

HOW TO DEFINE A RECESSION?

KLAUS ABBERGER AND
WOLFGANG NIERHAUS*

The famous “R-word” is back again. Not only economists are discussing whether the world economy, regions or specific countries are in or close to recession. Also the public media and ordinary people are concerned about a recession. But the question must be asked: what actually constitutes a recession? This is ultimately a matter of definition, which unfortunately is not answered homogeneously in the scholarly literature and also not in the practice of international organisations or statistical offices.

Business-cycle analysts generally use the concept of a recession to refer to weak economic phases, of which duration, depth and diffusion exceed the usual bounds; thus one speaks of the “three key dimensions of a recession, known as the ‘three Ds’: duration, depth and diffusion” (Fiedler 1990, 131).¹ This means that in a recession economic activity decreases substantially, the decline affects wide portions of the economy and it has some permanence. In the United States the Business Cycle Dating Committee at the National Bureau of Economic Research (NBER) is responsible for the dating of the US business cycle.² The NBER describes the concept as follows: “a recession is 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”. However, even this NBER specification shows that the term is not narrowly defined and contains some leeway for determining whether an economy is in recession or not. Since a judgment based on these criteria requires the analysis of extensive data; the NBER publishes its official

recession dating for the US economy with considerable lags of often more than one year.³

For this reason another definition has become popular among business-cycle observers in the United States, and increasingly also in other countries, which was first published by Julius Shiskin in *The New York Times* in 1974.⁴ According to Shiskin a recession is defined as “a decline in the seasonally and calendar adjusted real gross domestic product (GDP) in at least two successive quarters”. Since GDP is the most comprehensive indicator of economic activity and the critical period for a recession amounts to at least six months, with this rule of thumb the two criteria of diffusion and duration are roughly taken into account. What is the NBER’s position on this definition? It adds: “most of the recessions identified by our procedures do consist of two or more quarters of declining real GDP, but not all of them. Our procedure differs from the two-quarter rule in a number of ways”.⁵

The main disadvantage of the Shiskin rule is that the rate of change of the seasonally and calendar adjusted GDP go through erratic fluctuations due to subsequent data revisions, whereby a minus can easily become a plus. For the recession of the US economy from March until November 2001 officially registered by the NBER dating,⁶ the results of the Bureau of Economic Analysis up to July 2002, for example, showed a minus in real GDP only for the third quarter, and subsequently for the first three quarters of 2001 in succession. According to present calculations (GDP: first quarter 2008 final) the pluses and minuses in 2001 alternate from quarter to quarter so that the rule of thumb does not signal a recession for the United States in 2001 (see Figure 1).

Applying this criterion to Germany, there would be more recessions than have been normally counted.

* Ifo Institute for Economic Research.

¹ Fiedler, E. R. (1990), *The Future Lies Ahead*, in: Klein, P. A. (ed.), *Analyzing Modern Business Cycles, Essays Honoring Geoffrey H. Moore*, Armonk, NY: M. E. Sharpe.

² <http://www.nber.org/cycles/recessions.html>.

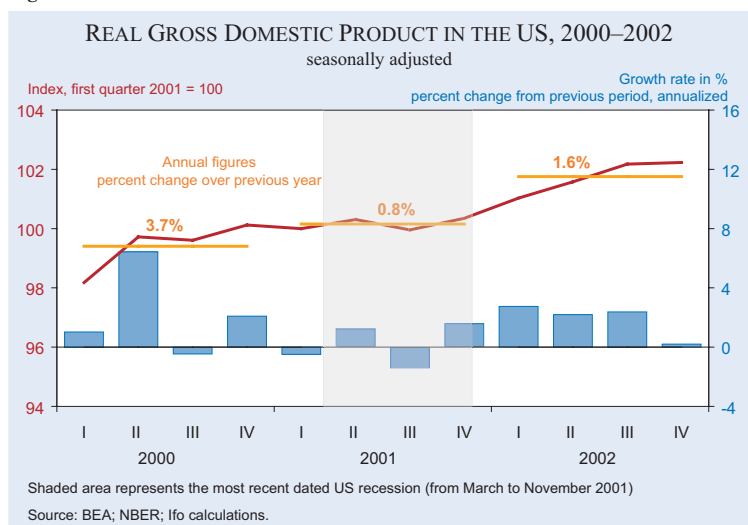
³ For Germany the Bundesbank – the only official German institution to do so – has published, in its supplement, “Saisonbereinigte Wirtschaftszahlen”, a chronology of economic activity up to 1997 measured in terms of the local minimums and maximums of the trend-adjusted industrial production in Germany.

⁴ Achuthan, L. and Banerji, A. (2008), *The Risk of Redefining Recession*, CNNMoney.com, May 6.

⁵ <http://www.nber.org/cycles/recessions.html>.

⁶ <http://www.nber.org/cycles/july2003.html>.

Figure 1



There is general agreement that recessions occurred in 1974/75, 1980/82 and 1992/93. The rule of thumb, however, has identified more recessions than these, which is ultimately due to the fact that in Germany the trend growth rate of total economic output is lower than in the United States. In the current decade alone, GDP, seasonally and calendar adjusted using the BV4.1 and based on the current data status (National Accounts, 2nd quarter 2008), has fallen twice in at least two successive quarters: from the fourth quarter of 2002 to the first quarter of 2003 and in the second and third quarter of 2004. Since real GDP declined only slightly, these were not recessions but only pronounced phases of economic weakness.

Accordingly, for there to be a recession real GDP – using the rule of thumb – has to have *clearly* fallen for at least two quarters. In order to adequately determine the position of the economy in the business cycle, also the utilisation of production capacities should always be taken into consideration. Business cycles, according to modern business-cycle theory, are to be understood as variations in the utilisation degree of aggregate production potential (growth cycles). Every cycle consists of one upswing and one downturn phase, with the individual phases being linked by upper and lower turning points. In this delimitation downturn phases include both phases with absolutely falling production

activity as well as phases with increasing production activity that is lower than average (decreasing capacity utilisation) – measured in terms of the potential rate. When, after a strong upswing stage with higher capacity utilisation than the average, real GDP, seasonally and calendar adjusted, falls in two successive quarters but the utilisation rate remains above the normal level, one should not speak of a recession. A recession, according to our definition, is only the case when with clearly slowing output, seasonally and calendar adjusted (e.g. in at least

two successive quarters), the aggregate utilisation rate is also simultaneously clearly below its long-term average.⁷ Using the survey-based Ifo capacity utilisation in manufacturing as proxy for the aggregate utilisation rate, this broader recession criterion was fulfilled in the above-listed recessions in Germany: 1974/75, 1980/82 and 1992/93 (see Figure 2).⁸

For the world economy as a whole, however, the definition of recession that we have discussed cannot be reasonably applied because the combined real GDP of the world has increased continuously in the last

⁷ For the situation of the world economy and the German economy in autumn 2001, see Ifo Schnelldienst 20/2001, 18.

⁸ Results from Ifo business tendency surveys in manufacturing. Respondents are asked to assess the capacity utilization rate of their machines and equipment on a categorical scale. For a detailed analysis of the time series and its behaviour, see Abberger, K. and W. Nierhaus (2008), Die Ifo Kapazitätsauslastung – ein gleichlaufender Indikator der deutschen Industriekonjunktur, Ifo Schnelldienst 61(16), 15–23.

Figure 2

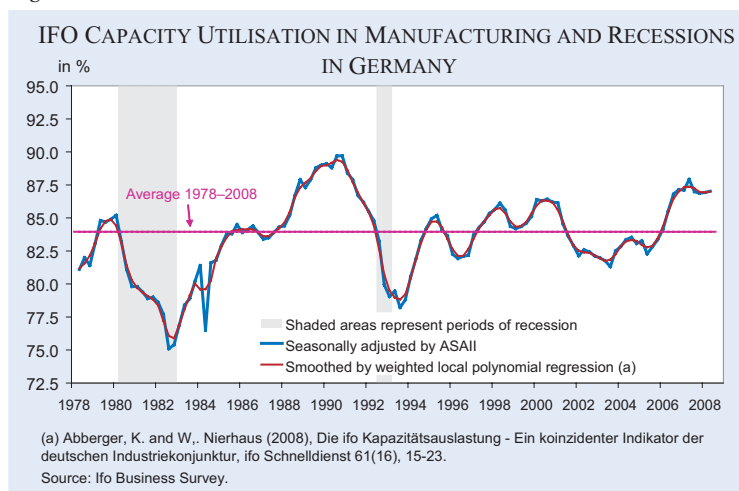
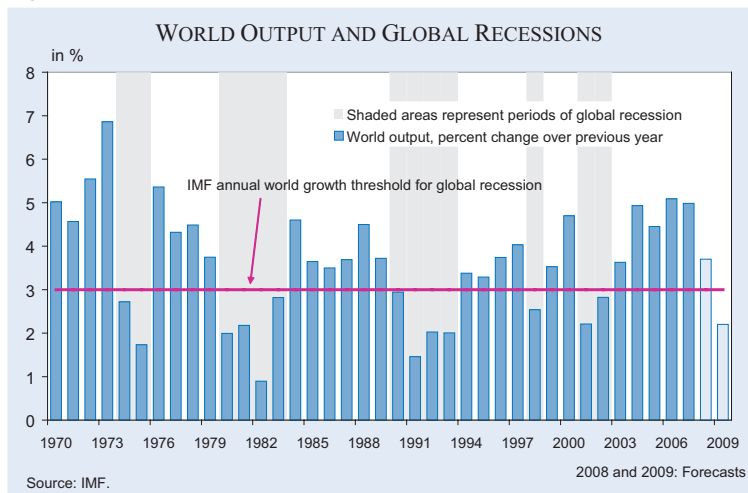


Figure 3



four decades, on average, which is due to the higher trend growth in the emerging markets. Hence, there are no generally accepted rules for a definition of a world recession. According to the International Monetary Fund (IMF), there have been three comprehensive growth recessions since 1970–1975, 1982, and 1991 – in which global economic growth remained below the two percent level. Adjusted for the increase in the world population, the rate of change of real GDP was even negative in 1982 and 1991. All in all, the IMF in identifying recessions now focuses – similar to NBER – on a number of monthly indicators, for example, world industrial production or world trade volume.⁹ On the other hand, reference is also made to a definitive annual world growth threshold (+ 3 percent), below which the IMF sees a global recession.¹⁰ Using this new IMF rule, in the past three decades the years 1980 to 1983, 1990 to 1993, 1998 as well as 2001 and 2002 were at or below this threshold. For 2009 the IMF predicts + 2,2 percent growth. So it considers the world economy in a global recession (see Figure 3).

⁹ International Monetary Fund (2002), World Economic Outlook, April, 10–12.

¹⁰ International Monetary Fund (2008), World Economic Outlook, October, 43.