



## The increasing reliance of large French groups on debt: a financing strategy that has its limitations

Since 2014, large French groups have increased their use of debt relative to other resources for the financing of their activities. The fall in the average cost of debt has created a favourable environment for this type of strategy, making it less risky in the short term. Indeed, in 2018, the coverage of interest and related expenses by operating earnings reached its highest level in a decade. This financing strategy nonetheless exposes firms to longer term risks:

- their return on equity starts to be driven more by a leverage effect than by improvements in operating profitability;
- their ability to service their debt would deteriorate markedly if interest rates were to rise over the medium-term;
- if needed, they would find it harder to rebuild their cash buffers, which have shrunk in size since the highs of 2012;
- new financial debt is notably being used to finance acquisitions, the future earnings on which may turn out to be lower than anticipated.

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JEL codes  
G30, G31, G32,  
G33, G34

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**+7.8** percentage points

rise in the average net leverage ratio between 2013 and 2018

**-2.3** percentage points

decline in average operating profitability between 2013 and 2018

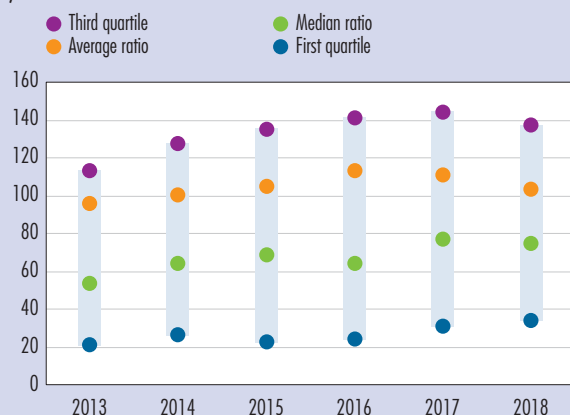
**-1.2** percentage points

reduction in the costs associated with a unit of debt between 2013 and 2018

The 2017 sample comprised 250 groups; 2018 data were only available for 215 of these, accounting for 93% of the total assets of the 2017 sample.

### Ratio of net financial debt to equity (net leverage ratio)

(%)



Source: Banque de France, FIBEN database (consolidated financial statements).

Scope: Large French private non-financial groups (see methodological appendix)

Note: Net financial debt = Gross debt (including off-balance sheet items) – Cash.



The present analysis relies on data from the consolidated financial statements of the major French private sector non-financial groups listed in the Banque de France's FIBEN company database. For each entity, the scope of consolidation covers the parent company and its subsidiaries, including those located abroad.

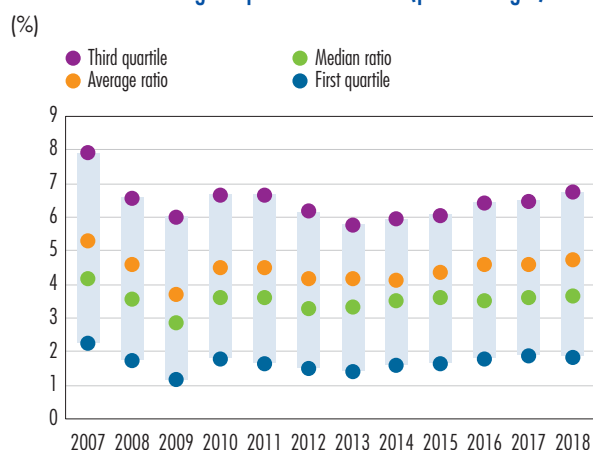
Consolidation nets out any intragroup flows, especially those relating to operating revenues and expenses, enabling a more accurate analysis of a group's activities. Using consolidated figures also makes it possible to focus specifically on a group's external debt. However, consolidation reduces the amount of sectoral detail available (see the appendix for how this issue is dealt with).

### 1 Large French groups' performances are less positive when viewed in light of the resources employed

#### Large groups' profit margins have improved since 2015

The improvement or deterioration in a group's financial health over a given financial year is measured by its net profit. Measuring recurring net profit<sup>1</sup> as a share of overall turnover provides an indication of a group's ability to make money on its output. This ratio of net profit to turnover is known as the profit margin.

#### C1 Ratio of recurring net profit to turnover (profit margin)



Source: Banque de France, FIBEN database (consolidated financial statements).  
Scope: Large French private non-financial groups (sample: see methodological appendix).

<sup>1</sup> Only recurring revenues and expenses are taken into account.

After declining in the wake of the 2007 financial crisis and 2011 sovereign debt crisis, large French groups' average profit margin has been recovering since 2015. By 2017 it had returned to its 2008 level, and it continued to rise over 2018, reaching 4.7% (according to available data). As a reminder, in 2007 the average profit margin stood at 5.3% (see Chart 1).

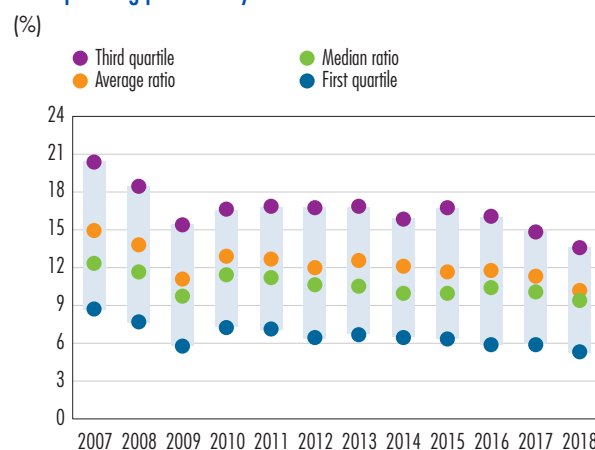
The improvement has been particularly notable in the manufacturing, construction, information and communication sectors.

#### But large groups' operating profitability is deteriorating

Operating profitability is defined as the ratio of a firm's operating profit to the total amount of resources (equity capital, net financial debt) used to finance its economic activity and enable it to operate.

Since 2016, large French groups' average operating profitability has fallen, and it continued to decline over 2018 (see Chart 2). The performances of France's large groups are thus less impressive when viewed alongside the amount of resources used, and especially the increase in their net financial debt.

#### C2 Operating profitability



Source: Banque de France, FIBEN database (consolidated financial statements).  
Scope: Large French private non-financial groups (sample: see methodological appendix).  
Note: Operating profitability = operating profit/resources used to finance economic assets.



### BOX 1

#### Lower operating profitability is leading to a fall in groups' return on equity, despite the rise in leverage

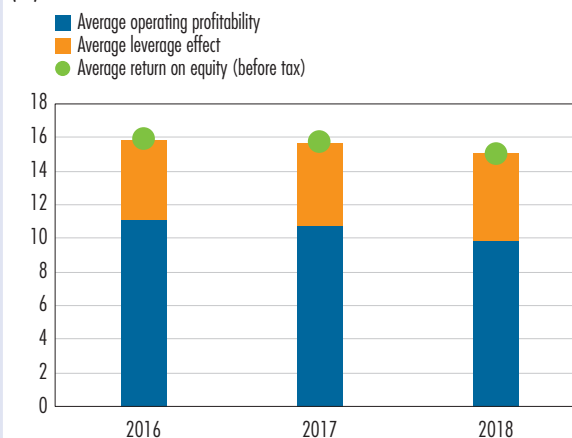
A group's pre-tax return on equity (ROE) can be calculated by dividing its pre-tax operating profit by its total equity capital (calculation 1).

It can also be proxied by adding together operating profitability and the leverage effect (calculation 2).<sup>1</sup> The leverage effect shows the share of ROE that is derived from the gap between operating profitability and the average cost of net financial debt:<sup>2</sup> as long as the latter remains lower than operating profitability, the use of debt will increase the ROE. **Over the long term, however, only a sound level of operating profitability can guarantee an adequate ROE.**<sup>3</sup>

Although leverage can increase ROE, it also increases a firm's exposure to risk: in the event of a rise in the cost of debt, the leverage effect will decline or even become negative. If a group's cost of net financial debt exceeds its operating profitability, then its leverage will weigh on its ROE.

Based on a balanced sample<sup>4</sup> of 177 large groups, from 2016 to 2018 average operating profitability fell from 11.1% to 9.8% (see chart). This 1.3 percentage-point contraction in turn pushed the (pre-tax) ROE down from 15.8% to 15.0%. The decline in ROE was smaller (0.8 percentage point) due to the support provided by the leverage effect: the latter rose by 0.4 percentage point as a result of the fall in the average cost of debt (see Box 2), and the impact of this was amplified by the high net leverage ratio.

Pre-tax return on equity, operating profitability and leverage effect (%)



Source: Banque de France, FIBEN database (consolidated financial statements).

Scope: 177 large French private non-financial groups.

1 Leverage effect = (Operating profitability – Average cost of net debt) × Net leverage ratio.

2 Cost of financial debt divided by net financial debt.

3 Pierre Vernimmen, *Finance d'entreprise*.

4 Balancing a sample consists in removing all groups not present for the entire period under review.

#### The trend in large groups' debt levels since 2014 has led to a rise in their leverage ratio

Large groups mainly use two sources of financing: equity capital (internal financing) and financial debt (external financing). The latter can be further broken down into bank credit and market debt.<sup>2</sup>

The leverage ratio is the ratio of financial debt to equity. The net leverage ratio analysed here uses net financial debt as the numerator, which is financial debt minus cash available for debt repayments. The net leverage ratio is a measure of a group's solvency and an indicator for shareholders of the likelihood that they will be repaid: in order to repay its debts in the event of bankruptcy,

2 Market debt includes long-term securities (bonds), negotiable European medium-term notes (NEU MTN) and negotiable European commercial paper (NEU CP).



a group needs to have at least an equivalent amount of assets. Any remaining positive balance between its assets and its debts will go to its shareholders.

Since 2014, the net financial debt of large private non-financial groups has risen continuously, and at an accelerating pace. In 2017, the median net leverage ratio and the third quartile for this ratio reached among the highest levels since 2007. The rise in the median net ratio has been particularly marked in the trade sector since 2015.

However, in 2018, the average net leverage ratio tended to decline, falling to 103.4% according to available data.

For comparison purposes, the evolution of large groups' gross leverage ratio is also shown in Chart 3.

## 2 The increase in leverage could pose a longer-term threat to groups' financial autonomy, which is currently being supported by the fall in the cost of debt

Analysing a large group's financial autonomy consists in measuring whether the financial flows<sup>3</sup> generated by its activities are sufficient to repay its debts.

### Since 2014, large groups' financial debt has been growing at a stronger pace than their recurring self-financing capacity

A group's ability to repay its debts can be measured by calculating the ratio of its financial debt to its recurring self-financing capacity. This shows the amount of time (in number of years) it would take the group to repay its outstanding financial debt, assuming that its recurring self-financing capacity remained stable and was used exclusively for these repayments.

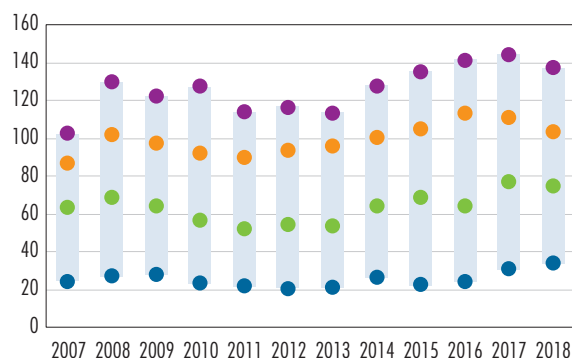
The financial debt of large private non-financial groups has been increasing since 2014, while their recurring self-financing capacity has been rising at a slower rate

### C3 Ratio of financial debt to equity (leverage ratio)

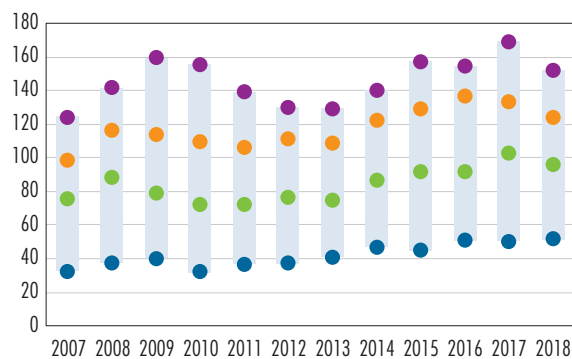
(%)

● Third quartile  
● Average ratio  
● Median ratio  
● First quartile

#### a) Net debt



#### b) Gross debt



Source: Banque de France, FIBEN database (consolidated financial statements).

Scope: Large French private non-financial groups (sample: see methodological appendix).

Note: Net financial debt corresponds to gross financial debt (including off-balance sheet items) minus the share of cash available for the repayment of debt.

and even stagnated in 2018. As a result, the median ratio of net financial debt to recurring self-financing capacity has been increasing since 2013. In 2017 it reached its highest level since 2010, and this upward trend is continuing. The deterioration in the ratio was particularly marked in 2017 in the advisory and business services sector, and this trend continued in 2018, according to available data.

In 2018, under the aforementioned assumptions and according to the available data, half of the groups in

<sup>3</sup> In this section, we look at two flows generated by a firm's activities:

- Recurring self-financing capacity = Current profit before tax + net allocations to operating depreciation and provisions + Dividends received from equity investments;
- Gross operating profit = Operating revenues – Operating expenses including taxes.



our sample would have needed 3.5 years of recurring self-financing capacity to repay their net debts (compared with 2.5 years in 2013; see Chart 4).

### The coverage of the cost of net debt is increasing thanks to the low interest rate environment

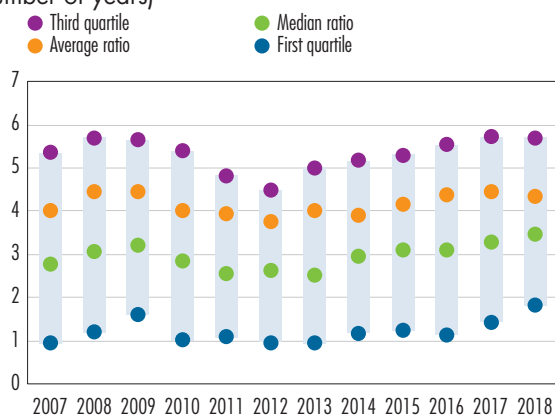
The financial autonomy of large private non-financial groups also depends on their ability to pay their interest and related expenses<sup>4</sup> from their gross operating profit.

This coverage ratio has been improving since 2014, with the trend intensifying further in 2018: according to the available data, half of the groups in our sample generated gross operating profit that was at least 14.9 times higher than their interest and related expenses (including those on financial leases) (compared with 13.3 times higher in 2014; see Chart 5)

In particular, from 2016 to 2017, the average interest coverage ratio (ICR)<sup>5</sup> for large groups in the manufacturing

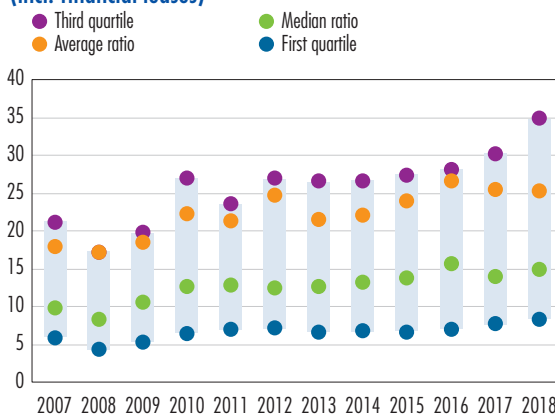
#### C4 Ratio of net financial debt to recurring self-financing capacity

(number of years)



Source: Banque de France, FIBEN database (consolidated financial statements).  
Scope: Large French private non-financial groups (sample: see methodological appendix).

#### C5 Ratio of gross operating profit to interest and related expenses (incl. financial leases)



Source: Banque de France, FIBEN database (consolidated financial statements).  
Scope: Large French private non-financial groups (sample: see methodological appendix).

<sup>4</sup> Including interest expenses on financial lease contracts.

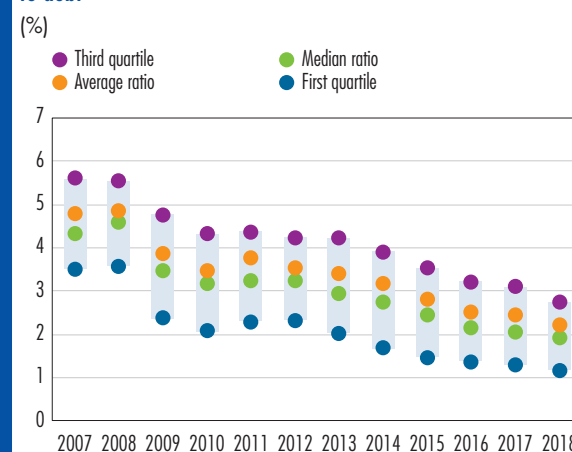
<sup>5</sup> Ratio of gross operating profit to interest and related expenses.

#### BOX 2

### The average cost of debt has been falling since 2014

The average cost of debt corresponds to the costs associated with each unit of debt. Since 2014, the improvement in the ratio of gross operating profit to interest and related expenses (including those on financial leases) has been driven by the fall in the costs associated with each unit of debt. This has to a large extent offset the impact of rising debt levels on the overall cost of debt.

#### Ratio of interest and related expenses (including financial leases) to debt



Source: Banque de France, FIBEN database (consolidated financial statements).  
Scope: Large French private non-financial groups (see methodological appendix). The 2017 sample comprised 250 groups; 2018 data were only available for 215 of these, accounting for 93% of the total assets of the 2017 sample.



sector increased markedly, reaching its highest level since 2007, and this trend appears to have been confirmed in 2018. In addition, the average ICR for large groups in the transport sector has risen continuously since 2014.

The current ratio of gross operating profit to cost of debt is linked to the low interest rate environment (see Box 2): as a result there is a risk that it could deteriorate in the event of a rise in interest rates.

### 3 Large groups' cash buffers are shrinking while net debt levels remain high

#### The ratio of net cash to equity is declining

In the aftermath of the 2007 financial crisis, large French groups built up cash buffers to enable them to withstand future financial risks: in 2009, the median annual growth in net cash holdings reached 24.8%, the highest rate observed over 2007-18.

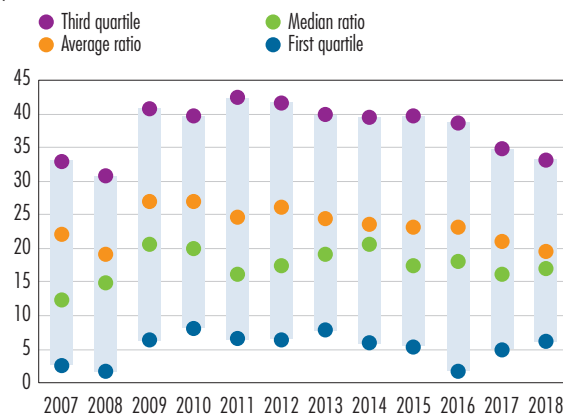
In parallel, the average ratio of net cash to equity also reached 26.9% in 2009, which was again the highest level in the period under review. However, from 2012 onwards this average ratio began to decline, and by 2017 had fallen to below its 2007 level (21.0% compared with 22.0%). According to the available data, this downward trend was confirmed in 2018 (see Chart 6).

On an initial level, the decline in the ratio since 2012 does not appear especially worrying to the extent that equity levels have also been rising at an average rate of 6.2% per year.

However, the fact that the cash buffers built up after the 2007 crisis are gradually being reduced at a time when large groups' debt stock and leverage ratios are above pre-crisis levels means the situation warrants caution.

#### C6 Ratio of net cash to equity

(%)



Source: Banque de France, FIBEN database (consolidated financial statements).

Scope: Large French private non-financial groups (sample: see methodological appendix).

#### Working capital ratios stopped declining in 2018

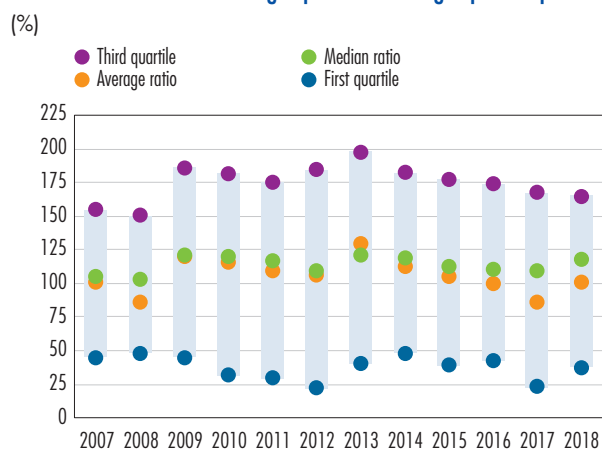
Total net working capital (NWC) is defined as the difference between a group's current assets and its current liabilities. A positive NWC indicates that a group's fixed assets (its long-term investments) are funded by long-term liabilities (internal and external funding).

At the same time, a group's working capital requirement (WCR) measures the amount of funds it needs in the short term to finance its day-to-day activities.

In 2017, the average working capital ratio (ratio of NWC to WCR) fell to 85.8%, its lowest level since 2009: the gradual decline since 2013 stems from the increase in WCR, which rose at an accelerating pace between 2013 and 2017. The groups that experienced a decline in their working capital ratios, which nonetheless account for less than half of our sample, were thus obliged to use their cash reserves or increase their short-term financial debt to finance their operating cycle.

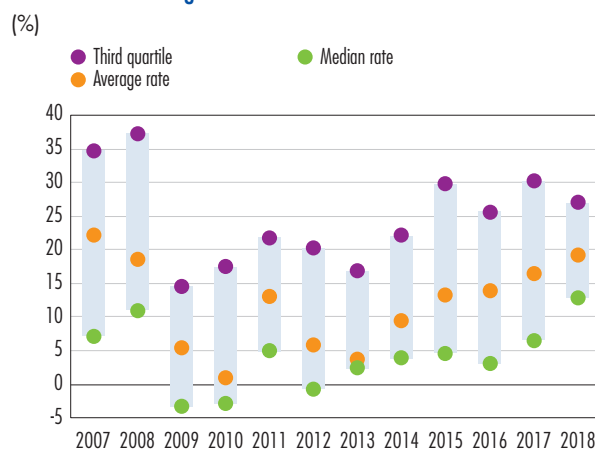


### C7 Ratio of total net working capital to working capital requirement (%)



Source: Banque de France, FIBEN database (consolidated financial statements).  
Scope: Large French private non-financial groups (sample: see methodological appendix).

### C8 Annual rate of growth in net financial debt (%)



Source: Banque de France, FIBEN database (consolidated financial statements).  
Scope: Large French private non-financial groups (sample: see methodological appendix).

In 2018, however, the average working capital ratio recovered to over 100% according to available data (see Chart 7).

## 4 Since 2016, the rise in large French groups' net debt has been driven by external growth transactions

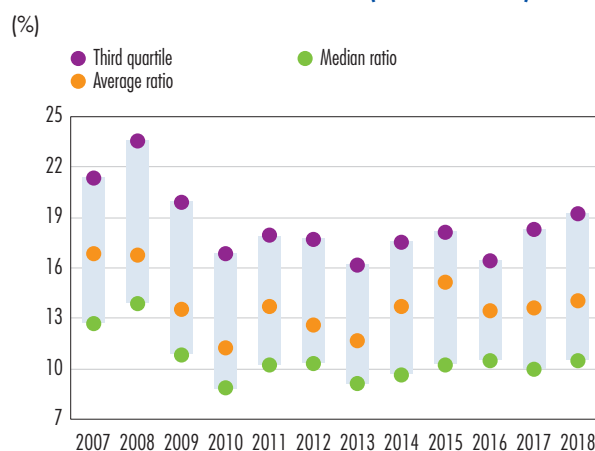
The main purpose of investment projects, be they internal or external, is to boost the future net revenue flows generated by a firm's productive activities.

### Since 2016, the accelerating growth in net debt has not been accompanied by a rise in the investment ratio

Investment in organic growth is measured as total investment in tangible and intangible assets, which is proxied here by the balance of purchases and sales of fixed assets.<sup>6</sup>

The investment ratio is defined as total tangible and intangible investment as a share of value added. It shows the share of newly produced wealth that is used to finance net purchases of fixed assets, with the aim of boosting future wealth creation.

### C9 Ratio of investment to value added (investment ratio) (%)



Source: Banque de France, FIBEN database (consolidated financial statements).  
Scope: Large French private non-financial groups (sample: see methodological appendix).  
Note: Tangible and intangible investment.

Since 2016, the trajectory of the investment ratio has been less aligned than previously with the annual rate of growth in net debt. The latter has jumped from an average of 8.8% in 2013-15 to 16.5% in 2016-18, whereas the average investment ratio has only increased moderately, from 13.5% to 13.7% (see Charts 8 and 9).

<sup>6</sup> See methodological appendix on the measurement of fixed assets.



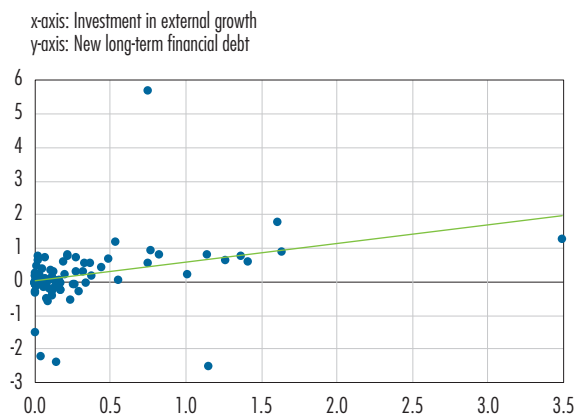
### The rise in the amount of new long-term financial debt appears to be linked to external growth transactions

In 2018, 123 of the 215 groups in our sample made an external growth investment<sup>7</sup> in excess of EUR 1 million. More than half of the large groups in our sample (53.8%) made an external growth investment of this size between 2016 and 2018, compared with 43.3% between 2013 and 2015.

In 2017, for the majority of groups analysed, there was a positive correlation between external growth investment and financial debt (see Chart 10). Certain groups thus appear to have taken on debt in order to finance external growth. The cost of servicing this debt will therefore need to be covered by the future revenues generated by the acquisitions. Hence, the only way to judge the value of this strategy will be to assess whether the newly consolidated entities generate sufficient earnings.

### C10 Investment in external growth and new long-term financial debt in 2017

(EUR billions)



Source: Banque de France, FIBEN database (consolidated financial statements).

Scope: Large French private non-financial groups that spent more than EUR 1 million on acquisitions in 2017.

<sup>7</sup> External growth investments are proxied by the impact of variations in scope on the cashflow statement.





## Appendix Methodology

### Determination of the population of groups in the study sample

This study looks at large, French privately-owned non-financial groups.

Groups that are more than 50%-owned by the state and subject to oversight by the *Cour des Comptes* (State Auditor) were thus excluded from the sample, alongside public establishments of an industrial and commercial nature (EPIC).

Groups operating in the financial sector were also excluded.

The size of each group was calculated using the criteria set out in the French law on the modernisation of the economy (LME Law) relating to headcount, turnover and balance sheet size. A large group must meet at least one of the following criteria:

- headcount of at least 5,000 employees;
- turnover of over EUR 1.5 billion and total balance sheet of over EUR 2 billion.

While analysing groups' consolidated financial statements eliminates the problem of intragroup flows, there is still a risk of double-counting in statistical studies. Consolidation can be carried out in steps – for example, with the consolidation of a subsidiary's financial statements with those of a second-tier subsidiary, and then the consolidation of this sub-group's consolidated financial statements with those of the group parent company. To get around this problem, **this study focuses**

**on the financial statements of the entity at the highest level of consolidation:** group parent companies account for 91% of the French private non-financial groups listed in the FIBEN database.

However, for groups operating in more than one sector, this option of only taking account of the parent company can lead to a reduction in the amount of sectoral information. To resolve this problem, we defined a **sectoral heterogeneity index** (see next section). The index aims to measure the dispersion of activities within each individual group in order to determine the composition of the study scope.

Using this method, we obtained a study sample comprising **250 large private non-financial groups in 2017**.<sup>1</sup> For 2018, data were only available for 215 of these groups, representing 93% of the total assets of the 2017 sample.

### Measurement of tangible and intangible investment

In this study, tangible and intangible investment was proxied by the balance of purchases and sales of fixed assets. These fixed assets included tangible and intangible fixed assets as well as financial fixed assets (non-consolidated securities). Calculating the balance of purchases and sales of tangible and intangible assets would have given a more precise measure of tangible and intangible investment. However, data at this level of granularity were not available for the entire study sample. As a result, for those groups for which granular data were available, we also checked that the balance of purchases and sales of financial fixed assets was negligible relative to the balance of purchases and sales of tangible and intangible fixed assets. We then used the balance of purchases and sales of fixed assets as a proxy for tangible and intangible investment.

<sup>1</sup> To enable a study of the period 2007-18, the sample was not balanced. The presentation of results shows the distribution of ratios by quartile.



## Creation of a sectoral heterogeneity index

We calculated a sectoral heterogeneity index to **measure the dispersion of activities within each group**. The index was inspired by the Herfindahl-Hirschmann index which is used to evaluate the concentration of firms within a given sector.

If our index showed that the dispersion of activities between the parent company and its first-tier sub-groups was low

(index reading of less than 250 – see box), only the parent company was included in the scope of the study. If the opposite was true, then the first-tier sub-groups were included in the scope of the study, and not the parent company. For example, the groups TF1, Bouygues Telecom, Bouygues Immobilier, Bouygues Construction and Colas were included in the scope of the study but not Bouygues Group.

### BOX

#### Calculation of the sectoral heterogeneity index

If a sub-group at the consolidation level immediately below the parent company belonged to a different sector of activity, we calculated the share of this sub-group's turnover exclusive of VAT relative to the parent company's total turnover exclusive of VAT.

A group's sectoral heterogeneity index was defined as the sum of the squares of the relative shares of turnover exclusive of VAT of those first-tier sub-groups that did not belong to the same sector of activity (as classified under the NAF code system) as the parent company.

Based on an empirical analysis, we found that the median and average heterogeneity indices for the large groups in our study were close to 250.

**Groups with a heterogeneity index of over 250 were considered to have high sectoral heterogeneity**, and were therefore broken down into their first-tier sub-groups. Conversely, those with an index of less than 250 were identified as having low sectoral heterogeneity, and continued to be consolidated at the highest level.

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