Introduction to Macroeconomics
Tentative answers to the questions on national accounts

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1. Difference between words in certain word pairs:

   (a) The difference between the gross domestic product (GDP) and the gross national income (GNI) is the external balance of primary income. Also note that GDP refers to production on a country's territory and GNI to the income of a country's residents;

   (b) Gross national disposable income (GNDI) is the disposable income for all sectors of an economy, whereas household disposable income or 'personal disposable income' refers to the household sector only. The difference between the two consists of various items, such as income taxes (minus subsidies), undistributed profits, and various transfers from government to households (pensions and unemployment benefits);

   (c) Consumption deflator and consumer price index (CPI) both refer to the same demand aggregate: private consumption. Their difference is that the consumption deflator is a Paasche-type index (like all deflators), while the CPI is a Laspeyre price index. Note that actually the consumption deflator is a Fisher index now, i.e. a geometric average of a Paasche and a Laspeyre index for private consumption. The Laspeyre index used for this purpose is not exactly the CPI, however;

   (d) The difference between GDP and NDP is depreciation, i.e. the consumption of fixed capital;

2. Primary income or transfers (secondary income)?

   (a) The monthly remittance by a resident worker to her family in Nigeria is a transfer out for Austria and a transfer in for Nigeria. For this status, it is unimportant how the person has earned the amount before: legally or illegally, by a transfer from a friend or from the government or as a wage payment from a firm;

   (b) The rental payment of a foreign tenant to a Viennese landlady is primary income for the property owner, whether it is declared officially or not: legality is not a criterion in national accounts. The tenant simply pays for consuming a service;

   (c) An unemployment benefit is always a transfer, as it is an unrequited transaction;

3. A firm uses spruce wood in order to produce furniture. It pays 110 MU for the wood and sells 220 MU (at market price) of furniture. The VAT tax rate for all goods (wood, furniture etc.) is 10%. The firm pays its workers 60 MU as salary.

   (a) At basic prices, i.e. without VAT, the value of the wood is 100 MU, as the market price contains 10% VAT. The value of the furniture is 200 MU at basic prices. Consequently, the value added by the furniture producer is 100 MU at basic prices.

   (b) The market value of the furniture of 220 MU contains 10% VAT, i.e. 20 MU. 10 MU thereof are paid by the furniture producer to the government, as 10 MU thereof have already been paid by the wood producer. You obtain this result either by the argument that the furniture producer

must pay 20 MU, but she can retrieve 10 MU thereof from the wood producer, or by the argument that each member of the chain just pays tax for their value added, not for the product value. To me, the second rationale is a bit clearer;

(c) The furniture producer's profit is obtained by subtracting from the gross value added (revenue minus intermediate consumption 220 MU minus 110 MU) the outlays for taxes (10 MU) and for wages (60 MU), which yields 40 MU. Alternatively, we may subtract wage costs from the net value added, which yields the same (100-60=40);

(d) If there are no exports nor imports and government does not consume, GDP is the sum of private consumption and investment, and investment must be the difference of GDP and consumption, i.e. 300-220=80 MU.