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The Estimate of Reinvested Earnings

Prepared by the Banque de France

The estimate of reinvested earnings

In compliance with the recommendations of the 5th Manual, France committed itself since 1994 to taking the reinvested earnings into account in the Balance of Payments. The Statistics Department of the IMF (and the EMI - WGS' research work) recommended a "settlement-oriented" approach for the selection of the base year in the calculation method, leading to the following calculation formula::

Reinvested earnings (year n) = companies' profits (year n) – dividends paid or received during year n (i.e. on the profits for year n-1)

The calculation method for reinvested earnings is a by-product of the two annual surveys of French direct investment abroad on the one hand, and foreign direct investment in France on the other hand carried out by Banque de France. Therefore the calculation of reinvested earnings is also on an annual basis. Further on, the monthly figures are the result of a simple interpolation.

The survey data is available with a one and a half-year's delay. Thus, by mid-year 2002, surveys of direct investment stocks for 2000 were the latest available.

Calculation of reinvested earnings for year Y-2 (final data)

Reinvested earnings statistics are calculated on the basis of the survey result, in particular the companies' profits and dividends paid. An extrapolation of survey data has been implemented to offset missing data either due to a globalisation of declarations, or due to a lack of answers.

The extrapolation is carried out according to the type of activity. 35 varieties of activities - rather homogeneous as regards direct investment – were defined. The extrapolation is based on the stocks of investment, net of reinvested earnings. Indeed, whereas this data is provided by each reporting company, "profit" and "dividend" variables are not always reported.

The extrapolation principle is the following:

- "profit" and "dividend" variables are calculated on the basis of a sample of companies with non nil profits;
- the extrapolation ratio is calculated through a comparison of the amount of direct investment of reporting companies and that of companies reporting plausible data.
- "profit" and "dividend" variables are then calculated by the application of an extrapolation factor to the results of the sample of companies with non nil profits

Moreover, to ensure the quality of this process, a few rules have been set:

- for each stratum, the sign of stocks of direct investment observed for the sample should be consistent with that of total stocks. Should there be a divergence, the extrapolation ratio equals the rate applied to all strata i.e.: global stock of the sample divided by the global stock; indeed, a sign inconsistency between the "profit" variable and the stocks of investment would not be representative of the category. In this case, no extrapolation is made
- the stratum dealt with has to conform to a threshold of minimum representativeness set at 70% and a minimum number of thirty companies. If one of these two requirements is not met, the extrapolation ratio then equals the rate applied to all strata
- a procedure has been set up to deal with the "concentration" or "not" aspect of the stratum. In a concentrated sector where big and small companies are represented, the extrapolation will only be based on small- and medium-sized firms, large companies, due to their size, being already included in the sample. On the other hand, the extrapolation will be based on all categories.

The determination of the "concentrated" aspect of the category is made through the application of the Gini index with a threshold of 0.7, the appraisal of the companies size being made in relation with a threshold of 0.1 % of the global stock of investment.

Estimate of reinvested earnings for years Y-1 and Y (provisional data)

The amount of reinvested earnings for years Y-1 and Y is based on the estimate of "profit" and "dividend" variables for these two years.

- The amount of the "profit" variable is derived from the estimate of companies' profit growth rates for the two years in consideration, on the basis of all available economic data. However, exceptional amounts observed in year Y-2 for certain companies are examined on a case-by-case basis to decide whether they ought to be taken into account for the estimate of profits for years Y-1 and Y.
- Dividends paid in year Y-1 are recorded in the Balance of Payments and are used for the estimate of the "dividend" variable for Y-1.
- Dividends for year Y are subject to a statistical forecast process in relation to the business activity observed in the course of year, or forecast at the beginning of the said year, and with the estimate of profits and dividends growth published by some consulting firms.

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¹ The stocks of direct investment can be negative due to a series of losses