

BACKGROUND INFORMATION

BUSINESS CYCLES AND THEIR MEASURING

The conviction that expansion is setting in has spurred discussions whether and if the current business cycle resembles the previous one. It is inevitable to ask how to measure the business cycle.

The business cycle is defined as a process involving economic activity going through both expansion and recession. The latter will develop into an expansion of the next cycle¹. The changes reoccur but are not periodic and the length of business cycles varies allegedly from a year to more than ten years. There are two widespread approaches to measure a cycle:

1. *The recession concept based on reduction of the **production level** measured in constant prices. It is discussed whether one indicator or a set of economic indicators should be considered. The National Bureau of Economic Research (NBER), for example, defines a business cycle as a combination of the peak and the trough of several economic indicators (eg employment, industrial production, and sales). According to IMF experts, one indicator can also be enough to determine business cycles. Gross domestic product is considered to be this indicator and its dynamics allows avoiding the specific features of single fields of activity².*
2. *According to an alternative concept, a business cycle is defined as the fluctuation of **economic growth** around the long-term trend. The concept of accelerating/decelerating growth is considered best for high growth-rate countries (including transition economies), whereas the rise and fall in the level is more significant for industrial countries. The growth cycle concept helps to explain better the interrelation of economic growth, inflation and employment, but depends essentially on the determination of the trend that is debatable as a rule³.*

According to NBER the US entered a recession in April 2001. The expansion had lasted ten years (NBER, 2002). The business cycle is defined through the decline in the level of four economic indicators: employment, industrial production, sales and real income. The GDP dynamics is taken into account but its quarterly frequency is considered a disadvantage not allowing to determine the pivotal points by month.

In Europe the current recession is not as deep as in the United States and we can determine it by the potential growth rate of the GDP, which in Europe is estimated to reach an annualised growth of 2.5%. Assuming that in Europe the recession began at the same time with the US, the recovery would take about 6–7 quarters according to current forecast. This would coincide with the average recession (1.5 years) in post-Bretton Woods's period (1973–2000) as computed by the IMF experts.

After the restoration of independence Estonia has undergone both transitional recession that lasted until 1995 and classical recession. The latter characterises the post-Russian crisis period. Between the third quarter of 1998 and the third quarter of 1999 the GDP in constant prices remained below the level of the previous period (see Figure 2b). The beginning of the above period marked the slowdown of the economic growth below the potential level. There is more or less a consensus in the opinion that the 5% annual growth in Estonia is in compliance with the potential production level and lower growth would indicate recession (Figure 3b).

The specificity of the current business cycle lies in the fact that it can be defined only through the growth rate. If we agree with the above estimates of the potential growth rate, the phases of the cycle have not changed during 2001 and any of its quarters. The annual growth of the GDP dropped below the level only in the first quarter of 2002. According to the forecast the

¹ The NBER's Business-Cycle Dating Procedure. <http://www.nber.org/cycles/recessions.html>. May 2002.

² IMF. World Economic Outlook. April 2002. <http://imf.org>

³ It also involves discussion about the suitability of universal software – eg Hodrick-Prescott filter – to determine the potential economic growth of a country.

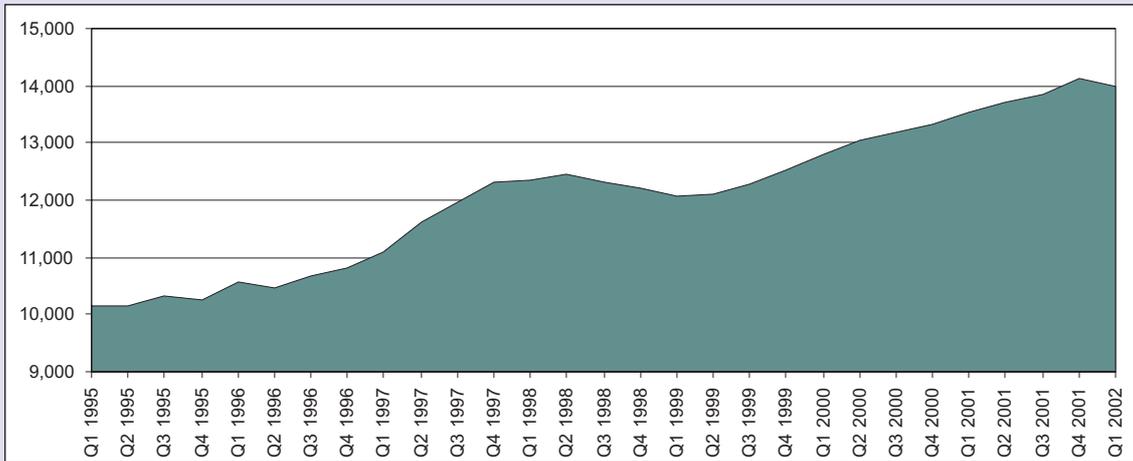


Figure 2b. Seasonally adjusted GDP in constant prices of 1995 (EEK m)

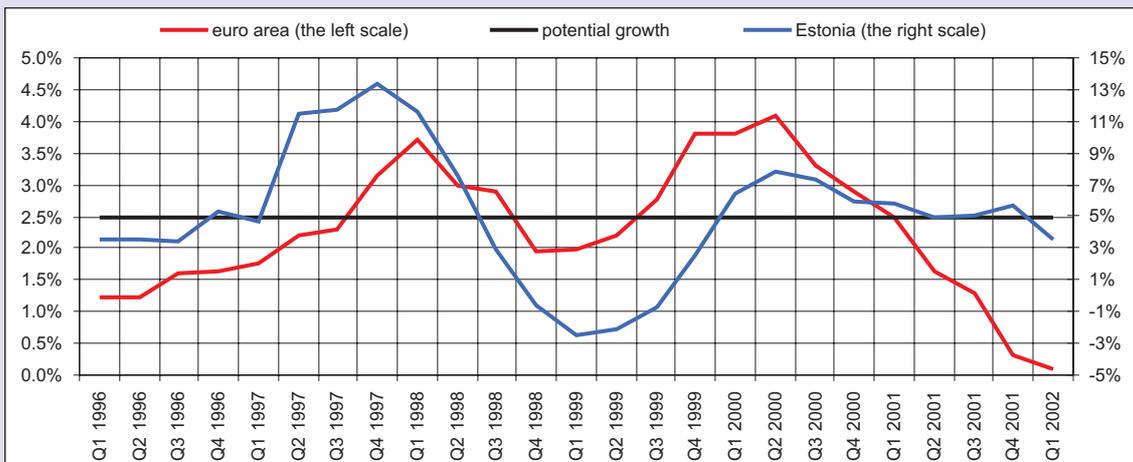


Figure 3b. Actual and potential annual growth of GDP in Estonia and euro area

economic growth is going to remain below the potential level throughout 2002. It would be a deviation from a longer trend, which falls into the borderlines of the cycle as regards its duration⁴.

⁴ Allegedly the minimum duration of a business cycle should be at least five quarters and of a phase – two quarters (WEO, 2002).

PROFITABILITY OF FOREIGN DIRECT INVESTMENT AND MEASURING OF FDI

In recent years foreign direct investment (FDI) has become one of the most important source of foreign financing for developing countries. In a widely held view developing countries expect FDI to increase domestic capital formation, to augment host country stocks of technology and managerial know-how, to improve access to export markets and to a comparatively stable source of external financing¹.

Estonian economy is no exception here and FDI reaches 60% of the GDP by today. The high share of foreign direct investments has raised a question about their profitability and impact on the balance of payments².

However, the profitability of FDI is not fully substantiated in the empirical studies and the picture remains unclear. On the one hand, profitability has been described as a function of such country-specific indicators as structure of assets by activity, macroeconomic risk and openness of the country, etc. Research into the profitability of FDI and dependency has been held back

by the lack of data that are comparable across countries and over time. Difficulties in comparing statistics on FDI and their profitability arise mostly from indefinite ownership limits (difficult to establish whether portfolio or direct investments), multiple methods to estimate their gross value, distinguishing of reinvested earnings (in many countries it is not considered to be a profit) and different methods of aggregated statistics (parent company – affiliate)³.

The overall assumption is that the profitability of investments in emerging markets is higher. While returns in OECD markets saw a steep decline in the late 1980s, reaching 10% in 1992, the average ROE in emerging markets stayed above 17% up to 1997 (falling sharply in 1998). A comparative study of US majority owned foreign affiliates for 20 developing and 20 industrialised countries showed that the profitability of investments in transition economies exceeded by 2–10 percentage points the profitability of investments in developed countries (Lehmann, 2002). The higher profitability of investments in transition economies is

Table 2b. Examples of the profitability of foreign direct investments and the share of reinvested income (Lehmann, 2002)

	Profitability (%)	Share of reinvested income (%)
I. Investments of the USA to transition economies: ¹		
average	9.8	~ 77 ²
o/w Mexico	7.0	67.2
Indonesia	5.6	39.5
Malaysia	13.0	37.4
Korea	3.6	74.5
Thailand	...	30.1
II. Foreign investments in Estonia ³	7.4	61.8

¹ 1995-1998.

² 23 countries, 1982-2000.

³ 1999-2001.

¹ See *Real Convergence in Candidate Countries – Past Performance and Scenarios in the Pre-Accession Economic Programmes*. European Commission, November 2001.

² The current account reflects also reinvested earnings as investment income outflow. See *Monetary Developments and Policy Survey*. Eesti Pank, March 2002.

³ Alexander Lehmann, *Foreign Direct Investment in Emerging Markets: Income, Repatriations and Financial Vulnerabilities*, IMF Working Paper 02/47, March 2002; <http://www.imf.org>

not considered a rule, but rather dependent on country-specific factors, including country risk. The higher profitability has also been explained by price transfers, free of charge use of parent companies' know-how and services, etc, also by differences in the structure of industry in transition and developed economies.

By states profitability varies significantly (see Table 2b). For example, British capital investments in Brazil, India, Mexico and Malaysia differed manifold. The average ROE earned in these countries fluctuated between 12–20% in 1995–98 (Lehmann, 2002). Table 2b displays that the profitability of FDI in Estonia and

the share of reinvestments have been quite close to the data used in the above study.

The research indicates that significantly larger fluctuation of profitability is typical of transition economies – the normalised standard deviation exceeded threefold that of industrialised countries. As usual for open economies, Estonia's economic growth in 1996–2001 was relatively turbulent. Due to a high share of FDI it was directly reflected in their profitability (see Figure 4b). As this profit is entered as investment income outflow, such turbulence is reflected in the size of current account deficit.

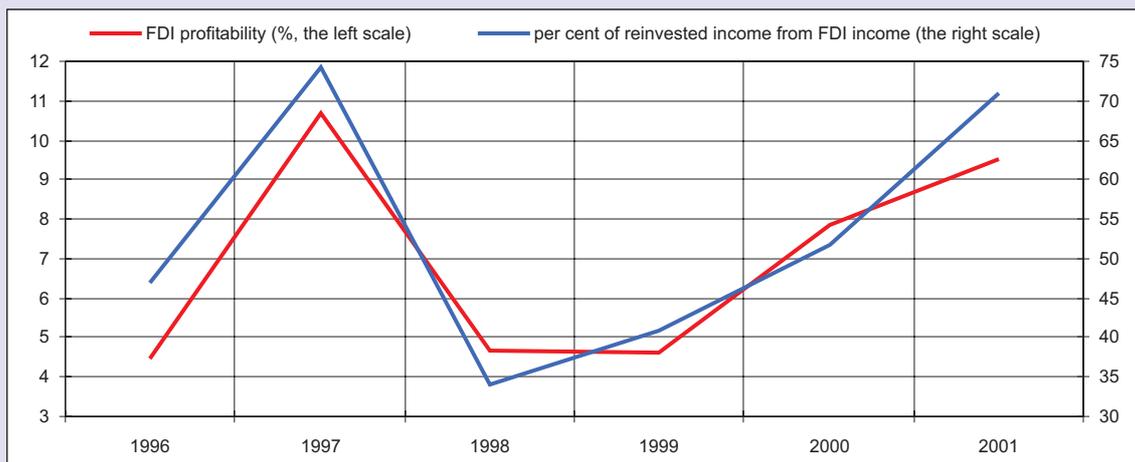


Figure 4b. Profitability of foreign direct investments made into Estonia and share of reinvested income