

**Examiner:**

Prof. Dr. K.-H. Paqué  
Dipl. - Vw. Frank Silber

**The following aids may be used: calculator, dictionary**

---

**Examination questions:**

1. In April 1999 the German Statistical Office published new estimates for the German gross domestic product (GDP) and its components following new European accounting standards (European System of Accounts, ESA, 1995). Changes in concepts and definitions lead to a GDP that is 1% higher than the traditionally defined one. To a large extent this increase is due to changes in the definition of investment.

a) Consider the following terms:

'consumption' of fixed capital  
net investment  
changes in stocks/changes in inventories  
reinvestment  
depreciation  
gross fixed capital formation  
gross investment

Show how these terms are related and explain them briefly. Note that some may be used synonymously.

- b) List four 'controversial products' that are recorded as consumption goods in traditional systems of accounts but which could just as well be interpreted as investment goods. Explain them briefly using examples.
- c) List three reasons why gross investment as defined according to the new ESA 1995 exceeds traditionally defined gross investment.

2. We observe the following activities in an economy that consists of a productive sector, a household sector, a government sector and a 'rest of the world'.

- The government sector collects revenues from a tax levied on sales (140 EURO) and transfers subsidies to the productive sector (40 EURO).
- The productive sector exports goods and services (40 EURO) and imports goods and services (60 EURO).
- The producer's capital stock is used up in the production process (120 EURO). Government's buildings depreciate by 40 EURO.
- The household sector purchases furniture, refrigerators and cars (2,400 EURO).
- The government sector spends 400 EURO on new buildings and produces goods and services worth 1,520 EURO.
- The United Nations transfers 20 EURO to residential units.
- The productive sector spends 800 EURO on new machines and equipment.
- Households work abroad and earn 60 EURO.

a) Set up a simplified Consolidated System of Accounts and fill in the names of the accounts' entries and the corresponding numbers given in the text.

b) Calculate and interpret the following aggregates: gross domestic product at market prices, disposable national income, net borrowing/net lending abroad.

3. The gross domestic product (GDP) is often interpreted as a welfare indicator.

a) Why is the GDP a misleading indicator for the level of *total* welfare?

b) Explain why the GDP is a misleading indicator for *economic* welfare.

c) Explain the 'social indicator approach'. List three problems of this approach.