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Foreign direct investment in France goes to both the most robust and the most fragile companies

Since 2015, foreign direct investment in France has been at a high, while companies that are on average larger and more efficient tend to be the target of foreign investors. In this context, the open debate around the concept of attractiveness generally swings between two seemingly contradictory reactions: the satisfaction of attracting foreign investors to finance the development of French companies and the fear of seeing those same investors lay their hands on France's industrial and commercial treasures. Research on the subject has fuelled both hypotheses by showing that in general non-resident investors "cherry pick" – they buy the most efficient companies. Without settling the debate, this article uses a dispersion analysis to show that while non-resident investors may clearly favour high-potential companies, they also target companies in poor financial health.

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JEL codes
F20, F21,
F23

EUR 730 billion
stock of foreign direct investment in France at end-2017

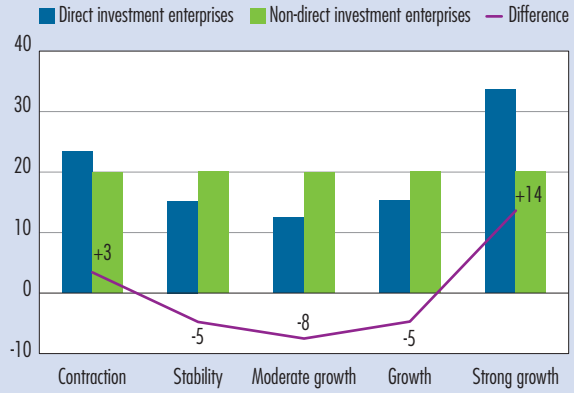
EUR 30 billion
direct investment in equity capital each year between 2015 and 2017

110%
the increase in direct investment in equity capital between 2012-14 and 2015-17

23,000
the number of French companies subject to foreign direct investment at end-2017

Three-year growth in total balance sheet in direct investment enterprises and non-direct investment enterprises

(in % of the number of direct investment enterprises and non-direct investment enterprises)



Sources: Banque de France, Insee, and Banque de France calculations.
Note: 34% of direct investment enterprises enjoyed strong growth during the three-year period (an increase in their total balance sheet of over 55%), compared with 20% of non-direct investment enterprises, i.e. a 14 percentage point difference (shown by the curve) between the two populations.

1 French companies have become more attractive since 2015

Non-residents have invested almost EUR 30 billion per year in equity capital since 2015

In total, foreign direct investment (FDI)[1] in France amounted to almost EUR 120 billion over the 2015-17 period. This is three times more than during the previous three years and almost as much as total FDI for 2008 to 2014. During the past three years, these investments have on average represented 2% of annual gross domestic product (GDP). In 2017, France was one of only four Organisation for Economic Co-operation and Development (OECD) countries that saw a year-on-year increase in their inward foreign investments.[2] In total, the stock of foreign direct investment in France stood at EUR 730 billion at the end of 2017.[3]

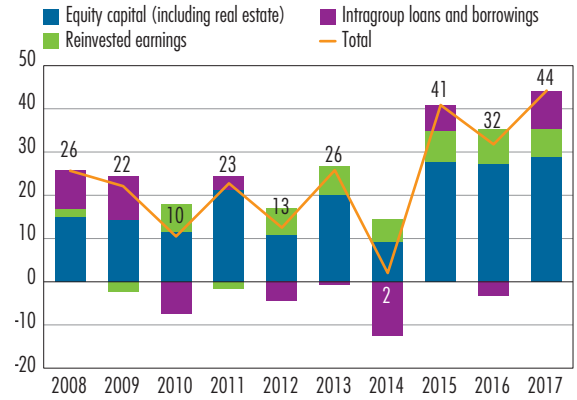
The majority of these investments take the form of equity capital transactions,[4] such as purchases of shareholdings or mergers and acquisitions, which reached a record high in 2015-17, with an annual rate of almost EUR 30 billion. Furthermore, every year, part of pre-tax profit attributable to non-resident owners of French companies is not distributed and is instead allocated to reserves as "reinvested earnings". This represented around EUR 7 billion in new investments per year between 2015 and 2017. Lastly, the flows of intragroup loans and borrowings, which to a large extent reflect the cash flow movements of large multinational groups, generated a net capital inflow in 2017, following a slight outflow in 2016 (see Chart 1).

Industry continues to attract foreign capital

The economic sectors targeted by the direct investments made between 2015 and 2017 partly stand out from those traditionally chosen for investment (identified from stock statistics based on total past investments). For example, the construction sector received almost 20% of foreign direct investment from 2015 to 2017, but only accounted for 3% of stocks. This new orientation is in keeping with a disenchantment with financial and insurance activities.[5] However, industry (see Box 1) and real estate activities continue to predominate, accounting for more than half of stocks and flows between them from 2015 to 2017 (see Chart 2).

C1 Non-resident direct investment flows in France

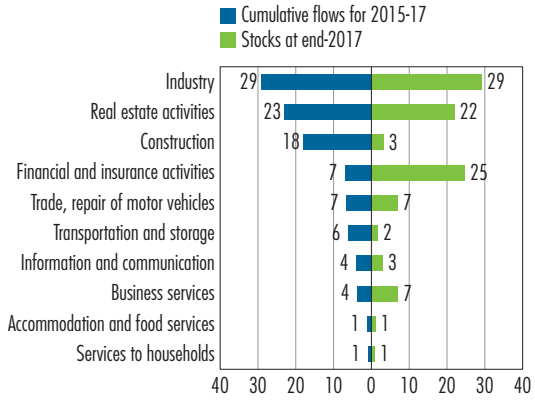
(EUR billions)



Source: Banque de France.

C2 Breakdown of flows and stocks of foreign direct investments by sector of activity

(%)



Source: Banque de France.

1 See the definition in the Appendix.

2 OECD, "FDI drops 18% in 2017 as corporate restructurings decline", FDI in figures, April 2018.

3 Stocks of direct investment at end-2018 will be published in mid-2019 in the 2018 Annual Report on The French balance of payments and international investment position.

4 Including real estate investments.

5 The weight of financial activities is partly linked to the activities of holding companies, which play the role of intermediary for groups that have very different operational activities (industry, trade or services). As far as possible, they are reclassified in the operational activity of the groups they belong to.

BOX 1

French industry has been highly attractive since 2016

Historically, industry has been the most coveted activity sector for non-resident investors. This phenomenon escalated in 2016 and further still in 2017. In 2017, industry alone received almost half of the foreign direct investment as a result of three major transactions:

- the merger of the French oil-industry services group Technip and its US counterpart FMC Technologies to create the UK-based company TechnipFMC;
- in the pharmaceutical sector, the exchange of assets between Sanofi and the German company Boehringer Ingelheim;
- in the armament sector, the acquisition of Safran's identity and security activities by an American investment fund.

French industry received EUR 30 billion in total net foreign direct investment in 2016 and 2017, whereas in 2014 and 2015 non-resident transactions resulted in net outflows of EUR 4 billion.

The attractiveness of the French manufacturing sector continued in 2018, notably with the purchase of the French pharmaceutical group Advanced Accelerator Applications, which specialises in nuclear medicine, by the Swiss group Novartis. Also in 2018, two Canadian institutional investors took stakes in the industrial engineering group Fives, and the British group Neptune Energy purchased the oil and gas exploration and production business Engie E&P International.

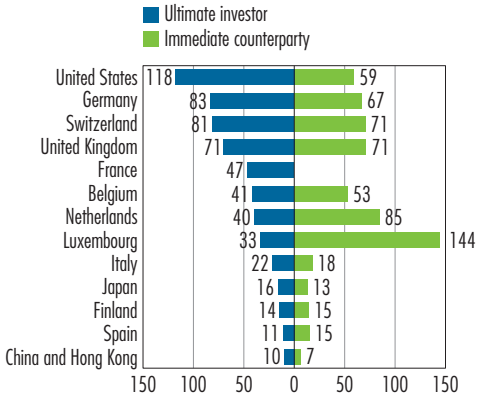
The United States is the leading investor country in France

Direct US investments in France based on the ultimate investor approach amount to almost EUR 120 billion or nearly one-fifth of total FDI stock, outstripping investments from Germany or Switzerland (EUR 80 billion each) and the United Kingdom (EUR 70 billion).

Contrary to a breakdown by immediate counterparty's country of residence, the ultimate investor approach allocates each component of FDI stocks to the firm initiating the transaction, rather than to a fund transit country. In the case of France, this means that Luxembourg and the Netherlands, as intermediaries for numerous investment transactions, are not considered to be major investor countries. This approach also reveals that ultimately a significant part of FDI stock in France is held by French groups and investors (see Chart 3).

C3 Geographical breakdown of stocks of foreign direct investments in France at end-2016

(EUR billions)

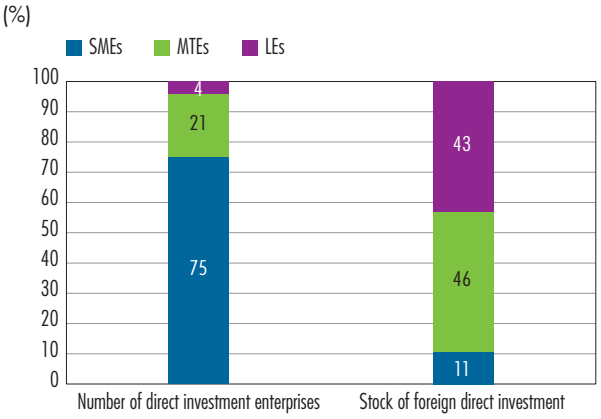


Source: Banque de France.
Note: The breakdown by ultimate investor is only available some time after the breakdown by immediate counterparty. The data by ultimate investor for 2017 will be published with the 2018 Annual Report on The French balance of payments and international investment position.

Very many foreign direct investments go to SMEs

More than 23,000 resident legal entities were the target of foreign direct investment at the end of 2017. Although small and medium-sized enterprises (SMEs)[6] receive only a little more than 10% of the total amount of foreign direct investment, they account for three-quarters of all the companies receiving FDI (direct investment enterprises) (see Chart 4). By contrast, almost half of total investments go to mid-tier enterprises (MTEs), which account for only one-fifth of direct investment enterprises. Large enterprises (LEs) account for a little more than 40% of FDI stock but represent only 4% of direct investment enterprises.

C4 Foreign direct investment in France by company size at end-2017



Scope: Non-financial companies, direct investments in equity capital, excluding real estate.
Sources: Banque de France, Insee (ESANE), and Banque de France calculations.

2 On average, direct investment enterprises are larger but also more efficient

MTEs are overrepresented among direct investment enterprises

In terms of numbers, the breakdown by size of companies[7] receiving foreign direct investments is similar to that of all companies in France.[8] In particular, the fact that

C5 Comparative characteristics of direct investment enterprises and all companies in France, by size, in 2016

Scope: Non-financial companies, excluding micro enterprises, from non-agricultural and non-financial market sectors.
Key: MTEs employ 52% of direct investment enterprise employees, compared with 32% of the employees for all companies in France.
Sources: Banque de France, Insee (ESANE), and Banque de France calculations.

SMEs account for three-quarters of all direct investment enterprises is consistent with the general national situation (see Chart 5). However, in the remaining quarter of direct investment enterprises there are more MTEs and less LEs than for the national average.

It is primarily in terms of production that the structure by size of direct investment enterprises differs from the rest of French companies, with the weight of MTEs being particularly significant: they account for almost half of total value added generated by direct investment enterprises, compared with one-third of the value added produced by

6 Throughout this article, company sizes follow the definition given in the French Law of 2008 on the modernisation of the economy and Decree No. 2008-1354.

7 In this second part of the article, the scope applied covers non-financial companies, excluding micro enterprises, from non-agricultural and non-financial market sectors. This scope facilitates the comparison between direct investment enterprises and all companies in France using Insee's ESANE data.

8 Reference data are taken from "Enterprises in France", pp. 66-89, *Insee Références' collection* (2018).

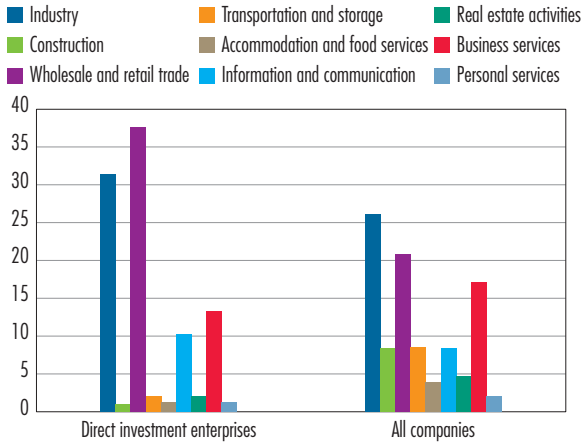
all companies in France. This finding also applies to turnover and the number of employees (see Chart 5). Conversely, the weight of SMEs and LEs in the activity of direct investment enterprises is below the national average.

The value added of direct investment enterprises is concentrated in the trade and industry sectors

A breakdown of companies by sector brings to light other differences. Indeed, the activity of companies receiving foreign direct investment is significantly more concentrated than is the case for the rest of French companies. The trade and industry sectors alone produce almost 70% of the value added generated by direct investment enterprises, whereas their share falls to less than 50% for the national average. By contrast, the transport and business services sectors are under-represented in the added value of direct investment enterprises (see Chart 6).

C6 Breakdown of value added by sector of activity

(%)



Scope: Non-financial companies, excluding micro enterprises, from non-agricultural and non-financial market sectors.
Key: 31% of the added value of direct investment enterprises is generated by industry compared with 26% for all companies in France.
Sources: Banque de France, Insee (ESANE), and Banque de France calculations.

Direct investment enterprises are more efficient

A more detailed comparison shows that the average size of companies receiving investments from non-residents is greater than the norm. For example, the value added generated by direct investment SMEs is three times higher than that produced by SMEs as a whole, because on average they employ twice as many workers. The same applies for the other company categories: the average value added generated by direct investment MTEs is four times greater than that of MTEs as a whole as their workforce is three-times larger; and the value added of LEs is three-and-a-half times greater with double the number of employees (see Table).

Thanks to the characteristics referred to above, labour productivity between direct investment enterprises and all companies in France can be compared on a category-by-category basis. The results show that the productivity of direct investment SMEs is 40% greater than that of SMEs as a whole; that for MTEs, productivity is 30% greater; and that the difference amounts to 80% for LEs. Thus these comparisons show that, at least from the point of view of labour productivity, direct investment enterprises are on average more efficient than other companies.

However, it is impossible to draw a conclusion on the basis of these comparisons as to the factors that attract foreign direct investment. Indeed, by comparing direct investment enterprises with all companies in France at

Characteristics by company size

	Average number of employees (full-time equivalent)			Average value added (EUR millions)			Direct investment enterprises productivity/ all companies productivity
	Direct investment enterprises (a)	All companies (b)	Ratio 1 (a)/(b)	Direct investment enterprises (c)	All companies (d)	Ratio 2 (c)/(d)	
SMEs	27	14	1.9	2.6	0.9	2.8	1.4
MTEs	170	56	3.0	20.1	5.0	4.0	1.3
LEs	300	158	1.9	58.0	16.6	3.5	1.8

Scope: Non-financial companies, excluding micro enterprises, from non-agricultural and non-financial market sectors.
Sources: Banque de France, Insee (ESANE), and Banque de France calculations.

a given date, there is a risk that several explanatory factors may be confused. For example, significant differences in terms of structure may of course be a factor in non-residents' choice of equity investment, but the differences could just as well be a result of the way companies are managed and developed following their acquisition by non-residents (a risk of reverse causality). This is particularly applicable in the case of long-standing foreign direct investments. A more precise strategy will therefore be adopted in the third part of this article in order to disengage attractiveness from other potential factors.

3 Foreign investment also goes to the least robust companies

A dynamic analysis prior to the date of investment to disengage attractiveness from other factors

In order to avoid the risk of reverse causality, it is essential to recreate as far as possible the information conditions that applied at the time non-residents made their investment decision. The companies' situation in the year prior to the initial foreign direct investment should therefore be examined. For the purposes of this article this examination is solely dynamic, based on the assumption that an investor analyses a company's trajectory as a priority (see Box 2).

The example of total balance sheet variation

Non-resident investors prioritise acquisitions of companies that have experienced the greatest increases in their total balance sheet position, and also, conversely, the greatest decreases. 20% of non-direct investment enterprises enjoyed an increase in their total balance sheet of over 55% in three years, compared with 34% (a 14 percentage point difference) for direct investment enterprises. More generally, it seems that the difference between the two distributions forms a "U" curve: compared with other companies, direct investment enterprises show a denser distribution at both tails and a sparser distribution in the central classes.

This total balance sheet example illustrates the approach described in Box 2. For each company – both direct and non-direct investment enterprises – the total balance sheet growth rate is calculated over a three-year period. These values are then used to break down the sample of non-direct investment enterprises into five equal-sized classes (quintiles). The quintile bounds are then applied to the direct investment enterprises, for which the numbers are, by construction, identical. The two distributions are shown in Chart 7.

BOX 2

The methodology applied to assess the attractiveness of a company

For each company that first received foreign direct investment in year Y, the change in the main accounting items over the three-year period from Y – 4 to Y – 1 are taken into consideration. For example, for a company acquired by a non-resident investor in 2017, changes in the income statement and balance sheet are analysed for the period from 2013 to 2016.

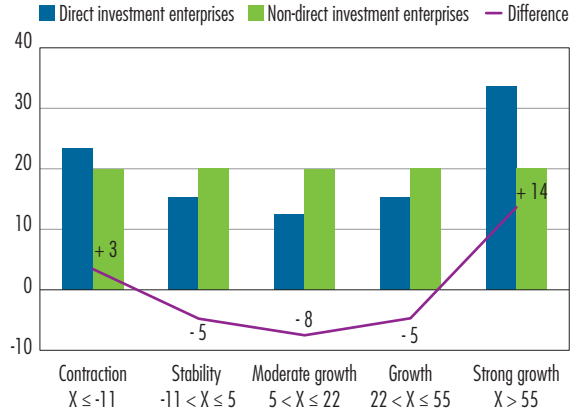
The study covers almost 2,500 direct investment enterprises. For data availability reasons, the scope of the study is restricted to companies that first received non-resident investments in 2015, 2016 or 2017. Therefore, companies that were already more than 10%-owned by non-residents and that received new investments from those investors during this period, were not taken into consideration. The scope is also limited to non-financial companies, excluding micro enterprises, and to non-agricultural and non-financial market sectors, in order to ensure a good match with the data from Insee's ESANE programme.

Lastly, these data are compared with a sample of companies that have not received investments from non-residents. Thanks to a balanced sampling method, this sample has the same number of companies and the same overall characteristics – total turnover and activity sector breakdown – as the direct investment enterprises in the sample. The changes in the financial statements are then analysed in the same way as for the direct investment enterprises.[1]

1 See also the Methodological Appendix for further details on the method used.

C7 Three-year growth in total balance sheet in direct investment enterprises and non-direct investment enterprises

(in % of the number of direct investment enterprises and non-direct investment enterprises)



Scope: Non-financial companies, excluding micro enterprises, from non-agricultural and non-financial market sectors.
Key: X is the total balance sheet growth rate. For 34% of direct investment enterprises and (by construction) 20% of non-direct investment enterprises, total balance sheet growth during the three-year period was over 55%, i.e. a 14 percentage point difference (shown by the curve) between the two distributions.
Sources: Banque de France, Insee (ESANE), and Banque de France calculations.
Note: The quintile bounds correspond to the non-direct investment enterprise distribution.

Cherry picking of the most efficient companies – but with certain qualifications

The above approach is extended to other variables in order to take account of several potential factors of attractiveness. Attractiveness may be the result of growth in the company's activities, reflected in improved turnover or greater value added. But improvements in economic efficiency can also be factors that should be considered, for example through changes in operating margin or apparent labour productivity. And lastly, evolutions of financial profitability may also be taken into consideration: changes in net profit, the net profit margin or return on equity, for example.

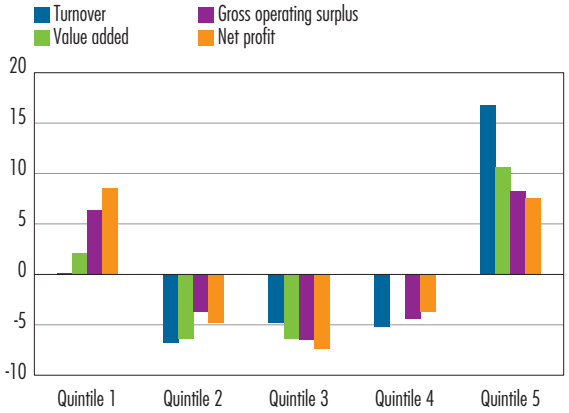
The results are presented in Chart 8. In this instance, the bounds are once again chosen in such a way that the non-direct investment enterprises are broken down into five classes, each with the same number of companies. Consequently, the bounds are different for each variable considered, but the interpretation of the results is identical, with the sole exception that Chart 8 only shows the deviation in distribution between direct investment enterprises and non-direct investment enterprises.

Regardless of certain nuances, the deviation in distributions always forms the "U" curve already referred to in Chart 7. These results therefore tend to suggest

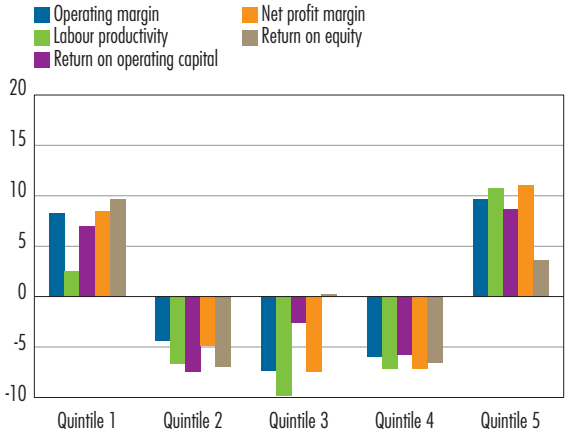
C8 Trajectory of companies over three years – differences in distributions between direct investment enterprises and non-direct investment enterprises

(differences between direct investment enterprises and non-direct investment enterprises in percentage points)

a) Growth in income statement indicators



b) Change in economic and financial ratios



Scope: Non-financial companies, excluding micro enterprises, from non-agricultural and non-financial market sectors.
Key: The height of the columns in Chart 8 corresponds to points in the curve in Chart 7. For the growth in turnover, by construction 20% of the non-direct investment enterprises are situated above the bound separating the fourth and fifth quintiles. By contrast, 37% of direct investment enterprises enjoyed turnover growth in excess of this same bound, i.e. a difference of 17 additional percentage points. It is this latter value – the difference – that is shown in the fifth quintile of the chart.
Sources: Banque de France, Insee (ESANE), and Banque de France calculations.
Note: The quintile bounds correspond to the non-direct investment enterprise distribution.

that non-resident investors purchase companies that performed the most strongly during the three years prior to the investment but also companies that deteriorated the most significantly. **Attractiveness is thus a multifaceted phenomenon: in some cases, financial and economic performance is most sought after, while in others, the opportunity of a low-price purchase of a company with the potential for better performances in the future would seem to be most appealing.**

The "U" curves presented here are slightly asymmetrical, with stronger deviations to the right of the charts, for the best performing companies. This means that non-residents acquire more companies in extremely good financial health and fewer companies that are experiencing difficulties. The study of the distributions would therefore tend to support the hypothesis that non-resident investors cherry pick[9] the most efficient French companies when making their acquisitions, even if it reveals heterogeneous behaviour.

Lastly, these results may indicate that specific variables play a particular role in investor choices. For example, the change in net profit margin appears to be the most determining factor, before labour productivity and operating margin.[10] However, applying this method to the capital structure of companies – particularly equity or debt ratios – does not reveal any significant differences between direct investment enterprises and non-direct investment enterprises.

9 See in particular Fontagné (L.) and Toubal (F.) (2010), "Investissement direct étranger et performances des entreprises", *Report of the Conseil d'analyse économique*.
10 Calculation of the sum of the absolute value of the deviations in distribution.

Appendix
Methodology

Definition of foreign direct investment (FDI)

Direct investments are cross-border investments made by entities residing in one economy with the objective of establishing control or significant influence in the management of an enterprise that is resident in another economy (the direct investment enterprise). By convention, a direct investment relationship is considered to exist when the investor acquires or holds 10% or more of the voting power of the direct investment enterprise.

Selection of direct investment enterprises

The study covers resident companies that first received foreign direct investment between 2015 and 2017 (for reasons of Insee data availability). The first phase is therefore to identify the date of the initial foreign direct investment in each company and to exclude from the scope any companies that had already received foreign direct investments in the past before receiving additional investment between 2015 and 2017. Furthermore, only direct investments in equity capital, excluding real estate, were used for the purposes of this study. Consequently, while real estate sector companies are included in the study scope, purchases of offices or housing not made via the acquisition of a resident company are not.

A selection was also performed on the companies considered: in order to obtain comparable data, the scope was restricted to non-financial companies from non-agricultural and non-financial market sectors (excluding European Commission NACE activity codes A, K, P and Q). Micro enterprises, holdings and head offices, which tend to have atypical profiles, were also excluded.

The SIREN identification number for French companies was used to match the companies to the Insee databases. Data from the Banque de France's FIBEN company database are not utilised in order to avoid difficulties related to the use of multiple sources. The Sirus directory (Insee's statistical business register) is used to identify the institutional sector and APE (principal economic activity) code, and data from Insee's ESANE scheme (a yearly business statistics programme that notably includes companies' annual financial statements) is used to determine the company's size. In each case, the most recent data are retained. Lastly, companies for which information on "fundamental" characteristics (turnover, added value, gross operating surplus, net profit, total balance sheet, equity capital) are not available over a four-year period (from Y – 4 to Y – 1, where Y is the year of investment) are excluded from scope.

This latter point creates a bias, in that it excludes the most recently created companies – all the companies included within the scope of the study have, at the very least, exploitable data from the 2013 ESANE survey. This is a major drawback of dynamic analyses. Nonetheless, it should be noted that this bias also affects the control sample of non-direct investment enterprises in the same way. In total, almost 2,500 companies that first received foreign direct investment in 2015, 2016 and 2017 were studied.

Selection of the representative sample of non-direct investment enterprises

A representative sample of non-direct investment enterprises is selected to act as a control group. The sample is taken from a comparable group of companies: non-financial companies, excluding micro enterprises, from non-agricultural and non-financial market sectors, for which four years of exploitable data are available from the ESANE survey.

The selection of the sample cannot be purely random: indeed there is no reason to assume that non-direct investment enterprises resemble direct investment enterprises. On the contrary, the aggregated data presented in the article tend to demonstrate that this is not the case. Therefore the aim is to select a sample of

non-direct investment enterprises with similar characteristics to direct investment enterprises on one essential point, i.e. the turnover/activity sector relationship.

To do so, balanced sampling using the cube method is performed, via the R package "sampling" software. The resulting sample then has almost identical characteristics to the direct investment group, as the cumulated turnover of the two groups differs by only 0.7%. The average difference in turnover in each class (turnover/activity sector relationship) is 1%, with a maximum difference of 20%. In addition, robustness testing was performed, notably by selecting ten distinct samples using the same procedure; no significant change in the results was observed.

Calculations are performed in an identical manner for the non-direct investment enterprises sample and the direct investment enterprises sample.

The variables under consideration

The table presents the different economic and financial ratios analysed in Chart 8b.

The variations presented in the article have not all been calculated in the same way. The changes in total balance sheet and turnover are classic growth rates.

Due to the possibility of negative signs, the growth in value added, gross operating surplus and net profit is calculated by comparing the change in the income statement indicator under review and turnover. Applying this method also makes companies of very different sizes comparable.

Lastly, the changes in the economic and financial ratios shown in Chart 8b are calculated as simple differences over a three-year period (see Table b).

Ta Economic and financial ratios used in Chart 8b

Ratio	Numerator	Denominator
Operating margin	Operating profit	Turnover
Apparent labour productivity	Pre-tax value added	Employees (full-time equivalent)
Return on operating capital	Gross operating surplus	Operating capital[a]
Net profit margin	Net profit	Turnover
Return on equity	Self-financing capacity	Equity capital

a) Calculated as the sum of operating fixed capital and working capital requirement.

Tb Calculation method for the changes shown in Charts 7 and 8

Chart	Variable	Calculation method
C7	Total balance sheet	Growth rate
C8a	Turnover	Growth rate
	Value added Gross operating surplus Net profit	$\frac{X_{Y-1} - X_{Y-4}}{Turnover_{Y-1}}$
C8b	All variables	$X_{Y-1} - X_{Y-4}$

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