

Income from and valuation effects of direct investment

National statistics on external transactions and positions are assuming growing importance within the EU. The current account balance and the net external position are included as scoreboard indicators in the recently adopted macroeconomic surveillance procedures.¹ The more exacting demands that this places on the analysis of the determinants and the quality of the statistics are illustrated below by examining the rates of return on direct investment. Direct investment has been playing an increasingly important role in the wake of globalisation, and the task of measuring it is highly complex.

Measurement concept and statistical basis

To calculate the rates of return on direct investment, the return generated is compared with the corresponding stocks in the preceding period. Following the methodological breakdown of the international investment position and the balance of payments, the overall return can be split up into a cash flow yield on capital invested (investment income) and a price-related yield (valuation effect). The price-related return contains a market price component that incorporates the effect of changes in equity and bond prices. In addition, an exchange rate effect applies to assets and liabilities denominated in foreign currency. The rates of return calculated in this way provide indicators for explaining current account balances and the dynamics of net external positions. At the same time, they enable conclusions to be drawn regarding the consistency of external statistics.

Cash flow returns on direct investment² are broken down further into earnings from

equity capital and interest on direct investment loans. Whereas the income from equity capital is made up of distributed and reinvested earnings, interest income can be subdivided into interest on normal loans and interest on reverse loans. Normal direct investment loans comprise the provision of financial resources to the direct investment enterprise by the investor. In the case of reverse direct investment loans, lending occurs in the opposite direction – usually by the parent company borrowing from financial subsidiaries set up specially for this purpose. The rates of return on direct investment – broken down into their various components – are calculated separately for outward and inward investment (gross method). This facilitates comparisons of the respective rates of return (cash flow return and price-related return) on German direct investment abroad and foreign direct investment in Germany.

Empirical results for the rates of return on direct investment

During the observation period from 2000 to 2010,³ German direct investors generated an average cash flow return of 5½% on their foreign shareholdings. The dividend yield fluctuated within a narrow band and – given a relatively constant distribution

¹ See Deutsche Bundesbank, Germany's external position against the background of increasing economic policy surveillance, Monthly Report, October 2011, pp 41-49.

² For definitions of the statistical concepts of direct investment, including the associated returns, see OECD (2008), Benchmark Definition of Foreign Direct Investment, 4th edition; and the footnote methodological notes in Deutsche Bundesbank, Direct investment according to the balance of payment statistics, April 2011

³ The data correspond to the figures in Deutsche Bundesbank, Balance of payment statistics, Statistical Supplement 3 to the Monthly Report, February 2012.

volume – corresponded to a mean distribution ratio of around 80%. Consequently, the reinvestment yield showed much greater fluctuation, with the consistently high dividend payouts even temporarily impairing the equity positions when profitability deteriorated.

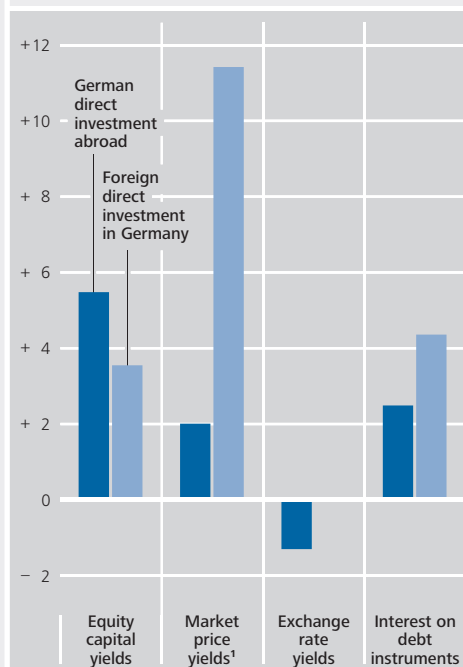
Foreign direct investment in Germany has generated an average cash flow return on equity of 3½% since the year 2000. At times, the dividend payouts actually exceeded earnings, which – amid a generally volatile pattern – resulted in a slightly negative mean reinvestment yield. Particularly in the recession years of 2001-02 and 2008, uncovered losses were incurred in the aggregate, which represents a means of equity capital disinvestment. A sectoral analysis shows that particularly monetary financial institutions made use of this kind of dividend policy in 2008 owing to their high liquidity requirements and growing risk aversion.

The market price effect on the equity holdings of foreign direct investors in German listed companies had a value-enhancing impact since the first survey year 2006, with the exception of 2008. This essentially reflects the performance of the DAX in the period concerned. By contrast, German shareholdings abroad recorded a poorer valuation effect on the whole. The more favourable development of the DAX by international comparison therefore had *per se* a dampening effect on the value of the German net external position.

The exchange rate component of the price-related return on German direct investment equity capital was largely influenced by the change in parity of the euro against the US dollar and the pound sterling, as German direct investment equity holdings outside the euro area are concentrated on the

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Average yield from 2000 to 2010 in %



¹ Since 2006.
 Deutsche Bundesbank

United States and the United Kingdom. Accordingly, an overall negative exchange rate effect was observed during phases when the euro appreciated against the US dollar and the pound sterling (2002 to 2004, 2006 to 2008), whereas a positive exchange rate effect was recorded during periods when the euro depreciated against those currencies (2005, 2010; to a lesser extent also 2001 and 2009). Exchange rate movements had some very marked valuation effects from year to year, ranging from -7% of German direct investment equity capital in 2002 to +9¼% in 2005. In line with the comparatively high degree of globalisation of German banks through their foreign subsidiaries in the major financial centres of New York and London, this generally affected monetary financial institutions somewhat more than non-bank corporations.

For the interest accruing on German debt instrument claims on affiliated enterprises abroad, the analysis of the annual data since 2000 shows an average unweighted rate of 2½%. The implied interest rate varied at a low level between 1% and 4½%. Over the past ten years, German enterprises paid an average interest rate of 4¼% on foreign loans granted to them as part of the direct investment relationship. The interest rate fluctuated within a band of 3½% and 5¾%. It is striking that German debtors continuously paid a significantly higher interest rate on intra-group loans than foreign debtors did to German intra-group creditors.⁴

The interest rate on normal loans in the direct investment relationship stood at an average of around 2½% in the observation period and indicated no significant differences between German and foreign direct investment. A clearer spread of interest rates was observed with regard to reverse direct investment loans. Since 2002, an average interest rate of less than 2% has been received by German subsidiaries for loans granted to their foreign owners. By contrast, German direct investors paid an average interest rate of 6½% on reverse debt instrument liabilities to their foreign investment enterprises. In recent years, this interest rate on reverse loans for German direct investors has continuously been above 5% and up to 8¼%. The main reason for this was the relationship between German group headquarters and their foreign financial subsidiaries, the majority of which are resident in euro-area countries with special taxation rules⁵. Between 2000 and 2010, three-quarters of all German interest payments on reverse direct investment loans was paid to such special-purpose entities. For example, the implied interest rate on German direct investors' reverse debt instrument liabilities to their

(mostly dedicated financing) subsidiaries in the Netherlands stood at 9¾% in 2010.

The preceding analysis highlights the heterogeneous development in the profitability of the different direct investment components. In conceptual terms, valuation effects and the associated risk of capital losses, which stem from the German economy's high degree of international financial interconnectedness, play an important role. The influence of phenomena which also reflect direct investors' financing behaviour is particularly significant. It can thus be observed that German direct investment equity holdings abroad generate a higher cash flow return than foreign direct investment in Germany, while foreign direct investors prefer significantly higher distribution ratios. By contrast, lower interest rates are paid on German debt instrument claims in direct investment relationships than is the case for their equivalent liabilities. This interest rate spread – which is potentially relevant for intensified economic and fiscal policy coordination – is particularly striking with regard to German direct investors' indebtedness to their special financial subsidiaries in individual countries of the euro area.

⁴ For this calculation, the normal and reverse stocks of cross-border claims (liabilities) of domestic affiliated enterprises were taken together (asset-liability principle). The interest rates discussed are the unweighted averages calculated from interest rates on normal and reverse loans.

⁵ On the tax reasons for group financing through financial subsidiaries in individual countries of the euro area, see: Deutsche Bundesbank, German enterprises' profitability and financing in 2007, Monthly Report, January 2009, pp 31-41. Regarding the concept of intra-group loans as a means of minimising global tax payments (transfer pricing) in multinational enterprises, see: OECD (2007), Tax Effects on Foreign Direct Investment; and OECD (2010), Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations.