Belgium's inward and outward foreign direct investment

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Introduction

Belgium receives substantial foreign direct investment (FDI). In 2014, the stock of inward FDI amounted to 216% of GDP(1). On the basis of that ratio, Belgium ranks 14th in the world, compared to 25th in terms of nominal GDP. According to a survey by EY (2015) covering around 800 international investors, Belgium is the fifth most attractive European country. Those investors state that Belgium's advantages concern a central location in the EU, the availability of a trained workforce, opportunities for research and development, an accessible range of subsidies and government support, and the availability of industrial sites. Conversely, they cite the following drawbacks: the burden of taxation, high labour costs, major traffic congestion problems, the power of the trade unions, and lengthy, complicated administrative procedures (2).

Many governments endeavour to attract FDI. The economic literature lists some of the advantages for the host countries. FDI forms a stable source of finance, has a technological impact, contributes to the formation of human capital, facilitates integration into international trade, and fosters a more competitive climate for firms. However, some of those favourable effects are less important for the advanced countries because they can rely on domestic funding sources, and enterprises are closer to the efficiency limit. Nonetheless, FDI creates international links which facilitate inclusion in global value chains and may lead to the transfer of knowhow and expertise. Yet FDI also brings disadvantages, such as the loss of control over decision-making in certain key sectors, the fact that multinationals have less concern for social aspects and the environment, or the more volatile tax base.

Belgium has introduced various measures to attract FDI. In the past, firms centralising the financial transactions of their group enjoyed special tax status via the system of coordination centres. Subsequently, after the European Commission had decided that the system of coordination centres was incompatible with the rules on state aid, the risk capital allowance – known as the notional interest deduction – was introduced into Belgian tax legislation and came into force in 2006. That measure aims to strengthen the capitalisation of firms based in Belgium by offering them the opportunity to deduct from their tax base an amount of notional interest on their "adjusted" equity capital (3). Other arrangements, such as the tax rulings, withholding tax exemption on certain dividends, or the measures to promote research and development, complete the arsenal of measures for attracting FDI⁽⁴⁾. Alongside the federal government, regional agencies also try to encourage investment in their Region (Flanders Investment & Trade, Brussels Invest & Export, Agence wallonne à l'Exportation et aux Investissements étrangers).

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⁽¹⁾ According to the UNCTAD data

⁽²⁾ See for example Bisciari and Piette (2007).

⁽³⁾ The measure was also justified by the aim of reducing the difference in tax treatment between debt financing and equity financing. See Burggraeve et al. (2008) for more information. As a rule, the rate for calculating the tax deduction is equal to the average interest rate on the Belgian government's 10-year linear bonds in the third quarter of the last year but one before the tax

⁽⁴⁾ See http://www.business.belgium.be for more information.

Generally speaking, outward FDI by Belgium receives less attention (1). Traditionally, outward FDI causes unease because people often see it as the first step towards potential relocation of the activity. Furthermore, Belgium has fewer major international players than neighbouring countries (2). Nevertheless, in 2014, almost 600 Belgian parent companies made outward FDI. That investment is beneficial, facilitating access to new markets or resources which in Belgium are either unavailable or more expensive. It also leads to productivity gains and economies of scale for the firm – as does inward FDI – by improving the organisation of the production chain. At macroeconomic level, it is a means of mobilising savings in the case of a net creditor country like Belgium. In contrast to portfolio investments, it guarantees some power of decision which can have a favourable influence on the return.

(1) However, see Dhyne and Guerin (2014) for an analysis of the impact of FDI made by Belgian firms for the first time.

This article aims to examine the recent economic implications for Belgium of inward and outward FDI. The first section describes the global context and developments concerning Belgium. The second section looks at the financial aspects, focusing attention on a specific characteristic that distinguishes Belgium from most of the advanced countries, namely its negative net FDI position. Inward FDI by other countries exceeds Belgium's outward FDI. The low return on Belgium's outward FDI and the impact of that on the current account balance is also discussed. The third section aims to describe the real aspects of FDI, outlining the share of the multinationals in value added and employment and their contribution to the trade balance. This section also assesses the role of inward FDI as a source of finance for real investment in Belgium. Finally, in view of the instances of multinationals deciding to terminate or scale down their activities in Belgium in recent years, this section analyses the survival chance of subsidiaries in Belgium and developments in employment since the economic crisis of 2008-2009.

Box – Foreign direct investment: concepts and definitions

If an entity acquires a lasting interest in an entity established in another country, that constitutes FDI. The term "lasting interest" implies that there is a long-term relationship between the direct investor and the investment enterprise, and that the investor exerts a significant influence over the strategy of that enterprise. On the basis of the IMF rules, it is assumed that there is a lasting interest, and hence FDI, if the investor owns at least 10 % of the capital or voting rights in a foreign enterprise.

If the investor is a foreign company which acquires a stake in a domestic company (i.e. subsidiary), that constitutes inward FDI. Outward FDI occurs if domestic companies (i.e. parent companies) invest in foreign firms (1).

Via the direct investment flows, the investor builds up an FDI position, also referred to as the outstanding amount. However, the change in a position over time does not depend solely on the FDI flows, since that position is also influenced by revaluations, i.e. price or exchange rate fluctuations, and by other adjustments such as the rescheduling or cancellation of debts.

FDI comprises the initial transaction (10 % minimum), subsequent financial transactions (including those below 10 %) between the two entities, and loans between sister companies belonging to the same international group. Those participating interests may take the form of the establishment of a business or institution (known as greenfield investments), or mergers and acquisitions.

There are two main categories of FDI:

- Equity investments comprise share capital, subscriptions to capital increases, investments in property and reinvested earnings, i.e. the reserved, undistributed part of the subsidiaries' current operating profits.
- (1) In this article, if the source permits, we measure direct investment on the basis of the assets and liabilities that a country accrues via direct investment. According to the BPM6 terminology, those assets and liabilities exceed the outward and inward investment respectively, since loans by subsidiaries to their parent company are deducted from the latter.



⁽²⁾ According to UNCTAD, in 2013 the neighbouring countries had multiple companies in the world's top 100, but Belgium had only one (AB Inbev).

- The "other capital" or "loans between affiliates" category comprises loans between the direct investors and the firms in which they have invested, and loans between enterprises belonging to the same group and established in different countries, even if those enterprises have no direct link in the form of company capital.

This analysis is based on data concerning FDI flows, outstanding amounts and income, collected in accordance with the principles of the 6th edition of the balance of payments manual (BPM6)(1). However, the analysis period is short since those data are available only from 2008, or even from 2013 in the case of the new series introduced by the BPM6 such as income from FDI. The income, which is recorded as a current account item, consists of interest, dividends and reinvested earnings. It does not include revaluations of the outstanding amounts. Here it should be pointed out that interest and dividends are not included in the FDI flows, in contrast to reinvested earnings.

Finally, it is worth clarifying the point that FDI exists where a firm holds a stake (of more than 10%) in a foreign firm. The latter may, nevertheless, be an institution with a purely financial object, not performing any genuine economic role for the country where it is based. In addition, the group of Belgian multinationals does not comprise just the leading large firms in the private sector: small firms or public enterprises may also have foreign shareholdings or even be partly foreign owned.

(1) See IMF (2009) for more information.

1. Global and national trends

Similar to other forms of cross-border financing, FDI (both inward and outward) has declined since the financial crisis, especially in the European Union. This section describes some international trends and examines whether the recent developments in Belgium are connected with them. While section 1.1 analyses the flows, section 1.2 takes a closer look at the stock of FDI and examines whether they accord with economic theory.

1.1 Developments in direct investment flows

In global terms, FDI has expanded enormously in recent decades, far outpacing the growth of GDP and world trade. Annual FDI is currently around a hundred times the level prevailing in the early 1970s, and by the end of 2014 totalled \$ 1.2 trillion. By way of comparison, exports increased by a factor of 60 over that period, and GDP grew by a factor of 20.

FDI is generally regarded as a measure of financial integration since it involves cross-border financing. On the basis of that investment, financial integration has gradually gained ground compared to trade integration. The literature refers to an interaction between financial integration and trade integration. That interaction is said to operate in both directions (Aizenman and Noy, 2006). On the one hand, an increase in international trade stimulates demand for international financing, and therefore FDI: on the other hand, FDI – especially if it is aimed at vertical integration at international level – stimulates exports and imports (1).

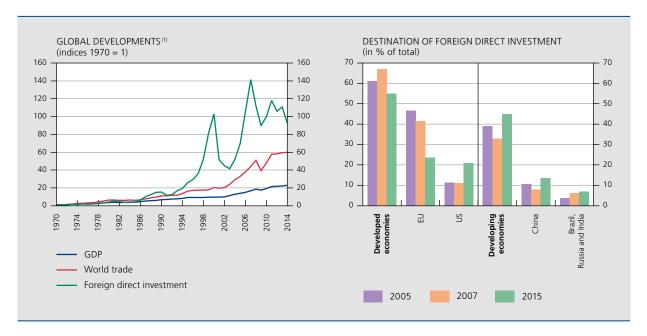
Financial flows are more volatile than trade flows, because FDI is sensitive to changes in risk appetite and risk perception. Fluctuations in asset prices also generate volatility. Mergers and acquisitions are recorded at market value, and there is often a surge in the number of acquisitions at times when prices are relatively high and the financial markets are booming. For instance, FDI peaked when the stock markets reached a high point just before the dotcom crisis in the early 2000s and the financial crisis of 2007-2008. A transaction (e.g. an acquisition) may also trigger multiple financial transactions and therefore drive up the FDI figures, e.g. if the acquisition is made via an intermediate entity such as a holding company.

The share of the developed economies - and especially the European Union - in total inward FDI declined considerably as a result of the financial crisis, in favour of the emerging economies. Before the financial crisis the EU⁽²⁾ still attracted almost half the total FDI, but in 2015 its share was down to 24%. That is largely due to less

⁽¹⁾ Vertical integration means that the production of a good or service is divided into various stages which take place in different countries in order to exploit comparative advantages and cut costs. This is in line with the concept of "global value chains". Conversely, horizontal FDI amounts to producing the same product in another country.

⁽²⁾ In this article the statistics for the EU and the euro area are the aggregate figures for the individual countries; they therefore include investments between the various Member States.

CHART 1 INTERNATIONAL DEVELOPMENTS IN FOREIGN DIRECT INVESTMENT FLOWS



Sources: OECD, UNCTAD.

(1) Nominal developments. Foreign direct investment measured on the basis of inward foreign direct investment, world trade measured on the basis of goods exports. Theoretically, inward FDI should tally, at global level, with outward FDI, and exports should tally with imports. In practice, however, there are statistical discrepancies between these concepts.

intensive FDI flows between the various EU Member States. In the EU, not only was there a steep fall in cross-border capital movements via the banks, there was also a slump in FDI(1). The United States proved more resilient, although the increase in FDI in 2015 was probably due to a number of group restructurings, and does not indicate a lasting recovery (UNCTAD, 2016).

The growing importance of the developing economies in FDI implies that their accelerating economic growth is also accompanied by closer financial integration, both between one another and with the rest of the world. Another contributory factor is a less stringent regulatory framework governing openness to foreign capital (e.g. more flexible foreign capital approval procedures, abolition of limits on foreign board members) (OECD, 2015). Their share in the total FDI received was estimated at 45 % in 2015. The BRIC countries receive roughly half of all direct investment flowing into the developing economies. Among the BRIC countries, China succeeded in attracting the most FDI. Similar conclusions emerge on the basis of

As in the EU, FDI in Belgium declined in the wake of the financial crisis. Since 2013, there has actually been disinvestment (i.e. negative flows averaging 3 to 5% of GDP per annum). That concerns both FDI in Belgium and Belgian FDI in other countries, whereas over the period 2008-2012 both still averaged around 20% of GDP per annum. However, the strong growth and sharp fall in FDI must also be viewed against the backdrop of the notional interest deduction scheme. As a result of that tax advantage, FDI in Belgium comprises a large proportion of "capital in transit", i.e. capital that enters the country and in most cases leaves again immediately. When that capital enters Belgium, it often takes the form of equity, for tax reasons: when it leaves Belgium, it does so in the form of an (intra-group) loan.

Although there is no direct macroeconomic method of measuring capital in transit (2), the composition of the direct investment flows suggests that a decline in capital in transit since 2013 is largely responsible for the reduction in FDI. The rest of the world primarily scaled down shareholdings in Belgium, while Belgium cut its lending to the rest of the world. Exactly the opposite happened during the upswing phase in 2008-2012, when Belgium

outward FDI, though the developing economies have a smaller share of that owing to their net debtor status.

⁽¹⁾ However, during the crisis, direct investment was initially the least affected form of cross-border financing. Direct investment is generally less volatile than portfolio investment and other forms of investment (Lipsey, 1999), presumably because of its long-term character.

⁽²⁾ An analysis of all flows associated with capital in transit requires individual data at firm level since some flows offset one another as a result of aggregation: see

TABLE 1 BELGIUM'S INWARD AND OUTWARD FOREIGN DIRECT INVESTMENT FLOWS

	Average annual flow (in % of Belgian GDP)		Share of holding companies in outstanding amounts (in % of the total)	
_	2008-2012	2013-2015	2014	
Foreign direct investment in Belgium	22.0	-4.8	38.2	
Equity and reinvested earnings	12.6	-3.9	38.9	
Loans	9.3	-1.0	36.9	
Foreign direct investment by Belgium	18.5	-3.1	34.2	
Equity and reinvested earnings	6.2	4.5	14.5	
Loans	12.2	-7.6	46.5	
p.m. Average rate of the notional interest deduction over the period considered (in %)	3.8	2.3		

Source: NBB.

mainly received FDI in the form of equity, and Belgian FDI principally took the form of loans. The decline in capital in transit is due to the diminished advantage offered by the notional interest deduction. That advantage was eroded mainly by the decline in the long-term yield on Belgian government bonds to which it is linked.

The share of holding companies in the various forms of FDI also reveals that capital in transit consists largely of equity when it enters Belgium and largely of loans when it leaves the country. Capital in transit is frequently channelled via a holding company established in Belgium. Holding companies (1) represent a relatively large proportion of the total equity capital that Belgium attracts (38.9%) and of the loans that Belgium grants (46.5%). Their weight in other financial transactions is smaller, especially in the acquisition of equity in other countries (14.5%).

1.2 Outstanding foreign direct investment and link with the level of economic development

Alongside its important trading relations, Belgium also maintains close financial links with the rest of the world. The ratio of inward and outward FDI to GDP (216%

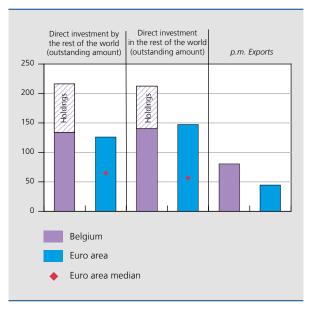
higher in Belgium than in the euro area (126 % and 147 % of GDP respectively) (2). FDI thus confirms Belgium's status as a small, open economy.

and 213% of GDP respectively in 2014) is considerably

However, much of that investment comprises capital in transit. The substantial share of holding companies in Belgium's inward and outward FDI is notable.

CHART 2 FOREIGN DIRECT INVESTMENT: OUTSTANDING **AMOUNTS**

(in % of GDP, 2014)



Sources: ECB, NBB

⁽¹⁾ Holding companies are identified as firms belonging to the sector "Captive financial institutions and money lenders" (S.127) in the national accounts.

⁽²⁾ As mentioned earlier, the euro area figures were calculated as the aggregate of the Member States and – as in the case of the individual countries – include direct investment with both countries outside the euro area (extra) and countries in the euro area (intra). The official balance of payments and IIP statistics for the euro area only take account of relations with countries outside the euro area. According to those data, inward and outward direct investment (extra euro area) came to 66 % and 84 % of GDP respectively in 2014.

Excluding those holding companies, the scale of Belgium's outstanding FDI is comparable to that of the euro area. Yet Belgium is still among the countries with a relatively high degree of financial openness. Holding companies are also active in other countries, but it is not possible to adjust for that on the basis of the figures. The euro area total is also driven up by a few countries where FDI is extremely high in relation to GDP, such as Luxembourg (a ratio of over 8 000 % of GDP), where it can be assumed that capital in transit likewise predominates (Genson, 2013). For that reason, it may be more useful to make comparisons with the median for the euro area, for which the degree of openness is considerably lower than for Belgium (see chart 2).

The impact of capital in transit is one factor that makes it difficult to link the scale of FDI to the structural characteristics of an economy, and also makes it hard to examine whether a country ranks high or low in terms of attracting or effecting foreign direct investment. In that regard, it is advisable to take net outward FDI (i.e. the difference between outward and inward FDI) as the basis. Capital in transit has no impact here because its balance is in principle zero.

The relatively sparse literature on the scale of FDI therefore focuses on that net concept. According to Dunning (1981), the scale of net outward FDI depends on an economy's stage of development. He identifies the following five stages:

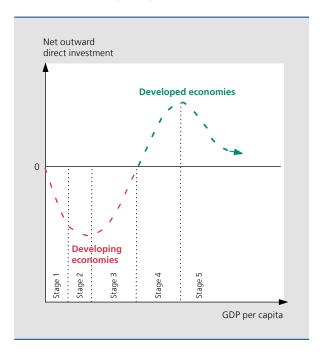
- Stage 1: net outward FDI is zero or slightly negative, both inward and outward FDI are negligible. A small negative balance may be due to natural resources that attract foreign investment. This concerns the least developed economies with few if any "location advantages" (the country's attractiveness in economic and legal terms);
- Stage 2: the net direct investment position becomes more negative as a result of more inward FDI exceeding the outward FDI. These countries feature increasing location advantages, especially the expansion of a legal framework, a growing market, a reduction in the investment risks and the presence of cheap labour;
- Stage 3: although the net FDI is still negative, outward FDI is now also rising as a result of increasing "ownership advantages" (1) for businesses in the country (businesses become more competitive, partly as a result of the transfer of expertise associated with inward FDI). Inward FDI begins to slow down because rising labour costs begin to weaken the location advantages,

- and particularly the comparative advantage in labourintensive production;
- Stage 4: the net direct investment position is now positive. As a result of increasing ownership advantages, firms in these countries become ever more likely to expand abroad (market-seeking): the location advantages of the home country also diminish as a result of the constantly rising labour costs, so that resident companies invest in other countries (efficiency-seeking);
- Stage 5: since according to Dunning countries progress from stage 1 to stage 4, once all countries have ultimately reached stage 4 it is theoretically impossible for them all to have a positive FDI position. These economies would thus enter a stage 5 in which they alternate between temporary deficits and temporary surpluses.

On the basis of the level of incomes in the developed economies (including Belgium), which can be measured according to per capita GDP, those economies can be expected to have positive net outward FDI, while the developing economies receive net investment.

Data for 2014 show that Dunning's theory offers a satisfactory explanation for the scale of the net outward FDI recorded by the various economies in the world, albeit with the notable exception of Belgium. Among the developed economies, which predominantly feature

CHART 3 DUNNING'S DEVELOPMENT PATH FOR FOREIGN DIRECT INVESTMENT



Sources: Dunning (1981), NBB.

⁽¹⁾ Advantages associated with the undertaking such as specific production techniques, management quality, or a brand name.

TABLE 2 NET OUTWARD DIRECT INVESTMENT(1): OUTSTANDING AMOUNTS

(in % of GDP, 2014)

Developing economies	-11.6	Developed economies	7.8
Africa	-19.6	European Union	6.8
Asia and Oceania	-49.3	Belgium	-3.4
China	-3.4	Germany	16.0
India	-6.0	France	21.2
Latin America and the Caribbean	-21.3	Netherlands	97.8
South-Eastern Europe and CIS	8.2	United States	5.2
Russia	2.9	Other developed economies	6.8
p.m. BRIC	-5.2	Total world	0.0

Sources: ECB, UNCTAD, NBB

a decidedly positive net FDI, Belgium is in a slightly negative position, which means that the country receives more direct investment than it makes itself in the rest of the world. That is at odds with Belgium's level of development whereby, in view of the normally accompanying savings surplus for an economy, there should be a net flow of finance from Belgium to the rest of the world, and not the opposite situation as revealed by the FDI data(1).

2. Financial aspects: does direct investment offer the Belgian economy a financial return?

On the basis of the new data on FDI (the new accounting rules (BPM6) make provision for recording the resulting income, see Box) - the financial return on FDI can be analysed in greater detail. More generally, the income associated with FDI is part of the income from investment in the rest of the world, which includes other forms of investment as well as FDI. The net income that a country receives from those financial transactions with the rest of the world contributes to the current account, and therefore to an economy's net wealth. Section 2.1 begins by examining whether Belgium earns an income from its financial transactions with other countries, or whether it has to make a payment to the rest of the world, and what is the contribution from FDI in that. Section 2.2 then looks at the return generated by FDI: it also tries to explain that return on the basis of the scale and composition of the FDI.

2.1 Income from financial transactions with the rest of the world

The funds that a country invests abroad or borrows from other countries in a given year are recorded in the financial account of the balance of payments. The assets built up via those instruments are evident from the statistics on the international investment position (IIP). Apart from FDI, there are three other main types of financial instruments: portfolio investment, other investment (including financial derivatives) and official reserves.

Portfolio investment includes investments in equities and bonds, as does FDI, except that in this case there is no question of an investment aimed at acquiring a lasting interest in an undertaking. While FDI often takes place between undertakings (mergers and acquisitions, etc.), portfolio investments are often made by individuals and may or may not be made via the financial sector. Other investments are claims in the form of cash, deposits or loans. Owing to their nature, they are built up mainly via financial intermediaries (banks). Unlike in the case of non-financial corporations, lending between banks is not regarded as direct investment but as other investment, even if there is a direct investment relationship. Finally, reserve assets are claims on the rest of the world which are readily available to and controlled by the monetary authorities.

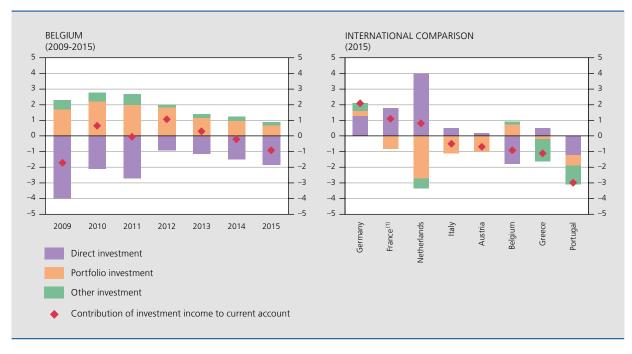
All these financial claims/liabilities generate income (dividends, interest). A country whose claims on the rest of the world exceed its liabilities generally records a positive net income, when the assets and liabilities have a similar

⁽¹⁾ Difference between outward and inward FDI, a positive (negative) figure indicates the accrual of net claims (liabilities) on the rest of the world.

⁽¹⁾ It should be noted that the Belgian economy does actually have a financing surplus, but it mainly flows to the rest of the world in the form of portfolio investments and other investments (primarily via the financial sector), so that little if any of it takes the form of direct investment.

CHART 4 **NET INVESTMENT INCOME**

(in % of GDP)



Sources: EC, ECB, NBB.

(1) Latest complete data for France: 2012

composition. A country with more liabilities than claims will generally have to make a net payment to the rest of the world. The positive or negative balance can be seen from the investment income balance (1).

Considering Belgium's very substantial net claims on the rest of the world (net foreign investment - also known as the net international investment position (NIIP) - came to € 254 billion or 62 % of GDP at the end of 2015), the net income generated by those net claims is relatively small. Since 2014, the net income recorded on them has actually been negative (€ -3.7 billion or -0.9 % of GDP in 2015).

A breakdown of investment income by functional classification shows that Belgium records an adverse balance mainly for FDI. In 2015, the associated net payment to the rest of the world came to €7.5 billion, or 1.8% of GDP. The investment income is influenced by both a volume and a price effect. The volume effect is determined by the outstanding amount of net FDI: the price effect by the return achieved on the FDI in and by Belgium, and the difference in return between the two. The return depends amongst other things on the composition of the FDI.

An unfavourable volume effect is the primary reason why Belgium records a lower income on FDI than neighbouring countries. The net outward FDI is much lower than in Belgium's neighbouring countries, and is actually slightly negative (-0.5% of GDP in 2015). The somewhat negative net position for FDI is odd in view of the very substantial total net investment by Belgium in the rest of the world (62 % of GDP). The Belgian economy thus builds up its wealth mainly in the form of portfolio investment and other investment, and to a far lesser degree via FDI. This could be because of the considerable financial wealth of Belgian households, which is channelled to the rest of the world mainly via the financial sector. It should also be noted that the strong positive FDI position of neighbouring countries, and more particularly the Netherlands, is determined primarily by the presence of some large multinationals, such as Shell and Unilever.

That is an atypical situation within the euro area, since

most countries acquire a positive net income from their direct investment relationships.

⁽¹⁾ That balance is part of the primary income balance which in turn forms part of the current account. The investment income balance is also one of the differences between the gross national product (GNP) and gross domestic product (GDP). If the investment income balance is positive, GNP – ceteris paribus – is higher than GDP. Although the investment income balance is negative for Belgium, Belgium's GNP was 0.8 % higher than its GDP in 2015 as a result of other primary income, more specifically the net income from frontier work. However, the positive difference between GNP and GDP in Belgium has narrowed since 2012 as a result of the deterioration in the investment income balance.

NET INTERNATIONAL INVESTMENT POSITION (NIIP)(1): INTERNATIONAL COMPARISON TABLE 3

	BE	DE	FR	EA	NL
Direct investment	-0.5	18.6	22.2	20.9	97.9
of which: equities	-46.7	27.5	22.5	17.1	57.3
Portfolio investment	27.2	3.1	-35.1	-28.7	-49.7
Other investment	29.8	22.2	-10.3	-2.4	13.2
Reserve assets	5.4	5.3	5.8	6.2	5.2
NIIP	61.9	49.2	-17.4	-4.0	66.6

Sources: ECB, NBB.

2.2 Return on foreign direct investment

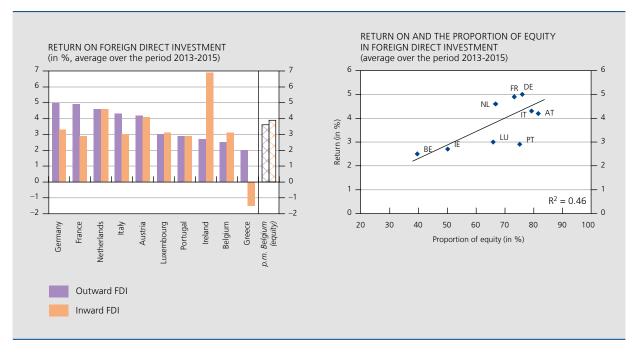
The net income that a country receives on its direct investment relationships with the rest of the world depends not only on the volume effect (i.e. the net position) but also on a price effect (i.e. the return).

(1) This concerns the part of the earnings that is not paid out in the form of dividends but still accrues to investors as a result of their direct investment.

The return can be calculated as the ratio between the income generated by the FDI in a given year (interest, dividends and reinvested earnings (1)) and the outstanding amount of FDI in the previous year. Any changes in the valuation of the FDI position (e.g. as a result of fluctuating share prices or exchange rates) are not regarded as income according to this definition.

Over the period considered (2013-2015), the return on Belgium's outward FDI averaged 2.5 %. The return that

CHART 5 RETURN ON AND THE PROPORTION OF EQUITY IN DIRECT INVESTMENT



Sources: EC, ECB, NBB.

⁽¹⁾ Difference between external assets and external liabilities. A positive (negative) figure indicates net claims (net liabilities) on the rest of the world.

the rest of the world received on direct investments in Belgium came to 3.1 %. Since the return on the liabilities exceeds that on the assets, Belgium records a negative net income on its FDI, including in view of its slightly negative net direct investment position.

This adverse result is attributable to an abnormally low yield on Belgium's direct investment in other countries, rather than an abnormally high yield on Belgium's liabilities, because the return on direct investment in Belgium is comparable to that in neighbouring countries. However, the return that Belgium makes on direct investments in the rest of the world is the second lowest among the euro area countries for which data are available.

The low return is due to the composition of Belgium's FDI. In contrast to neighbouring countries, Belgium's outward foreign direct investment consists mainly of (intra-group) loans. Generally speaking, countries whose FDI consists mainly of equity – and therefore not loans – make higher returns. The unfavourable composition of the FDI in that respect is also evident from the clear negative net position in equities (table 3). The direct investment that Belgium receives in the form of equity from the rest of the world exceeds its own FDI in that form by 46.7 % of GDP. That outcome is attributable largely to capital in transit (1).

(1) When this capital enters Belgium it often takes the form of equity for tax reasons (notional interest deduction); when it leaves Belgium it often does so in the form

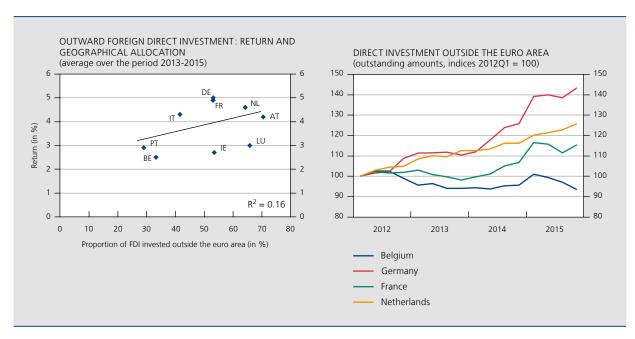
But even where Belgium's direct investments take the form of equity capital, the return is still lower (3.6%) than that achieved by neighbouring countries on their total direct investments (equity and loans combined). This shows that apart from the chosen financial instrument (equity versus loans) there are other factors accounting for the disappointing return.

The return that other countries make also illustrates that FDI offers a potentially high yield. Over the period 2013-2015, the neighbouring countries made a return on their FDI of 4.4%, and that was in a low interest rate environment. The high return nevertheless has to be weighed against the risk incurred, which in the case of direct investment is generally greater than for other forms of investment. It should be noted that the return on direct investments also includes the retained earnings and/or the realised loss.

The higher return that other countries make is perhaps attributable to the fact that their FDI focuses more on riskier markets, such as the emerging economies, where yields often exceed those in the developed economies.

The return does indeed appear to have a positive link with the proportion of their FDI that countries invest in markets outside the euro area. Belgium's direct investment is heavily concentrated on the European market: markets outside the euro area account for only a third of the total direct

CHART 6 OUTWARD FOREIGN DIRECT INVESTMENT: RETURN AND GEOGRAPHICAL ALLOCATION



Sources: EC, NBB

investment, whereas neighbouring countries place (considerably) more than half of their direct investment outside the euro area. It should be noted that Belgium's strong concentration on the European market is due largely to direct investment in Luxembourg (Belgium's main investment destination, representing 20% of its total direct investment). Since most of that consists of direct investment in holding companies and investment funds based there, it is likely that Belgium ultimately holds more outside the euro area than these figures indicate. But even assuming that most of the direct investment via Luxembourg is held outside the euro area⁽¹⁾, the share of those markets in Belgium's outward FDI is still relatively small.

Measured by the outstanding amount, the neighbouring countries have also systematically stepped up their direct investment outside the euro area since 2012, while Belgium has seen its outstanding direct investment decline (-6.5%) on those markets, so that its market share has fallen. The neighbouring countries therefore seem to have taken greater advantage of the faster growth outside the euro area.

- (1) On average, 66 % of direct investment by Luxembourg in 2015 was destined for investment outside the euro area.
- (2) The firm data generally form the principal source for producing the macroeconomic aggregates. As a rule, the data need to undergo processing in order to compile these statistics, e.g. processing to comply with the current statistical rules, extrapolation if the collected data are not exhaustive, correctic if they are clearly incorrect, or arbitrage to ensure consistency with other statistical series.

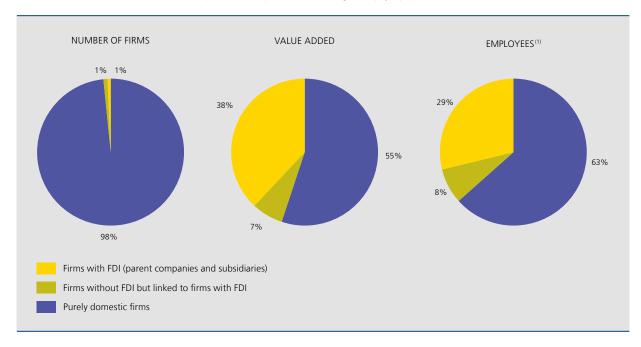
3. Real aspects: typology of multinationals and impact on Belgium's real economy

The rest of this article uses firm data to gain an accurate idea of the influence of FDI on the real economy. On that basis, it is possible to estimate the share of the multinationals in value added and employment, and their contribution to the trade balance and real investment. To that end, the firm data on FDI from the balance of payments were linked to the firm data from the Central Balance Sheet Office and the foreign trade. Those databases have a high coverage ratio since they concern almost all nonfinancial corporations in the private sector, excluding the self-employed. However, it is worth mentioning that firm data, despite their quality, are non-adjusted gross data, in contrast to the available macroeconomic statistics (2).

3.1 Weight of the multinationals in the Belgian economy

The use of firm level data makes it possible to break down value added and employees on the basis of a direct investment relationship (if any) with the rest of the world. To arrive at an accurate diagnosis, resident non-financial corporations excluding self-employed people were divided into

CHART 7 WEIGHT OF THE MULTINATIONALS IN THE BELGIAN ECONOMY (2014, total of non-financial corporations in the private sector, excluding self-employed people)



Source: NBB calculations. (1) In full-time equivalents three categories. The first comprises the multinationals, i.e. firms effecting inward or outward FDI. That therefore includes the Belgian parent companies with subsidiaries in other countries, and the Belgian subsidiaries of foreign parent companies. The second category comprises firms which have no FDI of their own but are usually linked to multinationals. In practice, they either own more than 50 % of a firm in the first category, or are more than 50 % owned by such a firm. In a way, they can be called firms with an "indirect" investment relationship with the rest of the world. Finally, the purely domestic firms complete the typology. They have no FDI relationships (1) and are not linked to multinationals.

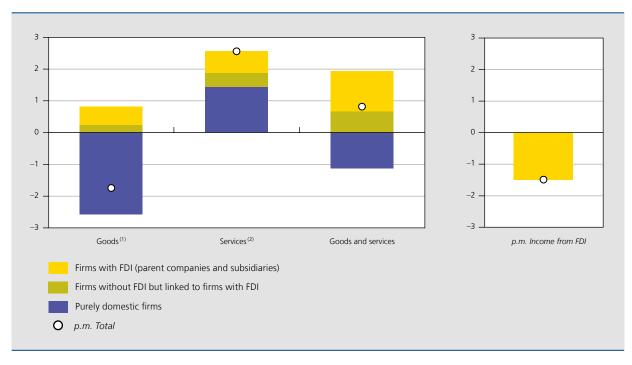
Belgium has relatively few multinationals and associated firms. In 2014, they represented 2 % of the non-financial enterprises in the private sector excluding self-employed people. It should be noted here that the multinationals comprise around 2 100 Belgian subsidiaries of foreign groups, compared to about 600 Belgian parent companies. Although the multinationals are relatively few in number, together with their associated companies they nevertheless create 45% of value added and employ around 37 % of wage earners. Their small number combined with their economic importance indicates that the multinationals are generally very large. Since their share of value added outweighs their share of employees, it can also be said that the apparent productivity of wage earners in multinationals is relatively higher.

As well as that, multinationals often also act as a catalyst for an economy's productivity. The economic literature demonstrates spillover effects in that connection. Thus, according to NBB (2016), purely domestic firms that deal with multinationals in buying or selling intermediate goods and services are more productive than other purely domestic firms.

The multinationals and their associated firms also play a crucial role in international competitiveness. On the basis of certain assumptions (2), it is possible to estimate their direct

- (1) They have no FDI relationships neither flows nor outstanding amounts for the
- (2) The foreign trade figures concerning international trade in goods cover only about 90 % of the total flows, because the trade reporting obligations in the EU are subject to thresholds which have changed over the years. In 2015, a firm only needs to report trade flows in the EU if they exceed € 1 million in the case of exports or € 1.5 million in the case of imports. However, since the surveys include all multinationals, it was assumed that domestic firms accounted for the trade in goods not recorded in the microeconomic data. Conversely, in the case of services, no assumption was made because the data are collected via a survey covering a representative sample of firms which cannot be guaranteed to include all the multinationals. With the exception of the amounts that individuals spend on travel, which therefore do not appear in the data collected, the coverage of international trade in services nevertheless exceeds 85 %

CHART 8 WEIGHT OF THE MULTINATIONALS IN NET EXPORTS (2014, estimates of the direct contribution to the current account of non-financial corporations in the private sector excluding self-employed people, in percentage points of GDP)



Source: NBB calculations.

- (1) Estimates based on foreign trade data according to the national concept
- (2) Estimates based on the balance of payments survey

contribution (1) to the trade balance. In 2014, that contribution was positive for both goods and services. According to the estimates, it came to almost 1.9 percentage points of GDP in 2014. In contrast, purely domestic firms (2) made a negative contribution to the trade balance, in particular because they imported more goods than they exported.

It is interesting to compare the net exports of the multinationals with the findings on net income from FDI set out in section 2.1. Although the FDI income paid to the rest of the world exceeds the FDI income received from the rest of the world, the multinationals' exports of goods and services nevertheless exceed their imports. In the end, those two findings have opposing effects on the current balance, which comprises both items (3). However, we must avoid the hasty conclusion that the proceeds from the exports of goods and services produced by multinationals in Belgium are repatriated to other countries, because we are talking about net exports here, not profits. Also, section 2.1 showed that the negative FDI net income is due mainly to the low return on outward FDI.

3.2 Foreign direct investment, a source of finance for real investment?

So far we have analysed the economic weight of multinationals in regard to value added, employment and contribution to the trade balance. However, FDI is often also mentioned as a potential source of finance for real investments, such as purchases of machinery or land, or construction projects, but also expenditure on research and development, patents, etc. To test this statement on the basis of Belgian data for the period 2008-2014, it is necessary to conduct a detailed analysis of capital movements between Belgian multinationals and the foreign companies in their group.

Such an exercise sheds further light. The FDI flows reported in the available macroeconomic statistics and described in section 1.1 mask a part of the financial transit movements. Those transit operations, primarily seen in Belgian subsidiaries of foreign parent companies, increase the inward and outward capital flows.

First, many Belgian multinationals receive a capital contribution from foreign companies in the group and lend to foreign group companies in the same year. Those movements are due partly to the notional interest scheme that provides an incentive for firms based in Belgium⁽⁴⁾ to increase their equity capital, particularly by means of foreign capital. However, they can offset that transaction by granting a loan in exchange to group companies based elsewhere in the world. Next, in the same year, new loans are also granted and existing loans are redeemed, as certain subsidiaries in Belgium perform the role of financial centre for their whole group by simultaneously receiving and granting loans. Finally, financial movements may offset one another at aggregate level. For instance, some multinationals may receive capital while others provide capital for foreign firms in their group.

Between 2008 and 2014, the total capital inflow (5) via FDI relationships averaged more than €800 billion a year. The capital outflow was similar in size. That is true both for Belgian subsidiaries of foreign parent companies and for Belgian parent companies, but the amounts involved are much greater for the former. However, those movements largely offset one another at macroeconomic level.

This capital in transit is not confined to a small group of firms, or just a few holding companies. Every year, almost 90% of Belgian multinationals received capital from a foreign firm in their group. In about 42 % of those cases, the capital outflow exactly matched the inflow. For 36 % of those multinationals there was also a capital outflow to foreign companies in the group, although it was smaller than the inflow. Nonetheless, that outflow averaged over 80 % of the incoming amounts. Finally, just 22 % of those multinationals received foreign capital without at the same time exporting capital. Here it should be noted that financial transit operations are not confined to subsidiaries of foreign groups, since the percentages for Belgian parent companies on their own are similar. As already pointed out, however, the amounts involved are smaller.

To determine whether foreign resources are used to finance real investment, the annual net inflow of foreign capital was first calculated for each firm by deducting the capital outflow from the inflow. Next, we examined the correlation between that annual net inflow and real investment on an annual basis (6). This comparison made

- (1) The exercise only takes account of the direct contribution. It is possible that. in producing goods or services for export, multinationals purchase intermediate goods and services from Belgian firms which must first import them. However, it is difficult if not impossible to estimate this indirect contribution to the trade
- (2) By definition, the direct contribution of purely domestic firms to the trade balance originates only from firms which export and/or import, as other purely domestic firms do not engage in trade in goods or services with foreign firms
- (3) It should be noted that it is impossible to calculate the total direct contribution of multinationals to the current account balance in the absence of data on the net proceeds of portfolio investments.
- (4) Here it should be noted that the scheme applies equally to both multinationals and purely domestic firms.
- (5) More specifically, with regard to loans, a capital inflow (or outflow) is defined from the point of view of the Belgian firm as an increase (decrease) in the debt towards the foreign counterparty in the liabilities of the Belgian firm, or a fall (rise) in the claims on the foreign counterparty in the assets of the Belgian firm. In regard to the equity capital, a capital inflow (or outflow) from the point of view of the Belgian firm is defined as either an increase (decrease) in the equity by the foreign counterparty in the liabilities of the Belgian firm, or as a fall (rise) in the stake owned by the foreign counterparty in the assets of the Belgian firm
- (6) By focusing solely on firms with positive real investments, since demand for finance does not arise in the case of asset sales (real disinvestment). The exercise takes no account of any time lag between the financing and the real investment. However, econometric analysis reveals that there is a negative link between the net inflow of capital in year t and the real investment in t+1, while the link is positive, albeit with a very low coefficient, if the net inflow of capital and the real investments occur in the same year.

it possible to determine the proportion of that real investment potentially covered by that net inflow. This is a question of potential funding, because if the inflow of foreign money coincides with the real investment, there is no formal certainty that the inflow was actually used to fund that investment.

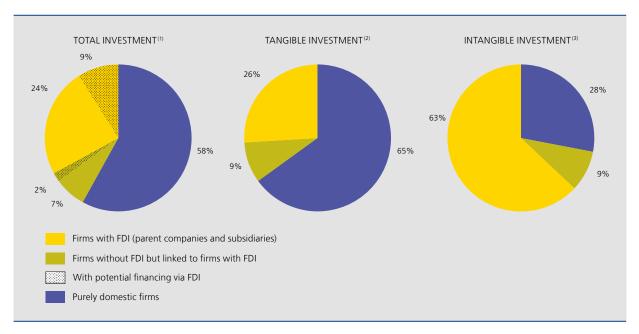
The results of that analysis are shown in chart 9, indicating that between 2008 and 2014, multinationals accounted for 33 % of real investment in Belgium. Part of that, namely 9 percentage points, was potentially funded by a net inflow of foreign capital. The remaining real investment by multinationals, 24 percentage points, was funded via alternative sources, such as bank finance or domestic internal finance. For Belgian firms linked to multinationals, there appears to be a correlation between their real investment and the net inflow of foreign capital into the group to which they belong amounting to 2 % of real investment in Belgium. Once again there is no certainty about the source of funding, as no information is available on any transfer between the group entity recording the capital inflow and the associated firm making the investment. It is only possible to state that, at group level, the real investment and the net inflow of foreign capital took place simultaneously.

Overall, 11% of total real investment in Belgium was therefore potentially financed with foreign capital. For information, the amounts in question represent less than 1% of the total inflow of foreign capital. Although that is considerable, it can ultimately be said that a large proportion of it relates to financial transit, and only a very small percentage funds real investment in Belgium, even in a crisis period when it may be more difficult to raise finance on the local market.

The economic literature contains few articles on that subject, partly because access to firm data is limited. Ali-Yrkkö and Leino (2014) conducted a study of this kind on the basis of Finnish data. Their conclusions tally fairly closely with this analysis. In particular, they show that FDI flows feature substantial financial transit. They also conclude that the capital inflow makes a minimal contribution towards funding the real economy in Finland.

Multinationals perform a crucial role for growth potential. Together with their associated Belgian firms, they accounted for 42 % of real investment in Belgium between 2008 and 2014, although only a small proportion of that was funded with foreign capital. Those results are not attributable to exceptional investments occurring only in

CHART 9 REAL INVESTMENT AND POTENTIAL FINANCING VIA FOREIGN DIRECT INVESTMENT (period 2008-2014, total of non-financial corporations in the private sector excluding self-employed people)



Source: NBB calculations

- (1) Total real investment is determined on the basis of the company balance sheets. The figure provides an estimate of the gross investment in fixed assets included in the national accounts and is obtained as the difference between purchases and sales of fixed assets
- (2) Tangible investment, determined on the basis of the tangible fixed assets on company balance sheets, includes plant and machinery, equipment, furniture, rolling stock, leasing and similar rights, assets under construction and advance payments.
- (3) Intangible investment, determined on the basis of the intangible fixed assets on company balance sheets, comprises research and development costs, concessions, patents, licences, knowhow, trademarks and similar rights, and goodwill

one year, since a similar breakdown is evident for capital stocks.

The analysis can be refined, as real investment is subdivided into tangible investment, that accounts for the major proportion, and intangible investment. The share of multinationals in the latter, which includes research and development costs, concessions, patents and licences, is relatively larger. That is due partly to the fact that only large firms - many of which are multinationals – have the resources to fund that type of investment. However, the proceeds from intangible investment benefit the whole group, and not just the institutions established in Belgium. Equally, Belgian firms owned by international groups can benefit from research conducted by sister firms in other countries. Conversely, the geographical aspect is much stronger for tangible investment comprising land, buildings, plant and machinery, equipment, furniture, rolling stock, etc., because those investments are directly linked with the domestic production of goods and services. However, multinationals account for a relatively smaller share of that type of investment.

3.3 Multinationals' survival and developments in employment since 2008

Since 2008 the press has contained reports on various multinationals slashing their workforce in Belgium, or even terminating their activities. In that connection, it is useful to conduct an econometric analysis of the survival of businesses between 2008 and 2014 according to their status. This sub-section sets out the findings separately for parent companies and subsidiaries, since the two categories of multinationals differ greatly from one another (1). The first two specifications of the econometric exercise reveal that the chance of a parent company or subsidiary active in 2008 still being active in 2014 is 15 percentage points higher than for purely domestic firms. However, that is largely attributable to the fact that multinationals are generally bigger. Large firms have a much better chance of survival than small ones, for which the turnover rate is much higher. The same can be said of the most productive firms. The effects of size (specification 3) and productivity (specification 4) were therefore neutralised. The difference in the chance of survival between parent companies and purely domestic firms is no longer significant if the firms are roughly the same size (and the same productivity). Conversely, the chances of survival of subsidiaries are considerably smaller than those of purely domestic firms of the same size (and the same productivity). That finding is in line with the statement that subsidiaries of foreign groups have weaker local roots than domestic firms with the same characteristics, as it is easier for foreign groups

TABLE 4 MULTINATIONALS' CHANCES OF SURVIVAL - ECONOMETRIC RESULTS (1) (differences with respect to purely domestic firms)

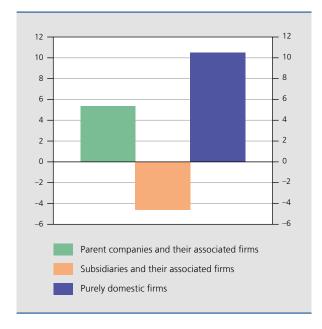
	Marginal effects on chances of survival between 2008 and 2014				
_	(1)	(2)	(3)	(4)	
Parent company	0.152*** (0.017)	0.152*** (0.017)	-0.027 (0.023)	0.017 (0.022)	
Subsidiary	0.150*** (0.009)	0.142*** (0.010)	-0.086*** (0.014)	-0.068*** (0.014)	
Number of employees (in log)			0.088*** (0.001)	0.084*** (0.001)	
Productivity (in log)				0.013*** (0.000)	
Sectoral dummies	No	Yes	Yes	Yes	
Number of observations	143 323	143 292	143 292	143 292	

Source: NBB calculations.

⁽¹⁾ The multinationals were divided according to the nationality of their parent company. If the parent company is a foreign (Belgian) firm, the multinational is placed in the group of subsidiaries (parent companies).

⁽¹⁾ The table shows the average marginal effects obtained on the basis of a probit-regression conducted on a sample of firms in which paid employment was not equal to zero in 2008. It is assumed that a firm has survived if it was still active in 2014 and had more than zero jobs at that time. The 2008 values are used as the explanatory variables. The standard deviations are shown in brackets. The entry *** indicates a significance threshold of 1 %; if there is no entry, the significance threshold of 10 % was not reached.

CHART 10 EMPLOYMENT IN THE PERMANENT FIRMS (1) (changes between 2008 and 2014, in %)



Source: NBB calculations.

(1) Firms are regarded as permanent if they had more than zero employees in 2008 and 2014 and did not change their status during that period

to transfer their activity to other production locations, particularly in periods of weak economic activity.

However, the impact on employment is not confined to the disappearance of firms. In the permanent firms, i.e. those active in 2008 and in 2014 and not changing their status during that period (1), there were also changes in employment, which was up by more than 10% for purely domestic firms and by almost 5% for parent companies and their associated Belgian firms, whereas it was down by almost 5 % for the subsidiaries of foreign groups and their associated firms in Belgium. Although these developments occurred in a difficult economic climate, they again appear to indicate that multinationals are less firmly anchored, particularly the subsidiaries of foreign groups.

However, the total change in employment in the subsidiaries of foreign groups and their Belgian associated firms was less favourable than that in the permanent firms alone. In order to determine the total change in the number of jobs, job losses resulting from the disappearance of certain firms and job creation in new firms

are also taken into account, though that criterion has the disadvantage that changes of status are also included.

Conclusion

This article analyses the economic impact of Belgium's direct investment, both inward and outward. On the basis of new data, the article examines whether direct investment relationships with other countries generate an income for the Belgian economy, and what contribution they make to the real economy.

Alongside its important trading relations, Belgium also maintains close financial links with the rest of the world. The direct investment confirms Belgium's status as a small, open economy. The ratio between the outstanding volume of Belgium's inward and outward FDI and GDP (208.7% and 208.2% of GDP respectively at the end of 2015) is considerably higher than the average for the euro area countries (132 % and 156 % of GDP). However, a substantial part of that FDI concerns capital in transit, partly as a result of the policy aimed primarily at attracting direct investment, especially by means of tax incentives such as the notional interest deduction.

In net terms, and thus corrected for capital in transit, the direct investment that Belgium receives exceeds its direct investment in other countries. At the end of 2015, net outward investment thus stood at -0.5 % of GDP. This is an atypical situation for a developed economy with a substantial net savings surplus (62 % of GDP at the end of 2015). The Belgian economy builds up its assets in other countries in the form of portfolio investment and investment via the financial sector, rather than via direct investment.

Belgium loses net income to other countries on its direct investment relationships (-1.8 % of GDP at the end of 2015), and that weighs on the current account. This adverse financial outcome is due both to the low net outward FDI and to a relatively low return on Belgium's direct investments in other countries (2.5 % over the period 2013-2015) in comparison with the return that other countries achieve on investments in Belgium (3.1%). The relatively meagre yield on Belgium's outward FDI – including compared to what neighbouring countries make on their FDI (4.4%) – is attributable partly to the composition of FDI. For instance, Belgium's outward FDI comprises a large volume of intra-group loans (and therefore relatively few participating interests in the form of equity), and markets outside the euro area are under-represented.

Firms that establish direct investment relationships with other countries are of great economic importance in

⁽¹⁾ Permanent firms are defined more specifically as firms with more than zero employees in 2008 and 2014 which did not change their status during that period. The three types of status in question are (i) purely domestic firms, (ii) subsidiaries and their associated Belgian firms, and (iii) parent companies and their associated Belgian firms

real terms. Although they are relatively few in number (1 % of the total number of firms in the private sector in 2014), they create a substantial share of the value added (38%) and have a large number of employees (29%). However, they have also suffered as a result of the economic crisis, which primarily affected jobs in Belgium-based subsidiaries of foreign groups to a much greater extent than jobs in Belgian parent companies and purely domestic firms.

Moreover, multinationals play a key role in external competitiveness by making a considerable contribution to Belgium's net exports (1.3 percentage points of GDP in 2014). They boost growth potential by accounting for 33 % of real investment in the private sector (and in particular 63 % of research and development), though the bulk of that is not funded by incoming foreign capital.

The substantial weight of multinationals in Belgium illustrates the importance of a policy that focuses on the attractiveness of the Belgian economy. Nonetheless, tax incentives such as the notional interest deduction often result in FDI that comprises a significant proportion of capital in transit, which is not a source of funding for real investment. At the same time, direct investments by Belgian firms in other countries should not be disregarded. Raising the volume of outward FDI would diversify the Belgian savings surplus and could potentially yield a higher income for the Belgian economy, certainly if the return on outward FDI would approach that in neighbouring countries.

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