The economy expanded for nine consecutive quarters – from the third quarter of 2009 through the third quarter of 2011 – after the recession ended. The contribution to economic growth from investment spending was greater than that of any other source of domestic demand (Figure 2.1).

FIGURE 2.1 Contributions to euro-area GDP growth from Q3 2009 to Q3 2011.

Source: Bloomberg, Eurostat



On average, the economy expanded by 0.4% per quarter during that period. Half of that growth – 0.2 of a percentage point – came from investment spending. The contribution to growth from household consumption was 0.1 of a percentage point and that from government spending was close to flat as austerity programs were implemented. The contribution from net exports – 0.2 of a percentage point – explains the other major source of growth. The figures fail to add up perfectly due to rounding.

During the recovery, the majority of the growth in investment spending came from inventory accumulation, though the decline in inventories played a smaller role than the decline of gross fixed capital formation during the recession. “Recessions and recoveries are (mostly) inventory cycles. While inventory investment typically only accounts for a tiny fraction of GDP, swings in inventories account for a large share of the cyclical swing in GDP,” according to Ethan Harris, co-head of economic research at Bank of America–Merrill Lynch.[7]

He contends “inventories do not cause cycles in the economy, rather they amplify or ‘accelerate’ swings in the economy.” They tend to lower output during recessions and increase output in the early stages of recoveries.

An outlook for inventory growth can be formed by looking at the monthly economic sentiment indicator of the European Commission in conjunction with the state of the economy. The industry and the retail trade surveys both contain questions about stocks (Figures 2.2 and 2.3). Respectively, they are:

FIGURE 2.2 Inventory component of industrial confidence indicator.

Source: Bloomberg

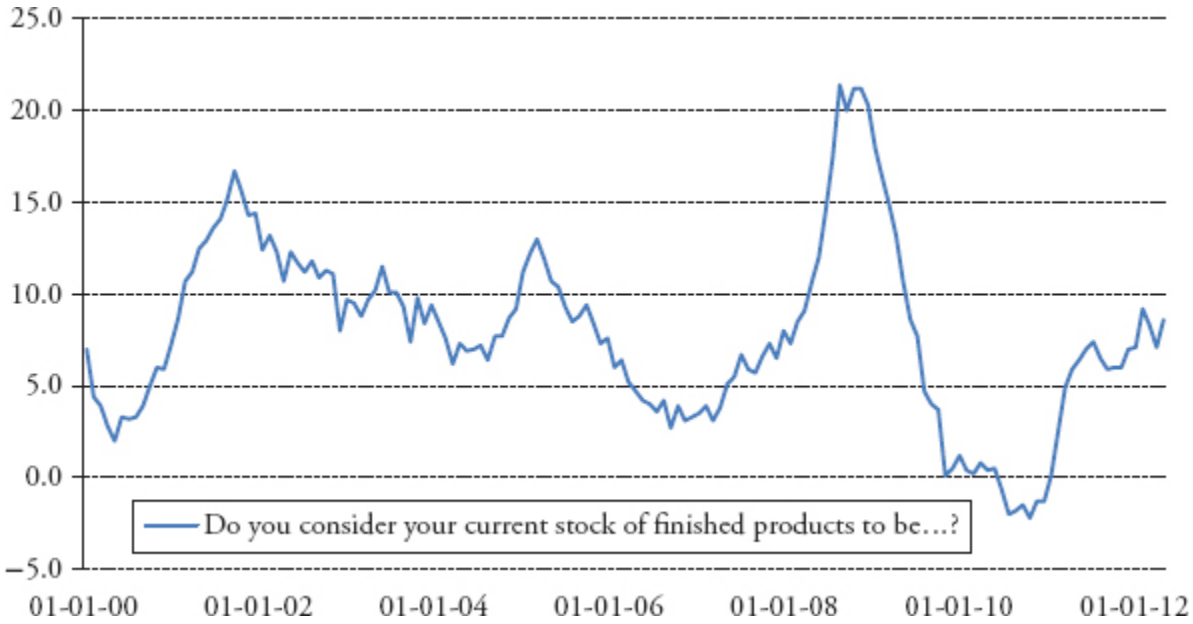
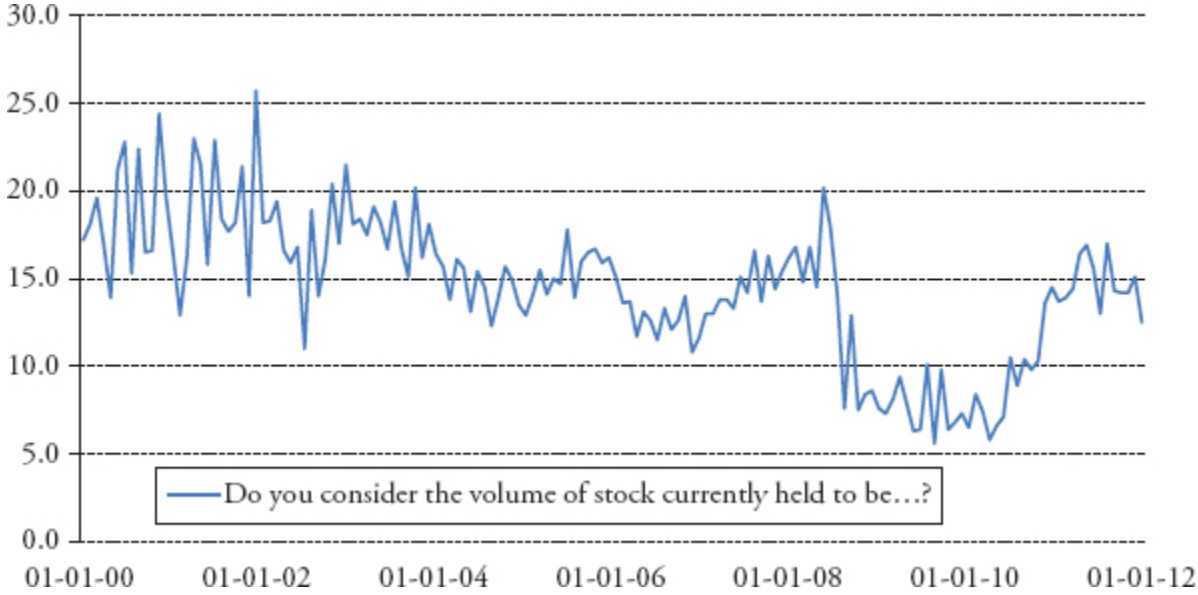


FIGURE 2.3 Inventory component of retail trade confidence indicator.

Source: Bloomberg



Q4 Do you consider your current stock of finished products to be . . . ?

\+ too large (above normal)

= adequate (normal for the season)

− too small (below normal)

Q2 Do you consider the volume of stock currently held to be . . . ?

\+ too large (above normal)

= adequate (normal for the season)

− too small (below normal)

The Output Method

The output method measures the gross value added in an economy. In other words, it measures the value of all goods and services produced minus the value of all goods and services used in their production. The second category is subtracted from the first to avoid double accounting.

The reading is normally broken down by industry of the economy. For example, Eurostat provides a breakdown into the following industries (Table 2.2):

TABLE 2.2 Euro-Area GDP and Gross Value Added by Industry

Source: Eurostat

T4a	GDP AND GROSS VALUE											
t/t-1	PERCENTAGE CHANGE OVER THE PREVIOUS QUARTER –											
NACE Rev.2 Description:	GDP				Agriculture, forestry and fishing				Industry (mining, manufacturing, electricity, water and waste)			
Division:					A				B, C, D and E			
	2011		2012		2011		2012		2011		2012	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
EA17	0.1	−0.3	0.0	**−0.2**	0.7	−0.1	1.7	**−0.4**	0.0	−1.6	0.1	**−0.3**
EU27	0.2	−0.3	0.0	**−0.1**	0.3	−0.8	0.8	**−0.4**	0.0	−1.3	0.2	**−0.3**

1. Agriculture, Fishing and Forestry.
2. Industry (Mining, Manufacturing, Electricity, Water and Waste).

3. Manufacturing.
4. Construction.
5. Trade, Transport, Accommodation, and Food Service Activities.
6. Information and Communication.

The Income Method

The third method of GDP calculation is based on income earned through the production of all the goods and services in an economy. It measures the incomes obtained from wages and salaries, rent, interest, corporate profits and proprietors' income.[8] GDP excludes transfer payments such as government benefits.

GNP vs. GDP

Gross national product measures the incomes of the residents of a country, regardless of where they were earned. For example, the net income that is transferred to its German owners from a Mercedes factory in the U.S. would be included in the GNP of Germany and excluded from that of the U.S.

Central bankers and economic policy makers tend to focus on GDP, though private economists refer to GNP on occasion. For example, Paul Krugman has often argued that economists should focus on GNP in the case of Ireland.[9]

Ireland is an exception to the rule that the difference between GNP and GDP is normally negligible.[10] The difference between these two figures is about 25% for Ireland, 2% for the U.S. and 2% for Germany.[11] This is probably due to the large number of multinational corporations operating in Ireland as a result of its low level of corporate taxation.

Release Schedule

Eurostat publishes three releases for GDP. The first two GDP releases are accompanied by a press statement. The third release is only a database update.

All three releases publish the data in the form of growth over the previous quarter and over the previous year. They are normally referred to as quarter-over-quarter and year-over-year rates of growth. The latter is a smoothing technique, which removes short-term influences on the quarterly numbers and is a good measure of the recent trend.

ADDED BY INDUSTRY

SEASONALLY ADJUSTED – CHAIN-LINKED VOLUMES

of which: Manufacturing				Construction				Trade, transport, accommodation and food service activities				Information and communication			
C				F				G, H and I				J			
2011		2012		2011		2012		2011		2012		2011		2012	
Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
−0.2	−1.4	0.0	**−0.5**	−0.7	−0.1	−1.0	**−0.7**	0.1	−0.2	0.0	**−0.4**	0.3	0.1	−0.1	−0.1
−0.2	−1.1	0.1	**−0.5**	−0.3	−0.1	−2.4	**−1.2**	0.1	−0.2	0.2	**−0.2**	0.6	0.1	−0.1	−0.3

The first release, which is called the flash estimate, is published about 45 days after the end of the reporting period (Table 2.3). It only provides headline figures for the euro area, the EU and individual countries of those regions for the latest quarter.

TABLE 2.3 Quarterly National Accounts Release Policy

Source: Eurostat

In the current release policy for the calculation of European aggregates there are four releases during a quarter Q. The three first releases (T + 45, T + 65 and T + 75) are database releases that are combined with a news release. The T + 100 release is only a database release. The following table summarises the release coverage:

	ESA	T + 45	T + 65	T + 75	T + 100
Flash GDP volume		**Q* only**	--	--	--
GDP (+)		--	Up to Q	--	Up to Q
Output A6 (+)	0101	--	**Up to Q***	--	Up to Q
Main expenditure (+)	0102	--	**Up to Q***	--	Up to Q
GFCF AN_F6 (+)	0102	--	--	**Up to Q***	Up to Q
Exports/imports (+)	0102	--	--	**Up to Q***	Up to Q
Income	0103	--	--	**Up to Q***	Up to Q
Compensation A6	0103	--	--	Up to Q-1	**Up to Q***
National income	0107	--	--	Up to Q-1	**Up to Q***
Employment A6	0111	--	--	**Up to Q***	Up to Q

+ estimation includes current prices, chain-linked volumes and previous year's prices.
* and bold: first release of figures for the new quarter.
Up to Q: whole time series up to the new quarter is revised.
Up to Q-1: whole time series up to the previous quarter is revised (aligned with higher level data), data for Q not available yet.
Shaded: Data is included and commented on in the news release.
Note that all "Up to" releases include also revisions of the underlying annual figures.

The second estimate appears about 65 days after the reporting period. It provides a breakdown from the expenditure and from the value-added points of view.

A third and final release appears about 100 days after the end of the reporting period. All current and past figures are open to revision, starting with the second release.

The first release only contains the GDP data with the effect of inflation removed. The broad term "real growth" is used to describe that adjustment. It can be applied to all aggregates, including those for income, which do not have directly observable volumes.[12] Specifically, the first release of GDP is expressed in terms of chain-linked volumes with a reference year of 2000. "Volume growth," which is a narrower term than "real growth," is used for items with a physical quantity that can theoretically be measured directly.

The releases after the flash estimate contain data on nominal GDP as well. That figure is GDP expressed at current prices.

The first GDP release for the euro area is published much later than that for the U.K. or the U.S. As mentioned previously, it is announced 45 days after the end of the reporting period. In the latter two countries, the figures are published 25 days after the end of the quarter. Countries that delay the publication of economic statistics often argue that a trade-off exists between timing and accuracy.

The difference in accuracy between the GDP statistics for the euro area and those of the U.S. appears small. The flash GDP estimate for the euro area was unchanged relative to the second estimate for 40 of the last 46 quarters, as of August 2012, according to Eurostat, which began reporting a flash estimate in May 2003. In the other six of those 46 quarters, the two figures differed by plus or minus 0.1 of a percentage point.[13] The absolute difference between the advance (first) and the preliminary (second) estimates of U.S. GDP has been 0.5 of a percentage point on an annualized basis from 1983 to 2008, according to the Bureau of Economic Analysis of the U.S. Department of Commerce.[14] That equals about 0.125 of a percentage point on a quarter-over-quarter basis.

Trend Growth

The long-term path of GDP growth is normally assumed to be in line with the historic trend rate of growth. The easiest way of determining that figure is by taking a long-term average of output growth. Recent data may be most useful for the euro area as a result of the structural changes that have taken place since the birth of the monetary union. The 10-year average for the euro area is 1.1%, using data from 2002 to 2011. It is 1.6% for the U.K. and for the U.S.

These figures are below the long-term potential growth estimates of policy makers. The ECB has cited 2% to 2.5% as the trend rate of growth for the euro-area economy.[15] The Federal Reserve has estimated 2.2% to 3% as the equivalent figure for the U.S.[16] These figures are likely to be revised down as the level of economic growth experiences a structural decline in the aftermath of the global financial crisis.

The ECB has attributed the higher rate of potential growth in the U.S. – relative to the euro area – to demographic developments and the rate of productivity growth.[17] These demographic developments refer to the growth in the population, which is the pool of labor for production. Annual population growth in the euro area has averaged 0.5% over the 10-year period from 2002 to 2011. That figure for the U.S. has been 1.1%.

The Business Cycle

Deviations in GDP growth from that long-term trend occur as part of the business cycle. Arthur Burns, former chairman of the Board of Governors of the Federal Reserve System and president of the National Bureau of Economic Research, and Wesley Mitchell, a founder of the NBER, proposed a definition for the business cycle:

> “Business cycles are a type of fluctuation found in the aggregate economic activity of nations that organize their work mainly in business enterprises: a cycle consists of expansions occurring at about the same time in many economic activities, followed by similarly general recessions, contractions, and revivals which merge into the expansion phase of the next cycle; this sequence of changes is recurrent but not periodic; in duration business cycles vary from more than one year

to ten or twelve years; they are not divisible into shorter cycles of similar character with amplitudes approximating their own."[18]

The NBER in Cambridge, Massachusetts is the official arbitrator of recessions in the U.S. It defines a recession as a "significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales."[19] It doesn't use the popular definition of recession – two consecutive quarters of negative GDP growth. The NBER has identified 33 recessions in the U.S. since the middle of the 19th century (Table 2.4).

TABLE 2.4 U.S. Business Cycle Expansions and Contractions

Source: NBER